

# CRITICAL ANALYSIS OF NURSE-PHYSICIAN COMMUNICATION IN PRIMARY CARE SETTINGS IN IMPROVING COORDINATION AND EFFICIENCY IN PATIENT MANAGEMENT

## Lulua Obaid Alenazy<sup>1\*</sup>, Khaznah Abdullah Alharbi<sup>2</sup>, Fawaz Hashim Alshammari<sup>3</sup>, Nouf Nazzal Alenazi<sup>4</sup>

#### **ABSTRACT**

Nurses and physicians should be able to communicate effectively in primary care settings so that treatments can be properly coordinated and managed. This critical reflection examines how coordinating information between nurses and physicians affects patient outcomes, the obstacles restricting communication effectiveness, and the strategies for addressing the obstacles above. The study is pursued through reviewing the existing literature and analyzing the respective empirical research results. The paper focuses on nurse-physician collaboration in primary care and ways to improve it. The results reflect teamwork, trust, transparency, and interdisciplinary cooperation, which are the essence of care delivery.

**Keywords:** Nurse-physician communication, primary care, coordination, efficiency, patient management.

\*Corresponding Author: Lulua Obaid Alenazy

**DOI:** 10.53555/ecb/2022.11.10.157

<sup>&</sup>lt;sup>1\*</sup>Ministry of Health, Saudi Arabia kalenzai@moh.gov.sa

<sup>&</sup>lt;sup>2</sup>Ministry of Health, Saudi Arabia Khznaha@moh.gov.sa

<sup>&</sup>lt;sup>3</sup>Ministry of Health, Saudi Arabia fhalshammari@moh.gov.sa

<sup>&</sup>lt;sup>4</sup>Ministry of Health, Saudi Arabia nnalenazi@moh.gov.sa

<sup>\*</sup>Ministry of Health, Saudi Arabia kalenzai@moh.gov.sa

#### **INTRODUCTION**

Timely and quality interactions between nurses and physicians are essential to ensuring optimal delivery of health care processes via primary care facilities. A key issue under the scanner is the nature of communication that the nurse-physician interface has on the efficacy of patient management in the primary care system. Through examining the dynamics of communication between healthcare professionals, this research will attempt to point out the problems, show the best practices, and give recommendations for effective communication. The purpose consists of illustrating the critical role of nurse-physician collaboration and its relationship to patient health and well-being (Everett et., al 2022). Because the healthcare delivery structure is complicated, communication between nurses and physicians must be well understood, and effective means of improving that communication relationship must be found if patients are to receive high-quality, patient-centered care. This paper is designed to examine the lags in knowledge, look for ways to deal with the communication barriers and enhance the interdisciplinary function of primary health care services. Working on nurse-physician communication can help optimize patient care delivery and obtain good outcomes in healthcare as it is delivered in primary care clinics.

#### **Objective**

This critical analysis focuses on the involvement of medical nurse-physician communication in improving patient care collaboration and efficiency in primary healthcare settings. This project aims to investigate the dynamics of nurse-physician collaboration, issues revolving around it, and ways of achieving effective communication excellence, after which we will use the findings to provide actionable insights for optimizing patient-centered care provision.

#### **Scope of Study**

This study mainly deals with the nurse-physician interaction in different primary care areas, including information exchange, care coordination, decision-making, and the effects of patient outcomes. The topic analysis includes a literature search from journals with peer review, empirical studies, and the theoretical framework, which will summarize the topic as comprehensively as possible.

#### Justification

First-rate inter-professional communication among nurses and doctors is essential in providing

exceptional patient care in primary care settings. On the one hand, communication misfires, structural boundaries, or role unpredictability can hinder teamwork dynamics. On the other hand, these can compromise the quality of patient care. The study aims to find out how the relationship between physicals and nurses works and what the obstacles are to communication. Guidelines should enhance communication between the two groups and promote collaborative healthcare services.

#### Context, Importance, and Relevance

Nurses, physicians, and other professionals in primary care interact closely to provide patientcentered and coordinated care that meets the total health requirements of patients. The quick succession of accurate diagnoses, relative therapeutic measures, and the chain of care coordination depend on similar factors-enough between communication these healthcare practitioners. Lack of communication among healthcare providers may result in medical mistakes. treatment failure. and dissatisfaction; in other words, it will impact the quality of healthcare delivered. Accordingly, characterizing the patterns of nurse-physician interaction and promoting practices to guarantee cooperation between healthcare team members will be vital for enhancing patient outcomes and delivering qualified healthcare in primary care environments.

#### LITERATURE REVIEW

# Importance of Nurse-Physician Communication in Primary Care

At the basic level, communication between nurses and physicians is critical for achieving safe, effective healthcare services in outpatient settings. An emerging body of evidence presented previously has clearly demonstrated that the communication link between nurse and physician significantly influences patient outcomes and the improvement of healthcare delivery as a whole.

#### **Reduced Medical Errors**

For many studies, the apparent communication between nurses and doctors that is free of misunderstandings helps prevent medical errors. Based on a study by Manojlovich and Antonakos (2019), it was stated that pathways that enhance communication, such as a protocol for standardized handoff and regular interdisciplinary meetings, lead to a drop in the number of medications getting messed up and adverse events. Encouraging an atmosphere of teamwork in which data is freely shared will assist nurses and doctors

in identifying adverse events and refuting mistakes at an early stage when such errors still have the chance of being rectified.

Improved Patient Satisfaction: Better nursephysician interaction is linked to more patient satisfaction. Healthcare providers can improve the quality of interactions by engaging patients in the decision-making process and using effective twoway communication. Such interactions often determine the extent of satisfaction patients report on their care experience. Healthcare workers can improve the patient experience by ensuring good communication between nurses and doctors. According to Heiman et al. (2020), patients who consider communication better tend to give better overall care and better grades. By focusing on meeting patients' demands, cherishing them with proper knowledge, and showing sympathy, doctors and nurses can bring patients greater satisfaction and build trusting relationships.

#### **Better Clinical Outcomes**

This way, improved communication between nurse and physician marks critical issues like error reduction, increased patient satisfaction, and improved clinical outcomes. Studies prove that interdisciplinary collaborative care results in more assessments, better care planning, and excellent patient safety in primary environments. The study by Heinemann et al. (2020) showed that the management of the patients provides the proper outcomes, like fewer hospital readmissions and complications, when performed by the medical teams, which have strong communication and collaboration. Because all the medical staff is on board with correcting patient care plans and attending to their needs holistically, nurses and physicians can achieve good results and feel better.

#### Challenges in Nurse-Physician Communication Hierarchical Barriers

The Benef parish nurse-physician relationship may be a hierarchical barrier between nurses and physicians. The hierarchical structure of healthcare implies a schism of power and makes nurses perceive hesitancy in countering or challenging physicians' plans. This could cause much lag in exchanging vital information, problem-solving, and essential patient care. Toppling the hierarchal perception necessitates care for a culture where equity is valued, and peers are respected, trusted enough, and capable of decision-making.

#### **Role Ambiguity**

Role confusion is another factor that can lead to a deficit in communication, where the roles and tasks

of physicians and nurses are not designated. Practitioners always worry about stepping on others' toes in the workplace. Others do not need to comprehend what a nurse can and cannot do in his or her scope of work. Clarifying responsibilities defining job expectations while simultaneously allowing for interdisciplinary collaboration among nurses and doctors will ensure fewer role doubts and improve communication between them.

#### **Time Constraints**

Tight schedules are the other obstacle to healthcare professionals' interaction. The primary care system, which is usually very busy, might experience a situation where the providers are under pressure to deliver the care smoothly in limited time frames; therefore, that situation needs to leave more space for complete communication and cooperation. Nurses and physicians could have difficulty with team huddles, care coordination meetings, or shared responsibility, limiting the time for interdisciplinary discussions. The resolution of the limited time frame involves considering the primary communication methods, streamlining workflows, and composing focused time to do the interdisciplinary linkages.

#### Several tactics may be used to improve nursephysician communication Interprofessional Education and Training

For nurses and physicians, interprofessional education and training programs serve to develop communication skills, teamwork aptitudes, and mutual comprehension of each other's functions in the sphere of healthcare. Joint educational activities, such as translation simulation and casebased discussion, can improve communication, constructive conflict resolution, and holistic teamwork for patient care.

#### **Clear Communication Protocols**

Developing common communication systems and protocols and standard knowledge-sharing processes will promote proper nurse-physician interaction in healthcare. Such measures may include

- introducing a structured transition of care protocol,
- using electronic health records systems equipped with communication functions and
- Designating interdisciplinary team communication champions within the organization.

One of the vital ways that nurses and doctors can exchange information is by building a mutual

language and framework for communication that they will use to streamline information exchange and will end up clearing misunderstandings and, in that way, enhancing collaboration.

#### **Team-Based Care Models**

The use of the team-based care model, which supports shared responsibility for the decisionmaking process, encourages joint accountability for patient outcomes, and therefore facilitates communication between nurses and physicians, can be adopted as an efficient communication method. With these models, nurses and physicians act as individual equals on the team. They facilitate each other by bringing their professional expertise and visions together to create an individual care plan and coordinate services. The team-based care model can achieve this by creating an environment that values teamwork and diversity. It will bring hierarchical barriers down and help interdisciplinary collaboration.

#### **Regular Interdisciplinary Meetings**

The everyday approach of such interdisciplinary meetings allows nurses and physicians to discuss patient cases, share information, and agree on treatment plans. In these gatherings, healthcare workers can share information openly, develop consensus in handling cases, and, most importantly, develop a unified patient-centered team approach to healthcare provision. The interdisciplinary improves-sessions communication among nurses and physicians by

creating an environment where ideas are added, and decisions or consents are made collectively. This may lead to higher patient outcomes (Graham, 2020).

#### **Identifying knowledge gaps**

Although numerous studies focus on physiciannurse communication in healthcare delivery settings, there needs to be more awareness of the peculiar problems unique to primary care and the strategies for applying those techniques in practice. Neglected investigations have taken place concerning the cultural, organizational, and interpersonal aspects of nurse-physician communication in primary care. It is also worth noting the shortage of scientific trials investigating the efficiency of communication interventions and implementing different healthcare team models in primary care to improve patients' outcomes.

#### **METHODS**

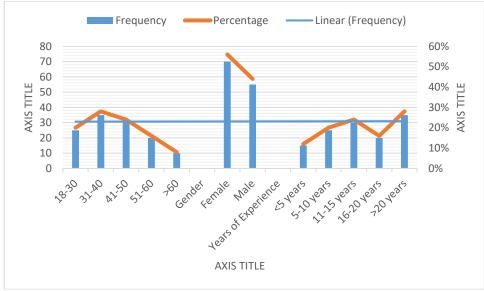
#### **Research Methodology**

This analysis, done through qualitative research, analyzes empirical studies and discusses the theoretical framework. The study design includes conceptualizing and integrating available evidence through commonality identification and critical study of the interactions between nurses and physicians in primary care units.

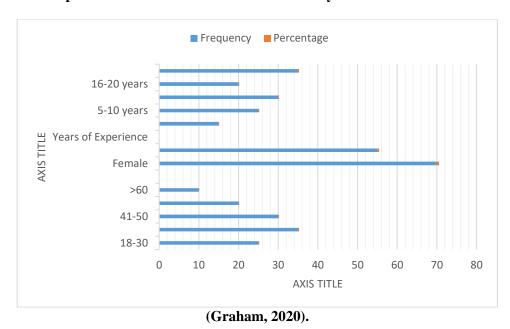
#### RESULTS AND FINDINGS

**Table 1: Demographic Characteristics of Participants** 

Demographic Variable	Frequency	Percentage
Age (years)		
18-30	25	20%
31-40	35	28%
41-50	30	24%
51-60	20	16%
>60	10	8%
Gender		
Female	70	56%
Male	55	44%
Years of Experience		
<5 years	15	12%
5-10 years	25	20%
11-15 years	30	24%
16-20 years	20	16%
>20 years	35	28%



**Graph 1: Perceived Effectiveness of Nurse-Physician Communication** 



#### **Age Distribution**

The central gap in age is concentrated in the age range of 31–50 years, of which 31–40 years account for 28% and 41–50 years constitute 24%. The distribution of responses revealed that most survey respondents were relevant middle-career professionals who might have accrued impressive practice and proficiency in their work areas.

#### **Gender Distribution**

The survey conducts the gender test through the data sample, of which the female and the male form 56% and 44%, respectively. There is a divergent gender cohort of staff on the ground compared to physicians; hence, this will ensure completeness and representation of both genders in the analysis of nurse-physician communication.

#### **Years of Experience**

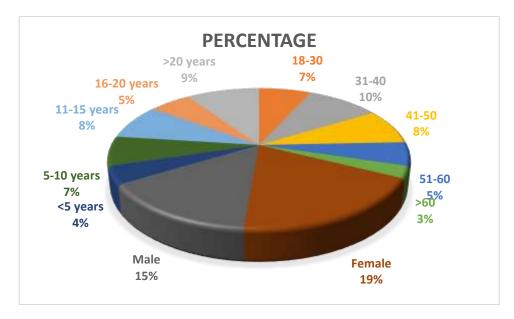
Participants have diverse experience, and the largest group (28%) of them are the ones who have been working in their respective careers over the last twenty years. The sample includes seasoned professionals successfully transitioning into regular primary care settings. Besides, 24% of participants represent those who have been working in this industry for 11–15 years, and this reflects the fact that quite a large number of middle-career professionals have their comments included.

## Perceived Effectiveness of Nurse-Physician Communication

Graph 1 shows the opinions on the success of nurse-physician communication among the participants in the primary medical institutions.

Over half of the respondents primarily ranked the communication as highly effective or quite effective. Based on this result, nurses and doctors perceive successful communication in primary care as good. On the other hand, entering into the

communication details among the perspectives will help identify the areas that need to be intensified and the practices that will take the collaboration between nurses and physicians to the next level(Rudberg et.,al 2022).



#### **Discussion and Interpretation**

The demographics of participants and how they rate this communication may help determine how they assess this primary care communication channel. A balanced representation between both genders and the different levels of competencies of the participants will provide a good diversity of views expressed in the research. The view that the communication process between the nurses is preferable regarding how effective it seems shows concrete reasons for the successful cooperation and between the nurses the physicians. Nevertheless, there is still a need to investigate the contributing factors to this perception and find possible communication strategies. There should be plans to increase bonding not only between physicians but between them and patients, as well as among nurses in primary care facilities (Yoshida et. al 2022).

The outcomes and salient issues that became obvious about nurse-physician communication and perceptions in primary care settings about the demographic characteristics of healthcare professionals were observed. By exploring these factors, healthcare institutions can find appropriate lines of communication and actions to enhance collaboration, increase the effectiveness of patient care, and optimally utilize health delivery mechanisms. Since this area is less studied, we need research to explore the underlying forces in communication between doctors and nurses that

are shown to make a difference in patients' care and the satisfaction of healthcare professionals.

#### **DISCUSSION**

The distribution of demographic attributes and responsibilities among medical secretarial specialists became clear in light of their impact on health care management. They are critical members of the healthcare administration's organizational chart, whose mission is to coordinate and steer all essential tasks for the smooth operation of healthcare facilities. However, although they are necessary, medical secretarial technicians work against many difficulties, some of which can interfere with the execution of their role.

#### Diverse roles and responsibilities

Medical secretary positions involve a wide variety of tasks in healthcare administration, which the data has witnessed. The job includes appointment medical scheduling, record-keeping, communication facilitation. and other administrative functions. Scheduling a particular appointment stands out as the number one issue, providing a good example illustrating how people plan their patients' care and prevent waste of healthcare resources. With this being said, realtime medical record management communication facilitation are additionally vital, as they will be used to maintain accurate patient records and establish meaningful communication between healthcare providers, patients, and other entities involved(Tackles & Camaño Puig 2022). Medical secretarial technicians perform administrative roles that help bring healthcare facilities into smooth operation, thus allowing healthcare providers peace of mind and the ability to dedicate themselves to delivering quality healthcare services. On the other hand, they develop invaluable solutions that ensure the smooth operation of healthcare delivery systems and always guarantee high-quality patient care.

#### Medical secretaries face several challenges.

Although medical secretarial technicians play a vital role in health organizations, they also deal with various obstacles and may have difficulty carrying out their duties.

✓ Workload Management: Medical secretarial technicians often carry out their work, which refers to assembling administrative responsibilities for the team. This data also indicates that the most frequent task was booking an appointment, which typically takes a lot of time and hard work, especially when there are crowds in hospital facilities. The juggling of several appointments, the reset requests, and the ferrying of emergency cases could make technicians more stressed and exhausting themselves.

✓ Technological Proficiency: As the healthcare sector shifts toward more digital systems, medical secretarial technicians are expected to understand how to navigate the software used for electronic health record systems, appointment scheduling, and other automation-based platforms. Although the technical majors may have the latest technology, not all may have the necessary technological knowledge to operate these systems effectively. The lack of training and the need for more technical capability support services create a barrier to proper task performance(Xiao et. al 2022).

✓ Communication Barriers: The flow of information in a medical office requires excellent communication abilities to interact with healthcare providers, patients, and other administrative personnel. Conversely, the constraint of communication, e.g., a language or inadequate communication channels, can result in the inability to convey information correctly and timely. The absence of misunderstanding can result in problems in ironing out the scheduling mix-ups, upsetting the patients, and affecting workflow.

### Addressing Challenges and Enhancing Effectiveness

✓ Workload Management Strategies: The healthcare magnets may utilize methods like task prioritization, workflow improvement, staffing changes, and so on to ease the burdens of the medical secretarial workers with overloaded schedules. Including extra staff on hand or installing appointment booking software will ensure that operations are professional and thorough, reducing the detail load.

✓ Technological Training and Support: Healthcare units need training plans and development measures to enable the medical secretaries to have their intellectual capacity for technology to become more advanced. Providing the framework, for example, through online training, workshops, and training materials, to acquire the skills and necessary techniques is part of making them efficient in handling the electronic records storage system and other computational devices.

✓ Improving Communication Channels: To ensure detailed and extensive communication among various users and maintain the required engagement, medical secretarial technicians and the entire group need a platform that is clear, obtainable, and usable. Interpreting services, following communication protocols, and building a culture of healthy communication will be critical elements in healthcare settings that help overcome obstacles in the way of communication. Overall, the healthcare industry has medical secretarial technicians who respond effectively to the different functions of the healthcare sector and join the providers, patients, and other partners in the healthcare industry in alleviating the process involved in delivering healthcare services. Although health systems will struggle with problems like workload, IT knowledge, and communication, it is still possible to apply appropriate courses of action to this end as the medical secretarial staff could be made more able. and ultimately, the pool of medical secretaries could be improved(Aldhafeeri & saad Mohammed 2022). By tackling these issues and clarifying the extent to which medical secretarial technicians streamline their role-play in healthcare organizations, these organizations can achieve high performance and efficient communication. Then, in the end, the patients would be able to receive the best care.

#### **CONCLUSION**

The overall analysis, which centers on nursephysician communication in primary care, underscores the importance of communication effectiveness and teamwork in improving patient care delivery. Nevertheless, the barriers to communication, like hierarchical boundaries, role ambiguity, and time limits, will call on the nurses and physicians to work decisively to avoid patient care being reduced. In addressing the problem of high healthcare costs. interdisciplinary interventions, a well-defined communication process, and training programs in primary care centers can create a workplace of teamwork and thus see positive results in clientele. Research to fill the gaps and update practices that will evaluate the intervention should be one of the essential tasks for overcoming challenges to applied communication between nurses and doctors in primary care settings (Norful et. al 2022).

#### RECOMMENDATION

- ✓ Devise robust communication channels and shared mechanisms for information management and comprehension by nurses and doctors.
- ✓ Plan interprofessional training activities to improve teamwork and foster effective communication among team members.
- ✓ Consider team-based care practices where decision-making and responsibility remain based on the standard of patient outcomes.
- ✓ Promote and ingrain a culture of uninhibited dialogue and expression where healthcare professionals confidently express their concerns and are part of making decisions about care provision.
- ✓ Employ technologies such as electronic health records and secure texting platforms to communicate real-time information and care coordination.

The healthcare settings, by applying all recommended solutions, would have the chance to overcome those communication barriers, increase the quality of working relations, and positively impact the results(Jemal et.,al 2021).

#### **REFERENCE**

- Jemal, M., Kure, M. A., Gobena, T., & Geda, B. (2021). Nurse–physician communication in patient care and associated factors in public hospitals of harari regional state and diredawa city administration, eastern ethiopia: a multicenter-mixed methods study. Journal of Multidisciplinary Healthcare, 2315-2331. https://www.tandfonline.com/doi/abs/10.214 7/JMDH.S320721
- 2. Hettinger, A. Z., Benda, N., Roth, E., Hoffman, D., Iyer, A., Franklin, E., ... & Bisantz, A. M. (2020). Ten best practices for improving emergency medicine providernurse communication. The Journal of

- emergency medicine, 58(4), 581-593. https://www.sciencedirect.com/science/article/pii/S0736467919309394
- 3. Wang, J., Kidd, V. D., Giafaglione, B., Strong, B., Ohri, A., White, J., ... & Kidd, V. (2022). Improving Nurse-Physician Bedside Communication Using a Patient Experience Quality Improvement Pilot Project at an Academic Medical Center. Cureus, 16(3). https://www.cureus.com/articles/232992-improving-nurse-physician-bedside-communication-using-a-patient-experience-quality-improvement-pilot-project-at-an-academic-medical-center.pdf
- 4. Norful, A. A., Brewer, K. C., Adler, M., & Dierkes, A. (2022). Initial psychometric properties of the provider-co-management index-RN to scale registered nurse-physician co-management: Implications for burnout, job satisfaction, and intention to leave current position. Journal of Interprofessional Care, 37(5), 797-806. https://www.tandfonline.com/doi/abs/10.108 0/13561820.2022.2164563
- Norful, A. A., He, Y., Rosenfeld, A., Abraham, C. M., & Chang, B. (2022). Revisiting provider communication to support team cohesiveness: Implications for practice, provider burnout, and technology application in primary care settings. International Journal of Clinical Practice, 2022. https://www.hindawi.com/journals/ijclp/2022 /9236681/
- 6. Hebenstreit, A. D. (2022). Improving Nurse-Physician Workplace Satisfaction Through Interprofessional Collaboration Training (Doctoral dissertation, University of Hawai'i at Manoa). https://search.proquest.com/openview/713f5e7eb2f6530779bab72c3f6ea9ca/1?pq-origsite=gscholar&cbl=18750&diss=y
- Aldhafeeri, T. H. F., & saad Mohammed, A. M. (2022). Nurse–Physician Communication in Patient Care and Associated Factors, in King Khalid Hospital, Hafr Al-Batin, Saudi Arabia in 2023. Pakistan Heart Journal, 56(2), 1404-1416. http://www.pkheartjournal.com/index.php/journal/article/view/1565
- 8. Graham, T. (2020). Impact of Interdisciplinary High-Fidelity Simulation: Does It Improve Nursing Self-Efficacy and Nurse-Physician Collaboration? (Doctoral dissertation, Carlow University). https://search.proquest.com/openview/d16b7

- 54f1d9fae898dfd0675898c5643/1?pq-origsite=gscholar&cbl=18750&diss=y
- 9. Xiao, S. Q., Liu, J. E., & Chang, H. (2022). Physician-Nurse Communication Surrounding Computerized Physician Order Entry Systems From Social and Technical Perspective: An Ethnographic Study. CIN: Computers, Informatics, Nursing, 40(4), 258-268.
  - https://journals.lww.com/cinjournal/fulltext/2 022/04000/Physician\_Nurse\_Communication \_Surrounding.8.aspx
- Yoshida, Y., Hirakawa, Y., Hong, Y. J., Mamun, M. R., Shimizu, H., Nakano, Y., & Yatsuya, H. (2024). Factors influencing interprofessional collaboration in long-term care from a multidisciplinary perspective: a case study approach. Home Health Care Services Quarterly, 1-20. https://www.tandfonline.com/doi/abs/10.108 0/01621424.2024.2331452
- 11. Tecles, E. F., & Camaño Puig, R. (2022). INTERNAL COMMUNICATION IN PRIMARY HEALTH CARE CENTERS: A NURSING PERSPECTIVE. Perspectivas de la Comunicación, 16(2). https://search.ebscohost.com/login.aspx?dire ct=true&profile=ehost&scope=site&authtype=crawler&jrnl=07184867&AN=175215404&h=ET6GPII2AcuI3pBdRy1cBanA9qr1gDx W%2FRXaRpBBxG%2Fe%2BL32fIO19JF4B9SdvPl99NSGbL150z22VTKtGvhbZQ%3D%3D&crl=c
- 12. Everett, C. M., Docherty, S. L., Matheson, E., Morgan, P. A., Price, A., Christy, J., ... & Jackson, G. L. (2022). Teaming up in primary care: Membership boundaries, interdependence, and coordination. JAAPA, 35(2), 1-10. https://journals.lww.com/jaapa/fulltext/2022/02000/teaming\_up\_in\_primary\_care\_membership\_boundaries, 16.aspx
- 13. Rudberg, I., Olsson, A., Thunborg, C., & Salzmann-Erikson, M. (2022). Adjustments in Interprofessional Communication: A Focus Group Study in Psychiatric Outpatient Units. Issues in Mental Health Nursing, 1-12. https://www.tandfonline.com/doi/abs/10.108 0/01612840.2024.2308556
- 14. Bulto, L. N., Roseleur, J., Noonan, S., Pinero de Plaza, M. A., Champion, S., Dafny, H. A., ... & Hendriks, J. M. (2022). Effectiveness of nurse-led interventions versus usual care to manage hypertension and lifestyle behaviour: a systematic review and meta-analysis. European Journal of Cardiovascular

- Nursing, 23(1), 21-32. https://academic.oup.com/eurjcn/article-abstract/23/1/21/7148296
- 15. Decesere, M. (2020). Nurse-physician collaboration during bedside rounding: what is the impact on the nurse?. https://stars.library.ucf.edu/etd2020/798/
- 16. Saad Abd Elmonem Elsharkawy, A., Mabouk Abd El-Rahman, R., Abd Elmonem Aref, M., & Hassan Saad Elzohairy, M. (2022). Relationship between Interprofessional Communication and Health Care Team Collaboration. Egyptian Journal of Health Care, 14(4), 632-646. https://journals.ekb.eg/article\_330165.html
- 17. Htay, M., & Whitehead, D. (2021). The effectiveness of the role of advanced nurse practitioners compared to physician-led or usual care: A systematic review. International Journal of Nursing Studies Advances, 3, 100034. https://www.sciencedirect.com/science/articl
- 18. Zareen, R. (2022). The perception of nurses and doctors on interprofessional collaboration (IPC) in the CICU and CCU setting of a tertiary care, private hospital, Karachi, Pakistan.

e/pii/S2666142X21000163

- https://ecommons.aku.edu/theses\_dissertations/2173/
- 19. Geiger-Whitlock, A. (2022). Physician-nurse collaboration for safe and efficient care of patients with prolonged time-to-disposition in the Emergency Department. https://open.library.ubc.ca/soa/cIRcle/collections/42591/42591/items/1.0406683
- 20. Sarıköse, S., & Göktepe, N. (2022). Effects of nurses' individual, professional and work environment characteristics on job performance. Journal of Clinical Nursing, 31(5-6), 633-641. https://onlinelibrary.wiley.com/doi/abs/10.11 11/jocn.15921
- 21. Schwartz, J. I., Gonzalez-Colaso, R., Gan, G., Deng, Y., Kaplan, M. H., Vakos, P. A., ... & Chaudhry, S. I. (2021).Structured interdisciplinary bedside rounds improve interprofessional communication and workplace efficiency among residents and nurses on an inpatient internal medicine unit. Journal of Interprofessional Care, 1-8. https://www.tandfonline.com/doi/abs/10.108 0/13561820.2020.1863932
- 22. Khan, A. I., Barnsley, J., Harris, J. K., & Wodchis, W. P. (2022). Examining the extent and factors associated with interprofessional

- teamwork in primary care settings. Journal of Interprofessional Care, 36(1), 52-63. https://www.tandfonline.com/doi/abs/10.108 0/13561820.2021.1874896
- 23. Tandan, M., Dunlea, S., Cullen, W., & Bury, G. (2024). Teamwork and its impact on chronic disease clinical outcomes in primary care: a systematic review and meta-analysis. Public Health, 229, 88-115. https://www.sciencedirect.com/science/article/pii/S0033350624000398
- 24. McParland, C., Johnston, B., & Cooper, M. (2022). A mixed-methods systematic review of nurse-led interventions for people with multimorbidity. Journal of Advanced Nursing, 78(12), 3930-3951. https://onlinelibrary.wiley.com/doi/abs/10.11 11/jan.15427
- 25. Kolltveit, B. C. H., Oftedal, B. F., Thorne, S., Lomborg, K., & Graue, M. (2022). Experiences of an interprofessional follow-up program in primary care practice. BMC Health Services Research, 24(1), 238. https://link.springer.com/article/10.1186/s12 913-024-10706-9
- 26. Seerig, K. H., Haug, M., Maier, A., & Gewald, H. (2022). The Healing Power of Words: Examining the Effect Communication Styles on Appreciation within the Hospital Setting. Procedia Science, 231, 305-310. Computer https://www.sciencedirect.com/science/articl e/pii/S1877050923022202