e-ISSN: 0974-4614 p-ISSN: 0972-0448

Collaborative Efforts in Family Health Management: The Contribution of Nursing, Social Work, Health Informatics, Health Administration, and Epidemiology

Omar Radhi Jodallah Alrehaili¹, Abdullah Ayed Alharbi², Ayed Aqeel Ayed Alanazi³, Abdullah Mohammed Alassaf⁴, Aiman Saleh Braiqea Alshammari⁵, Hatim Sulaiman Hujhuj Alshammari⁵, Majid Hamad Ali Al-Sanani⁶, Abdulla Mohammed Al Wahaibi⁷, Souad Abdullah Alaliwat⁸, Turki Motlaq Almutiri⁹, Waleed Jamal Aloqbi¹⁰, Alrohili Jamil Soliman¹¹

¹Health Services and Hospital Management, King Salman Medical City
²Health Administration, Third Health Cluster, Eastern Luban Health Center
³Health Management Technician, King Salman Specialist Hospital in Hail
⁴Health Informatics Technician, Eradah Complex for Mental Health in Hail
⁵Health Information Technician at King Khalid Hospital in Hail
⁶Epidemiological Monitoring Technician, King Khalid Hospital in Al Majmaah
⁷Health Assistant, Health Affairs in Riyadh
⁸Nursing Technician, Maternity and Children Hospital, Dammam
⁹Nursing, Al-Mithnab Hospital, Al-Qassim
¹⁰Pediatric Resident, King Khalid Hospital, Tabuk
¹¹Family Physician, Medina

Received: 10.08.2024 Revised: 13.09.2024 Accepted: 21.10.2024

ABSTRACT

Introduction: Family health management deals with all the health needs that are physical, emotional, social and environmental that may o Cupress within the units of a given family. Therefore, to enhance the different outcomes, there is a need to adopt team-based social models of care. Nursing, social work, health informatics, health administration and epidemiology integration is important. In each discipline, there is specialization which would help in the treatment of the diversified needs, that patients' families present to the immediate care givers of patients, not forgetting that patient care takes time.

Aim of work: To explore the contributions of Nursing, Social Work, Health Informatics, Health Administration, and Epidemiology to family health management, highlighting how their collective efforts improve health outcomes, empower families, and strengthen health systems.

Methods: We conducted a comprehensive search in the MEDLINE database's electronic literature using the following search terms: Collaborative Efforts, Family Health, Management, Nursing, Social Work, Health Informatics, Health Administration, and Epidemiology. The search was restricted to publications from 2016to 2024 in order to locate relevant content. We performed a search on Google Scholar to locate and examine academic papers that pertain to my subject matter. The selection of articles was impacted by certain criteria for inclusion.

Results: The publications analyzed in this study encompassed from 2016 to 2024. The study was structured into various sections with specific headings in the discussion section.

Conclusion: Effective family health management can best be implemented through cooperation from the nursing, social work, health informatics, health administration, and epidemiology professions. Each course contributes specific perspectives and supports the multifaceted aspects of medical, social and natural conditions which affect a family's health. In turn, such professionals develop an integrated model of practice that engages families, demonstrates the effectiveness of diversity, and improve health systems. Nonetheless, more work needs to be done in promoting investment in strategically modem and inter-professional service delivery model and training and education of professionals for better and holistic care for such families.

Keywords: Collaborative Efforts, Family Health, Management, Nursing, Social Work, Health Informatics, Health Administration, and Epidemiology

INTRODUCTION

Family health management is the process of dealing with how each and every person in families can improve their health via dealing with the bodily, mental, societal and communal aspects within the family. In today's world due to a higher level of difficulty in controlling various types of health issues and the identification of complex interrelationships between different factors that make up health, different forms of approaches and cooperation involving different fields are now more important to enhance the outcomes (Knafl et al., 2021). However, it will be important to stress that the role of nursing, social work, health informatics, health management, and epidemiology as foundations for the proper family health management looks most revealing in this context. All of these fields brings specific knowledge to help with the complex problems families face and also allows for individualized, patient-based care.

Multidisciplinary teamwork in healthcare allows for the comprehensive, more rational approach to disease management, and treatment process in general. Families experience a number of health care issues; being chronic diseases, mental health issues, and social issues including poverty, housing and healthcare access issues. These cannot be handled without a team approach where a number of professionals with specialized skills are applied. Compliance with WHO, working together not only improves the quality of work, increases efficiency, minimizes the duplication of activities, and increases the stability and reliability of health care.

Nursing is significant to the management of health of families since they are the initial contact with families. In fact, schools, clinics and community based organizations play a central role offering education and preventive care services and helping patients with chronic illnesses to manage those conditions. Being closer to patients they are able to detect new problems arising within families and provide them access to the necessary aid (Santos et al., 2016). Nurses also discharge important care coordination functions that connect gaps between care and other services.

Nursing is supported by social work in terms of social and psychological aspects of health in families. Social workers familiarize the families with the healthcare systems, act as their voice when speaking out on access to health care and enabling them get the required and needed support. They are especially used in dealing with social determinants of health, which include income, housing, andrace, all of which influence people's health (National Academies of Sciences, 2019). The social workers also perform some psychosocial supportive interventions that ensure that families work through the psychological stress of sickness, or being carers.

Health informatics operates to enhance family health management to provide optimal care by using technology to support care delivery and decision-making. With help of EHRs, telemedicine, and analyzing data, informatics professionals ensure that healthcare teams can oversee patterns in overall health, which patients have the highest risks, and how certain interventions can be planned. For instance, the use of technology in managing chronic diseases within families is enhanced since digital applications can offer individual notification and educational materials, appointment checklists for the doctor and patient (Pina et al., 2017).

Health administrators see to it that family health programs are properly co-coasted, sufficiently funded and planned to fit the health promotion agenda. They are involved in policy-making, resource mobilization and the coordination of interdisciplinary teams given their function of providing diverse and combined care services. On the other hand epidemiologists assist by studying various patterns in a society to determine causes of ailment in society. Their result is used for intervention strategies that are necessary for a specific group of people or society at large, instances of health issues like vaccine coverage as well as prevention of epidemics (Ludwick et al., 2022).

The collaboration between nursing, social work, health informatics, health administration, and epidemiology fosters a comprehensive approach to family health. These fields ensure that when families are receiving care, consideration is made to clinical, social as well as systemic elements. Integration of these disciplines in the course stresses the importance of interdisciplinary health professions in managing current health challenges and improving the wellbeing of the whole family.

AIM OF WORK

To explore the Nursing, Social Work, Health Informatics, Health Administration, and Epidemiology's approaches to the management of families' health, demonstrating how synthesis of these interdisciplinary approaches enhances population health, strengthens families' resilience and strengthens the health system.

METHODS

A thorough search was carried out on well-known scientific platforms like Google Scholar and Pubmed, utilizing targeted keywords such as Collaborative Efforts, Family Health, Management, Nursing, Social Work, Health Informatics, Health Administration, and Epidemiology. The goal was to collect all pertinent research papers. Articles were chosen according to certain criteria. Upon conducting a comprehensive analysis of the abstracts and notable titles of each publication, we eliminated case reports, duplicate articles, and publications without full information. The reviews included in this research were published from 2016 to 2024.

RESULTS

The current investigation concentrated on the contributions of Nursing, Social Work, Health Informatics, Health Administration, and Epidemiology to family health management between 2016 and 2024. As a result, the review was published under many headlines in the discussion area, including: The Role of Nursing in Family Health Management, Social Work: Addressing Psychosocial and Economic Barriers, Health Informatics: Data-Driven Insights for Family Health, Health Administration: Building Systems for Family Health, Epidemiology: Understanding and Mitigating Health Risks, The Impact of Multidisciplinary Collaboration on Family Health

DISCUSSION

Family health management entails the use of a coordinated system in order to promote the health of the family members of all ages. The nature of health care support of a family involves multiple spheres such as social factors, behavior, diseases, and resources, which requires collaboration of different disciplines. Interprofessional work stream among nurses, social workers, informatics, administrators, and epidemiologists guarantees the proper, equitable, efficient services in the healthcare settings (Foster et al., 2016). These key disciplines are described in this article to provide an understanding of how they promote family health, support families, and enhance health systems together.

The Role of Nursing in Family Health Management

Nursing is vital in the health care of families acting as the initial line of service delivery that entails health promotion, disease prevention, and curative services for acute and chronic conditions. These roles involve the comprehensive care of the patient, the treatment of the patient's family, and taking care of community/public health issues (Kaakinen et al., 2018).

• Health Promotion and Education

The nurses educate and empower the family to practice healthy behaviors in the context of their disease. They provide an essential information source for the family focusing on nutrition, exercise, vaccinations, and screenings (Luttik, 2020). Nurses also educate family members especially in cases of chronic diseases like diabetes, hypertension where they ensure the relatives understand the management of the diseases as well as the need to abide by the laid down practices.

• Family-Centered Care

Family-centered care is one of the principles when it comes to the delivery of care to clients by nurses. By encouraging and incorporating the family in care planning and decision-making, the nurses contributed to the improvement of the health systems. For instance, pediatric nurses work with parents to oversee the treatment of illnesses that affect children and make sure that they have enough information and necessities to make their children get well (Coyne et al., 2016).

• Addressing Social Determinants of Health

Nurses understand how these social factors, including income level, education level, housing and others, affect health of the families. Especially, community health nurses ensure that families are asked about the need for food, shelter, or transportation, and, as needed, connected to programs providing such support to reduce care disparities (Phillips et al., 2020).

Social Work: Addressing Psychosocial and Economic Barriers

Social work addresses psychosocial and economic domain of the family to meet the supportive role to the nursing. Social workers also have the responsibility to protect the interest of the families and the children to ensure that parents/families get help in form of assistance and referral to other supportive services in situation that require the child's or parents'/families' help for evaluation of their emotional and or mental health (Harrison et al., 2019).

• **Self-Awareness:** economic aspect of the family in order to support the nursing role. Social workers also protect the interests of the families and the children, ensure the parents/families receive support in form of assistance and referrals to other supportive services in case there is a need to address emotional and or mental health issues (Harrison et al., 2019).

• Advocacy and Resource Navigation

As for the main social work, its principal aim is to utilize the acquired knowledge of the social environment in order to connect families with available health assets. For example, they assist families in enrolling for the various government programs such as Medicaid, SNAP and housing subsidies. They help in reduction of health disparities and improving the access to some services (Kreuter et al., 2021).

• Mental Health Support

Depression, stress and anxiety problems are generally considered part of family health. Social workers advise clients in family matters and provide a link to a psychologist when needed. They also attempt to remove such tabs that are connected with mental health issues such that families search for assistance and aim to properly take care of their mental health (Gehlert, 2019).

• Crisis Intervention

Family social workers are especially engaged in crisis intervention where cases of spouse abuse or child abuse, alcohol and drug abuse prevail. They assess risks and design protective measures and also liaise with police force or child safeguard organizations to ensure potential family members at risk are protected.

Health Informatics: Data-Driven Insights for Family Health

Attempts to sustainable family health care management, delivery of care, use of available resources, and population health incorporated such communication technology and information is in health informatics (Hu et al., 2016).

- EHRs, or electronic health records: EHRS help to simplify care coordination and communication amongst the providers. While using EHRs, family health practitioners are able to monitor vaccinations, chronic diseases and ensure all family members receive their screenings and checkups based on their age (Dash et al., 2019).
- Applications for Mobile Health and Telehealth: Indeed, with telehealth and mobile health (mHealth) apps, health informatics has provided care access. Often, families communicate to clinicians at a distance, which relieves transport costs and enables quick actions. Nowadays, families can be more empowered in managing their health thanks to the possibilities that appear in the sphere of MHealth, for example an application with medication alarms (Kruse et al., 2017).
- Analytics for Population Health: Family health data are stored in large databases and informatics specialists use it to make various findings on trends and beneficial patterns. They may watch epidemiological trends, assess regions with increased incidence of childhood obesity, or evaluate immunization levels in given community. Such findings enhance purposeful practice to prevent and manage diseases and contribute to policy formulation (Rumsfeld et al., 2016).

Health Administration: Building Systems for Family Health

Working within healthcare organizations they create and apply environments that are comprehensive for family-sustaining approaches. , to express in their own Witterness the demand for efficiency and equality, Organizational systems highlighted by Santos and Giovanella (2016) that guarantee the functionality and accountability of health care organizations to needs of families.

- **Developing and implementing policies:** Policies developed by health administrators affect family health services. For example, they fight for insurance that covers family health services, child care aid and parental leave policy. By minimizing the costs and other hindrances to access, prompt and adequate treatment, they contribute to health worthy goals of families (Niles, 2023).
- Planning and Training for the Workforce: In order to respond to the needs of families, managers guarantee effective staffing of healthcare teams and their subsequent training. They create training courses which establish collaboration of specialists, focus on family care and cultural sensitivity (Kim, 2020).
- Enhancement of Quality: Health administrators undertake activities meant to improve the quality of care provided to patients. For instance, they might create interventions to enhance the transitional care of families with a family member with a chronic disease for the purpose of decreasing the readmission rates. By analyzing the customer feedback and patients records and performance indicators, the administrators work out which areas could be further developed and apply the evidenced-based interventions (Panny et al., 2019).

Epidemiology: Understanding and Mitigating Health Risks

Care delivery is initiated through efforts led by health administrators in efforts that will improve this ability. For instance, they might introduce programmes targeting the enhancement of care transitions of families that have members with a chronic illness with the general aim of decreasing hospital readmission. From the information received from patients, as well as results, irregularities recognized and applied methods and guidelines (Panny et al., 2019).

- Monitoring for Diseases: There are medical professionals called epidemiologists who track the frequency with which diseases that affect families, including diabetes, asthma, and influenza, occur. Authorities in the health sector use this knowledge to develop interventions and direct available resources towards a campaign for vaccination as well as lifestyle and screening for the early signs of chronic diseases (Schmidt et al., 2016).
- **Determining Risk Elements:** Epidemiological investigations point out such factors that influence family health statuses including smoking, poor diet, and certain environment features. For instance, knowledge about secondhand smoke has informed campaigns and legislation on damning the compound to youths(Sharma &Khapre, 2021).
- **Creating Interventions:** The family health interventions are formulated and tested by epidemiologists. For instance, to decrease obesity, and conditions associated with it, they may work together with schools to ensure children practice exercise and consume healthy foods (Shackleton et al., 2016).

The Impact of Multidisciplinary Collaboration on Family Health

Specialist coordination is effective when various people are involved as per the family's need. For instance, social workers can assist with housing problems related to asthmatic episodes, while nurses teach families about medicines ad urging on aspects related to a child's asthma. Using mHealth technologies, health informatics specialists monitor the compliance with predetermined treatment regimens. Health administrators ensure that the asthma clinics are cost effective to promote and be within the reach of those in need. Epidemiologists learn about the environment and promote policy changes to minimize pollution in the atmosphere. Thus, accelerating medical, societal, and environmental changes are all addressed in an integrated system that improves results while providing families with the resources to support their long-term health (Brooks et al., 2023).

• Challenges and Recommendations for Collaboration

While multidisciplinary collaboration in family health management offers several benefits, it also comes with certain drawbacks, such as:

- 1. **Communication Barriers:**Interprofessional communication can be hampered by dissimilarities in goals and terminology used in the course of practice. Increased interdisciplinary meetings and communication facilitates the external communication.
- 2. **Resource Limitations:** However, funding for comprehensive treatment is limited and there is a shortage of properly qualified staff. As a result, further fast development of extra financial inputs to family health projects is necessary.
- 3. **Cultural Competence:** For the sake of trust and translating quality into benefits for families, providers should understand and appreciate culture. Often, the cultural competency training programs could be of significance in improving patient and providers relationships.

CONCLUSION

Family health management is a dynamic process which depends on behaviors, acute and chronic diseases, socioeconomic conditions, and available resources. They argue that the notion of success, equity, and efficiency within a context of healthcare implies cooperation across the borders of specific professions including nursing, social work, informatics, health administration, as well as epidemiology. Social workers help families to get access to community resources while nurses help them in getting necessary services including illness prevention and health promotion as well as family centered nursing care. With reference to the following areas of application, health informatics incorporate information to increase efficiency in the delivery of services, population health evaluation and management of family health. Health administrators create policies and practices regarding family functioning as well as advocate policies to enhance the operations of healthcare organizations, staff, training, and staffing. Epidemiology is the scientific discipline that underpins the study of health hazards and the development of strategies for prevention and control of family health hazards. Families are in advantaged position from the cooperation in family health management since they facilitate the provision of all-inclusive and coordinated services. However, they highlighted the following gaps and barriers, which include cultural competency, funding issues, and communication. Scheduled IPE encounters and collaborative channels of communication will enhance collaboration thus leading to higher funding of family health care provisions.

REFERENCES

- 1. Austin, A. E., Lesak, A. M., & Shanahan, M. E. (2020). Risk and protective factors for child maltreatment: A review. Current epidemiology reports, 7, 334-342.
- 2. Brooks, L., Elliott, J., Stolee, P., Boscart, V. M., Gimbel, S., Holisek, B., ...& Heckman, G. A. (2023). Development, successes, and potential pitfalls of multidisciplinary chronic disease management clinics in a family health team: a qualitative study. BMC Primary Care, 24(1), 126.
- 3. Coyne, I., Hallström, I., &Söderbäck, M. (2016).Reframing the focus from a family-centred to a child-centred care approach for children's healthcare. Journal of Child Health Care, 20(4), 494-502.
- 4. Dash, S., Shakyawar, S. K., Sharma, M., &Kaushik, S. (2019). Big data in healthcare: management, analysis and future prospects. Journal of big data, 6(1), 1-25.
- 5. Foster, K., Maybery, D., Reupert, A., Gladstone, B., Grant, A., Ruud, T., ...&Kowalenko, N. (2016). Family-focused practice in mental health care: An integrative review. Child & Youth Services, 37(2), 129-155.
- 6. Gehlert, S. (2019). The conceptual underpinnings of social work in health care. Handbook of health social work, 1-19.
- 7. Harrison, G., O'Malia, A., & Napier, S. (2019). Addressing psychosocial barriers to hospital discharge: A social work led model of care. Australian Social Work, 72(3), 366-374.
- 8. Herekar, A. (2024). The Role of Multidisciplinary Teams in Advancing Healthcare Innovation. Kashf Journal of Multidisciplinary Research, 1(05), 47-59.

- 9. Hu, J., Perer, A., & Wang, F. (2016).Data driven analytics for personalized healthcare. Healthcare Information Management Systems: Cases, Strategies, and Solutions, 529-554.
- 10. Kaakinen, J. R., Coehlo, D. P., Steele, R., & Robinson, M. (2018). Family health care nursing: Theory, practice, and research. FA Davis.
- 11. Kim, S. (2020). Diversity and Cultural Competence in Healthcare: A Systems Approach-Janice L. Dreachslin, M. Jean Gilbert, Beverly Malone California: JOSSEY-BASS A Wiley Imprint Publishing, 2002, 480 pages. OMNES: The Journal of Multicultural Society, 10(2), 131-137.
- 12. Knafl, K. A., Deatrick, J. A., Gallo, A. M., & Skelton, B. (2021). Tracing the use of the family management framework and measure: A scoping review. Journal of Family Nursing, 27(2), 87-106.
- 13. Kreuter, M. W., Thompson, T., McQueen, A., &Garg, R. (2021). Addressing social needs in health care settings: evidence, challenges, and opportunities for public health. Annual review of public health, 42(2021), 329-344.
- 14. Kruse, C. S., Krowski, N., Rodriguez, B., Tran, L., Vela, J., & Brooks, M. (2017). Telehealth and patient satisfaction: a systematic review and narrative analysis. BMJ open, 7(8), e016242.
- 15. Ludwick, T., Endriyas, M., Morgan, A., Kane, S., Kelaher, M., &McPake, B. (2022). Challenges in implementing community-based healthcare teams in a low-income country context: lessons from Ethiopia's family health teams. International Journal of Health Policy and Management, 11(8), 1459.
- 16. Luttik, M. L. (2020). Family Nursing: The family as the unit of research and care. European Journal of Cardiovascular Nursing, 19(8), 660-662.
- 17. National Academies of Sciences, Medicine Division, & Committee on Integrating Social Needs Care into the Delivery of Health Care to Improve the Nation's Health. (2019). Integrating social care into the delivery of health care: moving upstream to improve the nation's health.
- 18. Niles, N. J. (2023). Basics of the US health care system. Jones & Bartlett Learning.
- 19. Panny, A., Krueger, K., &Acharya, A. (2019). Achieving the 'true' triple aim in healthcare. Integration of medical and dental care and patient data, 11-32.
- 20. Phillips, J., Richard, A., Mayer, K. M., Shilkaitis, M., Fogg, L. F., &Vondracek, H. (2020). Integrating the social determinants of health into nursing practice: Nurses' perspectives. Journal of Nursing Scholarship, 52(5), 497-505.
- 21. Pina, L. R., Sien, S. W., Ward, T., Yip, J. C., Munson, S. A., Fogarty, J., &Kientz, J. A. (2017, February). From personal informatics to family informatics: Understanding family practices around health monitoring. In Proceedings of the 2017 acm conference on computer supported cooperative work and social computing (pp. 2300-2315).
- 22. Rumsfeld, J. S., Joynt, K. E., & Maddox, T. M. (2016). Big data analytics to improve cardiovascular care: promise and challenges. Nature Reviews Cardiology, 13(6), 350-359.
- 23. Santos, A. M. D., & Giovanella, L. (2016). Family health strategy in care coordination in a health administrative region in Bahia, Brazil. Saúdeem Debate, 40, 48-63.
- 24. Santos, F. P. D. A., Acioli, S., Rodrigues, V. P., Machado, J. C., Souza, M. S., &Couto, T. A. (2016). Nurse care practices in the Family Health Strategy. RevistaBrasileira de Enfermagem, 69, 1124-1131.
- 25. Schmidt, H., Mah, C. L., Cook, B., Hoang, S., Taylor, E., Blacksher, E., ...&Aleksandrova-Yankulovska, S. (2016). Chronic disease prevention and health promotion. Public health ethics: Cases spanning the globe, 137-176.
- 26. Shackleton, N., Jamal, F., Viner, R. M., Dickson, K., Patton, G., &Bonell, C. (2016). School-based interventions going beyond health education to promote adolescent health: systematic review of reviews. Journal of Adolescent Health, 58(4), 382-396.
- 27. Sharma, T., &Khapre, M. (2021). Exposure of second hand smoke in women and children: a narrative review. Journal of Family Medicine and Primary Care, 10(5), 1804-1807.
- 28. Sudin, S. A. (2023).Individual Strategies For Mitigating Health Risk Under High Epidemiological Hazard (Review Of Foreign Studies). Preventive Healthcare: Topical Issues Of Health Risk Analysis, (3), 166.