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What are the Barriers and Facilitators Related To Collaboration Between Transplant Registered Nurses (RNs) and Other Healthcare Disciplines?

Heather McAllister

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What are the Barriers and Facilitators related to Collaboration Between Transplant Registered Nurses (RNs) and Other Healthcare Disciplines?

by

Heather McAllister

An Honors Capstone

submitted in partial fulfillment of the requirements

for the Honors Certificate

to

The Honors College

of

The University of Alabama in Huntsville

November 7th, 2016

Honors Capstone Director: Dr. Haley Hoy

Associate Professor of Nursing
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Date
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Honors Capstone Director: Dr. Ann Bianchi

College of Nursing Honors Director and Associate Professor of Nursing
Acknowledgements

I would like to express my deepest gratitude to Haley Hoy PhD., ACNP for her continued willingness to go above and beyond in any way to help me fulfill the requirements for this research project. Her commitment, generosity, and support are qualities that I will be forever thankful for. I would also like to thank Elise Adams PhD., CNM for her support and guidance throughout the process of beginning and conducting my research. Finally, I would like to thank Ann Bianchi PhD., RN for her support in finishing my thesis. Without her as a wonderful resource, this would not have been completed.
Table of Contents

I. Abstract .......................................................................................................................... 5
II. Introduction .................................................................................................................. 6
III. Literature Review ....................................................................................................... 7
IV. Methods ....................................................................................................................... 10
V. Results ......................................................................................................................... 12
VI. Discussion .................................................................................................................. 14
VII. Conclusion ................................................................................................................. 16
VIII. Limitations .............................................................................................................. 17
IX. References ................................................................................................................ 18
X. Appendix A: Internal Review Board, UAHuntsville ................................................. 20
XI. Appendix B: National Institute of Health Certifications ........................................ 30
XII. Appendix C: Consent Form ...................................................................................... 31
XIII. Appendix D: Demographic Survey ......................................................................... 33
XIV. Appendix E: Interview Guide .................................................................................. 34
Abstract

Background
Recipients of a transplant require life-long, coordinated care. Success of an organ transplant is a complicated balance that requires the collaborative care among multiple disciplines within the healthcare system. Effective communication is critical for collaborative care to occur between disciplines.

Methods
In this qualitative study, registered nurses (RNs) were interviewed regarding the facilitators and barriers faced during collaboration with other healthcare disciplines. The sample size was 7 RNs with at least 2 years’ experience as an RN at a southeastern university affiliated medical hospital.

Results
Participants reported collaborating with social workers, nutrition specialist, financial coordinators, psychiatrist, and dermatologist. Seventy-one percent responded that they communicate via secure messaging within the patient’s chart. Seventy-one percent also stated they communicated through phone calls and 57% stated they also collaborate in person. When asked about factors that facilitate collaboration between RNs and other healthcare disciplines, responses were mixed. Two participants, (28%), stated the secure messaging within the patient’s chart was a facilitating factor to communication. Four of the participants, 57%, reported time and busy schedules as a barrier to collaborating.

Conclusion
Seventy-one percent of participants in this study praised the secure messaging through the patient’s chart as a facilitator of collaboration. Many of the participants noted they preferred this form of communication as it caused fewer interruptions and allowed
the providers to answer when they were available. Other transplant centers could find value and benefit from a similar program within their organization. The two reasons most identified by participants as barriers to collaboration were time and busy schedules. Understanding that time and busy schedules are an issue, allows healthcare disciplines that collaborate together to make a conscious effort to correct this barrier.

**Introduction**

According to the United States Department of Health and Human Services, 29,532 people received organ transplants in 2014. Recipients of a transplant require life-long, coordinated care. Success of an organ transplant is a complicated balance that requires the collaborative care among multiple disciplines within the healthcare system. The benefits of collaborative care among healthcare disciplines has been well established: fewer errors in patient care and better patient outcomes as well as improved morale and job satisfaction for the staff (Yeager, 2005).

For transplant recipients, many aspects of care must be coordinated. For example, most transplant recipients are on life-long immunosuppressants that necessitate coordination between the transplant provider and pharmacist. As a result of the recipient’s decreased immune system from the immunosuppressants, cancer also becomes a concern. Due to at least one skin cancer diagnosis within 50% of solid organ transplant recipients, organ recipients are strongly advised to remain under the care of a dedicated dermatologist (Greenberg & Zwald, 2011). Patients with co-morbidities prior to transplant also require specialized care to monitor their new transplant and other health conditions. Caring for patients prior to and post transplant require significant resources that all come at a cost. The financial cost of a transplant cannot be overstated and patients
generally need someone to help them navigate the resources available to them. Education is also another vital component for the transplant patient and it is imperative that they are provided with the information necessary to care for them post-transplant. All of these considerations require teamwork and partnership among multiple healthcare specialties.

The aim of this study was to determine what the barriers and facilitators are related to collaboration among transplant RNs and other healthcare disciplines.

**Literature Review**

Key words used to research existing primary and secondary studies included: collaboration, transplant, patient outcomes, nursing care, interdisciplinary, multidisciplinary, pharmacy, dermatology, and barriers, and facilitators. Databases used during search include: Cumulative Index to Nursing and Allied Health Literature, Medline (NIH), OVID Nursing Journals, and PubMed (Medline). Site timeframe used.

In 2015, Boev and Xia investigated the link between nurse-physician collaboration and patient outcomes of healthcare associated infections. The researchers identified healthcare-associated infections as ventilator-associated pneumonia (VAP) and central line/catheter-associated bloodstream infections (CLABSIs). Boev and Xia (2015) conducted a secondary analysis of nurse perception data during a 4.25-year study period. A total of 671 nurses’ perceptions were collected with a mean response rate of 96% (Boev & Xia, 2015). Outcome data for 3,610 patients from 4 ICUs discharged during the 4.25-year period was collected (Boev & Xia, 2015). The results of this study indicated that nurses with a favorable perception of nurse-physician collaboration were associated with lower patient rates of CLABSIs and VAP (Boev & Xia, 2015). Boev and Xia (2015) note that this study gives further support to existing data linking the benefits of nurse-
physician collaboration. There were some limitations to this study such as the limited ability to generalize the results as the study took place at a single institution in New York (Boev & Xia, 2015). This study also notes that future studies would benefit from taking not only nurses' perceptions into account but also physicians’ perspectives (Boev & Xia, 2015).

In 2014, Davis et al. conducted a mixed-method study to investigate lung patients’ recommendations for ideal lung transplant education. The study took place at a hospital in Missouri. Using phone surveys, written surveys, and focus group interviews, Davis et al. asked transplant recipients to answer questions in hindsight about their educational preferences and asked patients on the transplant wait list to answer questions about what education they desired (2014). The mean age of the participants was over 50 years of age (Davis et al., 2014). Based on the survey results, Davis et al., found that 72% of their participants were interested in how to make their transplant last, 56% wanted education on when to contact their transplant coordinator, 56% wanted to know about transplant benefits, 54% wanted to education about immunosuppressants, and 52% wanted to know about their out-of-pocket expenses (2014). These results were reinforced during the focus group interviews when several participants spoke about the importance of maintaining their medications to prevent transplant rejection (Davis et al., 2014). Several participants also identified interest in educational resources for their caregivers (Davis et al., 2014). When surveyed about how the educational resources should be provided, 74% of participants stated that they used internet-based resources often (Davis et al., 2014). Participants were also asked to provide suggestions on how to improve the current transplant education provided, and several responded with more focused education on the
emotional and psychological effects transplants can have on the patient (Davis et al., 2014). Davis et al. stated that their purpose for this mixed-methods study was to understand specifics related to lung transplant education with recommendations for other researchers to explore similar information in other specific transplant organ systems (2014).

In 2015, Taber et al. published results of a transplant improvement initiative for kidney transplant recipients. A total of 476 patients were included in the analysis. They sought to decrease their transplant institution’s incidence of early, post-transplant readmissions; delayed discharges; medication use and associated safety issues. The quality improvement initiative team was a multi-disciplinary effort and was composed of nurses, physicians, pharmacists, social workers, and financial coordinators (Taber et al., 2015). To combat delayed discharge, standard protocols were implemented related to removal of Foley catheters and uncontrolled blood pressure (Taber et al., 2015). This allowed care to proceed without interruption in regards to waiting on the health care providers’ orders. The initiative also sought to decrease the number of readmissions by requiring all patients to initially be discharged to a local hotel. Patients were monitored at this location, twice a day by a transplant nurse who coordinated information between the patient and their healthcare provider (Taber et al., 2015). Initial post-discharge appointments were established for the first day following discharge to emphasize education and medications, which had been previously reviewed and discussed (Taber et al., 2015). The transplant team also recognized that a team dedicated solely to diabetes management would greatly benefit these patients and one was established to manage inpatient and outpatient treatment of diabetes (Taber et al., 2015). Overall readmission
rates decreased by 47%, medication errors decreased by 43%, acute rejection rates decreased by 25%, and there was a 14% reduction in length of stays longer than 3 days.

As demonstrated by Boev and Xia’s (2015) research, collaboration between physicians and registered nurses can have a significant impact on decreasing the rates of CLABSIs and VAP infections, which in turn improve the patient’s overall outcome. Along the same lines, Taber’s et al. (2015) research results were a clear picture into the positive patient outcomes that can occur due to collaboration among different members of the transplant team—including but not limited to pharmacists, nurses, physicians, and transplant coordinators.

Davis’s et al (2014) research on the ideal education for lung transplant recipients featured how many healthcare disciplines are necessary for a successful transplant to occur. The education that participants referenced as their ideal topics to discuss, essentially led to transplants coordinators, physicians, registered nurses, pharmacists, dermatologist, social workers, and insurance coordinators, educating the patient and their caregiver on important details pre- and post-transplant. Using the insight gained directly from current and past patients, providers could more adequately address patient needs as they coordinate and collaborate with each other to ensure a smooth transition for the patient.

**Methods**

**Design**

In this qualitative study, registered nurses (RNs) were asked structured open-ended questions regarding the facilitators and barriers faced during collaboration with other healthcare disciplines.
Sample

Sample size was taken by convenience method while purposefully choosing RNs who worked with transplant patients. Transplant RNs selected each worked with different transplant patients, which varied among heart, liver, lung, pancreas, and kidney. Inclusion criteria included: having at least 2 years experience as an RN at the southeastern university medical hospital.

Originally 11 participants were enrolled but due to the requirement of the study requiring the participants to have at least 2 years experience as an RN at the hospital where the study was taking place, 4 participants’ responses were removed from the data, leaving a total of 7 participants for the sample size.

Setting

This study took place at a southeastern university medical hospital.

Procedure

University institutional review board and the hospital institutional approval were received. Participants were recruited from the southeastern university medical hospital where the study was conducted using a flyer (see Appendix A). Participants who agreed to be interviewed signed a consent form and demographic information sheet (see Appendix C and D). Participants were interviewed individually and each interview took no more than 30 minutes. Interviews were audio recorded and then transcribed verbatim and stored in a secure location. The transcripts were reviewed to identify themes.

Instrument

An interview guide consisting of five structured, open-ended questions was followed during the participants’ interviews. The topics of the questions focused on
which healthcare disciplines the participants worked with on a consistent basis, how they collaborated with these disciplines, and what facilitated or hindered their collaboration, see appendix E for interview guide. The interview guide questions were modified from Jane Moore and Dawn Prentice’s study titled, “Oncology nurses’ experience of collaboration: A case study” published in 2015 in the European Journal of Oncology Nursing.

Results

Demographics

Six out of seven participants answered they were white when asked about their ethnicity with one participant not answering. All 7 participants were females. The average age of the participants was approximately 40 years old with the youngest participant being 33 and the oldest being 46. The highest degree earned by the participants was a doctorate degree. Four participants had Bachelor of Science in nursing degrees, 2 participants had masters degrees, and 1 participant had a doctorate degree. The average amount of time working at the southeastern university medical hospital as a transplant RN was approximately 7 years with 5 years being the least and 25 years being the most. The average total amount of years working as a transplant nurse which included the participants time working at the southeastern university medical hospital was 9.6 years with the least amount being 2.5 years and the most being 22.

Data

Participants reported collaborating with several different healthcare providers. Almost every participant stated they work with their unit transplant pharmacist almost
daily. Other disciplines mentioned were social work, nutrition specialist, financial coordinators, psychiatry, and dermatology. One participant stated, “I collaborate with kidney transplant pharmacy almost daily. I also collaborate with social work, nutrition specialist in carrying out patient care.” Another participant stated, “I work with pharmacy on a daily basis to collaborate about drug levels and other medication interactions. Dermatology on an as needed basis.”

When asked about how the participants collaborated with other healthcare disciplines, overwhelmingly 71%, or 5 out of 7, responded that they communicate via secure messaging within the patient’s chart. One participant stated, “Definitely [secure messaging is] huge in our system and the patients all link to it so they know exactly who I’m talking about. As soon as it goes to them they know what we’re dealing with and they can refer to anything else in the chart.” 71% also stated they communicated through phone calls and 42% stated they also collaborate in person.

Participants’ responses varied when asked about what factors have an influence over collaboration. One participant stated, “professional and educational factors” and another stated “Time and organizational” factors. One participant stated, “some nurses may be afraid to collaborate with other healthcare professionals as being afraid of overstepping their bounds.” Another participant echoed this sentiment stating, “In my first few years as a coordinator, I hesitated to message other [providers] in other departments.”

When asked about factors that facilitate collaboration between RNs and other healthcare disciplines, responses were mixed. Two participants, or 28%, stated the secure messaging within the patient’s chart facilitates communication. One participant in
particular noted “ease of access via patient chart to message other disciplines regarding the patient.” Another participant echoed the same sentiment; “[secure messaging] makes it very simple. Providers are able to answer at their discretion, as opposed to a phone call, which [can feel] more intrusive.” Other factors mentioned were time management and organization. In regards to organization, one participant stated, “I have to be organized…to streamline the process. [She has to] present everything in an organized manner.”

Fifty-seven percent of the participants stated that time limitations and busy schedules were the biggest barriers to communication. One participant specifically mentioned, “access is number one. Everybody eventually gets it done, but it’s just getting to them [and] getting the response back.” In relation to time being a barrier another participant indicated “time and inability to connect with other disciplines.” Other barriers shared by participants included distance between offices and technical difficulties. One participant also acknowledged that the secure messaging within the patient’s chart can sometimes result in issues, “it can sometimes be hard to communicate the whole story or only half the message is read. Also sometimes addressing multiple issues in one message usually results in only one issue being addressed.” One participant noted that “fear, intimidation by [provider]” can be a barrier which echoed answers by other participants when asked about factors that influence collaboration.

Discussion

Although the results of the research studies examined in the literature are not completely comparable to the results of this study, they are consistent with presenting
how important collaboration is to streamlining and improving the care of the patient.

Taber’s et al. (2013) results painted a clear picture into the positive patient outcomes that can occur due to collaborating among different members of the transplant team—including but not limited to pharmacists, nurses, physicians, and transplant coordinators. Through this study, it was found that transplant RNs coordinate with all of the aforementioned healthcare disciplines and several others. Through successful collaboration with these disciplines, patient outcomes are greatly improved.

In Boev and Xia’s study, the results indicated that nurses with a favorable perception of nurse-physician collaboration were associated with lower patient rates of CLABSIs. While the current study did not seek to find rates of CLABSIs, what can be taken from this is the important aspect of having a favorable perception of nurse-physician collaboration and its impact on patient outcomes. In this study some participants stated that fears about contacting healthcare providers were a barrier to collaborating. If such a barrier prevents or delays collaboration it could potentially cause an adverse outcome for the patient.

Davis’s et al. study clearly demonstrated how many healthcare disciplines are required for a successful transplant to occur. Davis’ team sought to discover what lung patients’ recommendations were for ideal transplant education. The education that participants referenced as their ideal topics to discuss, essentially led to transplant coordinators, physicians, registered nurses, pharmacists, dermatologists, social workers, and insurance coordinators, educating the patient and their caregiver on the important details pre- and post- transplant. While this study did not fully coincide with this study, this study does demonstrate the necessity to know and understand the facilitators and
barriers to collaboration. To fulfill the findings of Davis’s et al. research, it is absolutely necessary to be able to successfully collaborate and that cannot be accomplished unless the facilitators and barriers to collaboration have been identified.

**Conclusion**

Recognizing factors that facilitate communication and factors that create barriers to collaboration allows healthcare providers from different disciplines to know their strengths and improve upon those. It also allows providers to improve areas of concern between other disciplines, which ultimately creates a positive impact on the patient. Almost every participant in this study praised the secure messaging through the patient’s chart as a facilitator of collaboration. Many of the participants noted they preferred this form of communication as it caused fewer interruptions and allowed the providers to answer when they were available. Other transplant centers could find value and benefit from a similar program within their organization. While one participant did note concerns about the secure messaging within the patient’s chart, these could be addressed through education of those using the secure messaging system.

The two reasons most identified by participants as barriers to collaboration were time and busy schedules. While one cannot create more time, participants did mention time management and organization as a facilitator to collaboration. These two characteristics can be implemented to assist with full and demanding schedules. Understanding that time and busy schedules are an issue, allows healthcare disciplines that collaborate together to make a conscious effort to correct this barrier.
Limitations

This study was limited to one institution and the sample size included only seven participants, therefore results cannot be generalized. Data was collected through interviews only and was not specifically observed. There was a time frame requirement of at least 2 years as a transplant RN to participate in the study. If this study is replicated, it is recommended that this requirement be lowered to allow for a larger sample size with more diverse experiences.

Dissemination

This findings from this research were presented at an annual Transplant Conference located in the central Tennessee.
References

doi:10.4037/ccn2015809

doi:10.7182/pit2014432

doi:10.1016/j.det.2011.02.004

doi:10.1016/j.ejon.2015.02.011


Appendix A

May 9th 2016

Heather McAllister
College of Nursing
The University of Alabama in Huntsville

Dear Ms. McAllister,

The UAH Institutional Review Board of Human Subjects Committee has reviewed your proposal, *The effect of communication of nurses, transplant patients, and other health-care disciplines*, and found it meets the necessary criteria for approval. Your proposal seems to be in compliance with this institution’s Federal Wide Assurance (FWA) 00019998 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46).

Please note that this approval is good for one year from the date on this letter. If data collection continues past this period, you are responsible for processing a renewal application a minimum of 60 days prior to the expiration date.

No changes are to be made to the approved protocol without prior review and approval from the UAH IRB. All changes (e.g. a change in procedure, number of subjects, personnel, study locations, new recruitment materials, study instruments, etc) must be prospectively reviewed and approved by the IRB before they are implemented. You should report any unanticipated problems involving risks to the participants or others to the IRB Chair.

If you have any questions regarding the IRB’s decision, please contact me.

Sincerely,

William Wilkerson
IRB Chair
Dean, Honors College
May 4, 2016

To whom it may concern:

I am very pleased to provide this letter of support for the UAH College of Nursing’s honor students’ proposed project interviewing transplant nurses. The importance of nursing research is consistent with our organization’s mission and values.

Through our previous partnerships, I have worked closely with the UAH College of Nursing and plan to continue to do so in advising and collaborating to provide nurses interested in transplantation the necessary skills and competencies to do so. Ensuring the delivery of high quality care and thus nursing research are of critical importance to our organization and I whole-heartedly support this effort.

We look forward to working with the College of Nursing on this new endeavor. Please feel free to contact me should you have any questions.

Sincerely,

[Signature]

Jeunita Payne, ACNP-BC, MMHC
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Nashville, TN 37232-4753
Phone: 615-936-0431
Fax: 615-936-7600
FACILITATORS AND BARRIERS RELATED TO COLLABORATION

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE
FORM 1: INSTITUTIONAL REVIEW BOARD APPLICATION

**Principal Investigator/Study Director Name:** Heather McAllister and Suzanne Slovak  
**Status:** Faculty ☐ Staff ☐ Student: X  
**Department:** College of Nursing  
**College/Research Center:** University of Alabama in Huntsville (UAH)  
**Telephone:** Heather McAllister: (334) 462-6627 Suzanne Slovak: (256) 497-2148

**Email:** Heather McAllister: HM0024@uah.edu Suzanne Slovak: ss0148@uah.edu

**Supervising Faculty Information**  
**Name:** Dr. Haley Hoy  
**Campus Address:** College of Nursing  
**Telephone:** (256) 824-6669  
**Email:** Haley.Hoy@uah.edu

**Funding:** External ☐ Internal ☐ Unfunded: X, at this time  
**Funding source** (if applicable): Pursuing funding from UAH Honors College

**Title of Study:**  
The effect of communication of nurses, transplant patients, and other health-care disciplines

**Purpose of Study:**  
The purpose of this study is to investigate the effects of communication between transplant nurses and other health-care disciplines as well as the effects of communication between transplant nurses and their patients.

**State the Hypotheses, Research Question, or Practice Question:**  
Question 1: What are the facilitators and barriers related to collaboration between transplant RNs and other health-care disciplines?  
Question 2: What are the factors influencing trust in nurse-patient relationships during transplant events?

**Description of Subjects:**
The subjects of this study will be comprised of Registered Nurses (RNs) at Vanderbilt Transplant Center in Nashville, Tennessee. Participants will have a minimum of 2 years’ experience working on the transplant center at Vanderbilt. The sample size will be between 6-12 participants. The ages of the participants will range from 19-75. The ethnicity of the participants will be White, Black/African American, Asian, American Indian, Alaskan Native, Native Hawaiian, Pacific Islander, or those identifying as another ethnicity. The participants will be male or female.

How Subjects Will Be Selected and Recruited:
Participants will be recruited from Vanderbilt Transplant Center in Nashville, Tennessee. Participants will be RNs with a minimum of 2 years’ experience in the transplant center at Vanderbilt. They will be selected using the convenience sampling method. Participants will be recruited via flyers (see Appendix A) and face-to face contact with principal investigators on the day of the study.

Background and qualifications of the principal investigator and additional personnel directly involved in the research:
Heather McAllister and Suzanne Slovak are Bachelors of Science in Nursing (BSN) students at University of Alabama in Huntsville (UAH). They are a part of the Honors Nursing program at UAH. They have completed research classes associated with the UAH BSN degree and additional honors coursework related to the research process. Heather and Suzanne have completed the NIH's web-based training course, "Protecting Human Research Participants" in May of 2015 (see Appendix B).
Dr. Haley Hoy is the Associate Dean for Graduate Programs at UAH as well as an Associate Professor for graduate level courses. She is also a Certified Registered Nurse Practitioner (CRNP) at the Vanderbilt Transplant Center. Dr. Hoy will be the liaison between PIs and the Vanderbilt Transplant Center as well their transplant research advisor.

Description of Procedure:
Flyers will be distributed throughout the transplant center prior to the study to notify potential participants of the planned open-forum research study dates (see Appendix A). Participants will also be recruited face to face and screened prior to participating to ensure they meet the qualifications of the study. The study will take place at Vanderbilt Transplant Center Clinic. A location at the Vanderbilt Transplant Center Clinic will be selected on the day of the study that is quiet and removed from patient areas to ensure confidentiality. Participants who choose to be included in the study will be asked to sign a consent form at that time (see Appendix C). They will then be asked to complete a short demographic form (i.e. years of experience, age, and gender) (See Appendix D). Participants will be assigned a number for identification during the study and will be referenced by that number instead of their name for the duration of the research study. During the group interview, participants will be asked to not use names when referencing others and to only reference others by their assigned number. Participants will be asked to remove their nametags prior to entering the interview. Participants will then be asked up to 10 questions by the PIs, (see Appendix E). The priority is to conduct a group interview, however if a participant is unavailable at the time of the group interview, a private interview will be arranged. The interview will be recorded using Ipad/Iphone mobile applications as well as a traditional voice recorder. Rev Voice Recorder: Audio Transcription and Dictation App Service will be used to transcribe the recording.

**Instrumentation** (if applicable):
- Recruitment Flyer, (see Appendix A)
- Demographic survey, (see Appendix D)
- Interview Guide, (see Appendix E)

**Duration of Study:**
- **Total amount of time with each subject:** Maximum time of 1 hour.
- **Time to complete study:** May 2016- December 2016
Benefit(s) of the Study:
The potential benefits of this study are to identify facilitators and barriers to communication between RNs and other health-care staff as well as identify potential factors that establish trust between the nurse and their patient. The results of this research will enable improvement of communication between RNs and other health-care disciplines which will ultimately have a positive impact on patient care. Common factors identified in this study will assist the RNs in adjusting their daily interactions with their patients to better establish trust within the nurse-patient relationship. With the establishment of trust within the nurse-patient relationship, patient satisfaction will be positively impacted with the end result of improved patient care. The positive impact on patient care could potentially lead to improved patient outcomes, shorter hospital stays, and decreased unnecessary health-care costs.

Incentives and compensation:
The topic being researched is directly relevant to participant’s career and can provide insights into improving their relationships with their patients and other health-care disciplines. Participants will be offered a meal provided by the PIs as compensation for their participation.

Possible Risks to Subject(s) and Precautions Taken to Avoid Risks:
Potential risks to participants by participating in this study include possible emotional and psychological stress that may trigger any negative feelings associated with the experiences that they are discussing. The possible risks for this study are estimated to be minimal.

How You Will Ensure Confidentiality/Anonymity:
No participants' names will be used during the study. Participants will be assigned a number for identification during the study and will be referenced by that number instead of their name for the duration of the research study. Participants will be informed in their informed consent as well as verbally that their interviews will be recorded using a third
party iPad/iPhone mobile application and a traditional voice recorder. They will also be informed that the recordings will be heard by a third party confidential dictation service for transcription purposes. Once the study is completed all study recordings and paperwork will be shredded and destroyed one year from the data of completion of the study.

**Procedures for obtaining Informed Consent or Assent:**
Participants will be informed of the study prior to agreeing to participate. They will be provided a consent form (see Appendix C) prior to participating in the focus group. PIs will be informing the participants as well as obtaining consent forms for the study. Participants will be allowed to participate on their own free will and their will be no penalties if they chose not to participate in the study.

**Documentation of Informed Consent by Subject(s) Attached?** Yes X No

See Appendix C

**Documentation of all study personnel qualification(s) as stated above attached?**
Yes X No □

**Are copies of all materials as stated above attached?** Yes X No □


**INVESTIGATOR ASSURANCE STATEMENT & SIGNATURE**
By my signature as Principal Investigator, I acknowledge my responsibilities for this Human Subjects Study and affirm that:

- I have reviewed and will comply with the Belmont Report: http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html.
● I have reviewed and will comply with informed consent regulations: http://www.hhs.gov/ohrp/policy/consent/index.html
● I will report (and will instruct other key personnel to report) adverse or unanticipated problems to chair of the IRB, 256-824-6100 or irb@uah.edu : http://www.hhs.gov/ohrp/policy/advevntguid.html
● I have reviewed and acknowledge the Investigator Responsibilities: http://answers.hhs.gov/ohrp/categories/1567.
● I will not modify the protocol unless (a) the IRB has approved changes prior to implementation or (b) it is necessary to eliminate an apparent, immediate hazard to a participant(s);
● I will verify that all personnel are licensed/credentialed for the procedures they will be performing, if applicable;
● I will apply for continuing review of the protocol at least annually unless directed by the IRB to apply more frequently;
● I understand I may be audited;
● I will conduct the protocol as represented here and in compliance with IRB determinations and all applicable local, state, and federal law and regulations; and will provide the IRB with all information necessary to review the protocol; and will refrain from protocol activities until receipt of formal IRB approval.
CONFLICT OF INTEREST ACKNOWLEDGMENT

Federal Guidelines require assurances that there are no conflicts of interest in research projects that could affect the welfare of human subjects. If this study presents a potential conflict of interest, additional information will need to be provided to the IRB. Examples of potential conflicts of interest in research involving human subjects may include, but are not limited to:

- A researcher or family member participates in research on a technology, process or product owned by a business in which the faculty member holds a financial interest.
- A researcher or family member participates in research on a technology, process or product developed by that researcher.
- A researcher or family member has a financial or other business interest in an entity which is supplying funding, materials, products, or equipment for the current research project.
- A research or family member serves on the Board of Directors of a business which is supplying funding, materials, products, or equipment for the current research project.
- A researcher receives consulting income from an entity that is funding the current research project.

Do any members of the study team, or any of their family members, have a financial or other business interest in the source(s) of funding, materials, or equipment related to this research study?

Yes □ No  X

If you answered yes, contact the IRB Chair.

“Family Members” is defined to include spouse or any dependent. “Dependent” is any person, regardless of his or her legal residence or domicile, who receives 50 percent or more of his or her support from the Investigator or his or her spouse or who resided with the Investigator for more than 180 days during the reporting period.

Signature:  Heather McAllister  Date:  04/15/2016

Signature:  Suzanne Slovak  Date:  04/15/16

Supervising Faculty Signature (if student)  Date:  4/16/2016

This signature acknowledges I am the Principal Investigator and/or Supervising Faculty.
We want to learn more about...

Transplant Registered Nurses (RNs) and communication between their patients and other healthcare disciplines.

We want your help.

Researchers at the University of Alabama in Huntsville are investigating the different communication techniques between RNs and their patients as well as between RNs and other healthcare disciplines.

When will this study take place?
Dates will be added when confirmed

Would the study be a good fit for me?
Participants need to have at least 2 years experience as an RN working on the transplant unit at Vanderbilt University Transplant Center.

How is the study conducted?
This study is an open-forum interview. Questions will be asked in a group setting with responses from participants recorded by the principal investigators.

As a thank you for participating in this study, a meal will be provided to participants.

To take part in this research study or for more information, please contact:
Heather McAllister at (334) 462-6627 or HM0024@uah.edu
Suzanne Slovak at (256) 497-2148 or SS0148@uah.edu

The principal researchers for this study are Heather McAllister and Suzanne Slovak at the University of Alabama in Huntsville
Appendix B

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that Heather McAllister successfully completed the NIH Web-based training course “Protecting Human Research Participants”.

Date of completion: 05/25/2015

Certification Number: 1769606

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that Sue Slovak successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 05/25/2015.

Certification Number: 1769519.
Appendix C

Consent Form:
The effects of communication in nurses caring for transplant patients between their patients and other health-care disciplines.

You are invited to participate in a research study about the effects of communication in nurses caring for transplant patients between their patients and other health-care disciplines.

This study is designed to help us to better understand the effects of communication between transplant nurses and other health-care disciplines as well as the effects of communication between transplant nurses and their patients.

The primary investigators are Heather McAllister and Suzanne Slovak, from the University of Alabama in Huntsville, located in Huntsville Alabama.

PROCEDURE TO BE FOLLOWED IN THE STUDY: Participation in this study is completely voluntary. Once written consent is given; you will be asked to complete a short demographic survey. You will be assigned a number for identification during the study and will be referenced by that number instead of their name for the duration of the research study. Prior to entering the interview room, you will be asked to remove your nametag. You will be interviewed within a group of other interviewees (anywhere from 1-11 others). The open-forum interview focus group will be recorded using Ipad/Iphone mobile applications as well as a traditional voice recorder. You will then be asked 10-20 questions by the PIs. This session will take approximately 1 hour.

DISCOMFORTS AND RISKS FROM PARTICIPATING IN THIS STUDY: Potential risks to you by participating in this study include possible emotional and psychological stress that may trigger any negative feelings associated with the experiences that are being discussed. The possible risks for this study are estimated to be minimal, if any.

EXPECTED BENEFITS: Results from his study can benefit society by identifying facilitators and barriers to communication between registered nurses (RNs) and other health-care staff as well as identify potential factors that establish trust between the nurse and their patient. As a result, communication between RNs and their patients as well as other healthcare disciplines can be improved, thus overall improving patient outcomes. Please see the section below for incentives and compensation for participation in this study.
INCENTIVES AND COMPENSATION FOR PARTICIPATION: The topic being researched is directly relevant to your career and can provide insights into improving their relationships with their patients and other health-care disciplines. You will be offered a meal as compensation for your participation.

CONFIDENTIALITY OF RESULTS: No names will be used during the study. You will be assigned a number for identification during the study and will be referenced by that number instead of your name for the duration of the research study. You will be recorded using a third party iPad/iPhone mobile application and a traditional voice recorder. The recording will be heard by a third party confidential dictation service for transcription purposes. Once the study is completed all study recordings and paperwork will be shredded and destroyed.

FREEDOM TO WITHDRAW: You are free to withdraw from the study at any time. You will not be penalized because of withdrawal in any form. Investigators reserve the right to remove any participant from the session without regard to the participant’s consent.

CONTACT INFORMATION: If you have any questions, please ask them now. If you have questions later on, you may contact the Principal Investigators, Heather McAllister or Suzanne Slovak located in Huntsville, AL at the University of Alabama in Huntsville. Contact information for Heather McAllister: (334) 462-6627 or HM0024@uah.edu. Contact information for Suzanne Slovak: (256) 497-2148 or ss0148@uah.edu. Faculty supervisor is Dr. Haley Hoy at the University of Alabama in Huntsville. Contact information: (256) 824-6669 or Haley.Hoy@uah.edu. If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the Office of the IRB (IRB) at 256.824.6101 or email the IRB chair Dr. William Wilkerson at irb.@uah.edu.

This study was approved by the Institutional Review Board at UAH and will expire in one year from <date of IRB approval>.

_________________________   __________________   __________________
Name (Please Print)                      Signature                      Date
Appendix D

Demographic Survey

Gender: ____________

Age: ________________

Ethnicity: ____________

Highest nursing degree obtained:

Number of years working as a transplant nurse at Vanderbilt Transplant Center: ________

Total number of years working as a transplant nurse (including years prior to working at the Vanderbilt Transplant Center): ______________________________________
Appendix E

**Interview Guide:**

**Part 1:**

1. Tell me about the types of collaborative interactions you have with other healthcare disciplines (i.e. pharmacist, dermatologist, etc.).
2. How do you collaborate with other healthcare disciplines (i.e. dermatology, pharmacists etc.) during the care for your transplant patient?
3. What factors influence collaborations among registered nurses and other healthcare disciplines during the care for your transplant patient? (i.e. organizational, professional, educational, social, etc.)
4. What factors facilitate collaboration among registered nurses and other healthcare disciplines?
5. What are barriers to collaborating with other healthcare disciplines?

Part one interview guide questions have been modified from Jane Moore and Dawn Prentice’s study titled, “Oncology nurses’ experience of collaboration: A case study” published in 2015 in the European Journal of Oncology Nursing. Reference information:

doi:10.1016/j.ejon.2015.02.011

**Part 2:**

1. Provide some examples that on a daily basis you use to establish the foundation of a trusting nurse-patient relationship with transplant patients.
2. What are some examples of limitations or barriers you experience when working with a patient while building a trusting relationship?
3. What are some examples of practices you used in building rapport and trust with your patients that have had the most positive and consistent outcomes?
4. How do you know a patient trusts you?
5. How do you know when you can trust a patient?