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A Qualitative Study Exploring Nursing Home Care Environments Where Nurse Practitioners Work

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Introduction

The United States (U.S.) healthcare system has over 15,600 nursing homes (NHs) serving more than 1.3 million residents.[1] As a predominant provider of NH care, nurse practitioners (NPs) represent a critical avenue for improving quality of care for NH residents.[2] NPs with their graduate training and expanded practice in geriatric care[3] play a critical role in caring for NH residents. From 2007 to 2014, the number of NPs providing NH care increased by 83%[4]. The NP workforce is expected to grow by 93% between 2013 and 2025.[5] In 2021, over 11,222 NPs provided care in 5,000 NHs nationwide,[6] a trend expected to rise in the next decade.

Recently, the National Academy of Science Engineering and Medicine (NASEM) charted a path through 2030 to maximize use of the NP workforce to care for older adults in NHs.[7] In a second report on nursing home quality[8], NASEM has shown the positive effects of interdisciplinary teams that include NPs. Key positive outcomes resulting from interdisciplinary teams that include NP provided care in NHs that have been reported include improved management of chronic illnesses, improved functional and health status, improved quality of life, reduced or equivalent mortality and hospital admissions, improved self-care, reduced emergency department use and transfers, lower costs, increased time spent with residents, and increased resident, family, and staff satisfaction.[9] If NASEM

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recommendations are achieved, these paths forward will substantially improve care for millions of NH residents across the country.

The U.S. healthcare system is experiencing major health care workforce shortages that will substantially challenge care of older adults in the future. For example, by 2030, an additional 36,000 geriatricians will be needed to meet the care delivery demands for the older population.[10–12] Given these shortfalls, the available healthcare workforce needs to be better deployed to meet the diverse and complex needs of people residing in NHs. Identifying an NP's unique strengths and producing evidence to support NP led care delivery for NH residents will help them be the frontline leaders in screening and treating NH residents.[13] Research is needed to optimally support the growing NP workforce to care for NH residents and to assure higher quality and safer care.

Yet, in NHs, poorly defined roles and relations (e.g., poor relationship between NPs and administrators) and limited support for care delivery for NPs may affect the ability of NPs to manage resident conditions effectively.[14,15] NH care environments are often characterized by poor relations between NPs and leadership and lack of support, making it difficult for NPs to deliver high quality care.[16–18] NHs with optimal care environments may be better positioned to support NPs care for NH residents.[19] For example, NHs with increased professional visibility of the NP role to support residents and staff may result in fewer hospitalizations (−14.7%) compared to NHs that have no NP.[20] National NH demonstration projects, such as the Missouri Quality Improvement Initiative (MOQI) funded by the Centers for Medicare & Medicaid (CMS), relied on NPs who focused on end of life care decisions and who used technology to enhance shared communication, teamwork, and timeliness of documentation. NPs in the MOQI which had sustained improvements in their care environment effectively reduced hospitalizations and ED visits and improved quality over several years.[21–24]

Despite the significant positive impacts that NP work environment has on both NP and patient outcomes, few tools exist to measure and understand the work environment that NPs work in.[25] One extant tool—the Nurse Practitioner Primary Care Organizational Climate Questionnaire (NP-PCOCQ)—is considered the gold standard for measuring NP care environment. However, the NP-PCOCQ was originally developed for NPs working in primary care setting and may not include issues unique to NPs working in NHs (e.g., NP collaborative practice, distinct professional relationships with NH staff). As part of a larger investigation, our team seeks to define the facets of NH NP care environment and adapt the NP-PCOCQ to the NH setting. This study reports the findings of qualitative interviews exploring the facets of care environment for NPs practicing in NHs. This research answered three questions:

1. Do the dimensions in the current NP-PCOCQ survey apply to NH settings?
    a. How important or not important is each item to NPs working in the NH setting?
2. Are there any new dimensions identified by NH NPs that is not in the NP-PCOCQ?

3. What are the underlying themes in the dimensions identified by the NH NPs

Methods

Study design

This study included qualitative interviews with experienced NPs who worked in NHs. To conduct the interviews, we incorporated information from a valid tool to measure NP care environments, the NP-PCOCQ, which is being used across the country and internationally (e.g., Australia, Canada, New Zealand, China, Korea)[26–30] and is now considered the gold standard for measuring NP care environments in primary care. The NP-PCOCQ has been used in two large National Institutes of Health funded studies to survey primary care NPs caring for chronically ill older adults. The tool has been adapted by many researchers to measure the care environment of certified registered nurse anesthetists,[31] nurse midwives,[32] acute care NPs, and physician assistants, among others.[33] No such tool exists to assess NH care environments where NPs work. To advise the team, authors invited the author of the original NP-PCOCQ instrument (L. Poghosyan) to participate in this study.

Sample

Researchers incorporated convenience sampling into the recruitment methods to attract NPs to our study who had worked with our research team in the past. Moreover, researchers used snowball sampling to recruit more NPs from professional organizations that target these types of professional nurses (i.e., Gerontological Advanced Practice Nurses Association (GAPNA)).

Recruitment—NPs were contacted at the NHs using contact information from prior research activities that involved NPs. Additionally, a snowball approach was used by contacting the President of GAPNA who was sent information about the study and asked to assist with recruitment of NPs working in NHs. NPs that currently work in NHs and who were members of GAPNA were invited by researchers to participate in qualitative interviews. Research team members reviewed an IRB approved document with each participant. The document was written in English and described the nature of the study, participants role, identity of the researcher, study objective, risks/benefits, procedures for audio recording and how results will be published and used. Participating subjects had to speak English and had to work in NHs. If participants agreed to participate, a time that was convenient for them to participate was scheduled with the research coordinator. ZOOM links and study information was sent prior to the meeting.

Data Collection

The interviews for this project were conducted March – August 2022. All NP interviews were conducted using ZOOM video conferencing technology. At the start of the interview, all participants verified that audio recording interviews were acceptable. All ZOOM audio recordings of the interviews were transcribed verbatim, and accuracy was verified by two researchers. During transcription, all information was deidentified. All research activities were approved by the universities IRB under protocol AAAU0222.

Qualitative Field Guide—Researchers conducting qualitative interviews prepared a structured interview guide using content adapted from the NP-PCOCQ instrument but customized using language for NHs which was recommended by an expert in NH systems. A brief introduction to the content areas of the original NP-PCOCQ were given to all interviewees including the following descriptions about the four content areas and survey items in the survey.

- Professional Visibility- (4 items)- measures how visible NP role is in the NH.
- NP-Administration Relations (9 items) - measures collaboration and communication between NPs and managers.
- NP-Physician Relations- (7 items)- measures the relationship, communication and teamwork between NPs and physicians.
- Independent Practice and Support- (9 items)- measures resources and support NPs have for their independent practice.

Qualitative Interview—Each interview had three components. The first was to collect demographic information from interview participants to explore their experience. The second included a qualitative exploration of the content of the instrument and a discussion about adapting the content to NP care environments in NHs. Finally, the team explored NP perceptions of how well the content had been adapted to the NH care environment. NPs were asked to rate the importance of each survey item and discuss in the context of their work environment.

Demographic Information—The interview began with asking NPs information about their background as NPs (e.g., How long have you been an NP? How long have you worked in NHs? How long have you worked in long term care? In what states have you practiced as an NP?). NPs were asked to briefly describe their scope of practice and collaborative arrangements (if any) in their current setting.

Qualitative Adaptation of the Instrument to NH NP Care Environments—After collecting demographic information, NPs were informed that the items being discussed were developed for primary care NP care environments. NPs were asked to read each survey item out loud. NPs were asked to discuss how the question applied to their practice setting. To provide context for our exploration for NH NP care environments, NPs were asked to consider the questions from a point of view of what makes an ideal NH care environment for them to practice in.

Perceived Importance of Adapted Content to NH Care Environments—To explore importance of recommended content, NPs were asked to rate how important each item is for the care environment in their NH using a four-point scale: 1) Highly important; 2) Important; 3) Not as important; 4) Absolutely not important. Researchers asked participants to provide an explanation for why they rated each item as they did. Once NPs rated and explained their reasons for their ratings, NPs were asked if they had any recommendations for changes including additions or deletions to an item to improve clarity or to capture an important element of the care environment not represented. Items that were added were also

rated and discussed. NPs that had completed interviews were contacted to give comments about items added later in the study after their interview.

Analysis

Researchers used both deductive and inductive coding to analyze data. The interview guide was structured around the existing subscales of the NP-PCOCQ. When NPs agreed with an existing item in the NP-PCOCQ, quotes were deductively coded into existing items. When NPs added additional information that did not align with existing NP-PCOCQ items, researchers inductively coded those statements and created new themes of NH NP care environment.

NVIVO qualitative software was used to analyze the interview data. Data was analyzed by iteratively and systematically coding transcript text using a directed content analysis approach.[34] Data was read word-by-word and text highlighted to derive codes that captured key concepts. A code book was developed by coders (SK, CC, and GA) to guide our team-based qualitative analysis. The codebook contained the following components: developing themes, categories and codes within each theme, a brief definition, and examples.[35] One person from the team with expertise in qualitative methods was assigned to develop and revise the codebook to ensure consistency of terms and reduce ambiguities across the transcripts. A second team member cross-checked codes to the code book to establish consistency of text segmentation and code application.

Researchers used data saturation as the conceptual quota for estimating and assessing completeness of the qualitative sample size.[36] Researchers defined data saturation as the point during data analysis at which incoming data points (codes from interviews) produce little or no new useful information relative to study objectives.[37] Coders systematically assessed data completeness using saturation tables (See Table 1).[38] Saturation tables were built in a database by labelling rows by codes and the columns ordered by successive interviews. Information in the cells show where the codes were first identified. Coders assessed data saturation after each successive group of three interviews. Coders determined complete data saturation when one blank column of three interviews produced no new emerging information. Upon achieving one full empty column of emerging codes, which included three interviews, we interviewed one more NP to assure full data saturation.

Results

Study Sample

Thirteen NPs were interviewed before no new codes emerged indicating data saturation. All the NPs were female. NPs had an average of 16.4 years of experience as NPs, including 16.3 years in long term care, and 16.2 years in NHs. NPs had a minimum of 5 years and maximum of 32 years of experience in long term care, including NHs. We had regional and practice environment diversity among our participants. The NPs were experienced in eight states including three midwestern (MO, IL, MI), one southwestern (NV), three southeastern (TN, GA, AL), and one northwestern (MA). Using the American Association of Nurse Practitioner's interactive State Practice Environment map provides an overview of

NP licensure for all 50 states.[39] Our sample was diverse in practice environment related to licensure. We interviewed NPs from four states (MO, MI, TN, and GA) with maximum restrictions, two states with reduced restrictions (IL, AL), and two states with full practice (NV, MA). Scope of practice and collaborative practice experience as described verbatim by each NP is illustrated in Supplemental Table 1.

Emerging Content About NH Care Environments

Table 2 illustrates the themes, categories within themes, codes, definitions, and examples of excerpts during NP interviews. Thirty-three codes emerged during interviews that describe seven overarching categories, representing three major themes discussed by NPs including: 1) NP practice in NHs, 2) Overall goals of NP practice in NHs, and 3) Workplace challenges for NPs in NHs.

NP practice in NHs: The first theme is NP practice in NH, broadly focused on the unique issues that NPs in NHs face, such as relationships with NH staff, teamwork, multiple roles NPs fill, and legal concerns. NPs in our interviews discussed how their relationships with staff, residents, family of residents, Director of Nursing (DON), and other NPs significantly contributed to a favorable care environment. One NP (NP 101, see Table 2) discussed the importance of friendship and building rapport with NH staff: "*"It really is almost friendship or trust building with the staff. Those had to be my better days, instead of me just writing an order and walking away."* Another NP (NP-110, see Table 2) discussed the importance of having difficult discussions with family and residents to help them understand the NP role. The NP said, *"…at the end of the day, in this setting, I feel like a lot of it is trying to keep families happy, them understand what we can do, what we are doing for their loved one. You have to have tough conversations with families."*

Other categories emphasized the importance of working as a team include building trust, recognition, avoiding politics, and the importance of distinguishing roles between what NPs do and roles of other disciplines (e.g., hospice and palliative care staff). One NP (NP 111, see Table 2) insisted, to be effective, that NP concerns should not be taken lightly, "*If I'm going to administration with a concern, it's something that is a serious concern and not something that I would just liberally relay to them. So, I would want it to be taken with extreme consideration."*

Another evolving area in our data analysis in NH care environments was the multiple roles and settings in which NPs work. NPs claim that differentiating their role from other staff is important for various reasons including avoiding being treated as a glorified nurse, to maximize job satisfaction and retention in these difficult settings. NP 109 stated, *"People do this because they love geriatrics. They love taking care of older adults, and I think it's kind of a privilege to be able to do this. So, I would say feeling valued helps with job satisfaction and retention."*

Finally, an area highlighted by these NPs are legal and practice concerns. In particular, how well reimbursement and billable time is understood, optimizing NP practice levels, and elevating quality of care. NP 112 (see Table 2) pointed out, *"We should not be having*

unnecessary restrictions on our care outside of any regulatory restrictions that we might have within the state."

Overall goals of practice in NHs: A strong theme of *wanting to do what is best for the residents* emerged throughout the interviews. NPs frequently stated that in their ideal work environment, it is highly important that NPs are kept abreast of patient conditions. In this setting, NPs are a protector and ally of their residents. NP 101 (see Table 2) described her experience, "*I used what I had learned in my schooling and all through the years to build a rapport with the nurses, so that they trusted me enough that on the good days they would come and get me when the person was getting sick.*" NP 103 (see Table 2) described the importance of relationships with caregivers to keep abreast of a resident's changing conditions: "*The caregivers are the ones that are going to recognize early change of conditions in their loved ones, whether it be a certified nurse assistant because she takes care of that resident every day or their family members.*"

Workplace Challenges: NPs reported challenges in the NH setting that contributed to poor care environments. These challenges existed at both the personal and institutional level. For example, personal challenges were equated with poor documentation retrieval systems, burnout, balancing many tasks, and difficulty completing care that is needed.

NPs frequently discussed institutional challenges, such as inadequate staffing of nurses and aides in NHs (NP 101, see Table 2) *"nursing homes are very, very challenging. And with the turnover if you didn't build a rapport I mean. You just spin your wheels".* Scarcity of professional nurses to provide basic care was discussed. Nurse staffing was described by one NP (NP 100, see Table 2) as a *"…skeleton crew…".* Further institutional challenges were described by NP 106 related to keeping current on COVID-19 restrictions: *"During COVID we were meeting every two weeks. Who had it, who didn't, who could accept residents, who couldn't, staffing all of that was discussed."* Care environments were also complicated by use of agency staff and frequent turnover of administrative and DON staff (NP 109, see Table 2).

Survey Content and Importance

Table 3 provides an overview of the final NP—NHOCQ content areas, measure definitions, total number of items per content area, and mean scores representing the range of importance (1 = highly important to 4 = absolutely not important) for each item in a content area. Some of the most highly important content items in the survey measured the relationships between NPs and physicians. Less important items measured relationships between NPs and administration.

Discussion with NPs about these three major themes and associated categories resulted in several changes to the original instrument used in primary care to adapt the instrument to the NH environment. For example, the original instrument had four content areas. Following the initial three interviews (see Table 1), each participant recommended adding a new content area that would measure relationships between the NP and DON. This resulted in the addition of eight items that described the relationship between the NP and DON. When

asked to rate the importance of these items participating NPs gave them mean scores of 1.23–1.69 on a four-point scale (see Table 3) which is highly important.

Excerpts in Table 2 explain why the relationship between the NP and DON are highly important, such as, if the DON highly values NP practice the DON can increase the impact the NP has on resident care. The addition of a highly skilled NP provides a highly important resource for the RN leadership, the DON in NHs, and other staff which can impact patient care and outcomes. Another NP (NP 105, see Table 2) described the relationship as one "…*that make[s] the nurse practitioner's contribution to the care have more impact on patient care. If the Director of Nursing value[s] the nurse practitioner more."* NP's described the DON as a "*lone ranger*" in these settings. This phenomenon was described under *NP Practice in NHs* > *NP DON relationships* > *Finding common ground between nursing leaders*. The NP (NP 106, see Table 2) stated, *"…they're* [DON] *kind of [is] the lone ranger in long term care because they may be the only RN in the building period anyway. So, they did appreciate any input that I would give.*".

The final content areas and total items for the NP-NHOCQ instrument adapted to NH environments during these interviews is provided in Table 3. The final NP—NHOCQ has five content areas, which is one more than the previous instrument. The content areas include a total of 43 items used to measure the NH care environment, which represents an increase in 14 items from the original instrument. For example, during group #1 interviews, NPs suggested adding items to the content area that addressed *Professional Visibility, "In my practice setting, nurses' aides have a good understanding about NP roles in the organization"*, and *"In my practice setting, allied health and consultants (e.g., pharmacy, radiology, lab, PT) have a good understanding about NP roles in the organization."* These additions reflect important differences in settings and relationships when comparing primary and NH environments.

Discussion

The National Academies (formerly known as the Institute of Medicine) has produced several reports addressing quality of care issues in NHs.[40] The National Academies recommend increasing both the numbers and the qualifications of virtually all types of NH workers including NPs. However, even though NPs can substantially improve outcomes of care, simply adding NPs to the workforce will not solve quality problems if the care environment is not supportive and collaborative. Furthermore, little is known about NP care environments; therefore, we have identified major themes of NP care environments here for ongoing work. In this research, NPs described personal and institutional challenges that influence their perceptions of NH care environments. For example, NPs identified access and retrieval of resident information as a critical component of the care environment. This problem has been magnified in recent research showing that NH resident information used during transitions of care to skilled NHs is not usable, timely or complete, complicating care delivery.[41] This aspect of the environment increases staff and resident vulnerability, which can lead to dissatisfaction.

The emerging content in this study demonstrates how passionate NPs are about care of older adults in NHs. NPs desire *what is best for the resident, have a strong work ethic, and want to achieve high levels of performance.* To achieve these goals, NPs must keep abreast of changing conditions and keep residents out of the hospital by educating self and others and building collaborations that maximize continuity of care and trust among the interdisciplinary team. NPs are typically present in NHs more often than physicians and for longer durations, therefore they are oftentimes present for important care decisions, when other providers are not. Therefore, their visibility and presence within a facility are critical to the outcomes of the residents they are serving.[2] Furthermore, NPs play an important role in care planning with the interdisciplinary team including important allied staff (i.e., social work, therapist, pharmacists, etc).

This research adds valuable evidence about a tool that can be used to measure aspects of NH care environments where NPs work. NPs interviewed for this study had over 16 years' experience in NHs. The content areas and associated items for measuring NH care environments were all deemed highly important by the NPs interviewed. Although, some content areas and items assessed in the tool were deemed more important than others. In other NH research including NPs, the role of an NP is described as a "change agent" for better care delivery.[42] Findings in this study support this notion about the importance of NPs to NH care environments and quality. However, change for better quality of care in NHs can only be achieved if the role of the NP is visible, stakeholders understand the NP's role, and the NP has good relationships with administrators, DONs, and providers. Additionally, NPs can provide better quality of care when they have resources available and support for their independent practice in the facility. The next steps in the development of this tool is to conduct a broader assessment of NH care environments through using the survey, including psychometric evaluation and focus groups with NPs working in NHs in the U.S.

Limitations

A limitation of this study is that all of the participants were female. It is possible that male NPs would have a different perspective on the content and rankings of this qualitative data. Future work will include purposeful sampling to include more male NPs. Another limitation is that interviews were open ended and content was controlled by participants. We have not verified our results against the scenarios being discussed by the participants. This will be part of future work.

Conclusion

There is a significant amount of attention being focused on quality of care in NHs recently and in decades past. Much of this focus has been on how to improve quality through better care environments, that include use of knowledgeable staff such as NPs. It is crucial that we continue to examine the relationships between an NP's care environment and the NP's ability to provide higher quality of care. In this research, a tool called the NP-NHOCQ has been developed with the expertise of professional NPs with substantial experience in NHs. Future studies using this tool will add evidence about NH care environments where NPs

work. This evidence can be used to by researchers, policy advocates, and NH leaders to build better NH care delivery systems that provide higher quality of care.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Highlights

- By 2030, an additional 36,000 geriatricians will be needed to care for America's older adults
- Over 11,200 nurse practitioners provide care in 5,000 nursing homes nationwide
- Few tools exist to measure and understand NH care environments where nurse practitioners work
- Simply adding nurse practitioners to the NH workforce will not solve quality problems if the care environment is not support and collaborative
- Emerging content demonstrates how passionate nurse practitioners are about care of older adults

Table 1:

Saturation Table from Qualitative Interviews

	Group 1 Interviews #1–3	Group 2 Interviews #4–6	Group 3 Interviews #7–9	Group 4 Interviews #10–12	Group 5 Interview #13
What's best for the resident	-Kept abreast of patient conditions -Being on the same page -Educating self -Keep patients in the home	-Continuity of care			
Relationships	-NP-DON relationships -NP-NP relationships -Relationship between NP and support services -Relationship with family of residents -Relationship with residents -Working with RN, LPNs, aides				
Teamwork	-Educating staff -Hospice or palliative care -Need to know -Organizational culture -Trust -Recognition -Turf – NP versus MD -Turf – NP versus RNs/LPNs				
Multiple roles per NP	-Seen as a glorified nurse -Being present in the home -NPs treated better -Using RN skills as NP				-Merged being seen as glorified nurse and using RN skills as NP
Legal and practice concerns	-Quality metrics		-Billable time -Bound by federal/state regulations		-Revised to Bound by federal/state/ local regulations
Personal Challenges	-Burnout -Do the best we can -Frustraion with care not being given	-Documentation (standardization, timeliness, poor communication, disparate IT systems, access to IT portals/no login)			
Institutional Challenges	-Staffing issue -Reliable staff -COVID		-It was chaos		

Table 2:

Qualitative Themes, Codes, and Definitions with Statements

Theme	Category	Code	Definition	Examples
Overall goals of NP practice in NHs	What's bestfor the resident	Kept abreast of patient conditions	Being a protector and ally of residents	**NP101:** *"used what I had learned in my schooling and all through the years to build a rapport with the nurses, so that they trusted me enough that on the good days they would come and get me when the person was getting sick"* **NP103:** *"The caregivers are the ones that are going to recognize early change of conditions in their loved ones, whether it be a certified nurse assistant because she takes care of that resident every day or their family members."* **NP105:** *"We have a long-term relationship, because you go there, they are there every day. And then you can see them even you don't go to visit them; you can still say hi and knows What's going on."*
		Keep patients in the home (not admitted to hospital)	Role clarity of scope of practice for early intervention.	**NP102:** *"It's important than my role is well understood because it helps with what I can do in my scope of practice, which is in this role decrease hospitalizations. So, if they don't understand what I can do, then I can't, they can't ask me for help, because they don't know."* **NP109;** *"We want to try to intervene as early as possible, keep residents as healthy as possible, talk about disease trajectory, really develop relationships in the facility"*
		Educating self	Creating dialogue, troubleshooting, reaching consensus about best practice.	**Np110:** *"I just think that explaining why we do things, making sure that we're following best practice guidelines, the latest up to date research, guidelines too, that's highly important."* **NP111:** *"I always think it's important to update your practice, to be in the know of what the new standards are, and the best practice strategies are."* **NP112:** *"We've got to have that vital information to be able to make informed decisions on their treatment plans."*
		Continuity of care	Consistent communication between a community of practice partners	**NP102:** *"In my organization NPs and physicians collaborate to provide patient care. I think that's important once again for continuity of care…"* **NP103:** *"They hired a geriatrician to come into this nursing home and, and so the residents when they came in that would be their community hospitalist. So the physician knew the residents very well."*
		Being on the same page	Maximizing collaboration	**NP108:** *"Because you don't want different people, to be getting different messages. It will tend to split. You can't work as a team."* **NP110:** *ÖI come from a place where we do practice as a team which is why I've stayed in this job for so long."*
NP Practice in NHs	Relationships	Working with RNs, LPNs, aides	Managing relationships and building staff rapport	**NP101:** *"It really is almost friendship or trust building with the staff. Those had to be my better days, instead of me just writing an order and walking away."*

Theme	Category	Code	Definition	Examples
		Relationship with residents	Recognition of the NP role	**NP100:** *"As a nurse practitioner you're definitely a communicator and a lot of times you have to develop that relationship and communication with that resident in order to be successful."*
		Relationship with family of residents	Keeping families informed and happy	**NP110:** *"…at the end of the day, in this setting, I feel like a lot of it is trying to keep families happy, them understand what we can do, what we are doing for their loved one. You have to have tough conversations with families."* **NP105:** *"I feel the residents in the nursing home they are so appreciative of little things you do for them. They are from bottom of their heart they are so appreciate what you do. Anything you do for them."*
		Relationship between NP and support services	Keeping abreast of interventions	**NP103:** *"You may want to ask something about the allied therapy or allied professionals, because they're such an important part of the whole piece. "*
		NP-Np relationships	Bolster respect with other NPs	**NP107:** *"I think that is one of the beauties of working in an environment, such as long-term care is that you're interacting with other APRNs and it's really great to be able to bounce ideas off of other APRNs."*
		NP-Director of Nursing relationships	Finding common ground between nursing leaders	**NP105:** *"…that make[s] the nurse practitioner's contribution to the care have more impact on patient care. If the Director of Nursing value[s] the nurse practitioner more."* **NP106:** *"...they're [DON] kind of the lone ranger in long term care because they may be the only RN in the building period anyway. So, they did appreciate any input that I would give."*
	Teamwork	Turf – NPs versus RNs/LPNs	Being put on an even keel	**NP100:** *"…it is the nurse too that's trying to so-called protect her patient, but once they get to know you and understand that you really are there to help them."*
		Turf – NP versus MD	Avoiding the	**NP104:** *"I notice that when family members have made you know appointments with physicians, I don't want to see the NP I want to see the doctor. I'm like well, technically, they can do the same job but it's just it's how people distinguish them."*
		Trust	Nourishing interprofessional relationships	**NP107:** *"physicians need to value what APRNs bring to the practice environment. I think they also need to have trust in us but definitely the value."*
		Recognition	NP's added value	**NP109:** *"if no one knows or understands what the nurse practitioner is doing, what their value add is. They're not going to be engaged with the nurse practitioner."*
		Organizational culture	Vision of NP practice	**NP111:** *"If I'm going to administration with a concern, it's something that is a serious concern and not something that I would just liberally relay to them. So, I would want it to be taken with extreme consideration."*
		Need to know	Avoiding politics	**NP100:** *"We're there to take care, to focus on the residents and try to stay out of the politics of it."*
		Hospice or palliative care	Distinguishing professional roles	**NP104:** *"But sometimes they're confused: "well I just talked to you this morning." I'm like "oh no that was*

Theme	Category	Code	Definition	Examples
				another NP" so sometimes that can be a challenge to distinguish…"
		Educating staff	Assisting staff to become highly skilled	**NP106:** *"That was a lot of time I spent on high care for the elderly, how to interact with the elderly, treating them as a person and not somebody in the bed."*
	Multiple roles and settings per NP	Being seen as a glorified nurse	Differentiating staff roles	**NP101:** *"I always had the feeling that they knew what the skills and competencies were of the NPs, but they chose to ignore it, at times, because it benefited them for us to act in an RN and an NP role.."*
		NPs treated better	Seeing work as a privilege	**NP109:** *"People do this because they love geriatrics. They love taking care of older adults, and I think it's kind of a privilege to be able to do this. So, I would say feeling valued helps with job satisfaction and retention."*
		Being present in the home	Providing day in/day out care to residents	**NP112:** *"Nurse practitioners are the ones that spend the majority of the time in the facilities. We definitely spend more time seeing the patients and being present in the nursing home, more so than the physicians."*
	Legal and Practice Concerns	Billable time	Understanding reimbursement	**NP107:** *"Can't bill for an H and P in a skilled nursing facility."*
		Bound by federal, state, and local regulations	Maximizing practice levels	**NP108:** *"It was issues related to reimbursement and policy."* **NP112:** *"We should not be having unnecessary restrictions on our care outside of any regulatory restrictions that we might have within the state."*
		Quality metrics	Elevating quality of care	**NP106:** *"You know I do a lot of chart audits and if I make suggestions, they do follow up and get, change the orders or you've got him on six different meds for all, for the same reason."*
Workplace Challenges for NPs in NHs	Personal Challenges	Documentation	Access and retrieval of information in real time	**NP104:** *"Everybody charts different, and we have palliative care and [name]. So, if somebody comes in and sees a patient, the communication is very poor because it might be a week before their note gets in. So, no one can tell what anybody else was thinking."* **NP111:** *"I've seen a huge impact on my ability to provide high quality care because I have access to all of that information."*
		Burnout	Surviving the workplace	**NP102:** *"if my role isn't valued by my organization then I won't feel valued and that can lead to stress, burnout, etc."*
		Do the best we can	Balancing all the balls in the air at one time	**NP100:** *"You've got resident's family, nurses, administration so you've got all these balls that you're trying to balance so. You have to learn to do your best."*
		Frustration with care not being given	Becoming dissatisfied	**NP104:** *"…or the last two years has been when you give orders, making sure that orders actually get into place and with all the different agencies."* **NP111:** *"Inevitably, I'm going to help try and fill that void, to make sure the resident gets what they need."*
	Institutional Challenges	Staffing Issue	Enough staff to provide basic care	**NP100:** *"They run a skeleton crew of nurses."*

Theme	Category	Code	Definition	Examples
				NP101: *"Nursing homes are very, very challenging. And with the turnover if you didn't build a rapport I mean. You just spin your wheels."* **NP16** *"We've got homes that can't ge. an Rn in the building."*
		COVID	Keeping current	**NP106:** *"During COVID we were meeting every two weeks. Who had it, who didn't, who could accept residents, who couldn't, staffing all of that was discussed."*
		Reliable staff	Having experienced staff	**NP109:** *"We have agency staff coming in and out. Administrators and directors of nursing that are there for about three months, then they're leaving."*
		It was chaos	Pace of change	**NP106:** *"Changes happen quickly and sometimes they can't keep up with all the changes."*

Table 3:

Content Areas and Total Items of the *Nurse Practitioner—Nursing Home Organizational Climate Questionnaire (NP—NHOCQ)*

Content Area	Measure Definition	Total Items	*Mean Range
How important is each statement is to the *professional visibility* of NPs in your NH?	Measures how visible NP role is in the NH	8	1.31–2.00
How important is each statement to the *relationship of NPs and administration* in your NH?	Measures collaboration and communication between NPs and managers	11	1.18–2.08
How important is each statement to the *relationship of NPs and physicians* in your NH?	Measures the relationship, communication and teamwork between NPs and physicians	7	1.08–1.54
How important is each statement to the *relationship of NPs and Director of Nursing* in your facility?	Measures the relationship, communication and teamwork between NPs and the Director of Nursing	8	1.23–1.69
How important is each statement for *resources and support for NPs independent practice* in your NH?	Measures resources and support NPs have for their independent practice	9	1.15–1.77

*Represents mean of all items within a content area measured on four-point Likert scale (1 = Highly Important, 2 = Important, 3 = Not as Important, 4 = Absolutely not Important)