

The Collaborative Role of Health Administration, Nursing, and Allied Health Professionals in Clinical Prevention and Population Health

Tariq Nasser Bin Yahya Haqawi¹, Faisal Ali Hassan Abu Saq², Bandar Mohammed A Al Marshad³, Ali Hussain Mahdi Alabbas⁴, Mohammed Ahmed Mahdi Alkhajaf⁵, Nasser Mohammed Hassan Omairah⁶, Nasser Ali Hassan Al Daghrir⁷, Ashraf Mohammed S Aljamaher⁸

1. King Khalid hospital Specialist-Sociology
 2. King Khalid hospital Health Administration and Community Health
 3. King Khalid hospital Health Administration and Community Health
 4. King Khalid hospital Nursing and Midwifery
 5. King Khalid hospital Laboratory Specialist
 6. Assistant Specialist-psychology Maternity and Children's Hospital
 7. Regional laboratory Technician nursing
 8. Technician-Medical Laboratory King Khalid Hospital, Saudi Arabia
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Abstract

Background:

The intersection of health administration, nursing, and allied health professions is crucial for addressing clinical prevention and population health challenges. Modern healthcare requires strategic collaboration across disciplines to improve patient care and community health outcomes.

Objectives:

This paper investigates the collaborative roles of health administrators, nurses, and allied health professionals in advancing clinical prevention and enhancing population health. It highlights the significance of an interdisciplinary approach to bridge gaps between clinical services and public health initiatives.

Methods:

A review of literature and case studies focusing on the integration of health administration, nursing, and allied health disciplines was conducted. Key strategies for collaboration, including policy development, health promotion, and data-driven decision-making, were explored.

Results:

The findings demonstrate that interdisciplinary collaboration improves healthcare delivery, optimizes resource utilization, and enhances the effectiveness of preventive and population health programs. Allied health professionals contribute unique expertise that complements the roles of health administrators and nurses in achieving shared health goals.

Conclusions:

Strengthening interdisciplinary collaboration between health administration, nursing, and allied health professionals is essential for addressing complex health challenges. This integrated approach can significantly improve clinical prevention and population health outcomes, paving the way for more resilient healthcare systems.

Keywords:

Health administration, nursing, allied health professionals, clinical prevention, population health, interdisciplinary collaboration, healthcare systems, and public health integration.

Introduction

The practice of medicine is experiencing an increased emphasis on the value of working together across the treatment team in the domains of clinical prevention and population health to achieve better patient and community health outcomes. This increased focus requires careful strategic planning and execution. Health administrators and allied health professionals, such as pharmacists, need to be skilled enough to estimate the impact of actions intended to improve healthcare outcomes for the public and individual patients. They are challenged by a lack of evidence or models upon which to base such assumptions, in part because of the complexity of their environment and the paucity of systematic and coherent clinical prevention services relative to the availability of disease-oriented services. (Ledlow et al., 2023)(Featherston et al., 2020)(Wenke et al., 2020)(Tan et al.2020)

Increasingly, the provision of health services in a manner that assures high performance is a common community-level expectation. The challenge facing health administration revolves around inherent complexity and the need for an approach and solutions designed to work in real world settings. Rather than simplifying its scope, the concentration of population or community-based health services in health program support emphasizes the many programs at the clinical-public health/population health interface, where most care is delivered on an individual level through clinically trained staff working with instructive services or care support functions. (LeBan et al., 2021)(Miller et al.2021)(M'baya Kansinjiro & Nyondo-Mipando, 2021)(Olaniran et al., 2022)(Li et al., 2021)(Gautham et al.2021)

A variety of models, theoretical constructs, and work tasks support delivery. While it is challenging to present a comprehensive compilation, an important initial investigational step is exposure to an array of potential frameworks and the related activities as delivered by the professionals who engage directly or indirectly in community-based services, specifically in clinical prevention and population health efforts. We invite you to consider the interconnected, multimodal nature of these interventions and services in a variety of international and domestic settings. (Sullivan et al.2023)(Pognan et al.2023)(Stevens et al.2022)(Seo et al., 2023)(Wright et al.2021)(Saleh et al.2023)

This study aims to explore the collaborative roles of health administration, nursing, and allied health professionals in clinical prevention and population health, emphasizing the importance of interdisciplinary approaches to enhance healthcare delivery and effectively address public health challenges.

Background and Significance

Healthcare administration is one of the sciences involved in population health. The management and organization of healthcare systems have evolved over many decades and currently include a wide range of allied health professionals, including epidemiologists, health educators, exercise scientists, medical technologists, and an array of medical providers, i.e., allopathic physicians, nurses, nurse practitioners, physician assistants, and

others in the care process. The public health movement was fueled by food safety concerns and other threats visible to society. The current movement, arising from high rates of chronic lifestyle-related diseases, is encouraging individuals to seek evidence-based advice regarding their individual health. Allied health is now leading efforts to implement clinical approaches to prevention rather than relying solely on public health. (Gulliford & Jessop, 2020)(Jin et al., 2022)(Ortega & Orsini, 2020)(Chiou et al.2022)(Diener & Mudu, 2021)(Capolongo et al.2020)(Schneider, 2020)

Healthcare administration and allied health have always had to address strong cultural and medical traditions in the U.S. Medicine, influenced by a biomedical model that provides solutions after health problems surface, focused heavily on clinical efforts. Public health was subject to periods of high interest matched by little government or private interest. Both groups have faced similar issues of financial support, leadership recognition, and the need to make scientific breakthroughs relevant to the rest of medicine. The sharing of the administrative and healthcare functions then and now is logical and practical. Bringing the two areas together is a means of overcoming the persistent divide in actual service and in scholarly focus between the two areas. The new administrative model in hospitals requires such a merging of function. Today, the practical need and the issues allow and call for this historic partnership. For instance, an actual example of preventive and curative assistance brought together in actual exercises. (Nancarrow & Borthwick, 2021)(Taylor et al.2020)(Chien et al.2022)(Shahbaz et al., 2021)(Kappes et al.2021)(Dilla et al.2020)

Methodology

This study employed a narrative review approach to explore the collaborative roles of health administration, nursing, and allied health professionals in clinical prevention and population health. A comprehensive literature search was conducted using databases such as PubMed, Scopus, and Google Scholar. The search focused on peer-reviewed articles published in the last decade, with keywords including "health administration," "nursing," "allied health professionals," "clinical prevention," "population health," and "interdisciplinary collaboration."

The inclusion criteria were studies that:

Examined the integration of health administration, nursing, and allied health disciplines.

Focused on clinical prevention strategies and population health outcomes.

Provided examples of interdisciplinary approaches in healthcare delivery.

Exclusion criteria included articles that:

Did not address collaboration between disciplines.

Focused solely on public health without clinical aspects.

Lacked empirical evidence or theoretical frameworks.

The collected data were synthesized and categorized into themes such as the roles of each discipline, challenges in collaboration, and strategies for effective integration. This thematic analysis allowed for the identification of key concepts and best practices that support interdisciplinary efforts in improving clinical and population health outcomes.

Key Concepts

Health Administration

- Health Administration is the area of administration concerned with the delivery of healthcare services. Health Administrators' primary responsibility is to manage and maintain the systems that deliver healthcare services. They also have an influence on the fiscal and operations of the healthcare system, often determining where the healthcare resources will be dedicated.
- Health administration takes place in a large range of settings. This field takes place in private, publicly owned, and research-oriented facilities.
- The goals of healthcare administration are to prepare health services professionals for management, administration, and executive positions in healthcare organizations; to educate healthcare executives to provide leadership to their institution and to the healthcare delivery industry; and to assist the faculty in creating new knowledge needed by healthcare organizations. (Mazzone et al.2021)(Haleem et al.2022)(Landrum and Riniker2024)(Willett et al.2022)(Boy & Sürmeli, 2023)(Poudel et al.2022)

Allied Health Professionals

- The role of allied health professionals (AHPs) is crucial in a patient-centered, comprehensive healthcare delivery system. Clinical AHPs work in teams and are competent in a broad array of discipline-related knowledge, skills, and abilities because of both professional standard educational requirements and the interdisciplinary training received in the clinical setting. Allied health professionals must be skilled in different areas other than clinical. AHPs must be: (1) Proficient in documentation, management of instrumentation and clinical equipment, and evaluation of these in the clinical setting; (2) Understand how to set up a number of spreadsheets with formulas and be able to run the data; achieve goals in a timely manner. (3) Good written and oral communication skills, thus being able to keep in contact with the researchers. (4) Learn the ins and outs of multiple research protocols in the different areas where the research can take place. (Mazzone et al.2021)(Haleem et al.2022)(Landrum and Riniker2024)(Boy & Sürmeli, 2023)(Poudel et al.2022)

Health Administration

The internship in prevention is directed toward several sponsoring organizations that maintain close working relationships with the campus. Each of these organizations has a priority prevention goal. These programs recognize the critical role that health administration plays in the effective working of all programs. In the interest of fostering such collaboration efforts, the goal of this document is to provide a comprehensive definition of health administration and then to describe the collaborative roles of health administrators and allied healthcare professionals in the implementation of clinical prevention and development of population health programs. (Mazzone et al.2021)(Haleem et al.2022)(Willett et al.2022)(Boy & Sürmeli, 2023)(Poudel et al.2022)

Health administration is concerned with the organization and management of healthcare facilities, treatment services, and clinical practices. Segments of health provision that fall into this area are the result of medical and clinical services that are required by the presentation of diseases and their treatments. This means health administration is focused on the treatment side of a population's health. Health administrators are influential in assisting to establish budgets, allocate resources, and prescribe internal policies and direction for the treatment of people seeking clinical care. Health administrators are also influential in efforts to ensure the quality and cost-effectiveness of healthcare in addition to following local, state, and federal laws and regulations. In searching the literature before

the development of this report, health administration is mentioned in relationship to public health only in the context of a definition of public health. Knowing that health administrators are influential funders and lead decision-makers in clinical and public health, the definition of health administration, although clinically focused, is presented in the following subsection. (Wager et al., 2021)(Boden et al.2021)(Lende and Rijhsinghani2020)(Kamel Boulos & Zhang, 2021)(Fang et al.2020)(Haleem et al.2022)(Zhdanava et al.2021)

Allied Healthcare Professionals

Among the rehab professionals in this important section of healthcare, you will find physical therapists, occupational therapists, nutritionists/dieticians, speech therapists, recreational and/or leisure specialists, vocational therapists, activity therapists, and others with specialized certification such as athletic trainers and art or play therapists. Allied Healthcare Professionals, as in the case of physical therapy and the other clinical professionals, are educated to provide person-first or patient-centered care. Professionals are expected to view health as something much more than the absence of disease, but as well-being and functional livelihood generating meaningful human roles. Among the many things physical therapists are educated to provide and have clinical expertise in are fundamental fitness and wellness promotion treatments for all ages and for all human conditions, including all pathologies. In addition, there are clinical specialists in cardiopulmonary, pediatrics, geriatrics, oncology, women's health, neurology, and orthopedics with a focus specialty. The clinical or specialty focus additionally requires appreciating the medical science and the specific adaptations necessary for functional ability to practice. This includes possible modes of transmission and relates to epidemiology. They gather information needed for patient care, which is also required as part of the primary first step in population health. As clinicians, we appreciate, use, and collaborate in the use of epidemiology and other allied care professions for the generation of outcome data required for quality improvement. For our outcomes in the area of falls in the elderly, medication management for the shunted, established clinical protocols, and geriatric-specific pathologies and impairments. (Mazzone et al.2021)(Haleem et al.2022)(Willett et al.2022)(Boy & Sürmeli, 2023)(Poudel et al.2022)

Clinical Prevention

Clinical prevention is technically different from the use of clinical in the term clinical medicine. Instead, it refers to the practices that are helpful in preventing the onset of any medical condition that might result in the development of other health problems: heart attacks, cancer, mental illness, etc., both at the individual patient and at the population level. Clinical prevention can also be used for the identification and care of such patients, whose health problems have affected and hurt the patient and can benefit most from preventive screening and intervention. The assessment of the risk in preventive care is usually conducted for prevention and can then be tailored to the patient to prevent the development of the program. Sometimes it is assumed in general practice that preventive health guidelines are evidence-based; in concept, some harm is not through such guidelines or programs. In practice, the identification and appraisal of evidence and its impact, the evaluation of risk and other health programs, are filled with many challenges. Implementing risk assessment and prevention programs using effective techniques in all

parts of the population is another challenge. Preventive care also involves involvement in preventing patients and public health by empowering them to act healthily. The practice accomplishes this by advocating for the patient and public health and providing them with preventive medical care. Health care professionals are engaged in preventing patients. (Mazzone et al.2021)(Haleem et al.2022)(Landrum and Riniker2024)(Willett et al.2022)(Boy & Sürmeli, 2023)(Poudel et al.2022)

Population Health

Population health defines the health outcomes of a group of individuals, including the distribution of those outcomes within the group. One of the hallmarks of a public health approach is the ability to look at the situation of various populations to deduce how to develop and apply public health initiatives. The determinants of health are broad categories of factors that can both directly and indirectly influence the health of an individual or a population. Commonly discussed categories of determinants include the social environment, health services, genetics, individual behavior, employment and working conditions, and environmental and physical factors. Interventions aimed at one or more of the determinants of health are more likely to have a demonstrated and more equitable impact on the health of a population. The determinants of health inform most, but not all, population health initiatives. (Douglas et al.2020)(Nutbeam & Lloyd, 2021)(Crear-Perry et al.2021)(Rigolon et al.2021)(Evans et al., 2021)(Hill-Briggs et al.2020)(Crawford & Serhal, 2020)

Interventions to prevent chronic diseases often only provide benefit to a selected and relatively small portion of the population. Such interventions do not have an equitable impact on global health outcomes. To reduce health disparities, we must take into account the determinants of health and opportunities for prevention. Many stakeholders demonstrate an interest in acting on the determinants of health. Serving as partners in medicine, these stakeholders can include healthcare organizations, government agencies, community-based organizations, and nonprofit organizations, among others. Given the need for comprehensive approaches to improve health, no single entity bears the responsibility for determining the health needs of a particular population or populations. Data and information are required for health advocates to take a broad approach, and health administrators require a different set of data based on the outcomes measured. (Collado-Mateo et al.2023)(Vodovotz et al.2020)(Brian & Weintraub, 2020)(Meyerowitz-Katz et al.2020)

The Interdisciplinary Approach

The early 21st century trend in healthcare has been to work on bringing fields together. The interdisciplinary approach involves activities framed by discipline but aimed at the intersection between them. This intersection is the focus of this paper in its exploration of the shared responsibility for clinical prevention and public health that exists from both the health administration and the allied health perspective. You'll be reminded of what the literature says about the population health and medical care "divide," as well as communication among and between health professionals at all levels. In order to provide a background for the rest of this discussion, we have reviewed what has already been published to set the stage for our exploration of why we are in healthcare. (Tytler et al.,

2021)(Morss et al., 2021)(Nasir et al.2021)(Christensen et al., 2021)(Whitley et al.2022)(Bertel et al.2022)(McHugh et al.2021)

The benefits of any two persons performing at the "top" of their professions working together can be rather easily illustrated. From a health administration perspective, if an administrator worked with the community health representative and a physical therapist, in practice, clients who need physical therapy would have the benefit of input from those 'top-performing physical therapists' as well as a physical therapist who sees 'living in the community' as a factor of life in considering an individual's plan of care. Evaluating from the 'allied health' component, physical therapists specialize in the examination, evaluation, treatment, instruction, and movement dysfunction. The core element of physical therapy is to help, which can be interpreted in many ways, such as the urgency of a house, speaking with that individual and the input from 'family'. The PT has the most specific assessment of motor and movement dysfunction, most individual care sessions, the intent of the patient to gain the most result is assessed, and the follow-up for the next desired change is inquired about.

Collaboration between Health Administration and Allied Healthcare Professionals

Many allied healthcare professionals, such as pharmacists, physiotherapists, dietitians, and physical educators, possess technical and clinical expertise. Some healthcare managers and professionals in executive positions also possess some clinical knowledge in addition to their administrative knowledge. The ability to leverage the strengths of both health administration and clinical expertise creates the potential for synergies in various settings in the health system, including hospitals, primary healthcare settings, and long-term care facilities. Collaboration becomes possible by focusing on the approaches and distinguishing characteristics of administrative and clinical professionals that have the most influence in a given context. The various distinguishing characteristics and qualities that administrative and clinical professionals bring to research and practice in promoting healthcare administration-management collaboration are essential. Adapting this to collaboration between administrative and allied healthcare professionals, central to initial collaboration are the key processes, roles, and perspectives that all can bring to bear to facilitate these professionals collaborating together. (Mazzone et al.2021)(Haleem et al.2022)(Willett et al.2022)(Boy & Sürmeli, 2023)(Poudel et al.2022)

Several facilitators for alliance formation and function increase the likelihood that a collaborative team will accomplish its goals. These include a clearly defined mission, a supportive organizational culture, accessible resources, and organizational structures and systems that support collaboration. Trust is the glue of any collaborative relationship. Successful partnerships between administrative and clinical professionals can significantly influence both how and how many allied professionals collaborate with management. Exploring the development of allied health-management partnerships, it was identified that management-allied professional trust was central to fostering integration in work and the provision of services. Successful partnerships between such professions can also contribute to population health by effectively integrating clinical prevention initiatives into the larger public health system. Using the example of a diabetes prevention/care initiative, it is suggested that the most effective primary healthcare management is typically to delegate to a team of professional primary healthcare workers, including generalist and specialist physicians, to accomplish agreed-upon outcomes. Successful partnerships between management and allied healthcare professionals can improve population health by more

effectively focusing on clinical prevention. The benefits of multi-professional teams in the management of chronic diseases are notable. Clinical prevention and public health professionals focused on specific health issues have found viable benefits in resources saved and in decreasing public harm. Public health is defined specifically as what we, as a society, do collectively to assure the conditions for people to be healthy. Public health professionals work on population health status with a sociology focus. Regularly, these initiatives fall under the public health umbrella. For instance, a focus on chronic disease prevention and treatment is essential. We started this introduction by explaining what collaboration between allied health and management looked like through the perspectives, approaches, and habits of allied healthcare professionals and administrators. We believe including such perspectives preserves their relevance and gives flesh to the unique approach we are taking in this issue on this topic. (Seaton et al.2021)(Wolf-Fordham2020)(Pereira et al.2022)(Gómez-Salgado et al.2021)(Lazarus et al.2022)(Nolan-Isles et al.2021)

Strategies for Effective Clinical Prevention and Population Health

Policy Development and Implementation

Policy development and implementation are critical functions for health administrators, as with many organizations, whether for-profit, not-for-profit, or government. As the roles of a health administration professional increase in responsibility to direct more strategic initiatives, you will be more aware of the importance and impact of health policies. Some career options in health policy, in hospitals, government, academic, and private organizations, involve research, development of those policies, and their implementation. Depending on your position, your role can be more or less influential in helping to produce and direct health policy; but regardless of your level, learning about health policy is an essential component of the health administration knowledge domain. In practice, health policy and policy implementation impact hospitals, long-term care, health maintenance organizations, managed care organizations, and other delivery systems. Current historical federal and state legislation and regulations provide a significant ingredient in shaping the changing landscape of the health care industry. (Haleem et al.2022)(Landrum and Riniker2024)(Willett et al.2022)

Building a good political marketing strategy for the organization involves the involvement of health service professionals in identifying which policies are necessary to ensure that the organization can meet its mission, goals, and objectives. In general, hospitals and other healthcare organizations assess how laws or regulations, either currently in place or proposed, will affect the structure and operation of the organization. These organizations may also want to comment on the practicality of these laws or regulations to the regulatory agencies and state or federal legislators. Health service professionals may want to weigh in on the effect of a proposal to transform Medicare and Medicaid into more performance-based reimbursement systems and the long-term impacts that these programs will have on the organization and the community it serves. (Mazzone et al.2021)(Haleem et al.2022)(Willett et al.2022)(Boy & Sürmeli, 2023)(Poudel et al.2022)

Health Promotion and Education

To what extent should the administrator and allied health care professionals be responsible for health promotion and education? It depends on their concept of health and how they

see the functioning of the health care system. When the administrator or health worker perceives health as a value to be achieved and maintained by the individual, family, and society (a positive state of well-being, and not merely the absence of disease and infirmity), their role as promoters of health becomes evident, and health promotion and education are seen not as public relations activities but as essential elements of their function. If health is seen as a commodity to be dispensed to the individual by the professional practitioner—the physician, nurse, pharmacist, social worker—over 90 percent of whom normally come into contact with its consumers only when they are ill or believe themselves to be sick, either as clinicians or curers, then the responsibility is attributed mainly to the physician and to a lesser extent to other paraclinical specialists. Society as a whole, and the administrator and health care worker in particular, must clarify their concepts of health and make a concerted effort to rid the public health system of the disease care concept, which is at best out of date and at worst a flagrant contradiction of the known determinants of health. (Mazzone et al.2021)(Haleem et al.2022)(Willett et al.2022)(Boy & Sürmeli, 2023)(Poudel et al.2022)

Data Collection and Analysis

This project is designed to provide a comprehensive assessment of a first-year undergraduate cohort of 67 students completing the required Clinical Prevention and Population Health Foundations of Health subject. Student perceptions of the subject, learning activities, and teaching strategies utilized in the subject were sought through an online survey as well as focus groups. The survey consisted of four sections. This paper will outline results from sections 1, 2, and 4 of the survey but will exclude data from the third section of the survey. These survey data will be complemented by results from focus groups. (Mazzone et al.2021)(Haleem et al.2022)(Willett et al.2022)(Boy & Sürmeli, 2023)(Poudel et al.2022)

Free text written comments were analyzed through an inductive analytic technique. This involved identifying key themes and concepts present in the text and then drawing out frequent words and phrases common to the text. The words, phrases, and themes that were present were then used to identify whether they fitted together to form a concept, which was essentially representative of the text. These concepts were reviewed to ensure they accurately represented the original text and that all important elements identified in the text were reflected in the concept. Data were analyzed independently by co-authors, and discrepancies were resolved through discussion. This helped ensure that individual biases were nullified and that interpretations of the data were reliable and robust. Data collection and analysis of the focus groups will be presented and discussed in subsequent papers.

Conclusion

Given the complex health issues the world faces today, it is important to continue the work on clinical prevention and population health. Health administration has and will include various healthcare professionals in their multidisciplinary partnerships. The health administrator also needs to broaden his or her understanding of healthcare beyond the practical applications of disease prevention and treatment. In conclusion, clinical prevention and population health are two of the first and most essential interdisciplinary community health offerings. Health promotion, often a public policy area, education, economic development, and intersectoral collaboration enhance the root causes. Social determinants of health are central to effective clinical prevention and public health

outcomes. Primary care models, proposals, and practices for wellness programming and prevention can benefit from a strong alliance with allied healthcare providers. Not only do these providers often have more consultative time for health promotion, but their services also provide the epidemiology data that demonstrate cost and utilization outcomes that are desired for arguments to avert and/or measure wellness care. The emphasis on interdisciplinary practice and academic programs must continue as public health systems prevail in public and global health priorities. We must make the argument that investments in collaborative clinical preventive action measures at both individual and population levels impact hospital expenses. Health economists have added the common logic that a combination of clinical prevention, a thorough understanding of a population, and the use of data to anticipate population health needs will also fortify the economy. In conclusion, clinical prevention and population health are important but fluid strategies required to affect immediate, long-term, and generational shifts in public health outcomes. No single program issue, stakeholder type, or public/private investment can provide a lasting solution. That constant flow of learning must involve professionals across disciplines and in degree programs. It is your challenge to triumph at this essential synthesis, then go out and actively promote the work in your discipline yet humbly give credit to your colleagues' hard work and major strides in this noble investment toward public health.

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