Interprofessional Communication in the Care of Adults with Cancer:

Examining Providers’ Perceptions of Team Rounding

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Approved: ______________________

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Abstract

Interprofessional communication is fundamental to the delivery of safe, effective, patient centered care. Healthcare providers are providing more complex care to chronically ill patients and as a result the demands on the interprofessional team are growing. In order to achieve optimal care, interprofessional communication is necessary and one tool used to accomplish meeting these needs is interdisciplinary team rounding. In this study, twelve interviews were conducted with providers from five different professions: Nursing Assistant, Registered Nurse, Pharmacy, Advanced Practice Provider, and Physician. The purpose of these semi-structured interviews was to explore providers’ perceptions of interprofessional communication on an in-patient adult oncology unit at a large southern medical hospital. Six major themes emerged from the data: provider’s perceptions of interprofessional communication, perceptions of rounding, lack of information or communication, how the role is understood by others, perceptions of other’s roles, perceptions of the team and communication, and challenges or barriers. Findings from this study indicate each profession had unique perceptions, but all had a positive outlook on the necessity of interprofessional communication in the delivery of optimal patient care.
Interprofessional Communication and Rounding: My Interest

The topic of this honors thesis is founded in my greatest passions. I discovered my love of oncology in a lecture about death and dying my very first semester of nursing school. I heard the word oncology and it was as if my whole future clicked into place in that one moment. My passion for human beings is one that I was born with. I have always been fascinated by human nature and how we all relate to one another. It was this curiosity that is to credit for me receiving a second major in Interpersonal Communications. This passion also led me to enroll in an interprofessional class where I learned about interprofessional communication skills alongside my nursing peers and second year medical students. My two worlds of communication and oncology collided the summer that I was selected as a UNC Lineberger- Sylvia Lauterborn Oncology Nursing Fellow.

For eight weeks I learned the role of the oncology nurse and observed some of the best nurses I have ever met communicate with their patients, with each other, and with the rest of the team. I learned in summer of 2018, that oncology is an incredibly complex and rewarding profession. I observed how patients acutely change. I witnessed nurses transform care of the patient and family into a team sport. In those eight weeks, I also heard frustrated nurses complain of not being aware of the plan of care and not being able to attend rounds or communicate with physicians. I sat there and I wondered how it was possible that the nurses who communicated so well with each other struggled so much with another profession, and then I started to wonder what would happen if somebody took the time explore the whole story. If I took the time to ask every profession about their perceptions and how they communicate, and how they feel as a part of the team, what would I learn? The answer to that question is found in the following pages.
Background

Interprofessional communication (IPC) has been an extensive topic of discussion within the healthcare industry in the last few years. IPC is the communication that occurs amongst the variable members of the healthcare team. As a concept, IPC refers to various team members’ abilities to discuss treatment and patient care with one another. The increase in IPC interest is due to the repeatedly demonstrated notion that there is a strong correlation between communication breakdowns and poor patient outcomes, (Foranda, MacWilliams, & McArthur, 2016). One of the strategies being widely implemented to address and encourage interprofessional communication is team rounding. Team rounding is a strategy that involves reviewing a patient’s specific plan of care, priorities and patient updates, with all or as many members of the interprofessional team as possible. This “team” includes the primary nurse, attending physician, medical fellows and residents, advanced practice providers, and pharmacists (Reimer, 2014).

Team rounding has been repeatedly explored, and when implemented has been shown to improve patient outcomes by decreasing length of stays, increasing patient safety by decreasing the number of hospital-acquired infections and medical errors, and elevating quality of patient care which has been observed through patient satisfaction surveys, (Begue et al, 2012). In addition to patient benefits the health care providers also experience improved satisfaction scores, organization and workflow, perceptions of value as a team member, and interprofessional relationships between providers, (McIntosh et al, 2014), (Sharma & Klocke, 2014), and (Collette et al, 2017).

In May 2018 a pilot study was concluded at a large southern academic medical center on a general medicine floor that explored team and bedside rounding. The pilot
program results led to the institution implementing a new team rounding initiative in May of 2018. When it came time to implement this new protocol on the inpatient adult oncology unit, several barriers arose that impeded the process. In-patient oncology in particular, is a discipline that requires ongoing interprofessional communication to ensure patients are receiving high quality cancer care. Adults with cancer cannot be adequately and safely cared for if the team is not functioning properly and effectively. This requires an emphasis be placed on communication amongst team members.

The purpose of this study is to identify communication barriers and explore provider’s perceptions of team rounding and interprofessional communication on the adult in-patient oncology unit.

**Methods**

This study was approved by the University of North Carolina at Chapel Hill Nursing Research Council and Institutional Review Board.

**Procedures**

Participants were recruited through email messages sent out by the oncology unit’s nursing managers. Individuals with interest in participating in the interviews were selected based on the order in reach they responded to the email. In total twelve individuals were selected for participation: two nursing assistants (NA), two registered nurses (RN), two pharmacists, two advanced practice providers (APP), and two physicians. Individuals with less than one year of experience in their role and those who worked exclusively night shift were excluded from the study. These criteria were determined because they limit providers experience with interprofessional communication. Opportunity sampling was
used for the recruitment of both physicians in the study due to limited response and the time frame of the study.

The oncology unit examined in this study has 53 beds with a large geographical distribution. There are three different medical services that permanently reside on the unit being studied. Two teams are composed of attendings, residents, and interns known as MDE 1 and MDE2, and one team is made up of APPs known as MDE3. The pharmacists for all three teams are permanent members of the unit and their presence on interprofessional team rounds is required. The RNs presence at rounds has been intermittently encouraged but never required. A previous pilot study from a UNC School of Nursing MSN student explored the use of a technological device named Vocera was used to support calling the nurse to interprofessional rounds. This work is unpublished but referenced in several transcripts. NAs are not a part of interprofessional rounding on this unit.

A total of twelve semi-structured interviews were conducted: three NAs, two RNs, three pharmacists, two APPs, and two physicians. The interview protocol can be found in appendix A. Of the two physicians, one was in a hematology/oncology fellowship and the other was a senior resident. Each participant signed a consent form before the interview began. An Olympus Digital Voice Recorder W5-852 was used to audio record each interview. Interviews were then transcribed by a professional transcription agency. ATLAS.ti was used to analyze the content and included the principal investigator and faculty advisor (Hsiehe & Shannon).

Demographic data was collected and descriptive statistics, including frequencies, was calculated for all demographic variables. A priori codes were discussed with the faculty advisor before the interviews were conducted. These two codes were placed in a code book
prior to coding, and included dissatisfaction with current degree of interprofessional communication and team rounding and an expressed desire to improve interprofessional communication. Other emergent codes that arose through the analyses were added to the code book (appendix B).

Findings

Six major themes emerged from the data: perceptions of rounding, lack of information or communication, how the role is understood by others, perceptions of other’s roles, perceptions of the team and communication, and challenges to communication. Table 1.1 summarizes key themes that emerged from discussions with members of each profession as it relates to interprofessional communication and team rounding on an inpatient oncology unit. These themes are further explained throughout this section.

Table 1.1: Themes of Interprofessional Communication

<table>
<thead>
<tr>
<th>Themes</th>
<th>Interprofessional Quotes</th>
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<tbody>
<tr>
<td>Perceptions of Rounding</td>
<td><strong>NA:</strong> “I am the first to see things and I have more to offer.”</td>
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<tr>
<td></td>
<td><strong>RN:</strong> “Rounding is incredibly important because a lot of safety issues stem from lack of communication.”</td>
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<td></td>
<td><strong>APP:</strong> “Having nurses on rounds changes things for the better.”</td>
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<td></td>
<td><strong>Physician:</strong> “If we could just all get on the same page on rounds, it might make the day easier for everybody.”</td>
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<td></td>
<td><strong>Pharmacist:</strong> “I round with my team every day and so I feel like an integrated member and like my voice is heard.”</td>
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<tr>
<td>Lack of Information or Communication</td>
<td><strong>NA:</strong> “It would be nice to get updates as everyone else gets updated.”</td>
</tr>
<tr>
<td></td>
<td><strong>RN:</strong> “Sometimes the patient and family members are the first to tell you something... as the nurse you’re in shock... we feel that way on the regular basis.”</td>
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</table>
| How the Role is Understood by Others | **APP:** “Before rounds with nurses it was he said, she said and the story of the nurse didn't always match our understanding of the patient.”

**Physician:** “There are times when decisions have been made about something and I have no idea but that's nature of fellow position ... I can't always be on rounds.”

**Pharmacist:** “Sometimes I get pulled away or distracted by another patient that I am managing and I miss something.” |
|-----------------------------------|----------------------------------------------------------|
| **NA:** “I feel like they look past us.”

**RN:** “They don’t know us; They don’t know that we are trying to teach our nurses to be... advocates.”... (“They” includes the intern and residents)

**APP:** “Some people understand what we do- understanding gets better the more time you spend on the floor.”

**Physician:** “Nurses probably have a good understanding of how busy we are, but I think at times it can seem like we don’t care as much as we do.”

**Pharmacist:** “Some days it seems like it doesn’t matter that I’m there but then once I provide my suggestion they are welcoming and accepting and grateful.” |
| Perceptions of Others’ Roles | **NA:** “I don’t know what they do either.”

**RN:** “Residents and interns have more patients than we do so we have a better idea of how meds are affecting this specific patient.”

**APP:** “The NAs report to the nurses, the nurses are closer with us and we are closer with the Attendings but skipping one level down the chain is like all is lost.”

**Physician:** “The same can be said about how doctors perceive nurses, I don’t think we understand how busy they are and how much work they do.”

**Pharmacist:** “Physicians welcome other disciplines participating...” |
but don’t always think of it … sometime is an afterthought.”

| Perceptions of the Team and Communication | NA: “I don’t communicate with anyone above the nurse really.” |
|                                           | RN: “I think we can improve (on IPC)... miscommunication is a patient safety issue.” |
|                                           | APP: “Before... having the nurse at the bedside it was not efficient and we were two entities... when nurses started showing up at rounds it felt like a team conversation.” |
|                                           | Physician: “A more consistent team leads to better communication.” |
|                                           | Pharmacist: “Everyone’s working at max capacity or over max capacity as a result we are not always able to effectively communicate information.” |

| Challenges and Barriers                  | NA: “This is a really big unit and on days like today when I have 14 patients its hard.” |
|                                         | RN: “Interns and residents are constantly changing in and out... rotating teams makes it hard to build rapport and relationships.” |
|                                         | APP: “Find difficulty when things change rapidly which makes the plan change... Unforeseen tangents on rounds and once those start it becomes way harder to remember to reach out to nursing.“ |
|                                         | Physician: “It is very difficult to get the nurses there and... it’s hard to keep a plan in place throughout the day because everyone is so busy.” |
|                                         | Pharmacist: “Geography is a challenge because our patients are all over the unit and nurses have patients on multiple services.” |

**Theme 1: Perceptions of Rounding**

The concept of interprofessional team rounding has been circulated throughout healthcare for decades and its practice has been seen on the inpatient oncology unit for several years now. Though the notion is not new, it has lacked formal exploration with an
interdisciplinary perspective to determine significance. For the past several years, interdisciplinary rounds have typically included the physician, advanced practice practitioner (APP), and the pharmacists. Nurses have been included inconsistently in team rounding on this floor. Several interviews demonstrated that lack of nurse inclusion in these rounds has repercussions. One nurse noted, “I want to be at rounds and it’s frustrating when I’m not”.

There is no shortage of difficulties with trying to get this collective of professions together for interdisciplinary rounds. As one nurse noted, “Rounding is an interruption of the natural workflow”. A physician who acknowledged further described this theme; “It’s harder to get nurses on rounds because they can’t just drop what they’re doing to come”. Despite these concerns, the data makes clear that inclusion in rounds not only alleviates common frustrations, but it also establishes rapport and a team identity. When other professions such as pharmacy are integrated as a necessary component of rounding it becomes the status quo and a line of communication is permanently opened.

In contrast to the inclusion of pharmacy, nursing assistants (NA) are not typically included in interdisciplinary rounds. Based on their interviews, there is a desire to contribute more. One NA noted, “I am the first to see things a lot of the time”, speaking to the potential of contribution they have to offer. Another NA stated that, “they (the team), always go straight to the nurse”, indicating the default order in this setting is to bypass the NA when it comes to gathering information.

While NAs are never included, participation of nurses in team rounds has seen an increase in recent months and is linked to the release of new technology that can be used to page the nurse when the teams are heading to their patient’s room. The resulting
improvement in rounding and communication was noted by nursing staff but also by other team members in their interviews. The APP perspective overwhelmingly spoke to the notion that rounding is far improved with the presence of nursing. The concern did arise that, "We (APP team) seem to take on a lot of initiative for calling the nurses but there’s no safety net if we forget". When comparing the APP team to the resident led teams it was acknowledged that, "Physicians welcome other disciplines participating but don’t always think of it.” These comments illustrate that within interdisciplinary rounds, the roles and contributions of certain professions are less defined than others. It takes concentrated effort to initiate sustainable change to address these discrepancies.

**Theme 2: Lack of Information or Communication**

The second theme to emerge was the feeling that there are instances where they experience a lack of information or communication. Each profession encountered experiences with these feelings in some way. Similar to theme 1, NAs had a strong desire to be more included in the plan of care for patients. In one specific example a nursing assistant describes a time when a nurse called her into a post-rapid response debriefing. “One of the nurses actually included me, so I thought that was pretty cool… because we don’t really get to see that.” Shock as a response to being included in a moment of interprofessional communication clearly demonstrates how normalized poor communication has become for certain professions. Similarly, there were several instances that depicted nurses being completely left out of discussions about patient care plans and updates. Many of these examples resulted in nurses experiencing their own shock when hearing the plan for the first time from a patient or family member. One NA spoke to this
frustration when stating, that having information about the teams’ plan would allow her to better care for her patient and plan out her own day and tasks.

Most of the examples of being left out of conversations or unaware of patient plans revolved around the nurses and NAs. The only mention of a physician feeling like they lacked information was when the fellow who credits being left out to the nature of their position and being unable to attend rounds. The role of the fellow on a medical team is unique but this discussion opens the door to explore all of the roles that are encompassed within the “physician” profession. Not only do physicians have to be in communication with the members of the interdisciplinary team but there is also a hierarchy within their role that places parameters on their work and communication. The comment above by the physician fellow reinforces that those who are not present for rounds are inherently uninformed on the patient and direction of care.

**Theme 3: How the Role is understood by Others**

Several comments through the interviews spoke to the point that many healthcare professionals did not feel like other members of the team understood their roles. These feelings developed into a wide array of emotions and responses. Some nurses felt that the team had a good understanding of their role as evidenced by comments such as, “I feel like they (physicians) would feel the same way, that nurses are a very critical part of patient care for quality and safety. However other nurses hold a different perspective that their role is not understood which leads to their exclusion: “They think the patient will tell us things or that we will just find out”. If the nurse’s role was fully understood and appreciated by all staff, then having them at team rounds would be more of a priority and happen more consistently. These statements reflect how the nurses on the unit think other
professions perceive them. Their interview data in the next section reflects a different sentiment.

Per the data, nurses are not the only profession with doubts about how others perceive their roles. Though one NA made note that other professions, “see how hard we are working”, another NA shared a different story. One NA claimed that, “they (other professions on the floor), go straight to the nurses. This statement prompts the question, “Can the role and responsibilities of an NA be fully understood if they are not even included in a conversation?” The most notable proclamation came from one NA who stated, “I feel like they look past us”. This one sentence speaks volumes about the nature of the perceived relationship between NAs and the rest of the team. After all, does it matter that other positions are understood, if they do not feel valued? These sentiments have the power to create large barriers in interprofessional communication on a unit of this size, especially given the nature of the NA role and all the necessary tasks that are included.

When looking at the professions that are consistent in their interprofessional communication there is still sentiments of misunderstanding. One of the APPs stated that, “Nurses seem to want answers immediately ... we need time to ask questions and think and reflect. Timing between those two situations can be difficult”. This discrepancy in timing speaks to the underlying issue that nurses may not understand the processes that APPs and physicians go through on their end to produce answers. If these processes were better understood within and by all professions, it is likely that patience and communication between silos would increase. The element of time also played a role in how certain professions thought they were understood. Pharmacists noted that both nurses and physicians understanding of the pharmacy role and responsibilities increased with the
amount of time they had spent in their profession and on this floor specifically. Nuances like hours for medication cosigns and communication expectations became clearer the more time an individual had spent working on this unit.

**Theme 4: Perceptions of Others’ Roles**

Every profession acknowledged in some way that they lacked understanding of the nature of other roles on the floor. This is exemplified in a comment by a nurse saying, “I don’t probably have a good perception of their day and responsibilities”. Similarly, an NA noted the “they don’t know what I do, I don’t know what they do either” phenomenon that seems to happen more between professions that have a lesser degree of communication such as NAs and physicians or pharmacy. Though there is a pattern of poor understanding in some instances, there are also comments of appreciation and respect for other professions. One such example is from an APP about the NA role, “I’m not sure how much an NA would provide... I just know they spend a lot of time at the bedside so they may be able to give us more than even a nurse could”. The APP professionals interviewed were unique in their continual commitment to acknowledge all professions on this unit, including those they interact with during the day and week, Physical Therapy, Occupational Therapy, Case Management/ Social work, Dieticians, and the Chaplain.

By addressing these professions and discussing the merits of their contributions, the APP team may have illustrated one of the reasons they are known for better communication and advocating for the inclusion of other professionals. Another justification for why the APP team is known for better communication is the element of time, and it is one that repeatedly emerged in this section of the research. The general consensus among all professionals on the floor was that perceptions of other professions
depended on how well they knew one another. The fact that the intern and resident composed teams change every two weeks was an incredibly repetitive topic, mostly as it relates to the difficulties of forming rapport and relationships in such a short time frame. When a nurse was comparing her perceptions of the pharmacists on the floor with her relations to the physicians she had this to say; “With professions like pharmacy we know each other very well and communication is good... but (with the physicians) I don’t wait for them to come to me because I don’t know that they would.” The main difference highlighted here is that interprofessional communication is more comfortable between individuals that have consistent interactions with one another and have established trust and rapport. This is also exemplified in the way that one NA and one APP team member viewed the nurses role: “The nurse is the one directing things” “Nurses are good at finding out how to get answers”. They are core and permanent and seem to take on the responsibility of managing communication between all team members. By comparison this is what two team members had to say about physicians and their role on the floor: “Interns and residents are not necessarily into this and have really different knowledge levels”... “On the individual basis I have seen residents not realize the value of other team members or be dismissive of a nurses concern. Not as a group just individually.” The team members that spend the least amount of time on the unit, seem to face the toughest criticisms for their communication. It is difficult to determine at this time if there is truly a problem with physicians’ abilities to communicate, or if the deeper issue at play is that a limited time on the floor is creating communication barriers between professions.

**Theme 5: Perceptions of the Team and Communication**
The term “good overall”, was uttered in almost every interview conducted during the interview process. Even so, several participants voiced difficulties that contributed to their perceptions that communication and teamwork could stand to be improved. One such difficulty stems from the nature of trying to work within and between professional silos that have existed as the model of healthcare for decades. One pharmacist noted that, “We are working in our different silos trying to get it all done”. This acknowledges that each profession has its own tasks, and structures that they are attempting to operate within. “Everyone is coming from different educational backgrounds and comfort levels”. This comment addresses the difficult nature of interprofessional communication including so many members of the team. Not only is there variation between the professions in terms of formal education, priorities, and roles, but there is even variation within professions. New graduate nurses have a different comfort level then those who have been practicing for years. Physicians go through many changes within their profession throughout their residency and fellowship. By drawing attention to these difficulties, it is easier to combat the resulting communication breakdowns. One physician pointed out, “We don’t do as good of a job as we should...I think the upper level residents should take on a bigger role in making sure that we (page) the nurse so they can be part of rounds”. This quote demonstrates a profession taking accountability for including other members of the team, and that acknowledgment appeared repeatedly throughout every interview.

The other commonly held sentiment among each profession was that communication is not perfect, but that it has improved in recent months. This was abundantly credited to improvements in getting nurses more involved in rounding. Several individuals also spoke again about how, “having a more consistent team leads to better
communication.” To have this point acknowledged by each team shows that the drive to improve relations and communication is there. Support and understanding are required to achieve optimal teamwork and communication in any setting and that point was illustrated by both a nurse and a physician who stated, “You always have to give benefit of the doubt on both sides”, and “We all need to have a little bit more patience with one another.”

**Theme 6: Challenges and Barriers**

Once again, one of the most consistent points of feedback was challenges to communication from all teams was a, “lack of continuity and rapport”, because, “residents, interns, attendings, and fellows are changing every two weeks”. It becomes evident after repeated mentioning by almost all participants that rapport and continuity are vital attributes at the foundation of good interprofessional communication. The rotation schedule of the physicians is not an adjustable element of team communication, so the discussion should shift to focus on more modifiable barriers.

Both APPs and physicians spoke in their interviews about the sporadic nature of rounding. “There is no set order”. “You never know who you are going to see when you are going to see them or how long you will be there”. These statements illustrate how chaotic rounds can be. The primary issue on this unit is that the acuity of care is high and there are more than 3 teams who round on this unit. One provider noted that, “people are very sick and constantly changing”. This results in teams visiting patients out of order and changing the plan in the middle of rounds. To some degree this is unavoidable. Many members of the team find it so difficult to get everyone to the same place at the same time because there are multiple teams on the unit. The patients are not placed on sides of the unit according to which service they are on and so, “one nurse may have three patients on three different
teams”. This “can make it physically impossible for the nurse to make it to rounds teams”. Acuity of care and fluctuating needs are again barriers to team rounding that are not easily corrected, but it is possible to address challenges such as time management, unit structure and geography, and intentional communication efforts.

There is one other key element that needs exploration in order to properly study interprofessional communication. That element is the skills and development of the individual. One nurse observed that, “communication is hard for a lot of people… and it takes a lot of time and effort to work on”. Communication is undoubtedly a complex issue. There is an individual element to communication that can make generalizing claims about professions difficult. Communication skills are grounded in personality, education, position, experience, socialization, and a numerous number of other factors. To attribute difficulties in interprofessional communication explicitly to extrinsic factors would be a misrepresentation. However, the focus of this research was to explore perceptions of interprofessional communication and team rounding in order to explore solutions to uncovered limitations. It is more reasonable to address extrinsic factors in interprofessional communication and so those were the barriers that were identified and supported with evidence most heavily.

**Discussion**

This study’s strength lies in its immersive interdisciplinary approach. This is one of the first studies, to our knowledge, to explore interprofessional communication and team rounding in a personal and interprofessional way. It is also the first study of its kind to take place on the adult inpatient oncology unit. There was tremendous support for this study not only from nurse leadership, but also from disciplines who care for adults with cancer.
There was a deeply rooted understanding amongst all involved that this research was valuable and there was also a desire for continued improvement and change. This willingness to seek a better communicative environment allowed for honest sharing of perceptions amongst the participants.

This study was a single adult oncology unit at a large medical institution in southeastern United States. For these reasons, it is difficult to generalize findings of this study to all oncology care providers. Oncology is an unique environment with several constraints, demands, and responsibilities. There are 53 beds, three medical teams, four or more pharmacists, four APPS, sixteen nurses, and six NAs housed on this unit on any given day. This is not an environment that is replicated anywhere else in this hospital and so it is difficult to generalize to other units.

The other limitation was time. All twelve interviews were conducted on days that the participants were working. The study was designed this way to enhance participation and ensure that every participant’s time was respected and managed efficiently. Because individuals were interviewed during the workday there were pressures of the job such as pages and phone calls, and many other forms of distraction that would arise through the course of several interviews. This time limitation did not interfere with how participants addressed the interview questions.

**Implications for my future practice**

When I graduate this May, I will pass across the stage, turn my tassel, and five weeks of studying, caffeine, and an NCLEX exam later I will be a registered nurse. I will be working as a new graduate on a pediatric hematology/oncology floor in Atlanta and I will be seeing four years worth of dreaming realized. It is my most sincere hope that I will carry the
words of these wise professionals with me. I hope to use what I have learned to keep me humble and patient in moments of frustration. I hope to use this work to keep me passionate and ever seeking the knowledge of others. Most importantly though, I hope that this work will embed itself in every conversation, and allow me to work alongside a diverse group of interprofessional colleagues in a way that is open, honest, and for the better of the child we are all hoping to help.

The truth is that no profession, regardless of schooling or background, has any goal other than to do everything they can to help. That is the thing that binds us all together. We are all seeking the same purpose and if we can proceed through our careers cognizant of that, and grounded by that knowledge, then I truly believe that we will all be more willing to make sure every voice is heard and everyone has a seat at the table for important conversations. What I know to be true at the end of this research is that interprofessional communication and team rounding is constantly changing, and never perfect, but its betterment is also always worth pursuing.
References


Appendix A
Semi-Structured Interview-Guide

Greeting
Welcome and thank you for being here today. We really appreciate you taking the time to participate in this discussion. My name is Morgan and I am a nursing student in the School of Nursing at UNC.

Role
My role today will be to ask some specific questions about interprofessional communication and team rounding. Our discussion today will last about thirty minutes.

Purpose
Your participation today will help us gain valuable insight on challenges, barriers, and opportunities that are faced on 4 Oncology as it relates to interprofessional communication and team rounding. This information will guide us in the refinement of our current practices.

I would like to state that our conversation is being audiotaped to help us remember what is said. You may ask me to turn off the recorder at any time or simply say you do not want to answer a question. Everything said here today will be confidential. Nothing you say will be connected with your name. This research study is completely voluntary and you are free to withdraw your participation at any point in this process.

Any questions before we begin?

Please remember that all of these questions will be focused on the care provided on the 4 oncology unit at the North Carolina Cancer Hospital.

1. What are your overall perceptions of interprofessional communication on 4 Oncology?
   Prompts: Provide examples of when you were included in conversations with other members of the healthcare team.
   Prompts: What members of the health care team played a part in that discussion?

2. What are your perceptions about team rounding?
   Prompts: What do you see as your role during the team rounding process?
   Prompts: Provide examples of how you are involved in the process of team rounding

3. Has there ever been a time in which you felt like you were not included as a member of the team?
   Probe: If so, how did that make you feel?
   Probe: Did you ever share this with your supervisor or manager?

4. What do you think are the main challenges to interprofessional communication on 4 Oncology?
   Prompt: What is missing that you wish was available to make interprofessional communication successful for all team members on 4 Oncology?

5. What do you think are the main challenges to team rounding on 4 Oncology?
   Prompt: What is missing that you wish was available to make team rounding successful for all team members on 4-Oncology?
6. If we take only one thing back to the research team, what is your recommendation for how we can best improve interprofessional communication on this unit?

   **Prompt:** What is your recommendation to improve team rounding?

7. Is there anything else we have not yet discussed that you would like to mention related to what we’ve been talking about?
Appendix B
Interprofessional data collection from interview transcripts

Unknown category
- I’m the first to see things (NA 1)
- I have more to offer (NA1)
- They go straight to the nurses (NA2)
- We get left out... pg 1 (NA3)
- We don’t get to see that – rapid example (NA 3 pg 1)
- We spend more time in the room and see things... page 3 (NA 3)
- I just feel like there should be some kind of... page 3 (NA3)
- It would be nice to be updates as everybody else gets updated (NA 3 page 4)

Lack of Information
- I just feel like there should be some kind of... page 3 (NA3)
- It would be nice to be updates as everybody else gets updated (NA 3 page 4)
- NA is unaware of plan of care (NA3) page 2

Role understood by others
- See how hard we are moving (NA1)
- I think so (NA1)
- “Desire to feel more comfortable with the them (NA 1)
- Story of the provider who called her in to take vitals (NA1)
- Whatever they find convenient for them... (NA1)
- They go straight to the nurses (NA2)
- MD don’t communicate with NA pg 4 (NA 2)
- I feel like they look past us page 5 (NA3)

View of others role
- “I don’t know what they do either pg 4 (NA2) about MD
- “Nurse is the one directing things” pg 5 (NA2)
- I don’t know what they do (NA 3) pg 2

Perceptions of Team and Communication
- Diversity in skills (NA1)
- Good communication (NA1)
- Teamwork and cohesiveness (NA1)
- Identifies team as NA/RN (NA1)
- Vocera as communication tool (NA1)
- Nurse as only point of communication (NA1)
• Don’t communicate with anyone above the nurse… with them and through them (NA 2)
• Identifies work with PT (NA 2)
• NA as conduit of information from pt to nurse – story 30 min ago (NA 2)
• Bedside rounding not happening → poor NA teamwork (NA 2)
• We just communicate with the RNs (NA3)

**Communication within silos**
• “Communication is key” (NA 3 page 5)
• There are some people I communicate really well with (NA3 page 5)
• There are some people I communicate really well with (NA3 page 5)

**Challenges to communication**
• Acuity of care (NA1)
• Differing time schedules (NA1)
• Changing plans/emergencies (NA1)
• Big unit (NA1)
• Time (NA 2)
• Big unit NA 3 pg 4
• Patient load page 4 NA3

**Other**
• Over all most people claim that other team members know what they do but based on interview content and stories the roles of the interdisciplinary team are still unclear
• Conduit of info from pt caregiver to the nurse

**Perceptions of Rounding**
• “We have improved on interdisciplinary rounds
• Rounding is incredibly important because a lot of safety issues stem from lack of communication (RN1 pg 1)
• Become more consistent with getting nurses involved (RN1 pg 1)
• Rounding is an interruption of the natural workflow (RN1 pg 1)
• It could be improved because physicians are not currently notifying us on the regular basis (RN2 pg 2)
• APP team is definitely the best at it… consistency (RN2 pg 2)
• I want to be at rounds and its frustrating when I’m not (RN2 pg 2)
• Instead of back peddling I wish I was part of rounds every day (RN2 pg 2)

**Lack of Information**
• Sometimes the patient and family members are the first to tell you something (RN1 pg 1)
• As the nurse you’re in shock… we feel that way on the regular basis (RN1 pg 1)
I want to be a part of rounds and so I get frustrated when I’m not... If I had known the information earlier it would have changed my whole day (RN2 pg 2)
Tracking them down is wasting my time and their time (RN2 pg 2)
We are at the bedside the most so I feel like my perception should be heard (RN2 pg 2)

Role Understood by others

I’m sure it happens more than I realize (talking about being left out) (RN1 pg 2)
Nurse driven hospital and physicians that come from somewhere else may not be used to this kind if culture (interdisciplinary) (RN1 pg 2)
I feel like they would feel the same way, that nurses are a very critical part of patient care for quality and safety (RN1 pg 2)
Yes- other professions have a solid understanding of my role (RN1 pg 3)
They think the patient will tell us or we will find out= frustrating (RN2 pg 2)
Yes I have been left out of necessary conversations... Their perceptions may be different (RN2 pg 2)
They don’t know us, they don’t know that we are trying to teach our nurses to be... advocates. (RN2 pg 3)
No. Probably not (others have good understanding of what you do) (RN2 pg 3)

View of others role

Each discipline has its own work flow and integrating them all is difficult (RN1 pg 2)
Busyness, everyone has their own tasks and responsibilities (RN1 pg 2)
Residents and interns have more patients than we do so we have a better idea of how meds are affecting this specific pt Busyness, everyone has their own tasks and responsibilities (RN1 pg 3)
There is a two way street of communication between us and them (RN2 pg 1)
I don’t wait for them to come to me because I don’t know that they would (RN2 pg 1)
With professions like pharmacy we know each other very well and communication is good (RN2 pg 1)
APP team is definitely the best at it... consistency (RN2 pg 2)
You don’t know when you just pop in for a moment in the morning (RN2 pg 2)
I don’t probably have a good perception of their day and responsibilities (RN2 pg 3)

Perceptions of Team and Communication

I think we can improve (on IPC) (RN1 pg 1)
Miscommunication is a patient safety issue (RN1 pg 1)
I feel discouraged and frustrated for the patient ... because quality care means that all disciplines are on the same page (RN1 pg 2)
Communication improves patient safety and quality of care (RN1 pg 3)
• Important for the nurse to be involved because we are around the patient more (RN1 pg 3)
• I think overall it is good (RN2 pg 1)
• Communication better with consistent team (RN2 pg 1)
• Everyone is coming from different educational backgrounds and comfort levels (RN2 pg 2)
• “I hope she knows”... assumptions are frustrating (RN2 pg 2)
• Everyone is busy I can’t assume that they aren’t (RN2 pg 3)
• You always have to give benefit of the doubt on both sides (RN2 pg 3)

Challenges to communication
• Rounding is an interruption of the natural workflow (RN1 pg 1)
• Mornings are incredibly busy (RN1 pg 1)
• Interns and residents filter in and out (RN1 pg 2) - you become comfortable and they're gone
• Busyness, everyone has their own tasks and responsibilities (RN1 pg 2)
• Interns and residents are constantly changing in and out (RN2 pg 1)
• Everyone is coming from different educational backgrounds and comfort levels (RN2 pg 2)
• Rotating teams makes it hard to build rapport and relationships with E1 and E2 (RN2 pg 2)
• Lack of continuity and rapport (RN2 pg 3)
• Communication is hard for a lot of people... and it takes a lot of time and effort to work on... complex issue (RN2 pg 4)

Other
•
•

APP

Perceptions of Rounding
• Having nurses there on rounds changes things for the better (APP 1 pg 1)
• Rounding has improved with vocera (APP 1 pg 1)
• Man who needs more pain meds- “on rounds, its good to hear both sides of the story” speaks to helpfulness of multiple perspectives present at once (APP 1 pg 1)
• Rounding was not efficient without nurse there (APP 1 pg 2)
• “saves a lot of people a lot of time” (APP 1 pg 2)
• Not a whole lot of systemic approach to rounding sometimes
• Better in recent months at getting the nurses involved (APP2 pg 1)
• Huge initiative for us to page the nursing staff and its been mostly effective (APP2 pg 1)
• We (APP team) seem to take on a lot of initiative for calling the nurses but there’s no safety net if we forget (APP2 pg 3)

Lack of Information
• Before rounds with nurses it was he said she said and the story of the nurse didn’t always match our understanding of the pt (APP 1 pg 1)

Role Understood by others
• I can’t say I have felt that (left out of conversation) (APP 1 pg 2)
• Nurses seem to want answers immediately ... we need time to ask questions and think and reflect. Timing between those two situations can be difficult (APP 1 pg 2)
• Some people understand what we do- understanding gets better the more time you spend on the floor (APP 1 pg 4)
• New grads don’t understand as much but new shadow program allows us to work on our relationship with them and show that its ok to ask questions (APP 1 pg 4)
• Never felt left out of a necessary conversation (APP2 pg 2)
• Yes generally yes (responding to whether other professions have good understanding of what APP does and day looks like) (APP2 pg 3)

View of others role
• Having nurses there on rounds is an improvement
• “I’m not sure how much an NA would provide... I just know they spend a lot of time at the bedside so they may be able to give us more than even a nurse could (APP 1 pg 3)
• The resident run teams change over so frequently that it's really difficult to get them involved in interdisciplinary communication
• Wish more of the other members of the team like PT and Ot and dieticians were present more for round (APP2 pg 1)
• Especially for nurses and NAs I think the patients demands of their time is high... they don’t necessarily have the time to sit down with us (APP2 pg 2)
• Speaking of NAs... They’re critical... goes onto discussion about communication within silos (APP2 pg 2)
• “The NAs report to the nurses, the nurses are closer with us and we are closer with the Attendings but skipping one level down the chain is like all is lost(APP2 pg 2)
• Having more of an interaction with NA and super cap with PT OT Chaplain etc. would be helpful (APP2 pg 3)

Perceptions of Team and Communication
• They’re good (APP 1 pg 1)
• Nurses are good at finding out how to get answers... they reach out to us in person over the phone by page...(APP 1 pg 1)- **identifies nurse as good communicator**
• Before Vocera rounding and having the nurse at the bedside it was not efficient and we were two entities... when nurses started showing up at rounds it felt like a team conversation (APP 1 pg 2)
• Constant communication is difficult (APP 1 pg 2)
• Rather be paged than called so we have the time to think (APP 1 pg 2)
• “If we had our own unit (instead of being spread across A,B,C and hospital) than that may be more efficient (APP 1 pg 3)
• It is very important and it is a work in progress on our floor (APP 1 pg 3)
• Not perfect but better than it was (APP 1 pg 3)
• New grad shadow- Helps them understand that we are going to be the go-to people
• **Pretty good generally- perceptions of IPC-** (APP2 pg 1)
• Better in recent months at getting nursing involved (APP2 pg 1)
• CAP rounds are another opportunity for interprofessional communication but without SUPER CAP it may be worse (APP2 pg 1)
• Wish we had a bit more interaction with the NAs (APP2 pg 2)
• **Establishes communication pattern of working in silos-**
• We (APP team) seem to take on a lot of initiative for calling the nurses but there’s no safety net if we forget (APP2 pg 3)

Challenges to communication
• **People are very sick. Pts are constantly changing and constant communication is difficult (APP 1 pg 2)**
• Timing between the situation of nurses wanting answers and APP needing time to generate one can be problematic (APP 1 pg 2)
• Never know who we are going to see, when we are going to see, and how long we will be there (APP 1 pg 3)
• Who we need to see may change in two seconds (APP 1 pg 3)
• Some of our patients are on several different units (APP 1 pg 3)
• **Always going to be impossible to get everyone at the same place at the same time (APP2 pg 2)**
• Time is always the biggest thing (APP2 pg 2)
• Patient demand- especially of nurse and NA- time is so high it’s a barrier (APP2 pg 2)
• Variety of patient needs, population is variable (APP2 pg 2)
• Find difficulty when things change rapidly which makes the plan change... Unforeseen tangents on rounds and once those start it becomes way harder to remember to reach out to nursing (APP2 pg 3)

Other
• **”Nurses are very comfortable coming to find us during the day(APP 1 pg 1)-**
Perceptions of Rounding

• **Over the last six months we have tried to do a better job of having nurse involvement (Pharm 1 pg 1)**
• **Challenging to have when nurse has patients on multiple teams (Pharm 1 pg 2)**
• **Round with my team every day and so I feel like an integrated member and like my voice is heard (Pharm 1 pg 2)**
• **It would be ideal for me to go in and assess the patients but because of the volume of patients I have I can't do that (Pharm 1 pg 3)**
• **Distractions during rounds (Pharm 1 pg 3)**
• **Rounds when all of the different disciplines are available are more productive (Pharm 2 pg 1)**
• **Having nurses on rounds has been helpful (Pharm 2 pg 1)**
• **Team rounding is necessary (Pharm 2 pg 2)**
• **Rounding can be a stressful situation with a lot of distractions (Pharm 2 pg 3)**
• **Physicians welcome other disciplines participating but don't always think of it (Pharm 3 pg 1)**
• **It still takes constant reminders to get other people involved even when its an established thing (Pharm 3 pg 2)**
• **Getting everyone to the same place at the same time is very difficult (Pharm 3 pg 2)**

Lack of Information

• **If the team has come and gone then the nurse doesn't know the plan for the day and has to ask the patient (Pharm 1 pg 2)**
• **Sometimes I get pulled away or distracted by another patient I am managing and I miss something (Pharm 1 pg 2)**
• **Charting is a means of communication as well and when certain things aren't communicated it makes my job harder (Ins and Outs and daily weights ex.) (Pharm 1 pg 3)**
• **I'm day pharmacists so sometimes decisions are made or things happen at nights and find out after the fact (Pharm 2 pg 2)**

Role Understood by others

• **Feel like an integrated part of the team (Pharm 1 pg 2)**
• **My voice is usually heard as long as I am aware of a situation (Pharm 1 pg 2)**
• **I think for the most part (people have an understanding of role (Pharm 1 pg 4)**
• **Don't interact with NAs a lot so I don't know that they know what I do (Pharm 1 pg 4)**
• **I think the nurses for the most part know what I do but sometimes I feel like they don't because they page me about stuff I'm not supposed to handle (Pharm 1 pg 4)**
• **No not really (I have never felt left out of a conversation) I have never felt excluded intentionally (Pharm 2 pg 2)**
- Some people have more of an idea what we do than others (Pharm 2 pg3)
- Attending physicians sometimes forget that we are on service all the time so they have sometimes unrealistic expectations for communication (Pharm 2 pg3)
- Nurses are aware but depends on how long they have been here, some of them don’t know our hours or our role as well (Pharm 2 pg3)
- I think everyone should do a day in the life of each other so we can understand each others work flows (Pharm 2 pg4)
- Some days it seems like it doesn’t matter that I’m there but then once I provide my suggestion they are welcoming and accepting and grateful... there’s two extremes (Pharm 3 pg2)
- (do people understand your role) No. Some do. Some don’t. (Pharm 3 pg3)
- the physicians aren’t aware of all the patients we juggle or the tasks that we do (Pharm 3 pg2)
- Sometimes the nurses don’t know everything that is on our plate (Pharm 3 pg2)

View of others role
- If the team has come and gone the nurse doesn’t know the plan for the day and has to ask the patient (Pharm 1 pg 2)
- Nurse’s insight and knowledge about a patient is important (Pharm 1 pg 3)
- Nurse’s chart a lot... I don’t know how much is relevant... nursing standpoint they can spend more time charting that patient care
- Attending may still have clinic or may be getting paged or asked to do something and that’s a distraction during rounds (Pharm 1 pg 3)
- Provider is facing multiple demands (Pharm 1 pg 4)
- Nurses telling us about what the patient reports is usually very insightful and their presence on rounds is helpful (Pharm 2 pg1)
- Having case management and social work in pre-round huddle has helped with communication about our plan moving forward (Pharm 2 pg2)
- Physicians welcome other disciplines participating but don’t always think of it ... sometime is an afterthought (Pharm 3 pg1)
- On the individual basis I have seen residents not realize the value of other team members or be dismissive of a nurses concern. Not as a group just individually (Pharm 3 pg2)

Perceptions of Team and Communication
- Overall interprofessional communication is respectful and efficient (Pharm 1 pg 1)
- Round with my team every day and so I feel like an integrated member and like my voice is heard (Pharm 1 pg 2)
- Relationship is really good with the team... they seek my input (Pharm 1 pg 2)
- We do a good job of listening to the nurses when they are present (Pharm 1 pg 4)
- We aren’t go go go, we give enough space and pause for people to speak up (Pharm 1 pg 4)
• There are things we do really well, some areas that can be improved, and sometimes people are doing duplicate work (Pharm 2 pg1)
• Everyone's working at max capacity or over max capacity as a result we are not able to effectively communicate information (Pharm 2 pg2)
• We are working in our different silos trying to get it all done (Pharm 2 pg2)
• Wish there was a more dedicated time for everyone to be together without a lot of distractions (Pharm 2 pg3)
• I wish we could assign certain patients to certain locations geographically (Pharm 2 pg4)
• Communication is good and people feel free to bring up any questions or concerns they have. People aren't hesitant to talk to one another (Pharm 3 pg1)
• On the individual basis I have seen residents not realize the value of other team members or be dismissive of a nurses concern. Not as a group just individually (Pharm 3 pg2)
• Its pretty good but could still be improved to help all of us be on the same page and provide optimal care

Challenges to communication
• Multiple teams on the floor can make it physically impossible for the nurse to make it to rounds teams (Pharm 1 pg 2)
• Pts that are only here because there was no room in Memorial- off service teams don't have good rapport teams (Pharm 1 pg 2)
• The biggest barrier for me is having time to be able to focus in and pay attention to every patient (Pharm 1 pg 2)
• Nurses not being able to synch up with the team on rounds (Pharm 1 pg 3)
• Providers being distracted/ interrupted (Pharm 1 pg 3)
• Its challenging to try to get through all of the patients in a two hour time window when things keep popping up... things can be disjointed (Pharm 1 pg 4)
• We are supposed to vocera the nurses but sometimes the providers forget to do that (Pharm 1 pg 5)
• We don't always go in order and things pop up that make it hard to page ahead of time (Pharm 1 pg 5)
• Geography is a challenge because our patients are all over the unit and nurses have patients on multiple services (Pharm 2 pg2)
• The noise and commotion during rounds can be frustrating (Pharm 2 pg2)
• Interruptions and distractions on rounds that mess up communication flow (Pharm 2 pg3)
• Getting nurses there can be hard (Pharm 3 pg2)
• It really comes down to time management and time and scheduling (Pharm 3 pg2)

Other
Physicians

Perceptions of Rounding

- The chaos of rounds makes it hard to page the nurses (Physician 1 pg 1)
- The rounding process is something that really helps with communication (Physician 1 pg 1)
- Pharmacists rounding with the team is such a well integrated component (Physician 1 pg 1)
- Its harder to get nurses on rounds because they can't just drop what they're doing to come to rounds (Physician 1 pg 1)
- Links missing rounds to nature of fellow but lists it as reason that she is uninformed (Physician 1 pg 1)
- Its hard to determine an order ahead of time... hard to figure out what's the most efficient order. (Physician 1 pg 2)
- We use the pharmacists more in oncology than in any other service in my opinion (Physician 2 pg 2)
- If we could just all get on the same page on rounds, it might make the day easier for everybody. (Physician 2 pg 3)

Lack of Information

- Times when decisions have been made about something and I have no idea but that's nature of fellow position ... can't always be on rounds (Physician 1 pg 1)

Role Understood by others

- Definitely not (other professions know what I do) (Physician 1 pg 2)
- The fellow job is different and a majority of people probably just don't quite understand (Physician 1 pg 2)
- I don't think I get let out of conversations this year, as an intern on certain teams the role is smaller (Physician 2 pg 2)
- I think most people do (understand provider role), pharmacy certainly does (Physician 2 pg 3)
- Nurses probably have a good understanding of how busy we are, but I think at times it can seem like we don't care as much as we do (Physician 2 pg 3)

View of others role

- Its harder to get nurses on rounds because they can't just drop what they're doing to come to rounds (Physician 1 pg 1)
- The E3 (APP) team is the same people that are always there. They know the nurses and there's trust their so the communication is better (Physician 1 pg 2)
- Interns get very overwhelmed and when that happens communication breaks down (Physician 1 pg 2)
• I think it goes both ways I don’t think we all understand what everyone else's jobs are (Physician 1 pg 2)
• Interns and residents are not necessarily into this and have really different knowledge levels (Physician 1 pg 3)
• They are really busy in another patient’s room (Physician 2 pg 1)
• I like having the pharmacists there and really value their opinion (Physician 2 pg 2)
• Nursing is caring for several people that are often quite sick so it's hard for them to take part in rounds (Physician 2 pg 2)
• The same can be said about how doctors perceive nurses, I don’t think we understand how busy they are and how much work they do (Physician 2 pg 3)

Perceptions of Team and Communication
• Things are pretty good between nursing staff and providers (Physician 1 pg 1)
• Big push to call the nurses... I think it's really important and really hard to do (Physician 1 pg 1)
• A more consistent team leads to better communication (Physician 1 pg 2)
• We all need to have a little bit more patience with one another (Physician 1 pg 3)
• We don’t do as good of a job as we should (Physician 2 pg 1)
• The medical team does a good job with interns residents and attendings all being on the same page (Physician 2 pg 2)
• I think the residents, the upper level residents, should take on a bigger role in making sure that we Vocera the nurse so they can be part of rounds (Physician 2 pg 3)
• Good communication up front could help to avoid a lot of unnecessary paging (Physician 2 pg 3)

Challenges to communication
• Getting in touch with the nurse is not always easy (Physician 1 pg 2)
• Residents, interns, attendings, and fellows changing every two weeks (Physician 1 pg 2)
• The number of patients teams are often all at max capacity (Physician 1 pg 2)
• Some of the patients are incredibly complicated and really need a lot of discussion (Physician 1 pg 2)
• There is no set order so its constantly changing- what’s the most efficient order (Physician 1 pg 2)
• People are coming in with different education and experience and some people are trained in places that do things differently than here (Physician 1 pg 3)
• It is very difficult to get the nurses there. It's hard to keep a plan in place throughout the day because everyone is so busy (Physician 2 pg 1)
• Everyone has their own responsibilities (Physician 2 pg 2)
• Timing is very difficult (Physician 2 pg 3)

Other
• Gray zone role of the fellow (Physician 1 pg 1)