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# Respiratory Therapists' Perceptions of Their Roles in a COPD Multidisciplinary Care Team

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# Walden University

College of Health Sciences and Public Policy

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Iheako C. Ike

has been found to be complete and satisfactory in all respects, and that any and all revisions required by the review committee have been made.

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Walden University 2023

Abstract

Respiratory Therapists' Perceptions of Their Roles in a COPD Multidisciplinary Care

Team

by

Iheako C. Ike

MS, University of Maryland University College, 2010

BA, Kean University of NJ. 2002

Dissertation Submitted in Partial Fulfillment of

the Requirement for the Degree of

Doctor of Philosophy

Health Services

Walden University

February 2023

#### Abstract

The purpose of this study was to explore respiratory therapists' (RTs') perceived roles and responsibilities in a COPD multidisciplinary care team, and how those roles and responsibilities were affected when RTs were monitored and evaluated by a team member. Accountability theory was used to guide the development of this study. The study's goal was to provide needed information on the specific roles and responsibilities of RTs in a COPD multidisciplinary care team because RTs knowing their roles and responsibilities could improve the quality of care and enhance the delivery of healthcare services for patients with COPD. The study's research method was qualitative. Ten RTs who currently work in Newark, New Jersey, with a minimum of 36 months of experience as an RT, experience in acute care hospitals and experience with multidisciplinary care teams for patients with COPD participated in the study. Data analysis included separating the data into codes, categories, and themes manually using structural and descriptive coding. The three themes that emerged to answer the first research question were that

RTs perceive themselves as educators; RTs provide therapeutic and diagnostic services; RTs provide airway management and mechanical ventilation. The second research question showed that RTs were accountable for performing their roles and responsibilities. This study may influence positive social changes by increasing the awareness of RTs and the members of the COPD multidisciplinary team regarding RTs' roles and responsibilities in an interdisciplinary team which may improve care coordination, interdisciplinary communication, and decision-making among healthcare professionals in a multidisciplinary care team.

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# Dedication

I dedicate this dissertation to my wife Onyemauche Prudentina and my kids, Njideka, Ejike, Chibueze, and Emeka for their understanding and support throughout this journey. Without them, I do not know where my inspiration would have come from. I wake up each day to complete this dissertation for them. Also, I would like to dedicate this dissertation to my late parents, Chief Ambrose Muo Ike and Mrs. Catherine Akumezie Ike who inspired and made me understand that education is the key to success.

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List of Tablesvii
Chapter 1: Introduction to the Study 1
Introduction1
Background
Problem Statement
Purpose Statement
Research Questions
Framework9
Nature of the Study 10
Definitions 11
Assumptions
Scope and Delimitations 14
Limitations15
Significance
Summary
Chapter 2: Literature Review 19
Introduction19
Synopsis of Literature

# Table of Contents

Main Points 20
Literature Search Strategy
Library Databases
Search Terms
Search Process
Theoretical Foundation
Theory Origin
Major Theoretical Propositions
Accountability Theory and Past Research
Accountability Theory and its Relation to this Study
Literature Review
Quality of Care in Healthcare
The Importance of Improving Quality of Care
Chronic Obstructive Pulmonary Disease (COPD)
Causes of COPD
Treatment of COPD
Respiratory Therapists
COPD Multidisciplinary Care Team
Summary and Conclusions

Chapter 3: Research Method	
Introduction	
Research Design and Rationale	40
Research Questions	40
Central Concept of the Study	
Research Tradition and Rationale	
Role of the Researcher	
Methodology	
Participant Selection Logic	46
Sample Size and Data Saturation	47
Instrumentation	47
Pilot Study	
Procedures For Recruitment, Participation, and Data Collection	49
Data Analysis Plan	51
Issues of Trustworthiness	
Credibility (Internal Validity)	
Transferability (External Validity)	
Dependability	53
Conformability	

Intra and Intercoder Reliability	54
Ethical Procedures	54
Summary	56
Chapter 4: Results	58
Introduction	58
Research Questions	58
Chapter Organization	59
Pilot Study	59
Interview Setting	61
Demographics	62
Data Collection	64
Data Analysis	65
Theme: RTs provide airway management and mechanical ventilation	71
Theme: RTs provide therapeutic and diagnostic services	74
Evidence of Trustworthiness	81
Credibility	81
Transferability	81
Dependability	82
Conformability	

Results	83
in a COPD multidisciplinary care team in Newark, New Jersey?	83
RTs Perceive Themselves as Patients' Educators	83
RTs Provide Therapeutic and Diagnostic Services	84
RTs Provide Airway Management and Mechanical Ventilation	86
Research Question 2 (RQ2): What are the perceptions of the RTs' roles and responsibilities when RTs are monitored and evaluated by the COPD multidisciplinary team?	88
Summary	89
Chapter 5: Conclusion	92
Introduction	92
Key Findings	92
Interpretation of Findings	95
RTs Perceive Themselves as patients' Educators	95
RTs Provide Therapeutic and Diagnostic Services	96
RTs Provide Airway Management and Mechanical Ventilation	97
RTs are Accountable for their Roles and Responsibilities	97
Limitations of the Study	98
Recommendations	99
Implications	. 100

Positive Social Change	100
Conclusion	102
References	104
Appendix A: Recruitment Flyer	111
Appendix B: Interview Questions	112

# List of Tables

Table 1. Demographics of Pilot Study Sample Size	61
Table 2. Demographics of Main Study Sample Size	. 64
Table 3. Codes to Categories to Themes Transition to RQ1	. 68
Table 4. Codes to Categories to Themes Transition to RQ1	. 72
Table 5. Codes to Categories to Themes Transition to RQ1	. 75
Table 6. Codes to Categories to Themes Transition to RQ2	. 77
Table 7. Summary of Findings	. 94

#### Chapter 1: Introduction to the Study

#### Introduction

Chronic obstructive pulmonary disease (COPD) affects 16 million Americans and is the fourth leading cause of death in the United States (Centers for Disease, Control, and Prevention, 2021). One of the ways to help manage COPD disease within an inpatient care setting is by using a COPD multidisciplinary care team. When using healthcare services, patients have access to hospital professionals who are part of an interdisciplinary team that plays different roles in supporting their care plan. The COPD multidisciplinary care team comprises healthcare workers of other disciplines, each providing specific services to patients with COPD. The services provided by COPD interdisciplinary care team are coordinated toward a particular set of healthcare goals for patients with COPD (Chew & Mahadeva, 2018). The multidisciplinary care team for patients with COPD includes respiratory therapists (RTs), medical directors (MDs), registered nurses (RNs), pharmacists, dieticians, exercise specialists, and counselors, and has become the integral strategy to enhance the quality of care and improve the delivery of healthcare services.

According to Dempsey (2019), there is a need to establish a scope of practice among all professionals within a multidisciplinary care team to minimize unintended consequences such as inaccurate diagnosis, medication errors, and inappropriate or unnecessary treatment. Lafrance et al. (2019) stressed the need to enhance collaboration among team members through an increased understanding of their roles and responsibilities to ensure unintended consequences further. Patient safety and satisfaction, and team members knowing their roles and responsibilities, are vitally crucial for the care team to ensure optimal patient outcomes. The literature review suggested that further research is needed to understand the roles among all disciplines in a multidisciplinary care team to enhance the quality of care and improve the delivery of healthcare services (Lafrance et al., 2019, Ly et al., 2018).

The city of Newark in New Jersey is the area of focus within this qualitative study. Newark has a population of 282,011 (United States Census Bureau, 2019). COPD affects many people in Newark at a higher rate than in any other city within New Jersey. For example, in the 2017 city of Newark community health assessment, the national percentage of COPD among adults aged 18 years and older in 2014 was 6.1%, the state of New Jersey was 5.1%, and the city of Newark was at 8.4% (National Association of County Health Officials, 2017).

The potential positive social implications of this study may include increasing the awareness of RTs and the members of the COPD multidisciplinary team regarding RTs' roles and responsibilities in an interdisciplinary team. This awareness may improve care coordination, interdisciplinary communication, and decision-making among healthcare professionals in a multidisciplinary care team. RTs knowing their roles and responsibilities could help improve the quality of care and enhance the delivery of healthcare services to COPD patients. The study could give hospital administrators or trainers information on how to improve the performance of RTs in a COPD multidisciplinary team. This chapter includes the background, the problem statement, the purpose of the study, research questions, the theoretical framework to understand the analysis, the nature of the study, the definitions, assumptions, scope and delimitations, and the study's limitations.

#### Background

A literature review regarding the roles and responsibilities of RTs within the COPD multidisciplinary care team was conducted which revealed that a clear definition of tasks and responsibilities is lacking. The COPD multidisciplinary care teams' respiratory roles and responsibilities seem to be due to individual teams' requirements and expectations to care for their patients. A COPD multidisciplinary team plays a vital role in treating patients suffering from COPD. Dempsey (2019) studied nurses' perceptions of their roles in a multidisciplinary care team and emphasized the need for all multidisciplinary team members to know their roles and responsibilities. The reason is that nurses knowing their roles could enhance effective healthcare services and improve these patients' quality of life. Dempsey's 2019 study examined miscommunication, confusion, and an unfortunate patient experience without role identification. The study provided evidence that research was conducted on nurses' perceptions but not with other multidisciplinary care team members such as RTs on COPD multidisciplinary teams. This current study may be beneficial for RTs to understand their roles and responsibilities in a COPD multidisciplinary care team. This knowledge could help improve patients' quality of life and enhance the overall healthcare delivery services. In another study to

understand team member roles, Donelan et al. (2020) examined the perceived roles and responsibilities of nurse practitioners (NP) and physicians (MD) practicing in emergency, trauma, critical, and intensive care services to improve teamwork and quality of care. Research has shown that hospital leaders encourage collaboration and professional role clarity and responsibilities among professionals because role clarity offers quality and exceptional care to the patients and effective delivery of healthcare services. LaFrance et al. (2019) concluded that the roles of multidisciplinary team members continue to overlap with all professionals' scope of practice. They acknowledged that collaboration and understanding among multidisciplinary team members are crucial to these patients' optimal care. However, LaFrance et al. (2019) emphasized that multidisciplinary team members know their roles and work within their scope of practice to enhance effective healthcare service for patients with ASD. Meanwhile, Osen (2021) conducted a study that confirmed that RTs are part of the multidisciplinary team by exploring the views of case managers (CMs) on the roles and responsibilities of RTs and consequently recommended seeking the perceptions of RTs regarding their roles in a COPD multidisciplinary discharge team.

Osen (2021) recommended further studies to seek the perceptions of respiratory therapists regarding their roles in a COPD multidisciplinary care team. Ly et al. (2018) examined role clarity among multidisciplinary teams. They concluded that role clarification and communication among teams was the most effective solution to common problems in the multidisciplinary care team. The authors stated that role

clarification helped define team member responsibilities and provided quality improvement initiatives and highlighted the importance of role clarification in a COPD multidisciplinary team for better patient outcomes and experiences. This could be because high-quality care is needed in the care team to support better patient outcomes. Rickards and Kitts (2018) conducted a study on the changing roles of RTs and RNs to assess, treat, and help people suspected of having or living with COPD. The conclusion is that because RTs' roles are evolving and growing, there is a need for intentional curriculum changes within multidisciplinary team members to improve understanding of different responsibilities and functions that reflect the roles of RTs within the team. RTs' roles and responsibilities needed to be researched for better communication and collaboration among the multidisciplinary team, which will help improve the quality of care and improve the delivery of healthcare services for patients with COPD. Gentene et al. (2021) explained the advantages of using a multidisciplinary team that includes the RTs in treating COPD patients and improving healthcare services. The authors ensured that one discipline's responsibility was not excessively overloaded in this study while another field was underutilized. The study showed that roles in the multidisciplinary team are very crucial to the success of that team. Since RTs are part of the multidisciplinary discharge care team, conducting further research to learn more about RTs' roles and responsibilities is very important to enhance the quality of care and improve healthcare services.

Although researchers have investigated the roles of healthcare professionals in a multidisciplinary team, there was little or no clarity on the specific roles of RTs within a COPD multidisciplinary care team. Osen's (2021) study of case managers' views of the role of RTs in discharge planning concluded that respiratory therapists are part of the COPD multidisciplinary team and recommended further research on the roles and responsibilities of RTs from RTs' perception. Rickards and Kitts (2018) found that RTs' roles were evolving and growing and needed to be established according to their practice scope within these teams. Consequently, there was a need to learn more about RTs' roles in a multidisciplinary care team to enhance the quality of care and improve the delivery of healthcare services, especially for COPD patients. Therefore, a research study was needed to explore the gap in the literature regarding RTs' roles and team accountability in a COPD multidisciplinary care team in Newark, New Jersey.

#### **Problem Statement**

The problem was the treatment of patients living with COPD may require better care. According to Osen (2021), this may take an improved care plan from a COPD multidisciplinary care team. This team may consist of RTs, MDs, RNs, pharmacists, dieticians, exercise specialists, and counselors with various roles and responsibilities in helping patients with COPD manage their disease conditions appropriately. A literature review suggested that understanding roles among all disciplines in a multidisciplinary discharge team is necessary to enhance the quality of care and improve the delivery of healthcare services (Lafrance et al., 2019, Ly et al., 2018). However, the RTs' roles and

responsibilities in a COPD multidisciplinary care team were not defined and therefore could lead to unintended consequences such as inaccurate diagnosis, medication errors, and inappropriate or unnecessary treatment for patients. (Rickards & Kitts, 2018). The roles of RNs and MDs are specific with clarity, while no researchers addressed the perception of RTs towards the role of RTs in enhancing the quality of care and the improvement of healthcare services for patients with COPD (Dempsey, 2019; Donelan et al. 2020). Therefore, further research was needed to learn more about RTs' roles and responsibilities in a multidisciplinary care team to improve the quality of care and enhance the delivery of healthcare services, especially for COPD patients. It was, therefore, necessary to explore the gap in the literature by exploring RTs' perceptions of their roles and responsibilities in a multidisciplinary care team to enhance the quality of care and improve the delivery of healthcare services for patients with COPD in Newark. The social problem was that Chronic Obstructive Pulmonary Disease (COPD) continues to affect many people in Newark at a higher rate than in the state of New Jersey and the United States in general (National Association of County Health Officials, 2017). Newark is a city in New Jersey with 282,011 (United States Census Bureau, 2019). In the 2017 city of Newark community health assessment, the national percentage of COPD among adults aged 18+ in 2014 was 6.1%, the state of New Jersey was 5.1%, and the city of Newark was at 8.4% (National Association of County Health Officials, 2017).

#### **Purpose Statement**

The purpose of this basic qualitative study was to explore RTs' perceived roles and responsibilities in a COPD multidisciplinary care team. The roles and responsibilities affected, evaluated, and monitored by a potential multidisciplinary team for RTs in Newark, New Jersey, will be examined. This research was unique because it will be explored. After all, RTs knowing their roles and responsibilities could improve the quality of care and enhance the delivery of healthcare services for patients with COPD. The accountability of care could change when RTs are monitored and evaluated by the COPD multidisciplinary care team. Research was needed to address the gap in RTs knowing their roles and responsibilities in a COPD multidisciplinary care team. Qualitative research was chosen as it allowed focus on the lived experiences of RTs which helped understand the specific roles and responsibilities of RTs in a multidisciplinary team.

## **Research Questions**

Research Question 1 (RQ1): What are the RTs perceived roles and responsibilities in a COPD multidisciplinary care team in Newark, New Jersey?

Research Question 2 (RQ2): What are the perceptions of the RTs' roles and responsibilities when RTs are monitored and evaluated by the COPD multidisciplinary team?

#### Framework

Accountability theory was the conceptual framework for this study. J. S. Lerner and P. E. Tetlock developed the accountability theory in 1999. According to Lerner and Tetlock (1999), accountability theory has four components: identifiability, evaluation expectation, awareness of monitoring, and social presence. Lerner and Tetlock (1999) explained accountability theory as to how one rationalizes or justifies one's behavior to another party and, in the process, develops the feeling of accountability on how decisions, processes, and judgments are reached. Identifiability is a person's recognition of true identity through what he does or says. The expectation of evaluation is a belief that one performance will be evaluated by another person with some rules and implied consequences. Finally, the awareness of monitoring is the recognition that one's system related work is monitored, while social presence is being aware that there are other users in the system (Lerner & Tetlock, 1999). Finally, the authors stated the expectation of evaluation with this theory. Team member A's performance will be evaluated formally by another team member B in an interdisciplinary team like a COPD multidisciplinary care team. The evaluation of expectations works according to some ground rules set by the team leader and with some suggested consequences if some members do not follow the ground rules. According to the authors, accountability equates to liability, answerability, acknowledgment, and assumption of responsibility for actions, decisions, and policies (Lerner & Tetlock, 1999).

Furthermore, Lerner and Tetlock (1999) discussed a need for punishment for eventual misconduct if A is accountable to B and doesn't tell B all the decisions and actions taken by A in a multidisciplinary care team. The authors intend that with accountability theory, there is a potential obligation to explain their actions to another person in the group who has the right to pass judgment on those actions with either positive or negative consequences (Lerner & Tetlock, 1999). For example, a team leader is a COPD multidisciplinary care team physician. According to Lerner & Tetlock (1999), there are ramifications when a team member is not performing according to formal team expectations. Such as excluding a member from the team or engaging them in performance improvement training were their roles, rules, and regulations of the multidisciplinary care team. According to Gardner & Childs (2022), further research using accountability theory has helped institutions like hospital check on their performances through proper utilization review of resources and procedures and information technology.

#### Nature of the Study

The specific research study approach was a basic qualitative design, used to explore the perceptions of respiratory therapists regarding their roles in the multidisciplinary care team and how RTs' roles and responsibilities were affected when they were held accountable through evaluation and monitoring. Basic qualitative studies generally consider different perspectives in understanding, exploring, and adding new knowledge on a particular phenomenon or other (Creswell & Creswell, 2017). The basic qualitative approach showed the perceptions of RTs regarding their roles and responsibilities in a COPD multidisciplinary care team to improve the quality of care for patients with COPD in Newark, New Jersey. Frost (2021) aims to understand how participants derive meaning from their surroundings and how that affects their behavior. First, one was interested in how respiratory therapists interpret their experiences, second, how they constructed their strategies within the healthcare environment, and thirdly, what meaning they attributed to their experiences. The primary collection instrument was indepth semi-structured open interview questions for data collection. The data was the record of the participant's responses to the interview questions. The data was transcribed and analyzed to form codes, categories, and themes. The codes, categories, and themes may support understanding more of the roles and responsibilities of RTs and the influence of being monitored and evaluated in a COPD multidisciplinary care team.

#### **Definitions**

*Chronic obstructive pulmonary disease (COPD):* is a lung disease that is characterized by difficulty breathing, chest tightness, wheezing, and the production of sputum (Mayo clinic, 2020; Centers for disease and prevention, 2020). COPD causes severe damage to the lungs and, as a result, thickens the lung walls delaying the gas exchange of oxygen and carbon dioxide. As a result, daily living activities could result in COPD patients requiring multiple medications and therapies to live (Mayo clinic, 2020; Centers for disease and prevention, 2020). The leading cause of COPD is cigarette smoking (Mayo clinic, 2020; Centers for disease and prevention, 2020). *Healthcare leadership*: This decision-making body shapes caregiving in their organizations. Healthcare leaders help their team members and organizations perform optimally in an evolving environment by coaching, managing, and setting goals. In addition, these professionals may oversee business operations, human resources, accounting, and patient care services (Bangkara et al., 2021).

*Healthcare services*: Healthcare services include health organizations, medical professionals, and ancillary health care workers who provide medical care to patients and those in need. Improving health services happens via prevention, diagnosis, treatment, or cure of illness and injuries.

*Lived Experience:* Lived experience is the story of the history of individual experiences and how they make meaning from them.

*Multidisciplinary care team:* Multidisciplinary care team is a team of healthcare professionals who work together to provide high-quality and coordinated care to patients within their healthcare organization. They include and are not limited to doctors, nurses (RNs), respiratory therapists (RTs), case managers, social workers, dieticians, physical therapists (PTs), occupational therapists (OTs), and hospital administrators.

*Quality of care*: According to WHO (2021), quality of care is how health services for individuals or the population increase the possibility of desired health outcomes. Quality of care should be effective, safe, and people-centered, and to realize the benefits of quality health care, health services must be timely, equitable, integrated, and efficient (WHO, 2021).

*Respiratory Therapists:* Respiratory therapists or respiratory care practitioners (RCP) are trained professionals who care for and treat people with breathing difficulties, such as emphysema, asthma, chronic bronchitis, bronchiectasis, cystic and pulmonary fibrosis, pneumonia (United States Dept. of Labor, 2021). Besides treating adult patients with all these diseases, RTs also care for neonates with apnea of prematurity, bronchopulmonary dysplasia, interstitial lung disease, meconium aspiration syndrome, and pneumonia (United States Dept. of Labor, 2021).

#### Assumptions

Assumptions are facts or beliefs held by a researcher to be accurate but are not verified. They are conditions that may be out of the researcher's control but should be considered in research analysis. An assumption is an unexamined belief, which is what we think without realizing we believe it (Jackson & Brown, 2020). The assumptions for this study were as follows.

- One assumed that the proposed research will benefit acute health facilities with no role clarity among their COPD multidisciplinary care team members, especially RTs.
- (2) One assumed that the participants who are RTs currently working in Newark, New Jersey, will give their honest opinions on their roles and responsibilities in a multidisciplinary care team.
- (3) One also assumed that the participants know their roles and responsibilities according to their scope of practice in a COPD multidisciplinary care team.

(4) One assumed that the participants are committed to completing the study and providing truthful responses. Participants will consent to participate and shall not be influenced.

### **Scope and Delimitations**

The specific research problem that the researcher addressed through this study is there was little or no clarity on the roles and responsibilities of RTs in a COPD multidisciplinary care team and how those roles and responsibilities were affected when RTs were monitored and evaluated by the COPD multidisciplinary care team members in Newark, New Jersey. The participants in this study were all RTs except those who do not have experience with the COPD multidisciplinary care team, have less than 36 months of experience, and have not worked in an acute care hospital. Hence, the sampling was purposive. Purposive sampling is a technique where the researchers recruit participants to provide in-depth and detailed information about the phenomenon under investigation (Ravitch & Carl, 2020). RTs who do not have experience with a multidisciplinary team, who had less than 36 months of experience, and who have not worked in an acute care hospital were excluded from this study. The outcome of data analysis in this study provided the roles and responsibilities of RTs and how to best use RTs in a COPD multidisciplinary care team to enhance the quality of care and improve the delivery of healthcare services.

#### Limitations

One of the possible barriers to this proposed study included a small sample size as this was qualitative research. The small sample size might not represent the larger population. For a small sample size, my goal was to have enough sample size (at least 10 RTs) to uncover a variety of opinions but to limit the sample size to the point of saturation (Ravitch & Carl, 2020). In addition, the qualitative methodology limited the study and could not be generalized beyond the participants (Generalizability).

Researcher bias in data analysis was another limitation of this study. The reason is that the researcher is an RT who has personal experience and beliefs regarding the role of RTs in a COPD multidisciplinary care team. To reduce researcher bias in the study, the researcher maintained a journal to record the researcher's biases to review when analyzing the data collected. In addition, according to Ravitch & Carl (2020), peer review of the data is also essential to keep the study bias level at a minimum.

The geographical location of this study, Newark New Jersey, posed some limits to the study. This study did not allow RTs' experiences outside of Newark, New Jersey. The RTs should be currently working in Newark and bound with all Newark experiences. The researcher had constraints due to research experience and research time. In addition, the length of scheduling interview times with participants and the participants withdrawing from the study during the research process posed a barrier to the study. Nevertheless, the researcher informed the participants of the purpose of the study, their roles in the process, the researcher's objectives, and how the result will be published (Ravitch & Carl, 2020). Implementing the data-collecting tool posed some limits to the study. There is an excellent chance that the nature of implementing the data-collecting method is flawed. The researcher checked the audio recorder, and the battery changed to prevent lapses in the recording for transcription purposes. The researcher transcribed the recording of the interview verbatim. Any lapses in the recording will affect the results. The researcher in this study used two audio recording devices if one recording device malfunctions.

Transferability also posed a limit to the study. Transferability implies that the results of this research study should apply to similar results under the same study conditions (Ravitch & Carl, 2020). I presented detailed methodology information to help guide other researchers who want to replicate this study. Conditions that might distort the transferability of this study included demographics and the geographical locations of the study.

Finally, there is a five-year limitation on data storage. After the five-year limit has elapsed, the researcher will destroy the data, patients' information, and electronic documents after the five-year limit have elapsed. The researcher, for example, will destroy the data stored in a USB drive. In addition, the paper materials will be shredded, while the researcher will burn the electronic materials. The researcher will inform the institutional review board (IRB) should also be informed about this time limit.

#### Significance

A multidisciplinary care team has become an essential strategy for treating COPD patients in an acute care setting. The interdisciplinary care team includes RTs, MDs,

RNs, pharmacists, dieticians, exercise specialists, and counselors. Unfortunately, the RTs' roles and responsibilities in a COPD multidisciplinary care team are not defined and could lead to unintended consequences (Rickards & Kitts, 2018). As a result, there is a gap in the research as the roles and responsibilities of all team members are not clear.

This current study was significant because it allowed exploration of the perceptions of RTs of their roles and how the accountability of their duties is maintained within the COPD multidisciplinary care team using accountability theory as the framework for the study. The study explored RTs' perceptions of their roles and accountability when the RTs know their roles. The study's findings might positively help RTs understand their exact clinical roles in a COPD multidisciplinary discharge team to enhance the quality of care, improve healthcare services for patients with COPD, and be accountable when their roles are known. One of the positive social changes from the results of this study was to improve coordination, communication, and decision-making among healthcare professionals in maintaining accountability for their duties if they know their roles, resulting in a better patient experience and outcomes. Secondly, the RTs' understanding of clear roles might effectively enhance the quality of care and improve healthcare delivery for patients with COPD in Newark, New Jersey. Thirdly, the quality of life of patients with COPD in Newark could be enhanced by this inquiry when team members know their roles and have team effectiveness and accountability.

The study aimed to reveal RTs' scope of practice and the best way to utilize the RTs within the COPD multidisciplinary team to deliver high-quality care to COPD

patients. With RTs knowing their roles and being accountable to them, they might be equipped with adequate information and resources to effectively educate patients to selfmanage their disease process, resulting in improved healthcare delivery service and enhanced quality of care.

#### Summary

A multidisciplinary team is an essential strategy in treating patients with COPD. To enhance the quality of care and improve the delivery of healthcare services, the COPD multidisciplinary team members need to know their roles and responsibilities. In a multidisciplinary care team, there is a need to establish a scope of practice among all professionals to minimize unintended consequences. Lafrance et al. (2019) stressed the need to enhance collaboration through an increased understanding of their roles. A problem identified in the literature review showed that RTs in acute care medical centers in a COPD multidisciplinary care team do not have identified roles and responsibilities. A basic qualitative study through the framework of accountability theory was used to explore the perceived roles and responsibilities of respiratory therapists in a COPD multidisciplinary care team. In addition, the analysis of semi-structured openended interviews with the RT participants revealed the roles and responsibilities of RTs in a COPD multidisciplinary care team. Finally, chapter 2 provided a further exploration of the literature and the theoretical foundation of this study.

#### Chapter 2: Literature Review

#### Introduction

This study explored RTs' roles and responsibilities in a COPD multidisciplinary care team and how those roles and responsibilities were affected when RTs are monitored and evaluated by team members in Newark, New Jersey. One used a basic qualitative approach to viewing the study through the lens of the accountability theory. Accountability theory is a theory whereby a person has a potential obligation to explain their actions to another party who has the right to pass judgment on those actions. The study's goal was to provide needed information on the specific roles and responsibilities of RTs in a COPD multidisciplinary care team because RTs knowing their roles and responsibilities could enhance the quality of care and improve the delivery of healthcare services for patients with COPD.

#### **Synopsis of Literature**

The multidisciplinary care team plays a crucial role in treating COPD patients. One of the attributes of an effective and efficient multidisciplinary team includes a clear definition of tasks and responsibilities, which is not the case with the literature I conducted. Dempsey (2019) studied nurses' perceptions of their roles in a multidisciplinary care team and emphasized the need for all multidisciplinary team members to know their roles and responsibilities. Understanding their roles could enhance effective healthcare services and improve these patients' quality of life. LaFrance et al.'s (2019) study concluded that the roles of multidisciplinary team members continue to overlap with the scope of practice of all professionals. LaFrance et al.'s (2019) research show that collaboration and understanding among multidisciplinary team members are crucial to optimal care for these patients.

Meanwhile, Osen (2021) conducted a study that confirmed that RTs are part of the multidisciplinary team by exploring the views of case managers (CMs) on the roles and responsibilities of RTs and consequently recommended seeking the perceptions of RTs regarding their roles in a COPD multidisciplinary discharge team. Ly et al. (2018) conducted a study on role clarity. They concluded that role clarification and communication among teams was the most effective solution to common problems in the multidisciplinary care team. However, the lack of role identification in a COPD multidisciplinary care team continues to be a problem, given the importance of respiratory therapists to COPD patients. Therefore, there is a need to understand RTs' roles in a multidisciplinary care team to enhance the quality of care and improve healthcare services, especially with COPD patients.

# **Main Points**

Chapter one reviewed COPD as a health issue that requires a multidisciplinary team to treat. The problem is that the roles and responsibilities of RTs in a COPD multidisciplinary team have not been defined, which is different from the nurses, MDs, and other healthcare professionals. To enhance the quality of care and improve the delivery of healthcare services to COPD patients multidisciplinary team members need to know RTs' roles and responsibilities. A basic qualitative study through the framework of accountability theory will be used to explore the perceived roles and responsibilities of respiratory therapists in a COPD multidisciplinary care team. In addition, the analysis of semi-structured open-ended interviews with the RT participants could reveal the roles and responsibilities of RTs in a COPD multidisciplinary care team. Chapter one includes the background, the problem statement, the purpose of the study, research questions, the theoretical framework to understand the analysis, the nature of the study, the definitions, assumptions, scope and delimitations, the study's limitations, significance, and summary.

Chapter 2 evaluates and summarizes the literature in connection with the lack of roles and responsibilities of RTs, as perceived by RTs in a COPD multidisciplinary care team. The accountability theory will be evaluated on its origin, major assumptions, application to similar studies, purpose, and rationale for using it in this study. There are three major sections in chapter 2: the literature search strategy, the theoretical foundation, and the literature review. The literature search strategy includes library databases, search terms, and search processes. The theoretical foundation has major theoretical propositions focusing on accountability theory, its use in the past, and its relation to the study. Finally, the literature review talks about COPD, its causes, diagnosis, prevention measures, RTs, COPD multidisciplinary care teams, and the quality of care in healthcare.

#### **Literature Search Strategy**

# **Library Databases**

The Walden Library is used for the literature review to find studies that discussed the problem and potential gap in knowledge regarding RTs perceived roles and responsibilities within a COPD multidisciplinary care team. The search engines include PubMed, ProQuest Nursing and Allied health, ProQuest all, EBSCOhost, Google Scholar, and Medline with Full Test. These search engines are essential because of the medicine, respiratory therapy, and health care system information they provide. The researcher filtered the information from these search engines with the year of publication, full-text availability, and whether the articles were peer-reviewed.

## **Search Terms**

The researcher used various search terms to obtain relevant information. The search terms used to explore the roles and responsibilities of RTs in a COPD multidisciplinary care team include chronic obstructive pulmonary disease (COPD), COPD exacerbation, respiratory therapists, respiratory therapy, accountability, accountability theory, multidisciplinary, multidisciplinary care team, interdisciplinary care team, interprofessional care team, interprofessional, responsibility, role and scope of practice.

## **Search Process**

EBSCOhost, MEDLINE, and Google Scholar searched for essential and relevant information about the study. The researcher filtered the information from these search engines with the year of publication within the previous five years, full-text availability, and peer-reviewed articles. There was a gap in the literature from the information gathered, leading to a qualitative study to explore the perceptions of RTs regarding their roles and responsibilities in a COPD multidisciplinary care team.
### **Theoretical Foundation**

# **Theory Origin**

Accountability theory is the framework for this study. J.S Lerner and P.E. Tetlock developed accountability theory in 1999. According to Lerner and Tetlock (1999), accountability theory has four components: identifiability, evaluation expectation, awareness of monitoring, and social presence. Lerner and Tetlock (1999) explained accountability theory as to how one rationalizes or justifies one's behavior to another party and, in the process, develops the feeling of accountability on how decisions, processes, and judgments are reached. Identifiability is a person's recognition of true identity through what he does or says. The expectation of evaluation is a belief that one performance will be evaluated by another person with some rules and implied consequences. Finally, the awareness of monitoring is the recognition that one's system related work is monitored, while social presence is being aware that there are other users in the system (Lerner & Tetlock, 1999).

### **Major Theoretical Propositions**

According to Tetlock and Lerner (1999), accountability theory has a significant proposition: there is an expectation that a team member may be called to justify beliefs, feelings, or actions, and there are negative consequences for unsatisfactory actions. In a COPD multidisciplinary care team, RTs may feel accountable for the actions, feelings, or beliefs they undertake due to adverse effects resulting from their unsatisfactory actions, thoughts, or feelings.

### Accountability Theory and Past Research

Dempsey (2019) used accountability theory as a framework to study nurses' perceptions of their roles in a multidisciplinary care team and emphasized the need for all members of the multidisciplinary team to know their roles and responsibilities. Because knowing their roles could enhance effective healthcare services and improve these patients' quality of life. The author suggested that miscommunication, confusion, and unfortunate patient experience can occur without role identification. This study provided evidence that research has been conducted on nurses' perceptions but not with RTs, justifying the need for my research. RTs are on COPD multidisciplinary teams. It would be helpful for RTs to know their roles as this could help improve patients' quality of life and improve these patients' overall healthcare delivery services. This study will explore accountability and feelings, behaviors, and actions because RTs will face negative consequences during evaluation.

### Accountability Theory and its Relation to this Study

The logical connections between the framework presented and the nature of my study included accountability theory because it addresses how one develops a feeling of accountability on decisions, processes, and judgments when rationalizing or justifying one's behavior to another party (Lerner & Tetlock, 1999). There is accountability when an individual, in this case, RTs, experiences consequences for their performance. It is necessary that when one is exploring how to enhance the quality of care and improve the delivery of healthcare services for patients with COPD, the members of the multidisciplinary care team are held accountable for the decisions they make as well as the roles they play in the process. Simple accountability manipulations like the presence of another person, identifiability, and expectation of evaluation can increase accountability perceptions (Lerner & Tetlock, 1999).

# **Literature Review**

### **Quality of Care in Healthcare**

COPD significantly impacts the patient's quality of life and psychological wellbeing (Young et al., 2021). The use of a multidisciplinary care team in the treatment of COPD, with team members, especially RTs, knowing their roles and responsibilities could help to improve the quality of care and enhance the delivery of health care services. Quality of care depends on the desired health outcomes due to the health services provided. It is an assessment of whether the result of health services is good enough and suitable for its purpose. According to World Health Organization, quality of care should be effective, safe, and people-centered to realize quality health care benefits. In addition, health services must be timely, equitable, integrated, and efficient to realize the advantages of quality health care (WHO, 2021). According to Allen-Duck, Robinson & Stewart (2017), healthcare quality provides effective and safe care, embedded with the culture of excellence and attainment of desired health outcomes. Therefore, the optimal and effective use of a multidisciplinary care team is essential to improve the quality of care and overall performance in healthcare. Quality of care can help providers with

reliable, cost-effective, and sustained healthcare processes and enable them to achieve their goals of improving care delivery and enhancing patient outcomes.

# The Importance of Improving Quality of Care

The overall improvement in quality and performance in the healthcare industry can help providers with reliable, cost-effective, and sustained healthcare processes that will enable health care industries to provide health services in a timely, safe, and equitable manner. According to Poortaghi et al. (2020), quality is how patient care services increase the probability of desired outcomes and reduce the likelihood of undesired results given the current state of knowledge. However, the desired outcome has not been great compared to the amount of money the United States of America invests in healthcare. In addition, Papanicolas et al. (2018), the United States spent approximately twice as much as other developed countries on medical care, yet the result is the same as these countries. These high-income countries include the United Kingdom, Canada, Germany, Australia, Japan, Sweden, France, the Netherlands, Switzerland, and Denmark. COPD patients need help to quit tobacco smoking, learn how to recognize signs of distress, and keep indoor air clean.

Peckens et al. (2020) conducted a retrospective study in West Virginia, United States, treating COPD patients with a team-based approach. It was observed that complex COPD cases were difficult to manage in a routine primary care provider visit. Therefore, the West Virginia University Department of Family Medicine created a COPD specialty clinic that used a multidisciplinary team to treat COPD patients. The chart review was to determine the effect of the clinic on patient hospitalizations, emergency department visits, and urgent care visits before and after the clinic intervention. There was an improvement in the quality of life as there were significantly decreased symptoms of COPD, and nicotine use was drastically reduced. The conclusion was that a multidisciplinary approach to COPD treatment effectively improved patients' health with COPD.

Meanwhile, Taberna et al. (2020) had a comprehensive review to assess the roles and responsibilities of different health professionals assembled in the multidisciplinary care team to treat head and neck cancer (HNC). As a result, it was discovered that there was complete and continued support for cancer patients during diagnosis, treatment, and follow-up periods, which improved the quality of cancer care for these patients. Although Taberna et al. (2020) did this review on head and neck cancer patients, it revealed the importance multidisciplinary care team as there was an effective collaboration between health professionals and their roles in improving the quality of lives of these cancer patients. The study, in conclusion, revealed that multidisciplinary care teams and oncologic functional units significantly improved the quality of cancer care because there was complete and continued support to patients during diagnosis, treatment, and followup periods. In conclusion, the roles of the oncology multidisciplinary team members were clear by the members of the team.

# **Chronic Obstructive Pulmonary Disease (COPD)**

Chronic obstructive pulmonary disease (COPD) is a lung disease characterized by difficulty breathing, chest tightness, wheezing, and sputum production (Mayo clinic,

2020; Centers for disease and prevention, 2020). The leading cause of COPD is cigarette smoking, although 25% of those with COPD who have never smoked suffer from Alpha1 antitrypsin (AAT) deficiency. AAT is a rare genetic condition responsible for the 25% who have the disease but never smoked. In addition, COPD includes emphysema, chronic bronchitis, and bronchiectasis. The walls between many air sacs are damaged by emphysema and, therefore, lose their shape. At the same time, the lining of the airways is constantly inflamed and irritated with chronic bronchitis, and bronchiectasis is a production of more than usual mucus by the airways (Mayo clinic, 2020; Centers for disease and prevention, 2020).

COPD causes severe damage to the lungs. It is a chronic disease with no cure and is non-contagious. With COPD, fewer air flows in and out of the airways, which could be due to airways and air sacs losing their elasticity, the destruction of walls of many of the air sacs, thick and inflamed walls of the airways, or the airways being clogged with making more than usual mucus. The severity of the disease depends on how heavily one smokes. The longer people smoke, the higher the incidence of this disease. Due to this structural damage to the air sacs, patients with COPD tend to retain carbon dioxide (CO2) and therefore have low blood oxygen (Mayo clinic, 2020; Centers for disease and prevention, 2020). The thickening of the lung walls delays oxygen and carbon dioxide gas exchange.

Currently, COPD is the primary cause of disability (Yawn, Mintz & Doherty, 2021) and the fourth leading cause of death in the United States. There are over 16

million people currently diagnosed with this disease, and many people may have the condition without knowing (center for disease and prevention, 2020).

# **Causes of COPD**

The leading cause of COPD in developed countries is tobacco smoking. Burning fuels for cooking and heating in poorly ventilated homes can cause COPD in developing countries (Mayo Clinic, 2020). Second-hand smoking can also lead to the development of COPD. Alpha-1 antitrypsin (AAT) deficiency is a rare genetic disorder that can cause COPD. This AAT deficiency accounts for 25% of non-smokers who develop COPD. According to Mayo Clinic (2020), among people with COPD, about 1% accounted for developing COPD due to this genetic disorder. AAT is an enzyme produced by the liver and secreted in the bloodstream to protect the lungs. Its deficiency could lead to lung disease, liver disease, or both.

COPD causes progressive lung damage. It comprises chronic bronchitis and emphysema. The bronchial tubes become inflamed, and narrowed, and produce more mucus with chronic bronchitis. This excessive mucus will further block the narrowed tubes, making it difficult to have a clear airway. On the other hand, emphysema causes the destruction of fragile walls and elastic fibers of the alveoli. With this destruction, airflow is impaired from the lungs. Other irritants that can cause COPD include cigar smoke, second-hand smoke, pipe smoke, air pollution, and workplace exposure to dust, smoke, or fumes (Mayo Clinic, 2020).

### **Treatment of COPD**

Chronic obstructive pulmonary disease (COPD) has no cure but could be treated to ease symptoms, prevent complications, and generally slow disease progression. Prevention is the crucial step to avoiding this disease process. The COPD multidisciplinary team has become a solution in treating COPD patients. The COPD multidisciplinary care team comprises various areas of specialization that independently treat various issues a COPD patient may have. The team has a care plan, which coordinates services toward a specific set of goals. With a multidisciplinary care team, the skills and expertise of different professionals are used to assess, plan and manage care jointly.

COPD treatment is optimal when combining a multidisciplinary team approach and medication strategies like bronchodilators. The bronchodilators could be short-acting bronchodilator therapies like Albuterol (Ventolin), Ipratropium bromide (Atrovent), and Levalbuterol (Xopenex), and long-acting bronchodilators like Tiotropium (Spiriva), salmeterol (Serevent), and Arformoterol (Brovana) (Mayo Clinic, 2020). Noninvasive ventilation therapy is also recommended to decrease carbon dioxide retention (hypercapnia) in some COPD patients or in combination with obstructive sleep apnea (OSA). This is achieved using a bilevel positive airway pressure (BIPAP) machine (Mayo clinic, 2020). Last but not least is the option of surgery. There can be a complete lung transplant, lung volume reduction surgery, or bullectomy. COPD patients with AAT deficiency could receive AAT therapy (Mayo clinic, 2020)

### **Respiratory Therapists**

Respiratory therapists or respiratory care practitioners (RCP) are trained to care for and treat people with breathing difficulties, such as emphysema, asthma, chronic bronchitis, bronchiectasis, cystic and pulmonary fibrosis, and pneumonia (United States Dept. of Labor, 2021). Besides treating adult patients with all these diseases, they also care for neonates with apnea of prematurity, bronchopulmonary dysplasia, interstitial lung disease, meconium aspiration syndrome, and pneumonia (<u>www.nhlbi.nih.gov</u>). Pediatric patients are also treated by RTs, especially if their disease processes compromise the normal functioning of the lungs. Typically, respiratory therapists' duties include examination of patients with breathing disorders, development of treatment plans, performing pulmonary function test (PFT), performing chest physiotherapy (CPT) and aerosol treatment, initiation of mechanical ventilation, and monitoring of patient's progress (United States Dept. of Labor, 2021). In 2019, respiratory therapists held 135,800 jobs, with 82% in hospitals, 4% in nursing homes, and 2% in physicians' offices (United States Dept. of Labor, 2021).

# **COPD** Multidisciplinary Care Team

A multidisciplinary care team is a team of healthcare professionals, including respiratory therapists, nurses, dieticians, primary care physicians, and administrators, who work together to provide high-quality and coordinated care to patients within their healthcare organizations. Therefore, a COPD multidisciplinary team is where the patients suffer from COPD. They could have asthma, chronic bronchitis, emphysema, or

bronchiectasis. According to Taberna et al. (2020), the core function of a multidisciplinary team is to bring together healthcare experts from different fields to determine a plan of care for the patients. The problem in a COPD multidisciplinary care team or any other multidisciplinary care team is that the roles and responsibilities of team members continue to overlap. There is sometimes miscommunication, mistrust, confusion, and unfortunate patient experience because of a lack of clarity regarding the roles and responsibilities of team members. Dempsey (2019) conducted a study on nurses' perceptions of their role in a multidisciplinary care team and emphasized the need for all multidisciplinary team members to know their roles because knowing their roles could enhance effective healthcare services and improve these patients' quality of life. Dempsey (2019) suggested that miscommunication, confusion, and unfortunate patient experience can occur without role identification to improve the quality of care and enhance the delivery of healthcare services. Nurses and other healthcare members of the multidisciplinary team need to know their roles and responsibilities for optimal patient care. The nurses in this study felt that their roles and responsibilities were required to be known by all as they felt accountable both to their roles and the responsibility of others in the team.

LaFrance et al.'s (2019) study concluded that the roles of multidisciplinary team members continue to overlap with the scope of practice of all professionals. They acknowledged that collaboration and understanding among multidisciplinary team members are crucial to the optimal care these patients deserve. LaFrance (2019) study

32

recommended that multidisciplinary team members know their roles and work within their scope of practice to enhance effective healthcare delivery services to patients with ASD and improve their quality of life. In addition, Ly et al. (2018) conducted a secondary analysis using asynchronous purposive coding on an innovative pan-Canadian Chronic Obstructive Pulmonary Disease QI program. This study emanated because of consistent documentation that role clarification in a multidisciplinary environment continues to pose challenges for the team members. The research concluded that role clarification and communication among teams was the most effective solution to common problems in the multidisciplinary care team. It helped define team members' responsibilities and provided them with quality improvement initiatives. According to the study, role clarity and role dynamics can provide valuable insight to help improve healthcare delivery services and enhance the quality of life that these patients with COPD deserve. Though this study was conducted in Canada, it supports other studies in the United States that role clarity and role identification are crucial to the proper functioning of the COPD multidisciplinary team.

On the other hand, Rickards and Kitts (2018) conducted a study on the changing roles of RTs and RNs to assess, treat, and support people suspected of having or living with COPD. It was concluded that because RTs' roles are evolving and growing, there is a need for intentional curriculum changes within the multidisciplinary team members to improve their understanding of different responsibilities and functions that reflect the roles of RTs within the team. In addition, RTs' roles and responsibilities need to be

researched for better communication and collaboration among the multidisciplinary team, which could help improve the quality of care and enhance the delivery of healthcare services for patients with COPD. The authors discovered a need for an improved understanding of the roles and responsibilities among all the healthcare professionals in a multidisciplinary care team, with reflections on the responsibilities and functioning that reflect the role of RTs and other disciplines within the multidisciplinary team in providing excellent quality of care to patients with COPD. Again, research has shown that the relationship among disciplines needs more awareness of each other's roles and responsibilities to improve and support the efficiency of a multidisciplinary care team (Morrell, 2020).

Donelan et al. (2020) conducted a study to examine differences in perceived roles and responsibilities of nurse practitioners (NPs) and physicians (MDs) practicing in emergency, trauma, critical, and intensive care services. The researchers mailed a survey to randomly selected stratified cross-sectional samples of MDs and NPs from the national lists of clinicians in eligible specialties. The multivariate regression analysis showed that role clarity was significantly associated with excellent teamwork and disaster preparedness among all clinicians. Donelan et al. (2020) recommended that hospital leaders encourage cooperation and professional role clarity and responsibilities among professionals because role clarity provides quality and excellent care to the patients and effective delivery of healthcare services. Meanwhile, Osen (2021) conducted a qualitative study on the roles of respiratory therapists in reducing 30-day readmission rates for patients with COPD and recommended further studies to be done on the specific roles and responsibilities of RTs in a COPD multidisciplinary care team.

The study conducted by Gentene et al. (2021) justifies the importance and advantages of using a multidisciplinary team that includes the RTs in treating COPD patients and improving healthcare services. In this study, it was ensured that one discipline's responsibility was not excessively overloaded. In contrast, another discipline was underutilized, which shows that roles in the multidisciplinary team are very crucial to the success of that team. Because RTs are part of the multidisciplinary discharge care team, conducting further research to learn more about RTs' roles and responsibilities is very important to enhance the quality of care and improve healthcare services. The bundle included a selection of appropriate discharge inhalers, bedside delivery of a 30day discharge supply of insurance-compatible inhalers, and personalized inhaler education. In addition, Horlait et al. (2021) conducted a systematic integrative review to understand and articulate factors that affect optimal multidisciplinary cancer teams in terms of roles and utilization of the team members. The result showed that for an effective and optimal multidisciplinary team, there is a need for collaboration among all the disciplines involved in role clarification and teamwork. Though the study focused on cancer care, the authors recognized that effective communication and proper coordination of roles in a team are essential for a high quality of care. Therefore, the authors recommend further research to help with the role recognition of multidisciplinary team members.

Shah et al. (2019) conducted a study on how the organization can reduce the COPD readmission rate using an interdisciplinary collaborative care model. The authors identified the breach between inpatient and outpatient care settings that would have allowed pulmonary rehabilitation protocols or continuity in respiratory care modalities. Shah et al. used the Interdisciplinary Collaborative Care Model, which involved implementing COPD Transition Care Coordination (TCC), interdisciplinary collaboration, and a COPD Action Plan in helping reduce the readmission of COPD patients. The model was efficient care for the inpatients, with appropriate outpatient referrals like pulmonary rehabilitation and smoking cessation. In addition, the outpatient model included post-discharge follow-up telephone calls by a health care navigator, based on assessment and recommendations by respiratory care practitioners (RCP). The result was that with the TCC model, there was a successful outcome in that 13% were enrolled in ambulatory care and 8% were referred to pulmonary rehabilitation for an extra layer of support. The authors emphasized the importance of collaboration and role clarity among all disciplines in a team.

Tetlock and Lerner (1999) conducted a review addressing the impact of accountability on different judgments and choices. These choices include the effect of accountability on thoughts, feelings, and actions, the effects on cognitive biases, how people think or what people say they believe, and the goals accountable decision-makers desire to achieve. The review from Tetlock and Lerner found that accountability is complex when decision-makers use produces different effects, where only some are beneficial. For example, the positive effects of accountability include building trust, strengthening relationships, and minimizing costly mistakes in a team. Conversely, the adverse effects include the development of biases, associating accountability with failure connotations, and using accountability to punish a person or team responsible for the failure.

#### **Summary and Conclusions**

The literature review revealed task allocations among healthcare professionals in a multidisciplinary care team, their roles and responsibilities, perceptions of teamwork and collaboration, and the need for effective leadership among all disciplines within the team. The literature also revealed the importance of role clarity and effective communication among team members for a multidisciplinary team to work effectively to support quality patient care. However, in the literature reviewed, there was little or no clarity on RTs' specific roles and responsibilities in a COPD multidisciplinary care team. Therefore, it is necessary to explore the roles and responsibilities of RTs in a COPD multidisciplinary care team because role identification could help enhance the delivery of healthcare services and improve the quality-of-care COPD patients need.

To seek the perspectives of these RTs on their roles and responsibilities a basic qualitative research study was conducted. The research questions for this study are (1) What are the RTs perceived roles and responsibilities in a COPD multidisciplinary care team in Newark, New Jersey? (2) What are the perceptions of the RTs' roles and responsibilities when RTs are monitored and evaluated by the COPD multidisciplinary team? A semi-structured interview was used to collect data. The researcher coded the data for emerging themes. The participants in this study were RTs currently working in Newark, New Jersey, and have experience working in an acute care inpatient medical center. The participants were all RTs except those who do not have experience with a multidisciplinary care team, have less than 36 months of experience, and have not worked in an acute care hospital. Chapter 3 discussed the research design and rationale to address the gap identified in the literature review.

A brief review of chapter one indicated that a multidisciplinary team is an essential strategy in treating patients with COPD. To enhance the quality of care and improve the delivery of healthcare services, the COPD multidisciplinary team members need to know their roles and responsibilities. In a multidisciplinary care team, there is a need to establish a scope of practice among all professionals to minimize unintended consequences. Lafrance et al. (2019) stressed the need to enhance collaboration through an increased understanding of their roles. A problem identified in the literature review is that RTs in acute care medical centers in a COPD multidisciplinary care team do not have identified roles and responsibilities. A basic qualitative study through the framework of accountability theory was used to explore the perceived roles and responsibilities of respiratory therapists in a COPD multidisciplinary care team. In addition, the analysis of semi-structured open-ended interviews with the RT participants could reveal the roles and responsibilities of RTs in a COPD multidisciplinary care team. Chapter one includes the background, the problem statement, the purpose of the study, research questions, the

theoretical framework to understand the analysis, the nature of the study, the definitions, assumptions, scope and delimitations, and the study's limitations.

In chapter two, the literature revealed little or no clarity on RTs' specific roles and responsibilities in a COPD multidisciplinary care team. The literature also revealed the importance of role clarity with other team members like the MDs and RNs for a multidisciplinary care team to work effectively. It was, therefore, necessary to explore the specific roles and responsibilities of RTs in a COPD multidisciplinary care team because role identification could help enhance the delivery of healthcare services and improve the quality of care these patients with COPD get. To seek the perspectives of these RTs, basic qualitative research was conducted. Chapter 3 will discuss the research design and methodology rationale to address the gap identified in the literature review.

# Chapter 3: Research Method

### Introduction

The purpose of this basic qualitative study was to seek an understanding of the perceptions of respiratory therapists (RTs) on their roles and responsibilities in a COPD multidisciplinary team and how those roles and responsibilities are affected when RTs are monitored and evaluated by members of COPD multidisciplinary care team in Newark, New Jersey. A COPD multidisciplinary care team has become an integral part of treating patients with COPD. A multidisciplinary care team is a team of healthcare professionals, including respiratory therapists, nurses, dieticians, primary care physicians, and

administrators, who work together to provide high-quality and coordinated care to patients within their healthcare organizations.

A literature review suggested that understanding roles among all disciplines in a multidisciplinary discharge team is necessary to enhance the quality of care and improve the delivery of healthcare services (Lafrance et al., 2019, Ly et al., 2018). There is little or no clarity on the specific roles and responsibilities of RTs in a COPD multidisciplinary care team and how those roles and responsibilities are affected when RTs are monitored and evaluated by members of the COPD multidisciplinary care team in Newark, New Jersey.

The study's goal is to provide needed information on the specific roles and responsibilities of RTs in a COPD multidisciplinary care team because RTs knowing their roles and responsibilities will enhance the quality of care and improve the delivery of healthcare services for patients with COPD. The major sections in this chapter include research design and rationale, the role of the researcher, methodology, issues of trustworthiness, and a chapter summary.

# **Research Design and Rationale**

### **Research Questions**

The research questions for this inquiry are as follows:

Research Question 1 (RQ1): What are RTs perceived roles and responsibilities in a COPD multidisciplinary care team in Newark, New Jersey?

Research Question 2 (RQ2): What are the perceptions of the RTs' roles and responsibilities when RTs are monitored and evaluated by the COPD multidisciplinary team?

# **Central Concept of the Study**

The central concept of the study was to seek an understanding of the perceptions of RTs on their roles and responsibilities in a COPD multidisciplinary team and how those roles and responsibilities are affected when RTs are monitored and evaluated by members of the COPD multidisciplinary care team in Newark, New Jersey. The study's goal was to provide needed information on the specific roles and responsibilities of RTs in a COPD multidisciplinary care team because RTs knowing their roles and responsibilities could enhance the quality of care and improve the delivery of healthcare services for patients with COPD. To improve the quality of care and enhance the delivery of healthcare services, the COPD multidisciplinary team members need to know their roles and responsibilities. In addition, there is a need to establish a scope of practice among all professionals in a multidisciplinary care team to minimize unintended consequences. Lafrance et al. (2019) stressed the need to enhance collaboration through an increased understanding of their roles.

# **Research Tradition and Rationale**

A basic qualitative methodology was used for this research. According to Creswell & Creswell, (2017), a basic qualitative research design is generally based on a social constructivism paradigm. It is a phenomenon whereby people seek to understand their world and develop meanings corresponding to their experiences. Research problems become research questions based on prior research experience. The aim of the authors stated is to understand how participants derive meaning from their surroundings and how that affects their behavior. First, one is interested in how the RTs interpret their experiences, second, how they construct their worlds, and thirdly, what meaning they attribute to their experiences. Therefore, a basic qualitative inquiry was suitable for this study. The researcher is studying a concept in the applied field, and health care environment, and seeking knowledge from the RTs who have lived experiences as members of COPD multidisciplinary care teams during their daily interaction at work. Over the years, the basic qualitative study has had different names: generic, basic, or interpretative (Kahlke, 2018). One is seeking to understand a concept, which is the roles and responsibilities of RTs in a COPD multidisciplinary team from the perspective of RTs who have lived the experience as team members.

A basic qualitative research approach was appropriate for this study because it aims to draw out participants' ideas about things outside themselves, rather than focusing on their inner feelings. The basic qualitative research approach seeks to understand a phenomenon, a process, or the participants' perspective (Mohajan, 2018). In this current study, the researcher wanted to understand the roles and responsibilities of RTs in a COPD multidisciplinary team from the perspective of RTs who have lived the experience as members of the team. Secondly, what happens to the roles and responsibilities when the RTs are monitored and evaluated by the COPD multidisciplinary team members? A basic qualitative approach is one of many approaches that may be used to answer a research question. For example, data collection includes interviews, questionnaires, or surveys, and thematic analysis is often used to analyze data (Braun & Clarke, 2021). This current study sought a detailed, in-depth description of the roles and responsibilities of RTs in a COPD multidisciplinary team. Therefore, a basic qualitative research approach was appropriate for the study.

# **Role of the Researcher**

The role of a researcher is a central consideration in qualitative research. In qualitative inquiry, the researcher is the instrument. Therefore, it becomes essential for the researcher to be mindful of their personal bias and perceptions. The researcher has been a respiratory therapist for over 20 years and seeking to understand the roles and responsibilities of respiratory therapists in a COPD multidisciplinary care team could encounter a personal bias. The researcher used a reflective journal to keep this study biasfree. Peer review was used during data analysis to protect the study from the researcher's bias. Peer review is very important for the validity and reliability of research inquiry (Hayashi et al., 2019). In addition, the researcher used a structured interview process via phone, skype, email, or Facebook to eliminate biases in the process. There was no discussion of RTs' interview responses related to perceptions. Initially, the primary role of a researcher was to assess the participants' feelings and thoughts. When the data is collected, the primary function of the researcher changed to protect both the participants and the data (Dejonckheere & Vaughn, 2019). As the researcher and the instrument of this inquiry, the participants were not the researcher's coworkers {Merriam & Tisdell, 2016). The scenario avoided the participants from feeling pressured to participate in the study. There wasn't any relationship between the researcher and the participants. The researcher avoided not choosing their place of work as the site of the inquiry, especially if the topic is related to their daily job duties. Researchers in leadership positions should not choose subordinates as participants because they may feel pressured or threatened to participate. Participants felt free to join in the study without fear or favor. The RTs who were the participants were not participants that I have authority over.

Other roles of the researcher included conducting interviews properly, collecting data, analyzing data, and presenting the findings. The data obtained from the interviews were analyzed continuously. The researcher offered the participants a \$10 gift card from Dunkin Donuts as an incentive and appreciation for their participation and presented the gift card to the participants at the end of the interview. The gift card was included in Walden Institutional Review Board (IRB) for approval and the consent form.

Ethical issues in qualitative research include keeping the participants anonymous. By no means should their name be released at any stage of the research process. There was confidence in the whole process. Their contribution during the interview remained private and secure. There was an informed consent signed before a participant takes part in an interview process. The participants were informed of the nature of the study, their role, the researcher's objective, and how the results will be published. Beneficence which means no harm to the participant should be a top priority of the researcher. Conflict of interest exists, especially if you are conducting this research about the healthcare institution the researcher works. The principles of research ethics are summarized.

Principle one: Minimizing the risk of harm

Principle two: Obtaining informed consent

Principle three: Protecting anonymity and confidentiality

Principle four: Avoiding deceptive practices

Principle five: Providing the right to withdraw (Resnik, 2020).

Institutional Review Board (IRB) role includes making sure that all these ethical issues are taken care of before and during the research process. This committee applies research ethics by reviewing the method of proposals for research to ensure that they are ethical. Sometimes, the researcher and the participant can be ethically challenged because both are personally involved in the research process. The ethical challenges that the researcher faced in this inquiry include anonymity, confidentiality, informed consent, and the researchers' potential impact on the participants. The participants needed to be comfortable giving their personal opinion (information) about a phenomenon. Their identities were not released in any shape or form throughout the study. There was a need to build trust with the participants. Therefore, they provided the data and were treated with the utmost respect. The researcher treated all participants with respect and dignity. Effective communication across cultures was vital in building rapport and developing trust and respect for the participants of this inquiry. The researcher did everything

humanly possible to maintain anonymity, confidentiality, trust, and respect for the participants (Reid, 2018).

# Methodology

### **Participant Selection Logic**

The population in this study were RTs currently working in Newark, New Jersey, who have experience working in an acute care inpatient medical center. The main criteria were that the respiratory therapists will have a minimum of 36 months of experience as an RT., experience in acute care hospitals, and experience with multidisciplinary care teams for patients with COPD. Respiratory therapists with no experience in acute care hospitals, no experience with a multidisciplinary care team, and less than 36 months as an RT were excluded from this study. The researcher used purposive, convenient, and snowball sampling strategies to recruit the participants and get truthful information (Edmonds, 2019). The main goal of purposive sampling was to focus on particular characteristics of a population that interest the researcher. The sample was convenient as the participants are RTs currently working in Newark, New Jersey. Finally, a snowball sampling strategy was used whereby the subjects who agreed to participate in the research will be asked to assist me in identifying other potential subjects. The flyer for participation was posted on a social media platform. Those who agreed to participate and qualified were emailed the invitations to participate in the study and the consent forms. The interviews were conducted in various ways depending on the participants' preferences. Options would be face-to-face, use of skype or zoom, email

interviews, or phone interviews to allow for in-depth discussion and expansion of answers.

## **Sample Size and Data Saturation**

The goal was to have enough sample size to uncover a variety of opinions and limit the sample size to the point of saturation (Vasileiou et al., 2018). The estimated sample size was 10 RTs. Recruiting and interviewing participants continued until no new information emerged from the interview. Data saturation was achieved in the research process when no further new information is discovered in data analysis. Data saturation was when the researcher realizes that data collection should be stopped; otherwise, one continued recruitment and interview until the saturation point. The researcher quickly sorted large data sets with broad themes with thematic analysis. This is how flexible this approach was in interpreting the data sets (Merriam & Tisdell, 2016). The key was to start data analysis as soon as each interview was

concluded.

#### Instrumentation

The research instrument for this study was a guided interview protocol developed by me and approved by Institutional Review Board (IRB). These probing interview questions were aligned to answer the research questions of this study. One did a pilot study with two RTs to help the researcher test the interview questions. The questions started with what the interviewee was comfortable with, like describing their profession to linking respiratory therapy as grounded in the literature. Because there was little literature on the role of respiratory therapists in a COPD multidisciplinary care team, it became vital that these questions were fashioned to enrich data every step of the way. My personal experience as a health care worker for over twenty years is beneficial in the wording of the main questions and follow-up questions. The experts on my committee have also been helpful. A copy of the interview questions is in the appendix section of this study. The data collection tool for the interview included an audio recorder. Merriam & Tisdell (2016) recommends that using an audio recorder for a qualitative interview will assist in analysis. With IRB approval, the interview will be audio-recorded with the interviewee's permission and manually transcribed verbatim for data analysis.

The data included responses to the interview questions from RTs currently working in an acute care hospital and part of a multidisciplinary team caring for individuals diagnosed with COPD in Newark, New Jersey, regarding their experiences and roles, and accountability in the COPD multidisciplinary care team. The data source was the responses from these RTs, whether in person and audiotaped, virtual and audiotaped, over the telephone and audiotape, or through email.

### **Pilot Study**

To ensure data aligns with the purpose of the study and answers the research questions, the researcher must test the interview questions for validity. This field test aims to test the validity of the interview questions by recruiting two RTs and interviewing them with semi-structured interview questions. The recruitment, participation, and data collection in this pilot study were the same procedure as the actual inquiry. The pilot study demonstrated if the interview questions were valid to answer the research questions. This was achieved by careful review of the responses from the two RTs recruited, which allowed me to explore research problems without altering the instrument. The two participants were informed that the purpose of interviewing them was to ensure the validity of the interview questions. Walden IRB approval number was 07-11-22-0984451 with expiration date on 07-10-2023.

# **Procedures For Recruitment, Participation, and Data Collection**

The data included responses to the interview questions from respiratory therapists (RTs) currently working in an acute care hospital and part of a multidisciplinary team caring for individuals diagnosed with COPD in Newark, New Jersey, regarding their experiences and roles, and accountability in the COPD multidisciplinary care team. The semi-structured interviews with open-ended interview questions, followed by probing questions, were the data collection method in this inquiry. At the convenience of the participants, the interview could be face-to-face, using skype or zoom, telephone interview, or email. The advantages of a face-to-face interview cannot be overemphasized. With face-to-face interviews, the voice, the intonation, and the interviewee's body language could be extra information meaningful to the data. In addition, the interviewee's answer could be spontaneous, and there is direct interaction back and forth between the two. Therefore, a face-to-face interview was my preference for this inquiry. Still, because of restrictions due to the prevalence of the Covid 19

pandemic, it was difficult to conduct all interviews in that format. Therefore, one worked with the participants to accommodate their availability and preference for the interview format.

The interview was audio-recorded to ensure descriptive validity with the consent of the participants. The audio recording saved the data for analysis. It will also refer the researcher back to the interview if the researcher wanted to take a fresh look at the interview data. Therefore, it was vital to have a quality audio recorder. This is because the accuracy of the transcribed transcript is based on the quality of the recording. Choosing the best voice recorder is very important for a qualitative researcher and cannot be underestimated.

The researcher collected the data himself. The participants received information about the interview duration (45 minutes) and signed the consent form, which was sent verbatim. They were informed that the interview will be recorded with an audio recorder which will tell them the purpose of the study, their role in the process, who is the researcher, the objectives of the research, and how the result will be published. The researcher introduced himself and provided them with a phone number if they have any questions after the interview. After minimal transcription, the answers one received from the email and follow-up email became data. The follow-up phone call will happen if they agree to that. Participants who do not want to be contacted will be respected. The researcher thanked them after the interviews, and a \$10 gift card was mailed to them after the interview. The participants were anonymous, and by no means should their names be released at any stage of the study and after the study. There was an informed consent signed before participation, and participants were informed that they are free to recuse themselves from the study at any stage of the research process. Beneficence which means no harm to the participant was a top priority of the researcher. Confidentiality and protecting the anonymity of participants were the key to a successful data collection process (Ngozwana, 2018). The researcher used numbers and letters to replace the real names of these participants. Other identities and contact information remained confidential. The data were stored in a USB drive in a locked cabinet for five years. After five years, the researcher will destroy the data participants' information, including paper and electronic documents.

#### Data Analysis Plan

A data analysis plan is a roadmap on how a researcher organizes and analyzes the interview data. First and foremost, the interview questions were aligned with the research question for easy analysis. For each interview, one intended to transcribe, sort, code, and analyze the data on the same day. This helped me remain focused on data saturation and prevent data loss. After transcribing the data, the researcher prepared and organized the data, reviewed and explored the data, created initial codes, and combined codes into themes. The researcher preferred to analyze the data manually, but one applied for Institutional Review Board (IRB) approval to use NVivo software to be proactive.

Thematic analysis was the type of coding used to analyze the data. This is usually applied to texts, such as interview transcripts. With this process, common themes were identified. The thematic analysis identified patterns of meaning across the dataset that answers the research question. It involved rigorous data familiarization, data coding, and theme development. With thematic analysis, large data sets could be quickly sorted out with broad themes, and this was how flexible this approach was in interpreting the data sets (Merriam & Tisdell, 2016). Finally, inductive thematic analysis was used to code the interviews. This is a process of coding where there are no preexisting coding frames. Discrepant cases were evaluated once the data has been coded and analyzed. There was no discrepant case in this study.

# **Issues of Trustworthiness**

# **Credibility (Internal Validity)**

Credibility is how confident the qualitative researcher is in the truth of the research study's findings. It means how closely the researcher describes the reality. Therefore, Research findings are true and accurate if triangulation finds them credible. To keep my research credible, the researcher kept a reflective journal seeking peer review and colleague debriefing to avoid bias-free data (Shufutinsky, 2020).

# **Transferability (External Validity)**

Transferability means generalization in qualitative analysis. This means that study findings in one location can be used in another situation and context. The context of the data collection method defines the data, and therefore, transferability is very weak in qualitative analysis. Purposeful sampling is the key to resolving transferability issues (Daniel, 2019). In this study, the researcher ensured the sample size and participants were adequate for data saturation. The researcher had a minimum of 10 RTs until saturation was reached. The use of varied demographics not limited to age, years of experience, gender, and place of employment helped research to be transferable.

### Dependability

According to Stenfors et al. (2020), dependability depicts trustworthiness because it shows that the research finding is repeatable and consistent. For example, suppose someone else is presented with the same raw data and arrives at the same conclusion. In that case, a research process's findings, interpretations, and conclusions were consistent and reliable. To establish dependability, one could have an outside researcher conduct an inquiry audit on the study. In this study, the researcher had a peer review and debrief where all possible questions were answered. The researcher was transparent and documented all the steps of the study.

### Conformability

As the name implies, confirmability refers to the degree of result collaboration or confirmation by others. For example, when research is conducted, the method of the research process is documented. Another researcher may decide to confirm what you did by following the procedure layout. This process will ensure that an appropriate procedure was followed and the same result is achieved. Confirmability is the degree of neutrality in the research study's findings (Singh et al., 2021). In this study, the researcher used a

reflective journal to keep himself in check and a peer debriefer to discuss the steps of the study.

## **Intra and Intercoder Reliability**

Intra-coded reliability measures the consistency of a researcher coding data at multiple time points. The researcher will be wholly familiar with the data that he codes the data consistently at different times. Intercoder, on the other, is the measure of agreement between two various coders on how the same data should be coded (O'Connor & Joffe, 2020). Again, the researcher intends to be wholly familiar with the data that one will code the data at two different times to show consistency. The researcher consulted a Walden dissertation student doing a qualitative inquiry to act as peer review, who was not a respiratory therapist to code the data. This process brought reliability and consistency to the coded data.

# **Ethical Procedures**

The five principles of research ethics include minimizing the risk of harm, obtaining informed consent, protecting anonymity and confidentiality, avoiding deceptive practices, and providing the right to withdraw (Resnik, 2020). A researcher must preserve the anonymity and confidentiality of the participants. In addition, the information provided by the participants should not cause them to harm their lives and livelihood. The participants have experience working in an acute care center and as a member of the COPD multidisciplinary team in Newark, New Jersey. The participants' overall experience as RTs was 36 months minimum. The researcher emailed the consent form for participation to all the participants. The ones who agreed to sign the consent to participate were allowed to participate. The researcher continued recruiting and interviewing participants until saturation was reached (Moser & Korstjens, 2018).

Institutional permission was not required as no specific hospitals are being used to recruit participants. The researcher included the rights of the participants in the letter of intent. The rights included refusing to participate, not continuing the interview, and not be contacted after the interview for follow-up questions. By following the roles of the researcher and abiding by the recruitment strategies as stated, all ethical concerns were avoided. The researcher used purposive, convenient, and snowball sampling strategies to recruit the participants and get truthful information from the participants (Bhardwaj, 2019). The main goal of purposive sampling is to focus on particular characteristics of a population of interest: RTs with 36 months as RTs, experience in an acute care hospital, and a multidisciplinary care team. The sampling was convenient as the participants were RTs currently working in Newark, New Jersey. There was a snowball sampling technique because subjects who agreed to participate in the research were asked to assist me in identifying other potential subjects. Participants affiliated with the researcher as colleagues at the workplace or family members were exempted from participating in this study.

The researcher did not see any adverse events in the participants. However, suppose that the interview triggers a bad memory by any means. In that case, the interview will be stopped, and the participant will be given the option to continue, reschedule or withdraw from the study. The participants were all RTs currently working in Newark, New Jersey, with 36 months of experience as an RT, experience in an acute care hospital, and a COPD multidisciplinary care team.

As data was collected, the researcher assigned letters to the participants so that their real names remain confidential. The researcher kept the data in a safe place for five years following the publication of the inquiry. Finally, the researcher will destroy the data by erasing the electronic recording and shredding all paper documents five years after publication.

The researcher thanked the participants for their participation in the study at the end of the interviews and present them with a gift card as disclosed in the consent form. The researcher also allowed every participant to ask questions at the end of the interviews. The researcher used a reflective journal and peer review to keep data analysis bias-free (Adu, 2019).

### Summary

Chapter one included the background, the problem statement, the purpose of the study, research questions, the theoretical framework to understand the analysis, the nature of the study, the definitions, assumptions, scope and delimitations, and the study's limitations. There are three major sections in chapter 2: the literature search strategy, the theoretical foundation, and the literature review. The literature search strategy included library databases, search terms, and search processes. The theoretical foundation has major theoretical propositions focusing on accountability theory, its use in the past, and

its relation to the study. The literature review talked about COPD, its causes, diagnosis, prevention measures, RTs, COPD multidisciplinary care teams, and the quality of care in healthcare. The summary of chapter three included the purpose of the study, the research design, the role of the researcher, the methodology, data collection instruments, procedure and participation, trustworthiness issues, and ethical practices in qualitative research. The interview questions were aligned with the research questions through the perspective of accountability theory in a basic qualitative inquiry. The study's goal was to provide needed information on the specific roles and responsibilities of RTs in a COPD multidisciplinary care team because RTs knowing their roles and responsibilities will enhance the quality of care and improve the delivery of healthcare services for patients with COPD. Chapter 4 includes field test results, data collection details, data analysis, coding and theme formation, evidence of trustworthiness, and the result of the study.

### Chapter 4: Results

#### Introduction

The purpose of this basic qualitative study was to explore RTs' perceived roles and responsibilities in a COPD multidisciplinary care team. The roles and responsibilities affected, evaluated, and monitored by a potential multidisciplinary team for RTs in Newark, New Jersey, will be examined. I conducted this study to understand the lived experiences of RTs on their specific roles and responsibilities in a COPD multidisciplinary team. The findings of this study, RTs knowing their roles and responsibilities could improve the quality of care and enhance the delivery of healthcare services for patients with COPD. The study's findings may help further research to seek the perceptions of RTs in cities other than Newark New Jersey. It is also very important to seek the perception of respiratory therapy leaders regarding the roles and responsibilities of RTs in a COPD multidisciplinary care team.

## **Research Questions**

Research Question 1 (RQ1): What are the RTs perceived roles and responsibilities in a COPD multidisciplinary care team in Newark, New Jersey?

Research Question 2 (RQ2): What are the perceptions of the RTs' roles and responsibilities when RTs are monitored and evaluated by the COPD multidisciplinary team?
#### **Chapter Organization**

This chapter includes the pilot study, settings, demographics, data collection, data analysis process, evidence of trustworthiness, final result, and a summary of the data collecting process.

#### **Pilot Study**

A pilot study is a small-scale study conducted in preparation for a larger study. The pilot study will demonstrate if the interview questions are valid to answer the research questions. This field test aims to test the validity of the interview questions by recruiting two RTs and interviewing them with semi-structured interview questions. The recruitment, participation, and data collection in this pilot study is the same procedure as the actual inquiry. This is achieved by careful review of the responses from the two RTs recruited, which will allow me to explore research problems without altering the instrument.

The required criteria for the pilot study were described in the recruitment flyer (Appendix A). The criteria included RTs currently working in the city of Newark, New Jersey, a minimum of 36 months experience as a respiratory therapist, and experience with multidisciplinary care teams for patients with COPD. Respiratory therapists with no experience in acute care hospitals, no experience with a multidisciplinary care team, and less than 36 months as an RT were excluded from this study. The flyer for participation was posted on a social media platform. Those who agreed to participate and qualified were emailed the invitations to participate in the study and the consent forms. The options for the interview included face-to-face, the use of skype or zoom, or phone interviews to allow for in-depth discussion and expansion of answers.

For the pilot study, I tested the interview questions with two participants. The pilot study was used to validate the researcher-guided interview instrument. It is to make sure that the interview questions answer the research questions appropriately. The two participants signed the consent form before the commencement of the interview questions will not be included in the data analysis. The two participants preferred email interviews and therefore, the interview questions (Appendix B) were sent to them, and answers were received. The researcher reviewed the interview questions and concluded that the interview questions are appropriate to answer the research questions. There was no need to do any adjustments to the interview questions. The researcher used P to represent participants and a letter to each participant following the order of the interview dates and times. PA represents the first pilot study participant and PB represents the second pilot study participant.

#### Table 1

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	Name	Age	Marital	Gender	Years of	Education	Employment
			Status		Experience	Level	Status
	PA	42	Married	Male	8	College	Full Time
	PB	55	Married	Female	20	College	Full Time

Demographics of Pilot Study Sample Size of RTs Working in Newark New Jersey

#### **Interview Setting**

The researcher recruited a total of 12 participants for this study from the city of Newark, New Jersey. Two participants were for the pilot study and ten for the main study. There are no organizational affiliations and therefore no conditions that influenced this study. There were no budget constraints and most of the interviews were done through email. This is a result of the present condition shortage of RTs during this Covid 19 time. The researcher also used email for follow-up questions. The protection and comfort of the participants were my top priority and therefore used their preference for the interview process. The participants answered the questions according to their experiences working in the city of Newark, New Jersey. I worked closely with all the participants in terms of how they wanted to answer the interview questions. They answered the questions based on their experiences, the community they serve, their workplace, and their views. Because most of them preferred email, a follow-up question was also through email. The recruitment and interviews took almost two months to be completed. The flyers for this study were displayed on social media platforms like Facebook, Instagram, and LinkedIn. Within hours of the flyer being posted, I started receiving emails from people who wanted to participate in the study. The participants for the pilot study were associated with letters, PA and PB. The participants of the main study were associated with a letter and a number. The letter P represented participants, while numbers from 1 to 10 for each participant followed the order of interview dates and times. These participants were assigned these specified numbers rather than by name for ethical research purposes, P1, P2, and P3 respectively.

The consent form (Appendix C) was sent to all participants via email, to which they all replied "I consent" back to me via email. I saved all the consent forms with the email transactions in my flash drive which is saved in my secured drawer. I collected all the demographics after the informed consent and before sending them the interview questions. For the face-to-face interview, the demographics were collected before the interview took place. As stated before, there were no personal or organizational affiliations that emerged that would have influenced the participants or their experiences in the study.

#### **Demographics**

There were ten participants in this study. Data saturation was detected in the eight participants, but the interview and data collection ended in the tenth participant. There were 5 females and 5 males that participated in this study. The range of experience ranges

from 7yrs to 30yrs of service as a respiratory therapist. Eight of the RTs are registered while two are technicians. Both registered RTs and technicians are given the same roles and responsibilities in an acute care setting. For the main study, I used P to represent participants and numbers to each participant following the order of the interview dates and times. P1 represents the first main study participant and P2 represents the second main study participant and so on.

#### Table 2

Age	Marital	Gender	Years of	Education	Employment
	Status		Experience	Level	Status
41	Married	Male	8	College	Fulltime
57	Married	Female	19	College	Fulltime
61	Married	Female	23	College	Fulltime
40	Single	Female	15	College	Fulltime
50	Married	Male	17	College	Fulltime
55	Single	Female	23	College	Fulltime
35	Single	Female	10	College	Fulltime
40	Married	Male	12	College	Fulltime
60	Married	Male	30	College	Fulltime
34	Married	Male	7	College	Fulltime
	Age 41 57 61 40 50 55 35 40 60 34	AgeMaritalAgeStatus41Married57Married61Married40Single50Married55Single35Single40Married61Married55Single35Single40Married60Married61Married	AgeMaritalGenderStatusStatus41MarriedMale57MarriedFemale61MarriedFemale40SingleFemale50MarriedMale55SingleFemale35SingleFemale40MarriedMale35SingleFemale40MarriedMale40MarriedMale40MarriedMale	AgeMaritalGenderYears of ExperienceStatusStatus41MarriedMale841MarriedMale191957MarriedFemale232340SingleFemale151550MarriedMale173555SingleFemale231040MarriedMale121040MarriedMale123034MarriedMale710	AgeMaritalGenderYears of ExperienceEducation Level41MarriedMale8College57MarriedFemale19College61MarriedFemale23College40SingleFemale15College50MarriedMale17College55SingleFemale23College35SingleFemale10College40MarriedMale12College40MarriedMale12College60MarriedMale30College34MarriedMale7College

Demographics of Main Study Sample Size of RTs Working in Newark New Jersey

#### **Data Collection**

The researcher interviewed ten participants for this study. The participants were RTs who are currently working in the city of Newark, New Jersey. Most of the participants preferred answering the questions and emailing back the answers. They answered the interview questions to the best of their knowledge. I mostly got the participants of this study through snowballing. Due to the snowball method of recruitment, five participants were referred by previous participants. I interviewed 10 RTs for this study. Saturation was reached at the seven participants, but the researcher interviewed three more participants, totaling the number to 10 which corresponds to the number of participants mentioned in chapter three. At this point, there was no need to continue to recruit and interview more participants. I interviewed one participant face to face, but the rest was through email. The interview questions were sent to them via email and they answered the questions and emailed back. The follow-up questions were also via email.

It took almost two months to gather all the data for this study. The face-to-face interview was recorded using an android smartphone and was transcribed verbatim for analysis. There was no skype or zoom interviews and no need to use Free Conference call services. The RTs who submitted their answers to the interview questions spent twice the time as one who did a face-to-face interview.

#### **Data Analysis**

The data analysis started with the identification of the participants. The researcher used P to represent participants and numbers to each participant following the order of the interview dates and times. P1 represented the first participant and P2 represented the second participant and so on. The data review occurred throughout the data collection. This data analysis was an iterative process that took at least four hours and three days a week. The researcher grouped words that are repetitive by the participants using descriptive and structural coding. The researcher henceforth began data interpretation after identifying categories and themes. The use of research questions, in conjunction with the interview questions, helped identify the major categories. Based on the interview questions, the major categories included RTs' participation in the COPD multidisciplinary care team, the roles and responsibilities in the team, how RTs felt their roles and responsibilities are perceived by other members of the team, what RTs believe what their roles and responsibilities should be if different from their current roles and responsibilities, and examples of what roles and responsibilities RTs have been accountable and the reason why they are accountable. The identification of major categories was followed by the identification of subcategories. This was achieved by looking for patterns in the transcripts, line by line. These patterns were grouped as subcategories.

I started the process of manual coding as follows:

- I started with the transcription of the interviews using an Excel file. I made nine excel sheets, one sheet per interview question. It was a good way to detect codes, categories, and themes by having ten answers for the same question in one excel sheet.
- 2. This was followed by the researcher choosing an inductive coding process, which is also called open coding. With inductive coding, all codes arose directly from the responses of the participants or the data itself. This is different from deductive coding where predefined codes are assigned to the data set.
- 3. The qualitative dataset was broken into smaller samples based on the interview questions. These samples were read and reread and codes were created to cover

the samples. This was achieved by the researcher going through the data linebyline. For example, in a COPD multidisciplinary team, RTs taught patients how to breathe during episodes, how to use their Incentive Spirometer (IS), when and how to use their oxygen devices, the irritants that trigger their wheezing episodes.

- 4. These codes were compiled into a category and fitted into the coding frame.
- 5. The themes that came up the most were identified. For example, the theme that saw RTs as educators emerged, followed by other themes that emerged from the data set.

# Research Question 1 (RQ1): What are the RTs perceived roles and responsibilities

in a COPD multidisciplinary care team in Newark, New Jersey?

Themes: **RTs as Educators** 

#### Table 3

CODES	CATEGORIES	THEMES
Educate patients (1)	Primary role and responsibility	RTs as educators.
Educate dangers of Cigarette smoking (2)	Primary role and responsibility	RTs as educators.
What triggers their symptoms (2)	Primary role and responsibility	RTs as educators.
Educate them on how to take their treatments (3)	Primary role and responsibility	RTs as educators.
		RTs as educators.
Teach Incentive Spirometer to patients (3)	Primary role and responsibility	
Teach how to use Acapella to clear secretion (3)	Primary role and responsibility	RTs as educators.
~ /		

Codes to Categories to Themes Transition to Research Question 1

Educate patients from feeling	Secondary role and responsibility	RTs as educators.
scared to better daily living (4)		
Focus on disease prevention (4)	Secondary role and responsibility	RTs as educators.
Health promotion (4)	Secondary role and responsibility	RTs as educators.
Educate and enhance adherence to medication (5)	Primary role and responsibility	RTs as educators.
Provide and reinforce COPD	Secondary role and responsibility	RTs as educators.
patient education (7)		
Pursed lip breathing (7)	Primary role and responsibility	RTs as educators.
Educate on managing disease (8)	Primary role and	RTs as educators.
Smoking cessation (8)	responsibility	
Breathing exercises (8)	Primary role and responsibility	RTs as educators.
		RTs as educators.
Medical education for inhalers such as MDI and DPI. (8) (2)	Primary role and responsibility	

P1 stated that education is one of the roles and responsibilities of RTs while P2 stated, "My role and responsibility as RT within COPD Multidisciplinary Care Team is keeping a close eye with patients' history and also what triggers their symptoms, the proper of MDI, chest physical therapy, mucolytic and monitoring their oxygen saturation". In addition, P3 stated:

As RT, we take care of patients, give them nebulizer treatments, assist them with their equipment like flutter valve, BIPAP, mechanical ventilation, we do the chest physiotherapy (CPT), help them, ABG, we do educate them with their equipment and how to take their treatments. We help them with their oxygen therapy, incentive spirometer, acapella is a good equipment in the clearance of secretion. You educate the patient how to do it properly, that's a good help.

P4 took education as a responsibility to a different level. According to P4: When you're able to educate patients, it helps them move from a place of feeling scared and powerless when they get diagnosed with COPD along with the symptoms that keep them from their daily living and is what they love.

P7 said that patient education is the key, and stated:

Continue to ensure patients thoroughly understand their medications and how to take them, also teaching them how to identify the symptoms of an impending exacerbation and what to do are all important factors RT should continue to carry out in the multidisciplinary care team". To further explain RTs as educators, P8 stated, "Patients should be educated on managing their disease with the action plan developed in conjunction with the physician. This includes identifying symptoms, smoking cessation, breathing exercises, and administrating medication the right way". The RTs' role as educators cannot be overemphasized. They are in a better position as a member of the COPD multidisciplinary team to educate patients on their disease process and how they could manage their triggers to reduce exacerbations.

In addition, P5 talked about helping COPD patients to follow a proper diet plan. P5 stated, "RTs' role should not be to just stabilize the patients with signs of COPD exacerbation but also to help assess the patient's ability to afford the medications, to educate and enhance patient adherence to medication and help them to follow a proper diet plan to lead a better life". In conclusion, educating COPD patients has become part and parcel of the roles and responsibilities of RTs in Newark, New Jersey. COPD patients deserve to have a good knowledge of their disease process and all the numerous machines we use to treat them. Some of these machines and treatment modalities follow the patients upon discharge and are very important for the patients to know.

#### Theme: RTs provide airway management and mechanical ventilation

### Table 4

Codes to Categories to Themes Transition to Research Question 1

CODES	CATEGORIES	THEMES
RTs do airway and	Airway and Ventilatory	RTs provide airway
ventilatory management	Management	mechanical Ventilation
(1)		
They wean patients off	Patient Weaning	
ventilators		RTs provide airway management and mechanical Ventilation
BIPAP initiation or	BIPAP or Noninvasive	RTs provide airway
noninvasive therapy (3) (5)	Ventilation	management and mechanical Ventilation
(7)		
(6) (1)		
	Machanical Vantilation	DTa movida simular
Manage patients on	Mechanical ventilation	management and
mechanical ventilation (3)		mechanical Ventilation
(9) (10)		
	Intubation	
RTs Facilitate intubation and protect the patient airway (5) (6) (9)		RTs provide airway management and mechanical Ventilation

Airway Protection

airway (9) (10)

RTs provide airway management and mechanical Ventilation

The perceived roles and responsibilities of RTs in a COPD multidisciplinary team in Newark New Jersey also included airway management and mechanical ventilation. According to P1:

RTs play an important role on the COPD multidisciplinary care team, as an RT we do airway and ventilatory management who intubated due to worsening of COPD. At the early stages of COPD exacerbation, we help patients with noninvasive ventilation.

In addition, P5 stated, "RTs' role is perceived as an important aspect in the multidisciplinary care team since it involves protecting the patient's airway and stabilizing the patients breathing with either noninvasive ventilation like BIPAP or to facilitate intubation if the patients exhibit signs of severe respiratory distress. P10 stated:

My roles and responsibilities as a respiratory therapist within the COPD multidisciplinary care are many. Including; setting up and initiating mechanical ventilation for our patients, assisting in managing a patient on mechanical ventilation, providing BIPAP for non-invasive ventilation, administering bronchodilators, and assisting in obtaining and securing an artificial airway during cardiac arrest or in any other medical emergencies.

P9 also talked about the expectations of the roles of RTs in a COPD multidisciplinary team. P9 stated, "Expectations for RT roles – Man and protect the airway in a critical situation. Intubate (insert breathing tube) or assist Anesthesiologist in the intubation procedure. RT roles are to maintain a patent airway in critical situations, obtain and analyze blood gases and based on the result adjust oxygen delivery to maintain adequate oxygen level in the system". In addition, P5 stated that RTs' role is to protect patients' airways while P6 stated that when a patient is in severe respiratory distress, placing a patient on BIPAP will help alleviate respiratory distress. According to P6, "I think RT is very responsible for COPD patients' wellbeing. RT could decide when to give bronchodilator treatment and when treatment should be PRN or stopped if not needed. RT sees patients more than any other healthcare worker. When a COPD patient is on treatment or noninvasive ventilation, RT is the only person who is solely responsible for taking care of the patient respiratory-wise. Drawing blood and deciding what form of ventilation and what parameters are better for the patient. RT draw ABGs they also run ABGs. They are the first ones to have blood gas results in their hands. RTs are the first ones to know if it is respiratory or metabolic acidosis or alkalosis. They can readjust ventilator parameters and help patients breathe better. RTs have a very important and very critical role for COPD patients".

#### Theme: RTs provide therapeutic and diagnostic services

## Table 5

Codes to Categories to Themes transition to Research Question 1

CODES	CATEGORIES	THEMES
RTs Give breathing treatments (1) (3) (6)	Therapeutic Services	RTs provide therapeutic and diagnostic services
They draw and run arterial blood gas (ABG) (1) (3) (6) (7)	Diagnostic Services	RTs provide therapeutic and diagnostic services
RTs do chest physical therapy (CPT) (2) (3)	Therapeutic Services	RTs provide therapeutic and diagnostic services
Assist them with the flutter valve (3)	Therapeutic Services	RTs provide therapeutic and diagnostic services
RTs provide oxygen and	Therapeutic Services RTs pro	ovide therapeutic
monitor patients' oxygen saturation (2) (3) (9)		and diagnostic services
RT performs pulmonary	Diagnostic Services	RTs provide therapeutic
function tests (8)		and diagnostic services

RTs primarily give nebulizer treatments to patients with breathing difficulties. This is a treatment that dilates the bronchioles. According to P3, "As RT, we take care of patients, give them nebulizer treatments, assist them with their equipment like flutter valve, BIPAP, mechanical ventilation, we do the chest physiotherapy (CPT), help them, ABG, we do educate them with their equipment and how to take their treatments. We help them with their oxygen therapy, incentive spirometer, acapella is a good equipment in the clearance of secretion. You educate the patient how to do it properly, that's a good help". P4 talked about access and treat COPD patients. P4 stated, "RT works with the team together to assess, treat, and support people suspected of having and/or living with COPD". P7 talked about providing complete care for COPD patients which included providing treatment or therapy to patients with breathing difficulty, arterial blood gas (ABG), respiratory airways clearance therapies, and NIV.

This was also concurred by P6 who stated:

I think RT is very responsible for COPD patient's wellbeing. RT could decide when to give bronchodilator treatment and when treatment should be PRN or stopped if not needed. RT sees patients more than any other healthcare worker. When a COPD patient is on treatment or noninvasive ventilation, RT is the only person who is solely responsible for taking care of the patient respiratory-wise. Drawing blood and deciding what form of ventilation and what parameters are better for a patient. RT draw ABGs they also run ABGs.

P8 talked about the importance of the Pulmonary Function Test (PFT). According to P8, "When a doctor orders Pulmonary Function Testing or PFTs, this is a very important lung function test, and can determine how well the patient can breathe and how effectively their lungs can send oxygen to the rest of the body. PFTs can help to see if the condition is progressing, or how it is responding to treatment. PFTs can help diagnose pulmonary diseases".

# Research Question 2 (RQ2): What are the perceptions of the RTs' roles and responsibilities when RTs are monitored and evaluated by the COPD multidisciplinary team?

Theme: RTs feel more accountable for their roles and responsibilities

#### Table 6

member monitors or evaluates me (2)

CODES	CATEGORIES	THEMES
The presence of other	Positive Effect	Accountability
members helps RTs to do		
their jobs. (1)		
Yes, I would be more responsible if someone in the team monitors me (1)		
	Positive Effect	Accountability
More accountable if a		

# Codes to Categories to Themes transition to Research Question 2

	Neutral Effect	Accountability
To tell you the truth, it is not affecting me because this is something that we do every day. (3)		
Being monitored will help RTs respond in a client centered	Positive Effect	Accountability
manner (4)		
My role is very critical because I need to make a quick decision to stabilize the patient (5)	Neutral Effect	Accountability
	Positive Effect	Accountability
I have no problem with being monitored by other team members because I can improve my skills while taking care of members, and I would love to do that. (6)		
Roles and responsibilities are the same. My concern	Positive Effect	Accountability
is patient care and being		

monitored wouldn't enange		
(7). The presence of other		
members may affect roles		
and responsibilities (7)		
The presence of other team	Positive Effect	Accountability
members enhances my		
performance,		
Does not affect my roles and responsibilities (9)		
When I am being monitored and evaluated	Negative Effect	Accountability
When I am being monitored and evaluated by my team members, I	Negative Effect	Accountability
When I am being monitored and evaluated by my team members, I perceive my roles and	Negative Effect	Accountability
When I am being monitored and evaluated by my team members, I perceive my roles and responsibilities are viewed	Negative Effect	Accountability
When I am being monitored and evaluated by my team members, I perceive my roles and responsibilities are viewed as insignificant except in	Negative Effect	Accountability
When I am being monitored and evaluated by my team members, I perceive my roles and responsibilities are viewed as insignificant except in an emergency like the	Negative Effect	Accountability

The next category was about accountability theory and its application to RTs' roles and responsibilities. The subcategory included whether RTs perceive accountability as part of their daily practice. Some of the statements made by the participants (RTs)

include one made by participant 1(P1) who stated that "I have been always accountable for the ventilator management and the ABG lab results for the patients sometimes the MDs allow us to make changes on the ventilators or asked me to suggest them a better setting for the patient" Participant 2 stated "I feel more accountable if a member of the Multidisciplinary Team like Pulmonologist monitors or evaluates me since it takes a whole team to understand a patient and also the care a patient requires". Participant 3 stated "O' yes, very accountable. This is not something you can play with. I am very accountable. I do take accountability for what I do. This is something you cannot play with. I am very accountable".

Participant 6 stated that "Once in the ER, a COPD patient came with an allergic reaction and couldn't breathe, the tongue was swollen. As an RT, I didn't want the patient to get intubated, so I paged MD and got verbal order for STAT nebulizer treatment, and gave treatment to the patient. I also put the patient on a non-invasive mode of ventilation and chose settings that I felt would help the patient instead of waiting for MD to arrive". Participant 7 stated that "An experienced where a member of the care team was held accountable for RT roles and responsibilities were when a COPD patient was scheduled around the clock to receive respiratory treatments, but due to short staff and busy assignments, the patients' treatments were delayed and not received on time. This caused the patient to go into respiratory distress leading to exacerbation. Due to severe respiratory distress, the patient had to be transferred to the intensive care unit (ICU) and placed on non-invasive ventilation (NIV) and monitored closely".

The overarching theme is that RTs perceive feeling accountable for all their roles and responsibilities towards their patients and also reach out to other members of the COPD team.

#### **Evidence of Trustworthiness**

A study is trustworthy when a qualitative researcher demonstrates that data analysis has been conducted in a precise, consistent, and exhaustive manner by recording and systematizing the data analysis process. To achieve trustworthiness, I disclosed the method of my data analysis with enough detail to enable the reader to conclude if the process is credible. I achieved trustworthiness by applying credibility, transferability, dependability, and confirmability for this basic qualitative study.

#### Credibility

Credibility is how confident the qualitative researcher is in the truth of the research study's findings. It means how closely the researcher describes the reality. To keep the research credible, the researcher kept a reflective journal seeking peer review and colleague debriefing to avoid biased data (Shufutinsky, 2020). I established credibility during the study by providing the same questions to all the participants. I also ensured that participants agreed to their words to ground the data. I used follow-up questions via email as the case may be for further clarification.

#### Transferability

Transferability means generalization in qualitative analysis. This means that study findings in one location can be used in another situation and context. The context of the

data collection method defines the data, and therefore, transferability is very weak in qualitative analysis. Purposeful sampling is the key to resolving transferability issues (Daniel, 2019). There were no changes made to affect the transferability of the study. Purposeful sampling and snowballing strategies were used to recruit the participants. Ten RTs were used for this study and were adequate for data saturation. The years of experience, gender, and credentials are the demographics used in this study. Evidence of quotes from the major categories and concepts was utilized to ensure adequate description. This study will lead to the same result if repeated under the same condition.

#### Dependability

According to Stenfors et al. (2020), dependability depicts trustworthiness because it shows that the research finding is repeatable and consistent. For example, suppose someone else is presented with the same raw data and arrives at the same conclusion. The researcher used peer review and debriefing to establish the dependability of the study. The data aligned with the research questions. The same raw materials if presented to someone else will arrive at the same research process's findings, interpretations, and conclusions.

#### Conformability

Confirmability is the degree of neutrality in the research study's findings (Singh et al., 2021). As the name implies, confirmability refers to the degree of result collaboration or confirmation by others. For example, when research is conducted, the method of the research process is documented. Another researcher may decide to confirm what you did by following the procedure layout. This process will ensure that an appropriate procedure was followed and the same result is achieved. I used reflective journals and peer debriefing to maintain the conformability of this study.

#### Results

The themes that emerged from the collected data and analysis following each of the research questions are as follows:

# Research Question 1 (RQ1): What are the RTs perceived roles and responsibilities in a COPD multidisciplinary care team in Newark, New Jersey?

The three themes that emerged to answer the first research question were that RTs perceive themselves as educators; RTs provide therapeutic and diagnostic services; RTs provide airway management and mechanical ventilation.

#### **RTs Perceive Themselves as Patients' Educators**

The participants in this study identified themselves as patients' educators. According to P1, "The other responsibilities include education". Participant 2 stated, "The role of the Multidisciplinary Care Team should be letting patients know the danger of cigarette smoking and avoiding what triggers their symptoms". According to Participant 3, "we do educate them with their equipment and how to take their treatments. We help them with their oxygen therapy, incentive spirometer, acapella is a piece of good equipment in the clearance of secretion. You educate the patient how to do it properly, that's a good help". Meanwhile, Participant 4 stated that "When you're able to educate patients, it helps them move from a place of feeling scared and powerless when they get diagnosed with COPD along with the symptoms that keep them from their daily living and is what they love". Participant 5 also talked about education and the importance of patients adhering to their treatment regimen. According to Participant 5, "RTs role should not be to just stabilize the patients with signs of COPD exacerbation but also to help assess the patient's ability to afford the medications, to educate and enhance patient

adherence to medication and help them to follow a proper diet plan to lead a better life".

COPD patients could do better with the education they receive from RTs. Participant 8 stated, "As the RT we should assess a new COPD patient, as well as existing patients with every visit. Patients should be educated on managing their disease with the action plan developed in conjunction with the physician. This includes identifying symptoms, smoking cessation, breathing exercises, and administrating medication the right way. RT roles also include documenting the progress of COPD and if the patient is undergoing a pulmonary rehab program. The RT should also be performing Pulmonary Function Testing on the COPD patient".

#### **RTs Provide Therapeutic and Diagnostic Services**

The perceived roles and responsibilities of RTs include giving breathing or nebulizer treatments to patients with breathing difficulty, chest physiotherapy (CPT) to expectorate secretions, and doing arterial blood gas (ABG) to patients. RTs also help with oxygen therapy, perform pulmonary function tests (PFT) to identify lung problems, and help in the overall care of the patients. According to Participant 1, "I think RTs should step up their level and actively engage in discussion with MDs and other entities of the multidisciplinary team regarding the ABG or weaning results and suggest MDs on the therapies which can be given to the patient for a better outcome". Participant 2 stated that "My role and responsibility as RT within COPD Multidisciplinary Care Team is keeping a close eye with patients' history and also what triggers their symptoms, the proper use of MDI, chest physical therapy, mucolytic and monitoring their oxygen saturation". These therapeutics are very important to the welfare of the COPD patients. According to Participant 5, "I feel my contributions as an RT to the COPD multidisciplinary team is very crucial for patients' level of care and is very well recognized and respected as we work together with doctors and nurses to provide the best quality care".

The importance of RTs to COPD patients cannot be overemphasized. COPD patients are managed well if RTs know their roles and responsibilities. As stated by Participant 6, "I think RT is very responsible for COPD patients' wellbeing. RT could decide when to give bronchodilator treatment and when treatment should be PRN or stopped if not needed. RT sees patients more than any other healthcare worker. When a COPD patient is on treatment or noninvasive ventilation, RT is the only person who is solely responsible for taking care of the patient respiratory-wise. Drawing blood and deciding what form of ventilation and what parameters are better for the patient. RT draw ABGs they also run ABGs. They are the first ones to have blood gas results in their hands. RTs are the first ones to know if it is respiratory or metabolic acidosis or alkalosis. They can readjust ventilator parameters and help patients breathe better. RTs have a very important and very critical role for COPD patients".

Diagnostic testing like the pulmonary function test (PFT) is an important role that RTs perform. This is a test that determines the condition of the lung. Lung function could be normal, restrictive disease, or obstructive disease condition. COPD patients normally fall into the obstructive category of lung function. Participant 8 stated, "When a doctor orders Pulmonary Function Testing or PFTs, this is a very important lung function test, and can determine how well the patient can breathe and how effectively their lungs can send oxygen to the rest of the body. PFTs can help to see if the condition is progressing, or how it is responding to treatment. PFTs can help diagnose pulmonary diseases".

#### **RTs Provide Airway Management and Mechanical Ventilation**

The initiation of mechanical ventilation and airway management was mentioned several times in the data. According to participant 1, "RTs play an important role on the COPD multidisciplinary care team, as an RT we do airway and ventilatory management who intubated due to worsening of COPD. At the early stages of COPD exacerbation, we help patients with non-Invasive ventilation". Participant 5 also mentioned mechanical ventilation and airway management. According to participant five, "RTs role is perceived as an import aspect in the multidisciplinary care team since it involves protecting the patient's airway and stabilizing the patient breathing with either noninvasive ventilation like BIPAP or to facilitate intubation if the patients exhibit signs of severe respiratory distress".

Participant 9 talked about the roles and responsibilities of RTs in COPD and the importance of the initiation of mechanical ventilation. According to participant 9, "Expectations for RT roles – Manage and protect the airway in a critical situation. Intubate (insert breathing tube) or assist Anesthesiologist in the intubation procedure. RT roles are to maintain a patent airway in critical situations, obtain and analyze blood gases and based on the result adjust oxygen delivery to maintain adequate oxygen level in the system". Moreso, Participant 9 stated, "In more critical situations RTs apply mechanical ventilation to aid breathing".

Participant 10 also emphasized the importance of mechanical ventilation and airway management. Participant 10 stated, "My roles and responsibilities as a respiratory therapist within the COPD multidisciplinary care are many. Including; setting up and initiating mechanical ventilation for our patients, assisting in managing a patient on mechanical ventilation, providing BiPAP for non-invasive ventilation, administering bronchodilators, and assisting in obtaining and securing an artificial airway during cardiac arrest or in any other medical emergencies".

The three emerging themes RTs perceive themselves as educators; RTs provide therapeutic and diagnostic services; and RTs provide airway management and mechanical ventilation as a result of the experiences of RTs in a COPD multidisciplinary team in Newark, New Jersey. RTs illustrated in their responses that educating COPD patients is the key to better management of this disease. Education ranges from teaching them pulse lip breathing to how to use respiratory equipment like BIPAP. RTs' roles and responsibilities included providing therapeutic and diagnostic services like giving COPD patients nebulizer treatments and performing pulmonary function tests (PFT). The third theme that emerged as RTs' role and responsibility in a COPD multidisciplinary team is airway management and mechanical ventilation. Airway management included suctioning patients, and intubation, while mechanical ventilation included the use of invasive and non-invasive devices to protect the airways of COPD patients.

# Research Question 2 (RQ2): What are the perceptions of the RTs' roles and responsibilities when RTs are monitored and evaluated by the COPD multidisciplinary team?

Accountability of RTs' roles and responsibilities is very important in caring for COPD patients. Eighty (80%) of the participants felt more accountable if they are being monitored or evaluated by a member of the COPD multidisciplinary care team. Some of the statements made by the participants (RTs) include one made by participant 1(P1) who stated that "I have been always accountable for the ventilator management and the ABG lab results for the patients, sometimes the MDs allow us to make changes on the ventilators or asked me to suggest them a better setting for the patient" Participant 2 stated "I feel more accountable if a member of the Multidisciplinary Team like Pulmonologist monitors or evaluates me since it takes a whole team to understand a patient and also the care a patient requires". Participant 3 stated "O' yes, very accountable. This is not something you can play with. I am very accountable. I do take accountability for what I do. This is something you cannot play with. I am very accountable". While participant 3 made that statement of being accountable, she also stated that being monitored or evaluated would not affect her because the roles and responsibilities are what she does every day. Participant 6 stated, "I have no problem with being monitored by other team members because I can improve my skill while taking care of members, I would love to do that".

Meanwhile, participant 9 said that presence of other team members may enhance his performance but does not affect his roles and responsibilities. According to participant 10, "When I am being monitored and evaluated by team members, I perceive my roles and responsibilities are viewed as insignificant except in case of an emergency or as has occurred recently, in a pandemic". Participant 5 stated the importance of RTs' roles and responsibilities and how critical for RTs to have sufficient knowledge to deal with COPD challenges. According to participant 5, "My Role as an RT is very critical in the treatment plan of COPD multidisciplinary team since RT should have sufficient knowledge of the underlying disease process, able to make a quick assessment of patient's signs and symptoms, and stabilize the patient if they have any signs of respiratory distress.

#### Summary

The two research questions showed the roles and responsibilities of RTs in a COPD multidisciplinary team in Newark New Jersey and how accountable RTs are when they are being monitored by a member of the team. The overarching themes of the study showed that RTs see themselves as educators to these COPD patients; provide therapeutic and diagnostic services; provide airway management and mechanical ventilation; are accountable for performing their roles and responsibilities.

Research question 1 is stated as "What are the RTs perceived roles and responsibilities in a COPD multidisciplinary care team in Newark, New Jersey? This question is meant to understand RTs' roles and responsibilities based on RTs' lived experiences. By analyzing the responses to the interview questions, the themes were RTs are educators, provide therapeutic and diagnostic services; and provide airway management and mechanical ventilation to patients with COPD. The education ranges from teaching them about oxygen therapy, triggers of exacerbation of the disease, proper use of metered dose inhaler (MDI), dangers of cigarette smoking, use of breathing equipment like flutter valve and incentive spirometer, and overall management of the disease process. They also provide therapeutic and diagnostic services. This is because RTs give breathing treatment to the patients, do chest physiotherapy (CPT), do arterial blood gas (ABG), and perform pulmonary function tests (PFT). Finally, RTs also provide airway management, including initiation of mechanical ventilation and management of both noninvasive and invasive machines. All these were achieved by interviewing 10 RTs currently working in Newark New Jersey with guided interview questions.

Research question 2 is stated as "What are the perceptions of the RTs' roles and responsibilities when RTs are monitored and evaluated by the COPD multidisciplinary team?" This means that the accountability of care could change when RTs are monitored and evaluated by the COPD multidisciplinary care team. Lerner and Tetlock (1999) explained accountability theory as to how one rationalizes or justifies one's behavior to another party and, in the process, develops the feeling of accountability on how decisions, processes, and judgments are reached. The theme that emerged was that the majority of the participants feel more accountable if they are being monitored or evaluated by a member of the COPD multidisciplinary care team. It is only one participant that felt being monitored and evaluated by members of the team showed insignificant of RTs' roles and responsibilities.

Chapter 4 described the pilot study, demographics of participants, results and study findings, and the development of themes from codes and categories. The three

90

themes that emerged to answer the first research question were that RTs perceive themselves as educators; RTs provide therapeutic and diagnostic services; RTs provide airway management and mechanical ventilation. The theme that emerged from the second research question was that the majority of the participants feel more accountable if they are being monitored or evaluated by a member of the COPD multidisciplinary care team. Chapter 5 will include an interpretation of the findings, limitations of the study, recommendations, and implications of the study.

#### Chapter 5: Conclusion

#### Introduction

The purpose of this qualitative study was to explore RTs' perceived roles and responsibilities in a COPD multidisciplinary care team. The roles and responsibilities affected, evaluated, and monitored by a potential multidisciplinary team for RTs in Newark, New Jersey, were examined. A literature review regarding the roles and responsibilities of RTs within the COPD multidisciplinary care team was conducted which revealed that a clear definition of tasks and responsibilities is lacking. The findings of this research could be useful because RTs knowing their roles and responsibilities can improve the quality of care and enhance the delivery of healthcare services for patients with COPD. The accountability of care changed when RTs were monitored and evaluated by the COPD multidisciplinary care team. The findings of this research could help decision-makers of acute care hospitals and health institutions to appropriately utilize RTs as educators, providers of therapeutic and diagnostic tests, and providers of the airway and mechanical ventilation to COPD patients. The research could help healthcare professionals to prevent the overlap of roles and responsibilities among members of a multidisciplinary team to improve the quality of care and enhance the delivery of healthcare services for patients with COPD.

#### **Key Findings**

Research questions addressed in this study included the following: Research Question 1 (RQ1): What are the RTs perceived roles and responsibilities in a COPD multidisciplinary care team in Newark, New Jersey? Research Question 2 (RQ2): What are the perceptions of the RTs' roles and responsibilities when RTs are monitored and evaluated by the COPD multidisciplinary team?

The analysis of the data revealed four themes which were based on responses provided by the participants. The three themes that emerged to answer the first research question were that RTs perceive themselves as educators; RTs provide therapeutic and diagnostic services; RTs provide airway management and mechanical ventilation. The second research question revealed the importance of accountability of care in a COPD multidisciplinary care team. The theme that emerged was that the majority of the participants feel more accountable if they are being monitored or evaluated by a member of the COPD multidisciplinary care team. Table 7

Summary of findings	
RESEARCH QUESTIONS	THEMES
Research Question 1 (RQ1): What are the	RTs perceive themselves as patients'
RTs perceived roles and responsibilities in	educators
a COPD multidisciplinary care team in	
Newark, New Jersey?	
	RTs provide therapeutic and diagnostic
	services
	RTs provide airway management and
	mechanical ventilation
Research Question 2 (RO2): What are the	
perceptions of the RTs' roles and	RTs are accountable for their roles and
responsibilities when RTs are monitored	responsibilities
and evaluated by the COPD	
multidisciplinary team?	
### **Interpretation of Findings**

The literature review showed the need for RTs to know their roles and responsibilities in a COPD multidisciplinary team. The findings of this study conform with what Dempsey (2019) said about the need to establish a scope of practice among all professionals within a multidisciplinary care team to minimize unintended consequences such as inaccurate diagnosis, medication errors, and inappropriate or unnecessary treatment. Furthermore, Lafrance et al. (2019) stressed the need to enhance collaboration among team members through an increased understanding of their roles and responsibilities to ensure unintended consequences. RTs in a COPD multidisciplinary team knowing their roles and responsibilities like educating patients, providing diagnostic and therapeutic services, as well as airway management and mechanical ventilation could help improve the quality of care and enhance the delivery of healthcare services to COPD patients.

### **RTs Perceive Themselves as patients' Educators**

This study revealed that RTs have the role and responsibility to educate COPD patients about their disease process and different modalities to help them cope with this disease. The literature review showed the need for RTs to know their roles and responsibilities in a COPD multidisciplinary team. This role and responsibility as educators conform with what several authors emphasized about the need for role clarity in a COPD multidisciplinary care team. The findings of this study conform with what Dempsey (2019) said about the need to establish a scope of practice among all professionals within a multidisciplinary care team to minimize unintended consequences such as inaccurate diagnosis, medication errors, and inappropriate or unnecessary treatment. In my research, one hundred percent of the participants agreed that the respiratory therapist's role and responsibilities should include patient education. They made several points that proper and continuous education, training, and coaching will help COPD patients learn how to self-manage their chronic progressive disease and prevent them from being readmitted to the hospital.

### **RTs Provide Therapeutic and Diagnostic Services**

Another role and responsibility that the participants agreed on were RTs providing therapeutic and diagnostic services to patients with COPD. Because this is a disease that makes it difficult to breathe, all RTs agreed that giving nebulizer treatments to patients with breathing difficulties is the responsibility of RTs. According to Osen (2021), it was confirmed that RTs are part of the multidisciplinary team by exploring the views of case managers (CMs) on the roles and responsibilities of RTs and consequently recommended seeking the perceptions of RTs regarding their roles in a COPD multidisciplinary discharge team. Ly et al. (2018) conducted a study on role clarity. They concluded that role clarification and communication among teams was the most effective solution to common problems in the multidisciplinary care team. The finding of this study is in agreement with what the literature said about role clarity. RTs in a COPD multidisciplinary team knowing their roles and responsibilities could help improve the quality of care and enhance the delivery of healthcare services to COPD patients.

### **RTs Provide Airway Management and Mechanical Ventilation**

This is the third theme that emerged as part of the roles and responsibilities of RTs in a COPD multidisciplinary care team. The participants agreed on the use of invasive and noninvasive devices in the treatment of COPD patients. The invasive airway management involves placing a tube in the trachea and mechanically ventilating with a respirator. The noninvasive is the use of a BIPAP machine to help COPD patients breathe better. Rickards and Kitts (2018) found that RTs' roles were evolving and growing and needed to be established according to their practice scope within the COPD multidisciplinary team. This study's finding confirmed that the roles and responsibilities of RTs needed to be established to enhance the quality of care and improve the delivery of healthcare services, especially for COPD patients.

### **RTs are Accountable for their Roles and Responsibilities**

The majority of the participants felt more accountable if they are being monitored or evaluated by a member of the COPD multidisciplinary care team. This study's finding confirmed the accountability theory according to Lerner and Tetlock (1999). Lerner and Tetlock (1999) explained accountability theory as to how one rationalizes or justifies one's behavior to another party and, in the process, develops the feeling of accountability on how decisions, processes, and judgments are reached. The findings of this study aligned with the propositions of accountability theory. One of the propositions included that there was an expectation of evaluation. The expectation of evaluation is a belief that one performance will be evaluated by another person with some rules and implied consequences. This meant that RTs may be called to justify their beliefs, feelings, or actions and that any unsatisfactory action will lead to negative consequences.

# **Limitations of the Study**

The first limitation of this study was that most of the participants preferred email interviews instead of face-to-face interviews. Although the data I received from email interviews were rich, for repeated study, in-person interviews may bring out more details not revealed in an email interview. Body language and intonation were not assessed by most of the participants. The second limitation was the small sample size of the qualitative methodology. The small sample size might not represent the larger population. For a small sample size, my goal was to have enough sample size (at least 10 RTs) to uncover a variety of opinions but to limit the sample size to the point of saturation (Ravitch & Carl, 2020). The qualitative methodology limited the study and could not be generalized beyond the participants (Generalizability).

The geographical location of this study, Newark New Jersey posed some limits to the study. This study did not allow RTs experiences outside of Newark, New Jersey. The RTs were currently working in Newark and bound with all Newark experiences. The city of Newark, New Jersey was chosen for this study because of its high percentage of COPD among adults aged 18+. In 2014, the national average of COPD among adults aged 18+ was 6.1%, the state of New Jersey was 5.1%, and the city of Newark was at 8.4% (National Association of County Health Officials, 2017). Therefore, Transferability could pose a limit to the study. Transferability implies that the results of this research study should apply to similar results under the same study conditions (Ravitch & Carl, 2020). Conditions that might distort the transferability of this study include demographics and the geographical locations of the study.

I kept my bias in check by using a reflexive journal, and peer review to keep the study bias-free. This is because I am a respiratory therapist (RT) who has personal experience and beliefs regarding the role and responsibilities of RTs in a COPD multidisciplinary care team. The peer review aligned with the data analysis and was not influenced by any professional background. This is because the peer reviewer was not a respiratory therapist (RT) or any member of a multidisciplinary team.

# Recommendations

Recommendations for further studies include conducting the same research with the majority of the participants agreeing to do an in-person interview. Body language and intonation during a face-to-face interview could give a clue that an email interview was not able to do and could produce more follow-up questions than an email interview. It is also recommended to conduct the studies with RTs working in cities other than Newark, New Jersey. This could help to acquire broader knowledge regarding the roles and responsibilities of RTs in COPD multidisciplinary teams.

This is a qualitative study through the framework of accountability theory, used to explore the perceived roles and responsibilities of respiratory therapists (RTs) in a COPD multidisciplinary care team. Further studies should explore the perceptions of other members of the COPD multidisciplinary team. The perceptions of other roles and responsibilities include but are not limited to physicians, nurse practitioners, patient care technicians, and radiology. This would expand the exploration of perceptions that was limited to only RTs in this study.

The third recommendation for further studies is to explore the perceptions of respiratory therapy leaders regarding the potential roles and responsibilities of RTs in a COPD multidisciplinary care team. It is also recommended to seek the views and perceptions of hospital leadership regarding the roles and responsibilities of RTs in a COPD multidisciplinary team from cost, benefits, and regulatory requirements. RT leaders and hospital leadership will also seek how the roles and responsibilities of RTs in a COPD multidisciplinary care team are affected when the RTs are monitored and evaluated. A fourth recommendation is to seek the perception of patients with COPD who have been treated with a multidisciplinary disciplinary team about their views regarding the roles and responsibilities of RTs in a multidisciplinary care team.

# Implications

# **Positive Social Change**

The potential positive social implications of this study may include increasing the awareness of RTs and the members of the COPD multidisciplinary team regarding RTs' roles and responsibilities in an interdisciplinary team. This awareness may improve care coordination, interdisciplinary communication, and decision-making among healthcare professionals in a multidisciplinary care team. RTs knowing their roles and responsibilities could help improve the quality of care and enhance the delivery of healthcare services to COPD patients. The study could give hospital administrators or trainers information on how to improve the performance of RTs in a COPD multidisciplinary team. It is therefore imperative that institutions that utilize multidisciplinary care teams could benefit from what was revealed in this study by utilizing RTs appropriately in their current practice.

The findings of this study could help decision-makers of acute care hospitals and health institutions to appropriately utilize RTs as educators, providers of therapeutic and diagnostic tests, and providers of airway and mechanical ventilation to COPD patients. By so doing, roles and responsibilities are defined and task delineation is identified. The findings of this study may help with what LaFrance et al.'s (2019) study revealed that the roles of multidisciplinary team members continue to overlap with all professionals' scope of practice. With these findings, collaboration and understanding among multidisciplinary team members are crucial to these patients' optimal care.

Finally, this study's finding confirmed the accountability theory according to Lerner and Tetlock (1999). Lerner and Tetlock (1999) explained accountability theory as to how one rationalizes or justifies one's behavior to another party and, in the process, develops the feeling of accountability on how decisions, processes, and judgments are reached. The respiratory therapists who participated in this study showed that they are highly accountable to their COPD patients. Future research should explore the perceptions of other members of the COPD multidisciplinary team in terms of their roles and responsibilities which include but are not limited to physicians, nurse practitioners, patient care technicians, and radiology. The implications and recommendations found in this study could be applied to other roles outside of healthcare. As a result, positive social change may be applied to other professions outside of RTs like politicians, teachers, and police officers.

# Conclusion

The use of a multidisciplinary team is very important in the treatment of COPD patients. According to the literature review, the roles and responsibilities of all the members of the COPD multidisciplinary team are not defined and as a result, could lead to unintended consequences. The literature review made a compelling reason why members of the COPD multidisciplinary care team should know their roles and responsibilities. Because RTs are members of the COPD multidisciplinary team, the purpose of this basic qualitative study was to explore RTs' perceived roles and responsibilities in a COPD multidisciplinary care team. There was also the need to examine how those roles and responsibilities were affected when RTs are evaluated and monitored by members of a COPD multidisciplinary team.

According to the participants, RTs perceived themselves as educators. The education ranged from teaching them pulse-lip breathing to how to use respiratory equipment like BIPAP machines. RTs' roles and responsibilities included providing therapeutic and diagnostic services like giving COPD patients nebulizer treatments and performing pulmonary function tests (PFT). The third theme that emerged as RTs' role and responsibility in a COPD multidisciplinary team is airway management and mechanical ventilation. Airway management included suctioning patients, and intubation, while mechanical ventilation included the use of invasive and non-invasive devices to protect the airways of COPD patients. The fourth theme based on accountability theory was that the majority of the participants feel more accountable if they are being monitored or evaluated by a member of the COPD multidisciplinary care team.

The study's goal is to provide needed information on the specific roles and responsibilities of RTs in a COPD multidisciplinary care team because RTs knowing their roles and responsibilities could enhance the quality of care and improve the delivery of healthcare services for patients with COPD. The study answered the research questions by providing RT roles and responsibilities which showed that RTs provide education, therapeutic and diagnostic services, provide airway management, and mechanical ventilation, and are accountable for their roles and responsibilities.

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Appendix A: Recruitment Flyer

**Eligibility:** All RTs with at least 36 months of experience who are currently working in Newark New Jersey that have experience working in an Acute Care Inpatient Medical

Center working with multidisciplinary care teams

**Compensation:** \$10.00 gift card to Dunkin Donuts will be provided to every participant at the beginning of the interview process.

**Study Name:** Respiratory Therapists' Perceptions of Their Roles in a COPD Multidisciplinary Care Team.

**Study Type:** This study will require an interview either in person, virtual, via telephone interview, or by email.

**Duration:** Estimated 45 minutes. The interview includes nine open-ended questions. **Abstract:** A brief interview to explore RTs' perceptions of their roles and responsibilities in a COPD multidisciplinary care team in Newark New Jersey.

**Description:** The purpose of this study is to explore RTs' perceived roles and responsibilities in a COPD multidisciplinary care team and how those roles and responsibilities are affected when RTs are monitored and evaluated by members of a multidisciplinary care team.

**Researcher:** Iheako Charles Ike, MS, MBA. If you are interested or would like more information, please contact me at <u>Iheako.ike@waldenu.edu</u> or at (973)3427100

Appendix B: Interview Questions

Research Question 1 (RQ1): What are the RTs perceived roles and responsibilities in a COPD multidisciplinary care team in Newark, New Jersey?

- Describe whether you have participated in a multidisciplinary care team or observed peers participate in the multidisciplinary care team.
- (2) Describe your roles and responsibilities as the RT within the COPD multidisciplinary care team.
- (3) Describe situations or scenarios that demonstrate how other roles utilize or perceive the RT roles within the COPD multidisciplinary team.
- (4) How do you feel your roles and responsibilities are perceived by other members of the COPD multidisciplinary team?
- (5) If different than your experience in a multidisciplinary care team, what do you think the roles and responsibilities of the RT within the multidisciplinary care team should be, and why?

# Research Question 2 (RQ2): What are the perceptions of the RTs' roles and responsibilities when RTs are monitored and evaluated by the COPD multidisciplinary team?

- Describe how you perceive your roles and responsibilities when you are being monitored and evaluated by team members.
- (2) Describe how the presence of other members of a COPD multidisciplinary care team affects your perceived roles and responsibilities. Why and why not?
- (3) Describe if you have experienced being accountable for non-RTs' roles and responsibilities and why?

(4) Describe a situation where you have been accountable or experienced being accountable for RTs' roles and responsibilities in a COPD multidisciplinary care team.