Unraveling the Hurdles of Health Services Research HSR: Staff Perception in Teaching Hospital

Abstract:

Health services research (HSR) is a multidisciplinary field that investigates the impact of various factors, including social factors, financing systems, organizational structures, health technologies, and personal behaviors, on healthcare access, quality, and cost. However, the implementation and utilization of HSR in healthcare management face significant obstacles. This study focuses on assessing the current state of HSR and evaluating the obstacles faced by staff at King Abdulaziz University Hospital (KAUH) in conducting health services research. To evaluate the current state of health services research at KAUH, a descriptive-analytical approach was employed. Data was collected through a structured questionnaire, adapted from a previously developed questionnaire by Karimian et al. (2012). A total of 334 staff members from different career levels participated in the study, and a stratified random sampling technique was used to ensure the findings' generalizability. Among the 188 respondents who had conducted prior research, a majority (83.5%) were involved in health services research and encountered difficulties during their research activities. The study identified financial obstacles as significant challenges, with 59.0% of respondents reporting challenges in funding procurement processes and inadequate budgeting regulations. Facility-related obstacles, such as limited resources, outdated libraries, and deficiencies in support services, were reported by 55.9% of participants. The study also highlighted the importance of applying research outcomes, as 52.1% of respondents had implemented such outcomes into practice. The findings also revealed a significant difference ($P<0.05$) in terms of more obstacles faced between academic and non-academic jobs indicating more challenges encountered by non-academics. The findings underscore the significance of addressing financial and facility-related obstacles to facilitate the practical utilization of research findings in health policy and community health services. Improved funding processes, clearer budgeting regulations, and an enhanced research ecosystem are essential in overcoming these challenges. By addressing these obstacles, the healthcare system can harness the potential of health services research to enhance healthcare access, quality, and cost-effectiveness.

Keywords: health services research, obstacles, administrative barriers, organizational barriers, professional barriers, financial barriers.

Introduction

Health services research (HSR) is a multidisciplinary field that studies how social factors, financing systems, organizational structures, health technologies, and personal behaviors interact and affect access to healthcare, quality, and cost, ultimately enhancing community health (Lohr and Steinwachs, 2002). The HSR is a boundary-crossing area that involves a wide array of disciplines and employs diverse inquiry

methods, asserting the need for interprofessional collaboration and comprehensive methodological approaches (Nellans and Waljee, 2014).

HSR goes beyond fundamental and applied research, encompassing a wide range of health professions and academic disciplines to tackle intricate health challenges. (Ginzberg, 1991). However, Health services research has sustained several difficulties in obtaining funding due to bureaucratic, marketing, and decision-making strategies in the late 1980s (Gray, Gusmano, and Collins, 2003). According to (Mcginnis, & Moore, 2009) HRS researchers have dramatically doubled since 1995, from an estimated 5,000 health services researchers to an estimated 11,596 in 2007. Verily, HSR is characterized by the involvement of a broad workforce from various levels. Moreover, translating research findings into policies for individuals and communities remains a challenge, as strategies often modify clinical practice based on beliefs rather than scientific evidence as suggested by Holve and Pittman (2009). They also asserted that Improving the health services research workforce requires partnerships, training, communication, and diversity, to better respond to future health system challenges.

Implementing health services research into healthcare management requires culture change, human capability capacity building, and a supportive environment and infrastructure according to Chow and Lim (2011). In certain countries like Australia and New Zealand, health service research encounters obstacles such as inadequate financial resources, limited methodological expertise, and insufficient organizational support. These barriers impede its potential to have a significant impact on community health and well-being(Fradgley et al., 2020). Much often, financial support for HSR is constrained, and a small percentage of researchers can secure sufficient financial backing (Fradgley et al., 2020).

Despite the growing recognition of its importance, the ecosystem for conducting and utilizing HSR still needs to be developed. This gap underscores a critical need for studies that explore the operational challenges and utilization of HSR within specific contexts. Additionally, there is limited capacity within the public sector to conduct HSR, in turn, academic and private researchers face constraints in producing policy-relevant research (Fradgley et al., 2020).

In Saudi Arabia, a large body of public health research is conducted through its leading universities and medical schools. The translation of research into policy and practice often faces limitations, revealing a gap between research activities and their practical applications (Al-Borie and Abdullah, 2013). The presence of various obstacles experienced by researchers contributes to this gap, impeding the effective execution and utilization of HSR. Furthermore, despite the well-established primary healthcare system in Saudi Arabia, research outputs remain limited, primarily comprising cross-sectional studies conducted by universities (Jahan & Al-Saigul, 2017).

It is crucial to identify and comprehend these obstacles in order to develop strategies that enhance the research environment and facilitate the practical utilization of research findings in health policy and community health services.

King Abdulaziz University Hospital (KAUH) is a teaching hospital that is expected to facilitate a wide range of academic services to HSR practitioners, who are often struggling with accessing necessary resources such as ecosystem, participants, and practice change experts, with those affiliated with health services reporting less access to research assistants, statisticians, and other research experts compared to university-affiliated researchers. Furthermore, research literacy is another prominent hindrance among medical interns at KAU, which was investigated by Alsayed et al. (2012) for a cohort of medical interns in KAU, highlighting the importance of educational interventions to improve research knowledge.

Aim

This study aims to assess the current situation of health service research (HSR) and to evaluate the obstacles to encountered by King Abdulaziz University Hospital. (KAUH) staff in conducting health services research.

Design

This study employs a descriptive-analytical method, which is appropriate for systematically describing and assessing the state of health services research at King Abdulaziz University Hospital (KAUH). This approach facilitates an in-depth understanding of both the extent of research activities and the nature of the obstacles encountered by researchers. This cross-sectional study focused on collecting data at a single point in time that provides a snapshot of current research practices and encounter difficulties. Another merit is that cross-sectional methods allow for the analysis of a wide population at a certain time, enabling researchers to draw conclusions about various phenomena and potentially identify emerging trends within specific subgroups (Mare &Sergean, 1961).

Instrument

Data was collected using a structured questionnaire, adapted from a questionnaire developed by Karimian et al. (2012), who conducted internal and external validation of this instrument and reviewed it against relevant literature.

We adapted the questionnaire by minimizing the number of items to increase relevance and suitability for our sample. "It was appropriately customized to address the particular challenges and conditions present at KAUH.". The comprehensive 29-item questionnaire encompassed five constructs, namely administrative, professional, financial, facility-related, and personal obstacles, about the conduct of HSR research. To ensure the reliability of the instrument, internal consistency was assessed, revealing a high-reliability coefficient of .91 as examined by Cronbach's alpha test.

Sample

A total of 334 staff members at KAUH, which includes physicians, administrators, and technicians, have either participated in or have the potential to engage in health services research. After obtaining consent from the participants, questionnaires were randomly distributed to ensure a representative sample of the hospital staff. To achieve a more representative cross-section of the hospital's workforce and enhance the generalizability of the findings, a stratified random sampling technique was employed.

Among the entire sample of 344 participants, only 188 (56%) were actively involved in conducting research. This was predictable since only 54 (16%) of our sample held academic positions, while the remaining 280 (83.8%) were in technical and administrative positions. After screening the participants who exclusively conducted research, 121 (64.4%) were female. In terms of nationality, 166 (88.30%) of respondents were Saudi. Furthermore, 95 (50.5%) of them were young, aged from 20-30.

Data Analysis

Data analysis is performed using the statistical package for the social sciences (SPSS) software, version 20. Descriptive statistics, such as frequencies, means, standard deviation, and percentages, are used to summarize the characteristics of the sample and the main study variables. The T-test was employed to explore differences between groups based on gender, and nationality. This analysis helps in identifying significant patterns and trends related to engagement in research activities and the impact of various obstacles on research production.

Results

Findings revealed that, out of 188 respondents who conducted prior research, 83.5% have participated in research related to health services and 79.8% have encountered difficulties during their performing of research.

The study quantitatively assessed the perceptions of research outcomes and identified barriers to conducting and utilizing health services research. 91.0% of respondents believed in the importance of using research outcomes, with 89.4% wanting to apply published research outcomes and 88.8% keen on implementing such outcomes into practice. Additionally, 85.6% believed that applying the research outcomes would be beneficial to the community, while 73.4% felt it would help decision-makers. A total of 52.1% of respondents had applied research outcomes into their practice, and the same percentage reported merits from these applications.

Financial Obstacles: A significant number of respondents (59.0%) have expressed their concerns about the financial procedures related to research at KAUH. Difficulty and delays in the funding procurement process scored the very high mean among entire items of the questionnaire, and the lack of clear regulations for budgeting is a critical challenge hitting a mean score of 3.71, indicating that 62.7% of respondents perceive it as a significant obstacle.

Facility-Related Obstacles: The survey respondents expressed their dissatisfaction with the current research environment and infrastructure. A majority of 55.9% reported that they had inadequate resources and outdated libraries for accessing information. These issues have a significant impact on the quality and extent of research. Some of the challenges include long delays in the procurement process, insufficient expertise of research assistants, outdated information in the research libraries of KAUH, lack of access to scientific databases, and deficiencies in support services such as IT, printers, and laboratories. Additionally, 40.9% of the participants indicated that the consulting center within KAU is ineffective.

Table (1) descriptive statistics of the domains of encountered obstacles.

Domain	Mean ± SD	Agreement sclae				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Financial	3.69 ± 1.02	7 (3.7)	12 (6.4)	58(30.9)	66(35.1)	45(23.9)
Facility-related	3.54 ± 0.94	5 (2.7)	19(10.1)	59(31.4)	80(42.6)	25(13.3)
Professional	3.78 ± 0.79	1 (0.5)	8 (4.3)	53(28.2)	95(50.5)	31(16.5)
Scientific	3.39 ± 1.07	8 (4.3)	34(18.1)	48(25.5)	71(37.8)	27(14.4)
Personal	3.35 ± 0.89	7 (3.7)	21(11.2)	69(36.7)	80(42.6)	11 (5.9)
Organizational & Administrative	3.95 ± 0.75	1 (0.5)	4 (2.1)	40(21.3)	102(54.3)	41(21.8)

Professional Obstacles: the results revealed that 67.0% of KAU hospital staff are dissatisfied with research professional procedures, with job position being the most significant factor contributing to these obstacles. This is particularly true for academic staff, such as lecturers and professors, who face significant barriers despite higher satisfaction compared to administrators and technicians. The majority of respondents (76.1%) believe their job position prevents them from applying health services research outcomes, while 73.9% find it difficult to attend international conferences. Additionally, 69.7% of respondents feel there is a lack of opportunities for professional growth, and 64.4% believe researchers are not committed to rigorous scientific research ethics. Lastly, 43.1% of respondents feel there is a lack of collaboration with other research organizations.

Scientific obstacles (knowledge-related): The findings also revealed that an overwhelming portion of KAUH staff 67.0% lack proficiency in critical areas such as writing scientific papers, research methodology and relevant statistics, and IT skills. This highlights a crucial need for immediate and enhanced training and support for researchers in the field of health services.

Personal Obstacles: Regarding personal obstacles, nearly half of the respondents (48.5%) expressed dissatisfaction with factors that affected their research activities. A significant proportion of them (61.2%)

identified reduced scientific participation as a major barrier, which could stem from issues such as lack of motivation, social pressures, and excessive workload that hampered their commitment to research.

Administrative Obstacles: The majority of participants (76.1%) expressed their dissatisfaction with the administrative procedures being followed at KAUH. The average score for the lack of utilization of research to improve community health was 3.92 the highest score among the whole questionnaire, indicating that 74.4% of the respondents believed it to be a significant issue. Furthermore, 69.6% of the participants felt that there was a lack of moral support given to researchers, and 56.9% reported unfair research evaluations. These results highlight the administrative challenges that potentially hinder the effective use of research outcomes in improving health services.

Moreover, T-tests revealed significant differences ($P<0.05$) in job categories regarding professional and organizational obstacles, where academic jobs reported higher satisfaction levels than non-academic (e.g.administrators and technicians). Whereas, findings showed a significant difference ($P=0.002$) between Saudis and non-Saudis in terms of professional obstacles, with Saudis reporting lower satisfaction than non-Saudis. It was a statistically significant difference that female researchers encountered more administrative hurdles than male researchers do ($P=0.039$).

Discussion

The findings from this study provide a nuanced understanding of the state of health services research (HSR) and the barriers encountered by KAUH researchers from various disciplines even non-medical. These findings align with and diverge from existing literature, offering insights into unique challenges and opportunities within the Saudi context.

The significant engagement of KAUH staff in HSR is a promising indicator that aligns with global trends emphasizing the importance of HSR in enhancing health system performance (Steinwachs and Hughes, 2010). However, the challenge in translating research into practice at KAUH mirrors issues in LMICs, where despite prolific research output, practical application remains limited (Al-Borie and Abdullah, 2013). This gap underscores the need for mechanisms that effectively integrate research findings into clinical and administrative practices. Taking into account one specific case of nurses in public hospitals in Lahore, Pakistan, who do not frequently utilize research in their practices due to non-supportive organizational culture, inadequate facilities, insufficient time, and perceived lack of authority to change patient care procedures (Kousar et al., 2017).

In the scope of financial obstacles faced by researchers in HSR, the vast majority of participants cited unclear regulations and required procedures for the presented budget as the main financial obstacles. The aforementioned may pertain to the intricacies of the regulatory framework, which may impede a comprehensive understanding of research prerequisites. This observation aligns with the findings of Patiraki et al (2004). Insufficient financial support was the obstacle that participants identified most often, and the vast majority of the respondents also agreed that the lack of research funding in comparison to other activities constitutes major hindrance, and this concurs with findings drawn by researchers reported the lack of research funding as a highlighted financial obstacle and that the greater degree of interdisciplinarity in research proposals, as in HSR, leads to a lower probability of being funded as (Bromham et al., 2016) argued. As well as lack of a budget dedicated to research and the lack of internal funding independent from governmental grants were considered a financial obstacle by participants, consistent with the results of a study by E. Fradgley et al. (2020) who reported that limited financial resources are a key barrier to realizing a greater effect on health and well-being of Australian and New Zealand communities through health service research. Additionally, financial constraints are identified as a well-documented barrier across various research settings, emphasizing the need for adequate funding to support robust research activities (Decoster, Appelmans, and Hill, 2000). Therefore, it is recommended that steps be taken to address these concerns and improve the financial procedures in place. These findings could be used to initiate discussions and build consensus among stakeholders on the best way forward in this matter.

The provision of facilities and resources needed to conduct research are also concerns perceived through our investigation, where the participants identified delays in the purchase process, technical issues, lack of research assistant skills, outdated university research database, and limited access to scientific libraries are spiky barriers. this conclusion concurs with a large body of literature such as the inquiry by Wai-ling. Chow et al. (2011) pointed out that the implementation of health services research into healthcare management requires culture change, human capability capacity building, and a supportive environment and infrastructure. One solution is, usually, posited is establishing a research support unit that manages all relevant issues and raises the awareness of inexperienced researchers of all disciplines with HSR.

Unsurprisingly, the findings showed that administrative and managerial barriers are prevalent at KAUH, The sample underlined the role of administration in transforming research into outcomes reflecting on community health, which is in line with (Goldschmidt Pg et al. 1986) who speculate that health services research must be viewed as an integral part of administration to succeed as a tool for assisting decision-making in healthcare. Similarly, major challenges in promoting health systems research, as Ns, D. (1994) views, include bureaucracies being rigid and uncooperative, lack of trained personnel, and poor health service information. Complex administrative issues, such as information, education, and communication, can hinder the promotion and development of health systems research, making solutions difficult to realize.

Although personal obstacles like motivation and work-life balance are less emphasized in this study, we should admit that they are overrated in the broader research literature as critical factors influencing researcher engagement and productivity (Funk, 1995).The challenges related to professional development, such as limited opportunities for delegation to conferences and institutional research collaboration, align with literature stressing the importance of continuous professional growth for researchers (Steinwachs and Hughes, 2010). Furthermore, Lack of time, lack of research assistants,, and being busy with teaching load are the most cited obstacles impeding research productivity as S. Alghanim et al., (2011) stated.

From a socioeconomic view, women reported higher research obstacles more frequently than men, in particularly in the administrative domain, and this finding is in alignment with what (Guelich et al., 2002) concluded. While the Saudi national researchers experienced more difficulties than no-Saudi when they were seeking to perform HSR, this can be attributed to that our sample of non-saudi take posts in academic jobs and have long years of research production, in comparison to Saudi researchers in our sample who, most, occupy non-academic jobs. Likewise, the finding that non-academics face more obstacles than academics, we suggest that the long experience and expertise, the academics have, can mitigate the occurrence of impedince.

Conclusion

The study highlights that KAUH personnel encounter a multitude of challenges when it comes to carrying out research, with financial and professional constraints being the most pronounced. Women are more likely than men to recognize these obstacles. This could indicate that the system may not favor research, and potentially leading to a fall in research quality. But Identifying and defining the real problem is often the crux of problem-solving, as Albert (1967) articulated. hence, we have to see these factors as a factors matrix rather than a complex body, as these factors are found often in each healthcare system and encountered by most HCW worldwide, as Shumba and Lusambili (2021) concluded that limited opportunities for research funding, gender disparities, and language barriers are prevalent and common obstacles faced by researchers in low- and middle-income countries. By adopting the recommended strategies, such as providing academic support and resources, and finding financial backing, the KAUH can create a conducive environment for performing high-quality research that could enhance community health services.

Implications:

This study sheds light on the challenges faced by researchers in conducting health services research at King Abdulaziz University Hospital. By identifying and addressing these obstacles, the quality of research can be improved, leading to better community health services. The study emphasizes the need for administrative support, financial resources, and motivation for researchers to enhance their research activities. Implementing the recommendations can contribute to the advancement of healthcare services at the hospital and promote a research-friendly environment.

Limitations:

The study focused on a single institution, King Abdulaziz University Hospital, which may limit the generalizability of the findings to other healthcare settings. The study relied on self-reported data obtained through questionnaires, which may be subject to response bias. Beyond this, the study did not explore the specific details of each obstacle in depth, leaving room for further investigation. On the other hand, the relatively large sample of this study supports the possible generalizability of its findings in our KAUH context, anyhow such findings ought to be extrapolated with caution.

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