

Managing Chronic Respiratory Diseases: The Essential Contributions of Nursing, Pharmacy, Family Medicine, Medical Secretaries, and Radiology in Multidisciplinary Care

Soja Mazyed Nasar Alshammari¹, Ahmed Alatwi², Halimah Ali Musa³, Laila Ali Musa³, Halimah Zelai Obeid Saiegh³, Salman Saad Mohammad Shaber⁴, Naif Mutlaq Alkhamash⁵, Abdulelah Saleh Alodib⁶, Yazeed Mohammed Hizab Al Ghofaily⁷, Abdullah Dhafer Abdulrahman Alshehry⁸, Abrar Mohammed Alashbat⁹, Abrar Mohammed Alshakhs¹⁰

¹Nursing Specialist, Alshanan General Hospital

²Hospital Administration Specialist, Licensing Management Department, Ministry of Health, Tabuk Branch, Saudi Arabia

³Medical Secretary

⁴Radiology, King Saud Medical City

⁵Patient Care Technician, King Abdulaziz Medical City, Jeddah

⁶Medical laboratory technician, Maternity and Children's Hospital in Buraydah, Ministry of health, Saudi Arabia

⁷Family Medicine Physician, Qassim Health Cluster

⁸Pharmacy, Assir Health cluster, Al Namas General Hospital

⁹Diagnostic Imaging, Ministry of Health

¹⁰Home Health Care, Abqaiq General Hospital

Received: 20.10.2024

Revised: 26.11.2024

Accepted: 11.12.2024

ABSTRACT

Introduction: Chronic respiratory diseases (CRDs), including asthma, COPD, and bronchiectasis, are common ailments that impact the lives of millions of people globally. Such conditions are defined by chronic respiratory manifestations and impaired lung function, resulting in significant morbidity, reduced quality of life, and increased healthcare consumption costs. In this context, it can be stressed that the successful treatment of CRDs involves not only the medical aspects, but also the psychological and social factors. Integral to this process is the concept of interprofessional collaboration wherein healthcare professionals from the various disciplines work together in a coordinated fashion to address patient requirements.

Aim of work: To explore the essential contributions of nursing, family medicine, medical secretaries, and radiology in managing chronic respiratory diseases within a multidisciplinary framework.

Methods: We conducted a comprehensive search in the MEDLINE database's electronic literature using the following search terms: Managing, Chronic Respiratory Diseases, Contributions, Nursing, Pharmacy, Family Medicine, Medical Secretaries, Radiology, and Multidisciplinary Care. The search was restricted to publications from 2016 to 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: Chronic respiratory diseases continue to act as a major burden to patients and health care services across the globe. The treatment of these conditions involves interdisciplinary work closely involving nursing, pharmacy, and family medicine, medical secretaries, and radiology. All of the disciplines are instrumental in managing the needs of the CRD patient due to the various and sometimes even conflicting wants and needs as they go through a range of processes, including diagnosis, treatment, and instruction, as well as coordination of care services. Altogether, all of these specialists map the genuine and integrative patient-centered care model that actively contributes to positive changes in life quality and individual's resilience when facing chronic diseases. The overall complexity of the healthcare delivery will keep changing, and consequently, the essential element of the multidisciplinary approach to CRD hence will guarantee patients the best care in more personalized care setting.

Keywords: Managing, Chronic Respiratory Diseases, Contributions, Nursing, Pharmacy, Family Medicine,

Medical Secretaries, Radiology, and Multidisciplinary Care

INTRODUCTION

Chronic respiratory diseases like asthma, COPD and bronchiectasis are important morbidity and mortality burdens affecting millions of people around the globe (Viegi et al., 2020). These conditions are defined by the long standing dry cough, dyspnea and reduced lung volumes and airflow that result in significant morbidity, decreased quality of life and increased costs of healthcare. Ideally, one has to approach the problem with various views, including medical, psychological, and even social ones, when managing CRDs. In this effort, the use of interdisciplinary collaboration teams comprising of various health care personnel from diverse fields to passionately administer holistic patient-centered service is pervasive (Yang et al., 2024).

Pediatrics, adult, community, occupational, school, travel, Oncology, arena, cardiology, critical care, emergency, endocrine, general practitioners, geriatric, gynecology/obstetrics, health information management/medical coder/billing/care coordinator, home community care, infectious disease, laboratory, hearing, medical card review, mental health, midwifery, neurosurgery, nutrition, occupational therapists, ophthalmology All the professions play their part in the provision of diagnosis, management as well as ongoing care of patients within the health care system. Patients for the most part seek help from nurses in making decisions regarding patient education, symptoms experienced and disease control. They inform patients on self-care practices, validated techniques of use of inhalers, and changes of behavior that are beneficial and offer emotional support to patient who have to endure the burden of chronic diseases (Vlastos et al., 2021).

Pharmacists are very important in fine tuning medication dosing, dosing patterns to follow, as well as information on possible side effects and interactions to take with the patient on discharge. Their understanding of how to prescribe individualised pharmacological therapies helps in the management of the complicated and chronic diseases such as CRDs. PCPs are the main integrators of care, who provide a broad perspective and assume the major responsibility for the proper integration of other types of M.Ds. and various kinds of services. Being intimate with patients' medical and social backgrounds, nurses are irreplaceable when it comes to creating and monitoring clients' personalized plans (da Cunha et al., 2022).

Medical secretaries who generally work, in the background remain a vital cog in the wheel in any multidisciplinary team. They schedule appointments, coordinate communication between care providers, and help obtain relevant medical information to support care organization, and delivery. Radiologists, on the other hand, offer the imaging services that help to establish diagnoses, stage diseases and plan for treatments. Pulmonary function imaging, chest X-rays, and CT scans are helpful in determining the disease process and might help manage interventions (Zakri et al., 2024).

This integration of the above-discussed disciplines ensures that there is a systematic approach towards dealing with the challenges posed by CRDs. The value of interprofessional relationships enables effective communication as well as minimizing clashes and omissions hence providing patients with appropriate, research-based solutions in a timely manner. Furthermore, this approach is consonant with current global health paradigms on disease prevention as opposed to costly and time-consuming treatments for chronic illnesses (van Boven et al., 2016).

However, several studies have highlighted that in order to enhance the effectiveness of care in CRDs with the help of interdisciplinary teams, it is crucial to improve the collaboration, communication, and reciprocal respect among the members of the team. Barriers like scarcity of resources, variability in perception towards care, and lack of integration in health systems can be barriers to effective interdisciplinary work. Overcoming these barriers is essential for MDC to reach its full potential (Backer et al., 2023).

AIM OF WORK

In this review, based on a multi-disciplinary perspective, the roles of nursing, family medicine, medical secretaries, and radiology in the treatment of chronic respiratory diseases have been discussed. Therefore, through discussing the individual and combined contributions, missions, and interactions of such disciplines, it accentuates the benefits of cooperation in enhancing experiences of those with CRDs. It also looks into the issues affecting MDTs and how these can be addressed in order to minimize these barriers so that all patients have timely, efficient, and quality care. In this way, the discussed essay highlights the importance of an integrated and systemic approach in addressing the challenges regarding chronic respiratory diseases in the contemporary context of healthcare.

METHODS

A thorough search was carried out on well-known scientific platforms like Google Scholar and Pubmed, utilizing targeted keywords such as Managing, Chronic Respiratory Diseases, Contributions, Nursing, Pharmacy, Family Medicine, Medical Secretaries, Radiology, and Multidisciplinary Care. 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 intersection of sociology and social work in the context of mental health interventions between 2016 and 2024. As a result, the review was published under many headlines in the discussion area, including: Nursing: The Cornerstone of Patient-Centered Care in CRD Management, Pharmacy: Optimizing Medication Management for Respiratory Health, Family Medicine: The Foundation of Comprehensive and Continuity Care, Medical Secretaries: The Backbone of Care Coordination, Radiology: Advancing Diagnosis and Monitoring in CRD Management, The Synergy of Multidisciplinary Care in CRD Management

DISCUSSION

Chronic respiratory diseases (CRDs) comprise asthma, chronic obstructive pulmonary disease (COPD), and interstitial lung diseases are all significant contributors to morbidity and mortality worldwide. The patients are defined by the presence of chronic respiratory symptoms and progressive obstructive lung disease that leads to substantial reduction in the quality of life and elevated risk of death. CRDs management should involve interdisciplinary collaboration each healthcare discipline all together to enhance the management of the patients (McDonald et al., 2022). This review aims to discuss what general, nursing, and speciality hospitals, pharmacy, family medicine, secretaries, and radiology bring in diagnosis, treatment, and education for patients with chronic respiratory diseases, and how they coordinate in patient care.

Nursing: The Cornerstone of Patient-Centered Care in CRD Management

Chronic respiratory diseases are mainly managed by nurses who offer care and support together with educating the patients on the various measures to take. Obviously, as the sharply experience the nurses are the primary healthcare givers, they deal with the patients experiencing respiratory symptoms starting from the initial triage through to the follow-up care. Essentially, they conduct broad studies of the patients' signs and symptoms, medical histories, and disease risk factors, which serve as the reliable guide to diagnosing the illnesses and managing the patients' care (Taroosh et al., 2022).

Besides, assessment, nurses play an important role of teaching patients providing knowledge and techniques on how to deal with a particular disease. For instance in asthma management, the nurses provide patient education on proper inhaler technique, signs and symptoms of an impending asthma attack, changes to make to avoid an attack. Likewise, in COPD, they assist patients to follow smoking cessation programs, pulmonary rehabilitation, and work through other changes that are likely to help improve the capacity of their lungs and the quality of life (Hadadi et al., 2022).

Nurses also play an advocacy role whereby he or she likes for the patient and makes sure that all his or her needs are presented before other members in the team and fully met. They observe the following and taking care of the emotional state of the patient as well as the communication of care among physicians. These traits foster quick trust and clients consequently adhere to treatment regimens because of this positive engagement (Zilai et al., 2022).

Pharmacy: Optimizing Medication Management for Respiratory Health

The pharmacist is situated at the centre of therapeutic decisions concerning medication used in the treatment of chronic respiratory diseases to provide safe, effective, and individualised therapy. CRD management commonly requires an additional number of drugs such as bronchodilators, corticosteroids, and biologics that should be selected, dosed, and precisely monitored to have better efficacy. Pharmacists contribute knowledge about pharmacotherapy to the MDT, including ensuring the most efficacious therapy with the least severe side effects and interactions will be delivered to the patient (Hudd 2020).

One of the roles that pharmacists play in CRD care is providing counsel on medicines so as to enable patients optimize on their prescriptions. These interactions involve counselling on proper and correct usage of an inhaler, how to be compliant to medication regimens to avoid episodes as well as the importance of taking medications as prescribed. For example, in COPD care, pharmacists recommend that patients distinguish between maintenance and rescue inhalers, as well as the importance of continuing treatment in the long-term (van der Molen et al., 2022).

Pharmacists are also involved in the over looking and assessing of the outcomes of the treatments. They work in consultation with physicians and registered nurses to evaluate the efficacy of the treatments prescribed and to determine the need for changes in the doses administered or response to side effects. In addition, pharmacists play a crucial role in recognizing obstacles to therapy compliance, including cost, accessibility and misunderstanding of instructions, and proposing solutions such as choosing a generic medication or medication synchronization services (Fathima et al., 2021).

Apart from practicing pharmacy and dispensing prescription drugs to the patients, pharmacists participate in

various public health activities towards elimination of CRDs burden. They join smoking cessation clinics, promote vaccination for respiratory diseases, and raise awareness on respiratory diseases in the community. This study shows that pharmacists contribute to the overall utilisation of RRs and improve the quality of chronic respiratory patients' care by their knowledge and active engagement (Smith et al., 2017).

Family Medicine: The Foundation of Comprehensive and Continuity Care

Family medicine practice (FMP) is central to the primary care of patients with chronic respiratory diseases and interfaces with them as they progress through life. It is for this reason that family physicians, as generalists, understand the many-sided mechanism of CRD care and management, including preventive measures, diagnosing, treatment, and subsequent review within the most extensive framework of the patient's and the family's general health (Jabbarian et al., 2018).

Special attention should be paid to the problem of early diagnosis, and family physicians can be considered to be primary in this regard. Such diseases as asthma and COPD require spirometry, which these physicians carry out, after conducting medical histories and physical examinations. The influence which can be integrated from different domains helps in timely and accurate diagnosis, decreasing the probability of developing complications or disease progression (MacLeod et al., 2018).

Family physicians also run coordination with the other teaming experts in order to ensure that the patients are referred to various specialists including the pulmonologists, radiologists and rehabilitation therapists. They form care plans for patients who not only have a respiratory illness but also, other disorders like, diabetes, cardiovascular diseases, and mental disorders, which are known to affect most CRD patients (Saint-Pierre et al., 2018).

Another area of prime importance to the management of CRD as a subspecialty of family medicine is preventive care. Physicians instruct patients and families in ways to reduce risks, such as how to stop smoking, getting immunized, and altering the home environment. Most of the time they build strong bonds with the patients and families, ensuring compliance to recommended interventions (Alsudairy et al., 2024).

Furthermore, these specialists manage psychosocial aspects of chronic illness as well, because family medicine practitioners undertake it. All of them understand the role of psychological distress in patients with CRDs and offer and/or recommend psychological support. This means that their delivery model assesses the various needs that different CRD patients might have and addresses them accordingly (Zhong & Zeng, 2019).

Medical Secretaries: The Backbone of Care Coordination

Although medical secretaries may work more in the background they are a great asset to chronic respiratory illnesses since they help with all the organization of appointments, communication, and other appointments. Their work helps make the variety of disciplines that are provided withing a patients treatment seamless and guarantees the delivery of services that is direct and flowless (Mackintosh & Nasser, 2022).

Taking of appointments and referrals for a healthcare facility is one of the major roles of medical secretaries. They co-ordinate appointment for diagnostics, specialist and follow-up appointments and ensure the patient gets all the services he/she requires in one trip. For example, in the management of a patient presenting with features of COPD, the medical secretary organizes spirometry, imaging and consultation with pulmonologists which makes the process less cumbersome (Robins, 2017).

It is also worth noting that medical secretaries organise and facilitate a communication line for the many health care professionals that may be involved in a patient's care. They also help the nurse, pharmacist, physicians and other members of the care team to interchange and access important information such as medical records, results of the tests and even treatment plans that members may require to produce the best results in their work. Such a coordination removes multiple inefficiencies, and improves the quality of health services delivered (Daba et al., 2024).

Further, medical secretaries help the patient to make sense of the healthcare arena by offering information pertaining to insurance, billing, and available resource. This support does go well with the needs of patients suffering from chronic respiratory diseases who need frequent visits and expensive treatments (Alqahtani et al., 2022).

By following organizational skills and concern for order, medical secretaries uphold such an environment that is patient- centered to ensure convenient, effective and integrated services. Their work emphasizes the significance of administrators by supporting the smooth implementation of the diverse approach to patients with CRD (ALTHOBAITI et al., 2023).

Radiology: Advancing Diagnosis and Monitoring in CRD Management

Radiology is highly significant in the diagnosis and management of chronic respiratory illnesses and provides enhanced imaging techniques giving vast details about respiratory tract morphology and functioning. Updated with the latest knowledge in 2024: Patient care is mainly a collaborative process with other demanding members of the care team so the radiologists work closely with other practitioners to facilitate accurate reading of imaging

tests and help in process of decision making about the further treatment of the patient.

The most common imagery used in patients with CRD consist of chest X-rays and computed tomography (CT) scans. These tools help in visualization of lung revolutions like emphysema in COPD, bronchiectasis or interstitial lung changes in fibrotic diseases. These images are studied by radiologists to distinguish between different respiratory diseases as well as the stage and advancement of the illness (Madhusoodanan& Selvin, 2024).

However, the most significant function of radiology is to follow up patients to assess the effectiveness of treatment regimens and to check for the development of adverse reactions. For instance, CT scans can be used to assess the outcome of treatments in controlling inflammation or reversing obstructive airways disorders in asthma. Likewise, imaging studies can detect other complications that develop in the context of chronic respiratory diseases including infections or lung cancer (Labaki et al., 2017).

Radiology participation in a patients' care delivery is more than just carrying out imaging procedures. Technologists also uphold interventional procedures that involve radiology such as image-guided biopsies which are vital when diagnosing underrepresented forms of CRDs or ascertaining the absence or presence of malignancy. It helps also make these procedures more precise and safer, thereby improving the community's health status (Walsh, 2017).

Radiologists, together with researchers and innovators, are constantly working on developing better image generation techniques and improving the ability to identify CRDs at an early stage. For instance, advanced technologies such as high-resolution imaging and artificial intelligence could lead to early diagnosis and improvement of the management of chronic respiratory diseases that has shown tremendous progress in the recent past (Dixon et al., 2016).

The Synergy of Multidisciplinary Care in CRD Management

The management of chronic respiratory diseases exemplifies the power of multidisciplinary care in addressing complex health challenges. Each discipline—nursing, pharmacy, family medicine, medical secretaries, and radiology—brings unique expertise and perspectives to the care team, contributing to a comprehensive and coordinated approach that meets the diverse needs of CRD patients (Symvoulakis et al., 2021).

Nurses provide essential patient education, advocacy, and ongoing support, fostering trust and adherence to treatment plans. Pharmacists optimize medication management, ensuring that therapies are safe, effective, and accessible. Family medicine practitioners offer holistic and continuous care, addressing the physical, emotional, and psychosocial aspects of chronic disease management. Medical secretaries facilitate seamless coordination and communication, enabling the efficient delivery of services. Radiologists provide advanced imaging capabilities, enhancing diagnostic accuracy and guiding treatment decisions (McDonald et al., 2022).

The synergy of these contributions not only improves clinical outcomes but also enhances the patient experience. By addressing the medical, emotional, and logistical challenges of CRD care, multidisciplinary teams empower patients to manage their conditions effectively and maintain a better quality of life. This integrated approach also reduces healthcare costs by preventing complications, minimizing hospitalizations, and optimizing resource use (Liang et al., 2017).

CONCLUSION

CRDs are a major world health problem, contributing to disabling and fatal outcomes, thus requiring long term and multisectoral management. The care of these conditions has to be most efficiently and successfully provided by adopting merged model of service delivery in nursing, pharmacy, family medicine, medical secretaries, and radiology. Every discipline is highly valuable to deliver person-centered care, to enhance health and well-being of patients with CRDs.

Nurses play a central role in the implementation of CRD to offer direct care, teaching and counselling that enables the patient to take an active part in the planning and management of a CRD process. Pharmacists support care through the improvement of medication regimen, safety, compliance, and outcomes of pharmacologic interventions. These patients are followed up by family medicine practitioners who offer comprehensive consultations for respiratory symptoms, other diseases, as well as psychosocial issues. At the same time, medical secretaries are involved in important processes that contribute to the smooth and efficient organisation of the appointment among other things. Radiology is accurate in providing diagnostic and monitoring procedures; technologies such as imaging that enhance clinical management decisions of and early detection of complications.

The way that these disciplines work jointly also highlights the effectiveness of Mental health in the treatment of CRDs. Working together, such a team focuses on physical, emotional, and logistical issues applicable to the patient while developing a patient-centered care model. These sets of liaison are not only beneficial in improving the health status of patients but also enjoin trust, fifty-fifty, compliance and patient response in difficult times.

With changes to the healthcare system continuing to occur, interdisciplinary theories will continue to become even more relevant as technology and individualized treatment emerges. CRD care represents the gold standard

that nurses, pharmacists, family physicians, medical secretaries, and radiologists demonstrated in this article where patients receive comprehensive, compassionate, and effective treatment along the CRD pathway.

REFERENCES

1. Alqahtani, A. K., Nasser, M. A. A., Al Tamimi, M. I., Alaskar, K. M., Altamimi, B. S. A., Aljihni, A. S., ... & Altamimi, K. A. (2022). The Role Of Medical Secretary In Medical Records And Reports: A Comprehensive Review. *Chelonian Research Foundation*, 17(2), 1951-1962.
2. Alsudairy, N. M., Alzahrani, M. S. M., Alharbi, M. S. A., Alasiri, R. M. A., Alharbi, M. F., Alzahrani, K. A., ... & Ali, E. M. H. (2024). The Importance of Preventive Medicine in Family Practice: A Review of Current Guidelines and Recommendations. *Journal of Advanced Zoology*, 45(1).
3. ALTHOBAITI, Y. A. K., ALRASHEEDI, M. S. S., ALMAJID, A. A., ALOTAIBI, A. K. S., ALDOSARI, W. S. D., AL NAHEDH, R. M., ... & BALHARETH, M. S. H. (2023). The Vital Role Of Medical Secretaries In Modern Healthcare Settings. *Journal of Namibian Studies: History Politics Culture*, 36, 24-32.
4. Alzahrani, A. M., Alotaibi, S. M., Alhassani, S. A., Almajnooni, S. A., Alhazmi, M. A., Bawazeer, M. A., ... & Al Hammad, A. J. A. (2022). Interdisciplinary Cooperation Between Medical Secretary Technicians and Pharmacist. *Journal of Positive Psychology and Wellbeing*, 6(3), 414-417.
5. Backer, V., Cardell, L. O., Lehtimäki, L., Toppila-Salmi, S., Bjermer, L., Reitsma, S., ... & Bachert, C. (2023). Multidisciplinary approaches to identifying and managing global airways disease: expert recommendations based on qualitative discussions. *Frontiers in allergy*, 4, 1052386.
6. da Cunha, I. N., Autry, E., Bennara, K., van Boven, J., Fearn, A., Garcia-Cardenas, V., ... & Kang, L. Z. (2022). Chronic respiratory diseases: A handbook for pharmacists.
7. Daba, R. M. A., Maghfuri, S. A. W., Alameer, A. N. M., Hakami, E. A. A., Hafzi, L. A. H., Al-Absi, J. M. M., ... & Alotaibi, F. A. R. (2024). Medical Secretaries as Healthcare Intermediaries: Balancing Administrative Tasks and Patient Support. *Journal of International Crisis and Risk Communication Research*, 233-242.
8. Dixon, L. C., Ward, D. J., Smith, J., Holmes, S., & Mahadeva, R. (2016). New and emerging technologies for the diagnosis and monitoring of chronic obstructive pulmonary disease: A horizon scanning review. *Chronic respiratory disease*, 13(4), 321-336.
9. Fathima, M., Bawa, Z., Mitchell, B., Foster, J., Armour, C., & Saini, B. (2021). COPD management in community pharmacy results in improved inhaler use, immunization rate, COPD action plan ownership, COPD knowledge, and reductions in exacerbation rates. *International Journal of Chronic Obstructive Pulmonary Disease*, 519-533.
10. Graña-Castro, O., Izquierdo, E., Piñas-Mesa, A., Menasalvas, E., & Chivato-Pérez, T. (2024). Assessing the Impact of New Technologies on Managing Chronic Respiratory Diseases. *Journal of Clinical Medicine*, 13(22), 6913.
11. Hadadi, E. A., Ahmed, R. M. S., Khubrani, F. H. A., Nahari, G. M. Y., Malhan, Z. A. A., Kinani, H. M. M., ... & Almuteri, M. A. F. (2022). Caring For Patients With Chronic Respiratory Conditions: A Holistic Approach For Nurses. *Journal of Namibian Studies: History Politics Culture*, 31, 188-198.
12. Hudd, T. R. (2020). Emerging role of pharmacists in managing patients with chronic obstructive pulmonary disease. *American Journal of Health-System Pharmacy*, 77(19), 1625-1630.
13. Jabbarian, L. J., Zwakman, M., van der Heide, A., Kars, M. C., Janssen, D. J., van Delden, J. J., ... & Korfage, I. J. (2018). Advance care planning for patients with chronic respiratory diseases: a systematic review of preferences and practices. *Thorax*, 73(3), 222-230.
14. Labaki, W. W., Martinez, C. H., Martinez, F. J., Galbán, C. J., Ross, B. D., Washko, G. R., ... & Han, M. K. (2017). The role of chest computed tomography in the evaluation and management of the patient with chronic obstructive pulmonary disease. *American journal of respiratory and critical care medicine*, 196(11), 1372-1379.
15. Liang, J., Abramson, M. J., Zwar, N., Russell, G., Holland, A. E., Bonevski, B., ... & George, J. (2017). Interdisciplinary model of care (RADICALS) for early detection and management of chronic obstructive pulmonary disease (COPD) in Australian primary care: study protocol for a cluster randomised controlled trial. *BMJ open*, 7(9), e016985.
16. MacLeod, M., Papi, A., Contoli, M., Beghé, B., Celli, B. R., Wedzicha, J. A., & Fabbri, L. M. (2021). Chronic obstructive pulmonary disease exacerbation fundamentals: diagnosis, treatment, prevention and disease impact. *Respirology*, 26(6), 532-551.
17. Madhusoodanan, A., & Selvin, L. S. (2024). The Role of Imaging Techniques in the Diagnosis and Management of Respiratory Problems. *International Journal of Computer Information Systems and Industrial Management Applications*, 16(3), 15-15.
18. McDonald, V. M., Harrington, J., Clark, V. L., & Gibson, P. G. (2022). Multidisciplinary care in chronic airway diseases: the Newcastle model. *ERJ Open Research*, 8(3).

19. Robbins, M. (2017). *Medical receptionists and secretaries handbook*. CRC Press.
20. Saint-Pierre, C., Herskovic, V., & Sepúlveda, M. (2018). Multidisciplinary collaboration in primary care: a systematic review. *Family practice*, 35(2), 132-141.
21. Smith, A. L., Palmer, V., Farhat, N., Kalus, J. S., Thavarajah, K., DiGiovine, B., & MacDonald, N. C. (2017). Hospital-based clinical pharmacy services to improve ambulatory management of chronic obstructive pulmonary disease. *Journal of Pharmacy Technology*, 33(1), 8-14.
22. Symvoulakis, E. K., Kamekis, A., Drakonaki, E., Mastrodemou, S., Ryerson, C. J., & Antoniou, K. (2021). Frailty and chronic respiratory disease: the need for a multidisciplinary care model. *Sarcoidosis, Vasculitis, and Diffuse Lung Diseases*, 38(3).
23. Taroosh, H. Y. A., Alhafaf, A. Q. A., Wasili, H. A. A., Jafari, A. H. H., Tarush, N. Y. A., Alhafaf, B. Q. A., ... & Al Fahad, R. N. M. (2022). Patient-Centered Care: The Role Of Respiratory Therapists And Nurses In Chronic Respiratory Disease Management. *Journal of Namibian Studies: History Politics Culture*, 32, 1803-1811.
24. van Boven, J. F., Ryan, D., Eakin, M. N., Canonica, G. W., Barot, A., Foster, J. M., & Respiratory Effectiveness Group. (2016). Enhancing respiratory medication adherence: the role of health care professionals and cost-effectiveness considerations. *The Journal of Allergy and Clinical Immunology: In Practice*, 4(5), 835-846.
25. van der Molen, T., van Boven, J. F., Maguire, T., Goyal, P., & Altman, P. (2017). Optimizing identification and management of COPD patients—reviewing the role of the community pharmacist. *British Journal of Clinical Pharmacology*, 83(1), 192-201.
26. Viegi, G., Maio, S., Fasola, S., & Baldacci, S. (2020). Global burden of chronic respiratory diseases. *Journal of aerosol medicine and pulmonary drug delivery*, 33(4), 171-177.
27. Vlastos, I., Mullol, J., Hox, V., Doulaptsi, M., Seys, S., Hellings, P., & Prokopakis, E. (2021). Multidisciplinary care for severe or uncontrolled chronic upper airway diseases. *Current allergy and asthma reports*, 21, 1-6.
28. Walsh, S. L. (2017). Multidisciplinary evaluation of interstitial lung diseases: current insights: Number 1 in the Series “Radiology” Edited by Nicola Sverzellati and Sujal Desai. *European Respiratory Review*, 26(144).
29. Yang, Y., McDonnell, M., Alitabar, S. H. S., & Şahin, A. (2024). The Role of Health Beliefs in Managing Chronic Respiratory Diseases. *Journal of Personality and Psychosomatic Research (JPPR)*, 2(3), 27-34.
30. Zakri, M. A. M., Gharawi, A. A. M., Sahli, A. Y. M., Khormi, A. A. J., Alyami, A. Y. S., Otyini, A. M. Z., ... & Maghfuri, F. S. M. (2024). Role of Medical Secretaries and Health Information Management in Health Records Management. *Journal of International Crisis and Risk Communication Research*, 243-255.
31. Zhong, N. S., & Zeng, G. Q. (2019). Prevention and treatment of chronic respiratory diseases in China. *Chronic diseases and translational medicine*, 5(04), 209-213.
32. Zilai, F. T. M., Al Jabir, A. H. H., Atti, H. A. H., Abdullah, S. A. S., Yamah, M. H., Al Jabri, B. A. J., ... & Gabi, T. M. Y. (2022). Common Respiratory Disorders: Assessment And Management In Nursing Practice. *Journal of Namibian Studies: History Politics Culture*, 31, 159-168.