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The importance of effective health management in improving patient outcomes: A systematic review

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Abstract--Effective health management is a critical component of achieving desired patient outcomes in modern health systems. However, despite the efforts of policy makers and analysts in the healthcare sector, the role of management remains an area where there are significant gaps in knowledge. This paper aims to present the results of a systematic review of the literature examining the relationship between health management and patient outcomes. The review aims to integrate and synthesize the existing evidence base to answer the following question: How can care systems and practices be managed and organized to achieve better outcomes for patients with type 2 diabetes? The importance of this question is emphasized by an introduction to the policy issues that undoubtedly face our healthcare system and those of other countries in the developed world. By combining clinical, organizational and professional administrative measures, improvements in access, coordination, clinical and human outcomes are sought.

Keywords---healthcare, health management, patient.

1. Introduction

Effective health management is recognized as a critical element for achieving desired patient outcomes in modern health systems. However, despite the efforts of policymakers and analysts in the healthcare industry, the role of management remains an area where significant deficiencies in knowledge still exist. The objective of this paper is to present the findings from a systematic review of the literature examining the relationship between health management and patient outcomes. The review aims to consolidate and synthesize the evidence base that currently exists to respond to the question: how can systems and practices of care be managed and

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organized in order to achieve better outcomes for patients with type 2 diabetes? The relevance of this question is underscored by way of introduction to the policy issues that undoubtedly confront our own healthcare system and those of others in the developed world. It is through the combination of clinical, organizational, and professional management actions that improvements in access, coordination, and clinical and humanistic outcomes are sought. To complete this introductory section, relevant literature on health management is reported in order to explain the wider context in which the research question is addressed. Attention is drawn to the historical emergence of the phenomenon and its synonyms, and the fact that contemporary management literature and practice still reflect earlier theorizing and the embracing of concepts such as transformational models focusing on the development of management capacities. The word outcomes must be elaborated on, as it is the research question that is the intended focus of the review. We take a very broad interpretation of outcomes – that is, as any variable capturing a variety of effects expected to occur when healthcare or related actions are undertaken. Variably, we refer to clinical outcomes, health outcomes, patient outcomes, and targets for settings and systems.

2. Understanding Health Management and Patient Outcomes

There are several ways to define health management, including one focused on organizations' ability to run operational processes and those focused on leadership abilities. Medical leadership has been recognized as a key pillar in health management, while improving patient outcomes is an end goal for effective management. Patient outcomes are usually represented by morbidity, mortality, functional status, quality of life, or satisfaction scores. In the healthcare environment, with an environment of chronic diseases, polypharmacy, and interdisciplinary treatment in a fragmented environment, the complexity of medicine and patient management is growing. Outcomes of interest can be health services effectiveness—proof of benefits, benefits for practice, practice—or service indicators—improving service delivery or optimizing resource use—or patient satisfaction. (Rodríguez-Fernández et al.2021)(Hølge-Hazelton et al.2021)

Every day, health management practices carried out by physicians, especially general practitioners, influence patient experience, one aim of which is to improve patient involvement, satisfaction, and confidence in one's healthcare environment. Studies have found the association between effective management or leadership practices and improvement in various patient outcomes. Effective health management encompasses clinical care that usually leads to improved patient outcomes, resource utilization, quality of care, and efficient health services. Outcomes of effectiveness can be direct or surrogate, like a patient's length of stay or return to functionality. They can also be dated, such as survival rate, quality of life, morbidity, and mortality. They can be discoveries such as knowledge of pathophysiology and mechanisms to promote function or improve physiology.

2.1. Conceptual Frameworks

The effectiveness with which resources are managed and care and treatment are provided within a health care organization can lead to different patient outcomes. This may, in turn, depend on how well various systems interact. For example, how

well integrated primary care providers and hospitals are can impact not only the length and quality of life of patients but also the costs to health providers, insurers, and potential employers. This makes patient outcomes the main or at least an essential endpoint of health management. Different conceptual frameworks and theoretical models underpin effective health care management.

There are a number of conceptual models and theories that mainly operate at different levels of health care organizations to underpin an approach to health care improvement in the form of a standard, guideline, or strategy in terms of inclination or recommending certain approaches. Most of these models integrate more than the original one-dimensional approach, showing that factors such as organizational culture exist at macro, micro, and mid-levels and impact the interactions internal and external to different levels of organizations. There are several important ways in which the conceptual models can guide health management practice. First, they identify and stress the importance of different structural and cultural factors that we know are important for understanding influences at individual, group, organizational, and system levels. This is important because the factors that are influential at the various levels may not be the same. Second, there are suggestions that to really address many of the complex quality and safety problems that occur in health care, a combination of top-down intervention and bottom-up intervention is necessary. This too can be argued to be built into the strategic models. The other strengths of the different models are that they initiate the making of explicit theoretical linkages between different components about how the various parts of health systems interact. However, there is a fit between conceptual models, strategies, and practical interventions. In putting together this overview of the important factors that underpin recommendations about health care management, we are left with clear disquiet. There are many recommended interventions, but relatively little research testing their value. It may well be that in some areas, progress depends on our pursuing a good deal more basic social science research, as we do not yet have adequate methodologies for studying what works when it comes to patient outcomes. Also, it is not always clear how practice is guided in terms of which approach or model to use. This is a critical issue. For example, if we take a longitudinal study of health care organizations to map at the end of the study to see whether there was a link between positive patient outcomes, this we think is a basic issue that remains under-researched and highlights a critical gap between research or evolving recommendations or theory and the more pragmatic work that goes on in health care organizations. Moreover, it is clear that the implementation of theory within hospitals is a complex issue and one that is in need of further and probably new theorizing. Also, this review suggests that theoretical work in the field might do well to seek out greater integration. (Skivington et al.2021)(McGill et al.2021)(van et al.2021)

3. Methods of Systematic Review

This study comprised a systematic review of available literature that objectively assessed the links between health management and impacts on patient care outcomes. Seven databases were searched with no start date restrictions, supplemented by hand searching actual editions of five key journals. Keywords were used to maximize literature retrieval. The inclusion criteria were designed to capture a wide number of perspectives, and if literature would significantly add to

the review, it was included. An a priori protocol was established, with each stage of the review being assessed by two independent researchers. Strategies of synthesis were designed a priori, and only robust methodologies were included in the analysis. This study is the first known robust systematic review to look at the relationship between health management and patient outcomes. The strength of the data is discussed in this paper, and the limits and biases are explored and tested in the analysis. The synthesis is written in full to permit others to draw their own conclusions. The principal aim of this research was to systematically review studies that explore the relationships between health management and patient outcomes. The method involved systematically searching seven electronic databases, supplemented by hand searching. Publications were in English and French, with no date restrictions. Following literature retrieval, titles and abstracts were screened against predetermined inclusion criteria, and where eligible, full texts were subject to a second screening process. For a review to be eligible, it had to report on patient outcomes and health care management services. In instances where decisions on eligibility were unclear, a third researcher was consulted to resolve the matter. Walkthroughs were conducted to pilot test the inclusion criteria and validate the processes. The methodological quality of each review was assessed by two independent reviewers using standardized criteria. Data were extracted by two independent researchers and analyzed using meta-analysis techniques. Where analysis was not feasible, narrative syntheses were used. Key limitations are that 94% of included studies were rated as low quality. Further, weak reporting of relevant organizational and health management theory was found within the included studies.

4. Key Findings and Implications

Key Findings and Implications: This review has shown that a range of health management strategies are successful at improving patient outcomes, albeit only at practice, department, or site level. As a result, findings should be of interest to both practitioners and policymakers alike, in informing the design of healthcare strategies. Consistently, our review indicated that the translation of effective interventions to national level was problematic, with significant variation reflecting different contexts of study and a diversity of national health systems. Key implications requiring further policy action, therefore, promote the need for multi-level interventions across simultaneous 'stages' of the policy process. (Sutton et al.2020)(Buljac-Samardzic et al.2020)(Zamboni et al.2020)

Interventions that have been shown to reduce and improve effectiveness and efficiency in healthcare delivery include the following. Interventions that improve outcomes in human resource management include the redesign of roles and responsibilities to improve teamwork and invest in staff education and training. Interventions targeting work organization will often need to be accompanied by wider workforce development strategies that involve or are negotiated with employees and their representatives. The creation or strengthening of local patient and public involvement systems has been shown to improve the quality of care for targeted or local populations. Key challenges in implementing and evaluating complex models of service delivery and care in practice have been highlighted by case studies. Robust evaluation from different theoretical perspectives is required to address the barriers to achieving scale and the shift from rhetoric to practice.

Therefore, realizing improvements in healthcare delivery depends on effective health management.

5. Conclusion and Recommendations

Based on the results of this systematic review, there is a consensus suggesting the importance of strategic health management interventions for improving patient outcomes. This rationale extends to all healthcare segments, as enhancements in healthcare outcomes and overall system efficiency were observed in a variety of case-specific environments, patient groups, and areas of focus. Effective health management programs are generally those that incorporate health interventions and demonstrate interorganizational coordination from both the managerial and clinical team perspectives. Improvements in these interventions can be achieved through the consistent application of appropriate health management strategies. Given the importance of effective health management interventions and the consistency of the evidence supporting them, healthcare professionals and organizations should consider the initiation of strategic health management interventions that align with specific patient needs. Implementing external interventions should also be considered to address ongoing training and the educational requirements necessary to provide the best and most advanced care strategies. Finally, we recommend that researchers focus on further exploration of this literature, particularly regarding those areas that have been preliminary in their research evidence. These are important considerations in light of future healthcare demand and overall trends, acknowledging the limitations of this current systematic review. This need for adaptation is all the more present in the context of aging populations and unprecedented public health emergencies. This may indeed be essential to enabling the real-world translation of positive results generated from controlled settings, as additional research detailing the implementation and progress measurement associated with the execution of these interventions is now required. The engagement of relevant business performance indicators is an imperative aspect of the development of this research. The nature of the interventions proposed through this systematic review is ideally both ongoing and evolving and requires routine evaluation to ensure their integrative efficacy in modern healthcare environments. These ongoing evaluations may be critical to ensuring that these interventions remain appropriate in their quality and application in an ever-evolving healthcare landscape.

References

- Buljac-Samardzic, M., Doekhie, K. D., & van Wijngaarden, J. D. (2020). Interventions to improve team effectiveness within health care: a systematic review of the past decade. *Human resources for health*, 18, 1-42. [springer.com](https://www.springer.com)
- Hølge-Hazelton, B., Kjerholt, M., Rosted, E., Thestrup Hansen, S., Zacho Borre, L., & McCormack, B. (2021). Health professional frontline leaders' experiences during the COVID-19 pandemic: a cross-sectional study. *Journal of Healthcare Leadership*, 7-18. [tandfonline.com](https://www.tandfonline.com)
- McGill, E., Er, V., Penney, T., Egan, M., White, M., Meier, P., ... & Petticrew, M. (2021). Evaluation of public health interventions from a complex systems perspective: a research methods review. *Social science & medicine*, 272, 113697. [sciencedirect.com](https://www.sciencedirect.com)

- Rodríguez-Fernández, M., Herrera, J., & de Las Heras-Rosas, C. (2021). Model of organizational commitment applied to health management systems. *International journal of environmental research and public health*, 18(9), 4496. [mdpi.com](https://doi.org/10.3390/ijerph18094496)
- Skivington, K., Matthews, L., Simpson, S. A., Craig, P., Baird, J., Blazeby, J. M., ... & Moore, L. (2021). Framework for the development and evaluation of complex interventions: gap analysis, workshop and consultation-informed update. *Health technology assessment (Winchester, England)*, 25(57), 1. [nih.gov](https://doi.org/10.1136/hta-2021-025571)
- Sutton, R. T., Pincock, D., Baumgart, D. C., Sadowski, D. C., Fedorak, R. N., & Kroeker, K. I. (2020). An overview of clinical decision support systems: benefits, risks, and strategies for success. *NPJ digital medicine*, 3(1), 17. [nature.com](https://doi.org/10.1038/s41746-020-0171-4)
- van Sluijs, E. M., Ekelund, U., Crochemore-Silva, I., Guthold, R., Ha, A., Lubans, D., ... & Katzmarzyk, P. T. (2021). Physical activity behaviours in adolescence: current evidence and opportunities for intervention. *The Lancet*, 398(10298), 429-442. [nih.gov](https://doi.org/10.1016/S0140-6736(21)00111-1)
- Zamboni, K., Baker, U., Tyagi, M., Schellenberg, J., Hill, Z., & Hanson, C. (2020). How and under what circumstances do quality improvement collaboratives lead to better outcomes? A systematic review. *Implementation Science*, 15, 1-20. [springer.com](https://doi.org/10.1186/s12913-020-05000-0)

أهمية الإدارة الصحية الفعالة في تحسين نتائج المرضى: مراجعة منهجية مقدمة

تُعد الإدارة الصحية الفعالة عنصرًا حاسمًا لتحقيق النتائج المرجوة للمرضى في النظم الصحية الحديثة. ومع ذلك، على الرغم من جهود صانعي السياسات والمحللين في قطاع الرعاية الصحية، لا يزال دور الإدارة مجالًا توجد فيه ثغرات كبيرة في المعرفة. تهدف هذه الورقة إلى عرض نتائج مراجعة منهجية للأدبيات التي تبحث في العلاقة بين الإدارة الصحية ونتائج المرضى. تهدف المراجعة إلى دمج وتوليف قاعدة الأدلة الموجودة حاليًا للإجابة على السؤال التالي: كيف يمكن إدارة وتنظيم أنظمة وممارسات الرعاية من أجل تحقيق نتائج أفضل للمرضى المصابين بداء السكري من النوع الثاني؟ يتم التأكيد على أهمية هذا السؤال من خلال مقدمة لقضايا السياسة التي تواجه نظام الرعاية الصحية لدينا بلا شك وتلك الخاصة بالدول الأخرى في العالم المتقدم. من خلال الجمع بين الإجراءات الإدارية السريرية والتنظيمية والمهنية، يتم السعي إلى إدخال تحسينات على الوصول والتنسيق والنتائج السريرية والإنسانية. لإكمال هذا القسم التمهيدي، يتم الإبلاغ عن الأدبيات ذات الصلة بإدارة الصحة من أجل شرح السياق الأوسع الذي يتم فيه تناول سؤال البحث. يتم لفت الانتباه إلى الظهور التاريخي للظاهرة ومرادفاتها، وحقيقة أن أدبيات وممارسات الإدارة المعاصرة لا تزال تعكس التنظير السابق واحتضان مفاهيم مثل النماذج التحويلية التي تركز على تطوير القدرات الإدارية. يجب التوسع في كلمة النتائج، لأنها سؤال البحث الذي هو محور تركيز المراجعة. نحن نتخذ تفسيرًا واسعًا جدًا للنتائج - أي، على أنها أي متغير يلتقط مجموعة متنوعة من التأثيرات المتوقع حدوثها عند اتخاذ إجراءات الرعاية الصحية أو الإجراءات ذات الصلة. بشكل متغير، نشير إلى النتائج السريرية، والنتائج الصحية، ونتائج المرضى، والأهداف للإعدادات والأنظمة.