# EXPLORATION OF INTEREST AND DEVELOPMENT OF INTERGENERATIONAL FACILITIES IN PITT COUNTY

by

Emily Kustka

A Senior Honors Project Presented to the

Honors College

East Carolina University

In Partial Fulfillment of the

Requirements for

**Graduation with Honors** 

by

Emily Kustka

Greenville, NC

May 2022

Approved by:

Dr. Abby Schwartz

School of Social Work, College of Health and Human Performance

#### Abstract

Long-term care settings that provide eldercare and childcare can also be referred to as intergenerational facilities and are defined as such in the present paper. Intergenerational facilities can combat the loneliness and isolation that older residents experience. Despite documented benefits of intergenerational contact, there are no nursing homes in Pitt County that house a childcare center. Due to the projected increase of older adults in Pitt County, there will be a need for more long-term care options. The aims of the present study included: 1) Exploring the interest in having an intergenerational facility in Pitt County, and key benefits and challenges during its development, and 2) Propose key elements and considerations in developing an intergenerational facility based on interviews with Pitt County stakeholders. Using a basic qualitative interview approach, ten stakeholders were interviewed during spring 2021 by phone or virtually due to the COVID-19 pandemic. The author was introduced to stakeholders by her faculty mentor, and snowball sampling was used to identify additional individuals to interview. Stakeholders were people in the aging or childcare communities, such as a nursing home activities director and director of a childcare facility. Braun and Clarke's (2006) thematic analysis process was used, including initial and descriptive coding (Saldaña, 2013). Three themes emerged from the qualitative data: concerns, considerations, and potential benefits of an intergenerational facility in Pitt County. Each theme included subthemes, with examples including: a need for education and environmental aspects (concerns), activities and architectural (considerations), and benefits to older adults and children. The findings suggest an interest in an intergenerational facility in Pitt County and its feasibility pending the implementation of stakeholders' recommendations. Key elements of a potential intergenerational facility are proposed in addition to implications for future research and limitations of the present study.

# **Table of Contents**

Introduction	5
Literature Review	7
Emotional and Developmental Needs	8
Intergenerational Programming in Pitt County, NC	9
Purpose of The Present Study	10
Methods	10
Setting and Sample	10
Study Procedure & Data Collection	11
Data Analysis	11
Results	12
Theme 1: Concerns Associated with Developing an Intergenerational Facility	12
Subtheme: Need for Education	12
Subtheme: Environmental Aspects	13
Subtheme: Facility Operations	15
Theme 2: Considerations	17
Subtheme: Activities	17
Subtheme: Cost Considerations	19
Subtheme: Architectural Considerations	20
Subtheme: Involving Diverse Stakeholders in the Development Process	21
Theme 3: Benefits	23
Subtheme: Benefits to Older Adults	23
Subtheme: Benefits to Children	25

Subtheme: Benefits to Staff	26
Discussion	27
Conclusion	33
Funding	33
References	34
Tables	39
Table 1: Percentage of Older Adults and Children in NC Counties and Locations	39
Table 2: Exemplary Questions from Interview Guides	41
Table 3: Themes and Subthemes of the Study	43
Table 4: Subthemes and Supporting Quotes	44

#### Introduction

Approximately 2.15 million older adults live in long-term care facilities such as nursing homes or residential care communities, including group homes (Harris-Kojetin et al., 2019). In this setting older adults may experience isolation (Chen & Schulz, 2016), loneliness (Jansson et al., 2017), and boredom (Palacios-Ceña et al., 2016), which can lead to depression and faster mental and physical decline (Trybusińska & Saracen, 2019). It has been reported that 22 to 42 percent of older adults in nursing homes experience severe loneliness, compared to 10 percent of older adults living in the community (Simard & Volicer, 2020). Risk factors for mortality, including smoking and obesity, have been found to be comparable to social isolation (National Academies of Sciences, Engineering, and Medicine, 2020).

As of 2020, in North Carolina, approximately 36,397 older adults resided in nursing homes (The Kaiser Family Foundation, 2020). In Pitt County North Carolina (NC), there are 6 nursing homes available to those who require skilled care (Department of Health and Human Services, 2021). While nursing homes offer service and supports to meet resident physical and social needs, intermittent interaction between residents and visitors (e.g., family members) may not be enough to address social isolation and loneliness. Intergenerational interaction between older adults and children has been shown to positively impact children and older adults including promoting mutual awareness and understanding, improving the child's understanding of the elderly, and decreasing stress and depressive moods among older adults (Gualano et al., 2018). A study reported that intergenerational interaction improved older adults' depressive symptoms, feelings of usefulness and sense of community. These interactions built up self-esteem, in turn improving older adults' quality of life and self-reported health (Feyh et al., 2021).

Social interaction plays an important role for young children as well. At preschool age, children are in a crucial period in which they develop social skills. These skills "enable social adaptation, create and maintain existing social relationships, and have long- and short-term effects over an individual's life" (Maleki et al., 2019, p. 1). Childcare such as daycare and preschool, provide a safe and educational environment for children whose parents work and/or want their children to learn outside of the home, and many families use childcare. In 2019, approximately 8.6 million children nationally aged 5 years old and younger attended a daycare center, preschool, or pre-kindergarten at least once a week (National Center for Education Statistics, 2019). In 2021, North Carolina had about 4,359 licensed childcare programs (Childcare Aware of America, 2022). In 2017, approximately 250,000 children in NC were enrolled in a childcare center (Division of Child Development and Early Education, 2017).

To meet the socialization needs of older adults and children there are facilities that focus on intergenerational care, by combining long-term care (e.g., skilled nursing) and childcare. In such settings, older adults and children interact on an almost daily basis. Although such contact can occur in continuing care retirement communities, including assisted living facilities, in the present research we focused on older adults residing in nursing homes interacting with children in a childcare center that is attached to the nursing facility. Nursing homes were chosen as the focus of this research as opposed to other long term care facilities (e.g., assisted living), because nursing home residents require more intensive care. While both facilities offer 24-hour supervision, nursing home residents are more likely to receive assistance with activities of daily living than assisted living residents (National Institute on Aging, 2017). However, there is a lack of current research on social engagement among residents with high functioning activities of daily living (ADL) compared to those with low ADL abilities. However, Schroll et al. (1997) in

examining nursing home residents found a positive association between social engagement and high ADL functioning (Schroll, et al., 1997). This suggests that residents in nursing homes who typically require higher levels of ADL assistance, may be more socially isolated and lonelier compared to assisted living residents.

#### Literature Review

# Demographic and Financial Need: Nationwide and in Pitt County

In the United States, approximately 16.5 percent of the population includes adults 65 years and older and approximately 6.0 percent of the population includes children 5 years and younger (United States Census Bureau, 2020). Of these populations, roughly 2.5 percent of older adults live in nursing homes (Harris-Kojetin et al., 2019). Both groups are projected to increase nationwide, with older adults growing to about 35.2 percent by 2030 (Census Bureau, 2018), and children 5 years and younger increasing by approximately 2.86 percent by 2030 (Child Stats, 2018). While the younger population may not be growing as quickly as the older population, as of 2019, about 36.5 percent of children aged 5 or younger regularly attended a daycare (National Center for Education Statistics, 2019), and this need will persist for some families. In addition, as reported by the Federal Interagency Forum on Child and Family Statistics (2018), North Carolina has the third highest net migration of older adults. Many of these adults are moving to Pitt County because of its proximity to East Carolina University (ECU), the inner and outer banks, and its location to Raleigh. Thus, this large migration of older adults may mean that some may eventually require nursing home care. Intergenerational facilities could be one solution to addressing increasing needs for care of both populations. Compared to NC, and other surrounding counties in the state, Pitt County has a similar percentage of children under the age of five and has a smaller percentage of older adults (Table 1). The reason for this smaller

percentage of older adults may relate to the large population of undergraduate students at ECU, housed in the city of Greenville, which includes 23,056 undergraduate students (ECU, 2020). Despite the smaller percentage of older adults in Pitt County, other towns within the county, such as Washington and Williamston, have a larger percentage of older adults (Table 1) that may utilize services that Pitt County provides. Thus, the development of an intergenerational facility in Pitt County could potentially benefit older adults throughout eastern NC as a central point for long-term care.

There could be potential financial benefits to developing an intergenerational facility, particularly for families requiring childcare as well. The Economic Policy Institute (2020) reported that in NC, the estimated cost of childcare is \$197.50 per week. To put this number in perspective, the median income in NC is \$1,050.03 per week (United States Census Bureau, 2019), accounting for about 18.8 percent of an average North Carolinian's income. According to the Department of Health and Human Services (2015), this is not affordable, as affordable childcare costs less than 7 percent of the income of the family. The services provided for children at daycare and for older adults in nursing homes can be very costly for families. Catrin Jones (2017) lecturer in Dementia Studies at Bangor University stated that "Rent and staff costs can take up as much as 95 percent of expenditure at care facilities, but both are reduced when shared care is adopted" (p. 1).

## **Emotional and Developmental Needs**

Intergenerational interaction is mutually beneficial for both groups involved. This includes physical and cognitive benefits, as well as benefits related to quality of life. According to Zhong et al. (2020), "program-based intergenerational interactions showed positive associations with older adults' physical health, psychosocial health, cognitive function, social

relationships, and well-being/quality of life" (p. 8). Children are given an opportunity to "increase their self-esteem and self-confidence and to gain a deeper understanding of older adults" (Newman & Hatton-Yeo, 2008, p. 33) and the older adults have an opportunity to share the knowledge that they have gained throughout their life. According to Carstensen et al. (2016), "older people's qualities and their affinity for purpose and engagement position them to make critical contributions to the lives of youth" (p. 8). Being able to teach, play, and interact with children, can bring purpose (Carstensen et al., 2016) and a renewed sense of self-worth (Young, 2019) to the older adults. Both the children and the older adults are given an opportunity to interact with a group that is diverse from their own which allows them to create new friendships and in turn increase their self-esteem (Jones, 2017) as well as feel valued, accepted, and respected (Newman & Hatton-Yeo, 2008).

# **Intergenerational Programming in Pitt County, NC**

As previously stated, Pitt County houses 6 nursing homes (Department of Health and Human Services, 2021) and approximately 84 childcare centers (Division of Child Development and Early Education, 2022). Often nursing homes will bring in children to interact with residents, however, the 6 nursing homes in Pitt County do not advertise this in their activity calendars available online (this may be related to COVID-19), nor is it described as part of their daily programming. Pitt County is also home to 6 senior centers (Pitt County Council on Aging, n.d.), but none of them advertise daily intergenerational programming. For example, the Pitt County Council on Aging hosted an intergenerational music program through Love Joy Music in 2019 and part of 2020, however, this event has yet to reappear on their 2022 calendar. In addition, this is a single program rather than daily ongoing intergenerational activity. However, the lack of intergenerational programming is beginning to change. In August 2021, the Lucille Gorham Unit

was opened by the Boys and Girls Club of Coastal Plain as a partnership with the local Pitt County Council on Aging Senior Center (Holmes, 2021), with the goal of this partnership to focus on intergenerational learning (Writer, 2022). In addition, Greenville Montessori School worked with the Pitt County Council on Aging and re-potted 200 plants. These were then distributed on routes of the Meals on Wheels program (Gruner, 2022). Despite these new activities, daily interactions have yet to be advertised.

# **Purpose of The Present Study**

Although Pitt County has childcare centers, nursing homes, and senior centers, there is no long-term care facility that offers daily interaction with children. Considering the demographics of Pitt County and its growing older adult and child populations, the author is most intent on understanding the interest in an intergenerational facility that serves as both a nursing home and that also houses a daycare for children. The aims of this research project included the following:

- Explore the interest in having an intergenerational facility in Pitt County, and key benefits and challenges with developing a facility by interviewing stakeholders in the community.
- 2. Propose key elements and considerations in developing an intergenerational facility in Pitt County, NC based on interviews with stakeholders.

The challenges and benefits with creating a facility identified in the data collected will be used to develop a guideline of key elements to include in developing an intergenerational facility.

#### **Methods**

# **Setting and Sample**

This study was approved by the ECU Institutional Review Board (UMCIRB 21-000117) prior to conducting the research. Stakeholders included 10 aging and childcare-related contacts.

Aging-related contacts (n=5) included: an Area Agency on Aging (AAA) staff member, a nursing home activities director, gerontology professor, a social work staff member at a long-term care facility, and a memory care staff member at long-term care facility. Childcare-related contacts included (n=4): a college dean familiar with intergenerational facilities, college professor whose content area concerns children, a parent of a child in childcare, and the director of a childcare facility. The tenth interview was with an architect who specializes in intergenerational facilities.

## **Study Procedure & Data Collection**

The research used a basic qualitative study method to explore "how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences" (Merriam & Tisdell, 2016, p. 24). In the basic approach, data is collected through various means including interviews which were completed in the present study (Merriam & Tisdell, 2016). The participants were recruited through the author's faculty mentor's contacts, and via snowball sampling – participants were asked if they knew of other individuals who they suggested that should be contacted to participate in the study. The author completed all of the qualitative interviews with the stakeholders by phone or virtually, due to the COVID-19 pandemic. Interviews lasted from 20 min to 1 hour and were digitally recorded for transcription by the author. Table 2 provides examples of questions from each interview guide.

## **Data Analysis**

The author followed the six phases of thematic analysis that are explained by Braun and Clarke (2006). First the data were transcribed, and an initial readthrough was completed during the transcription process. Then the author underlined "patterns of meaning and issues of potential interest in the data" (Braun & Clarke, 2006, p. 86). The author used initial coding as the

underlined sections were given a loose term or short sentence that described the section (Saldaña, 2013). The author then created a table in Microsoft Word in which codes were placed next to the sentences and sections of interest. The initial codes and the associated sections were then reviewed, and descriptive coding was used to collapse the codes into more specific phrases or words (Saldaña, 2013). Then the codes were reviewed to determine preliminary themes and codes were collapsed further until final themes were determined, and these are presented in this paper (Braun & Clarke, 2006). The coding was completed by the author, and her faculty mentor provided feedback regarding the coding processes and the themes (Saldaña, 2013), with any disagreements discussed and consensus reached regarding codes and themes.

#### Results

Three key themes emerged from the stakeholder interviews and included: 1) concerns, 2) considerations, and 3) perceived benefits in developing an intergenerational facility. Each of these themes includes subthemes and this detail is presented in Table 3. Exemplary quotes for each theme and subtheme are provided below with additional supportive quotes in Table 4.

# Theme 1: Concerns Associated with Developing an Intergenerational Facility

Stakeholders indicated several concerns about developing an intergenerational facility in Pitt County. These statements related to the pre-development, during development, and post-development phases. Subthemes regarding concerns included the need for education, environmental aspects, and facility operations.

#### Need for Education

The first concern that emerged was the need to educate nursing home and childcare staff and the public on topics surrounding intergenerational care. For example, several stakeholders indicated how children may not understand older adult sicknesses, cognitive impairment,

physical ailments, or even death. As stated by a college professor working in childcare "...the child could be attached to some of the adults ... what happens if there is a death?" A gerontology professor explained how, "Some kids are afraid when they're around adults who have cognitive issues." These situations require staff in the nursing home and childcare side of a facility to educate and guide children through these topics. The director of a childcare facility stated that "professionals working with ... the children especially would have to be really well versed in talking about death... illness, and terminal illness." This included staff being trained to work with both populations and to understand how to navigate the emotions that children may face during intergenerational interactions. For example, the childcare facility director discussed how children under five are "still learning how to regulate their emotions," and how interactions with older adults can be overwhelming. The gerontology professor explained how it would be beneficial, "if people were trained to work with... and would understand both populations and would be aware of the issues... [so they could] figure out ways to... respond to those issues."

Stakeholders also mentioned ageism as part of the educational topics to be addressed. The gerontology professor stressed how stereotypes could affect an intergenerational facility's success, particularly ideas about the abilities of older adults who reside in a nursing home.

When you present this to people and they're thinking of the type of resident at a skilled nursing facility, they will automatically think that they're not gonna be capable of doing much with young children...They're going to think that these children are being exposed to older adults who are sick ...forgive me for saying this- but crazy, which many people view older adults with Alzheimer's [as] being, and they're going to think ... it'll give them maybe their own negative stereotypes to grow up with.

#### **Environmental Aspects**

The second type of concern that emerged was environmental aspects of the facility. Environmental aspects related to contagious illnesses, energy levels of older residents, noise threshold levels among older residents, and the time of the day that interactions would occur. Seven of the 10 stakeholders indicated their concern about illness and infection within the facility, focusing on either the older adults, the children, or both. As stated by the memory care staff member, "you have to think about...the infection control side of things with children and... being around an older population that can...be a little bit of a higher risk." Specific concerns included MRSA, flu, pink eye, and hand foot and mouth disease. Stakeholders noted measures should be integrated to address controlling the spread of infections. A staff member at an Area Agency on Aging (AAA) explained, "there are infection control measures you certainly have to consider... that's kinda the hurdle you have to get past... how do we put safety measures in place?" A nursing home activities director described some potential safety measures, that also overlap with the previously discussed education subtheme: "... detect what signs, what symptoms, what change in pattern of behavior, changes in pattern of their activity, and be preventive ...practice good infection control techniques... being educated, being informed, and knowing when the seasons are."

A second environmental consideration included concerns surrounding different energy and noise level thresholds of the two populations. As stated by the college professor who centers her work on children,

My...concern would be what is the threshold for ...quietness and ...loudness for the aging adults ... how much of a stimulation is ok for them? You...have children that are very energetic...very active, so how are they [older adults] going to take to it...are they ok with that kind of sound?

To combat this concern, the gerontology professor recommended that, "they need some apart time... there could be activities where the children are very active themselves and the older adults are just enjoying their activity without doing that much themselves." However, to determine when the "apart" time is best, stakeholders suggested it's important to get to know both the older and younger populations in the setting and their preferences. The college dean and the director of a childcare center, respectively, stated how, "their needs and demands are different" and "it would vary depending on what the older person could handle."

Stakeholders were also concerned about the environmental safety of the residents and the children. The first safety concern surrounded the layout of the furniture.

I think that there also...concerns about safety of the seniors because when I think about the space of the adult day services it was sort of a lot of...lounge chairs that converted to laying back...there could be some concern about the kids...getting underfoot and then a possible slip or fall... (College Dean)

While also related to activities, environmentally, in addition to threshold for noise levels, the time of day is also important in this setting. This can be a concern, particularly for those experiencing sundowning as part of Alzheimer's Disease. "... some [residents] ...do better in the afternoon and then...cognitively impaired residents with Alzheimer's or with dementia or with cognitive deficits...if you're going to have behaviors ... it's going to be more in the afternoon" (Nursing Home Activities Director).

#### Facility Operations

The final concern that emerged was facility operations involving staff members, safety, regulations and restrictions, and program inequality. There was concern that there could be staff turnover among the certified nursing assistants (CNA). The social work staff member at a long-

term care facility explained that turnover is due to CNAs being "...underpaid...are not always recognized for the hard work and labor... have a lot of issues balancing work and homelife...the job is very stressful." Even though it is mentioned later in the benefits section of this paper, some stakeholders describe the benefit of staff members having their children in the daycare part of the facility, the social worker explained how they believed that this could be a concern. "[Having their child in the facility] could be a distractor[sic] for some staff in terms of if they are overly concerned about their child or ... misuse...or overextend break times."

Other concerns within facility operations included the regulations and restrictions associated with nursing homes and childcare centers.

I think ... some of the most regulated places are nursing homes and childcare centers...

needing to have two different levels of ... certifications and making sure they're following the regulatory standards ... wouldn't be difficult, but you'd have to have individuals who knew a lot about working with children, and what it took to run a daycare center ... and vice versa (Social Work Staff Member at Long-term Care Facility)

While there are concerns, stakeholders believed that putting in extra work in the beginning would allow the facility to meet all required standards. "it's going to take a lot of creativity, lot of open mindednesses, lot of planning…because running a childcare center also has a lot of…rules and regulations that you need to follow when you do something like that" (College Professor).

A final concern within facility operations was the possibility of program inequality between older adults and children. Stakeholders noted that in intergenerational activity, the care is usually focused on the older adults rather than the children. "There's differences in which side is emphasized…very often…the emphasis is on the seniors with the kids kind of being like this added attraction" (College Dean). A parent of a child in childcare explained how they couldn't

clearly identify the benefits for the children. "I wouldn't see it as...advantageous...but I wouldn't...see it as...a deficiency...I would see it just equal ...unless...you could enumerate ... the extra things ... they were gaining...I wouldn't ... know what extra they're getting..." Another aspect of the inequality between programs discussed by stakeholders included different program plans for each population. "Our child development center had a philosophy that was...an emergent curriculum...that philosophy was quite different than the philosophy of the daycare center for seniors ... the different philosophies could be sometimes in...conflict" (College Dean). These statements suggested the importance of gaining buy in from individuals who would be interested in both the older adult and child components of the facility and ensuring equality between the programs. These also relate back to the subtheme, Need for Education, as people will need to understand what the facility does and the equal benefits of such programming for children and older adults.

#### **Theme 2: Considerations**

Stakeholders indicated several considerations when developing an intergenerational facility. This included statements about activities, costs, architectural considerations, and involving diverse stakeholders in the development process.

#### Activities

Stakeholders discussed different activity ideas for the facility. A common activity mentioned was incorporating music. "One of the activities that seems to work well with older adults...listening to music...the kids could dance...everybody might be able to sing... it would expose children to a different kind of music" (Gerontology Professor). Other common activity ideas included arts and crafts, cooking, gardening, and story time. "Those who are still a little bit more active don't have...compromised immune systems ...would probably have a really good

experience... doing arts and crafts...or... leading a music activity or reading a story time"

(Director of Childcare Facility) and "adults with a range of conditions and abilities... were able to do things like cooking projects...[a] gardening project." (College Dean). Activities included the added benefit of residents being able to move around more. "Physical activities where the adults are sitting in their chairs and...they're trying to catch balls or batting balloons around... the children could chase the balloons or the ball when they get away" (Gerontology Professor). The architect also emphasized the importance of getting to know the residents and children and their interests. "...the Baby Boomers, kind of because of the time that they grew up in...they might not say 'no' if they don't want to do something...they just do it for the sake of...keeping things calm."

As previously discussed, there were safety concerns associated with the facility and this also applied to activities. This included fall risks for the older residents based on the energy levels of the children and possible hazards. "For both populations... [you must choose] activities that are not gonna create a fall risk. The children would have to be well supervised... 'cause some children...might get a little wild and...older residents...get skin tears very easily" (Staff at AAA). Other risks of falling relate back to environmental considerations such as the layout of the space and furniture creating hazards.

With older adults becoming more technologically savvy and the increased use of technology in long-term care settings due to the COVID-19 pandemic, many stakeholders discussed the use of technology-related activities. As stated by the nursing home activities director, "The aging population is changing... I have residents in their nineties and their eighties using cellphones and using tablets and even computers." The arguments for technology in facilities that stakeholders discussed included, "there will always be a need for Zoom...Facebook

or Facetime...we already have computers in the facility...for our residents... and we've been doing things like the Wii" (Nursing Home (NH) Activities Director). Despite the strengths of technology, some stakeholders stressed the importance of face-to-face interactions rather than through a video chat. "What you can see, touch, hear, and see in person is a lot more tangible" (NH Activities Director).

#### Cost Considerations

Stakeholders discussed whether combining a nursing home and childcare facility would result in costs savings. When discussing childcare, stakeholders mentioned how it was costly and could be difficult for many people to afford. "... high quality care means more money... I think cost [of childcare] is always going to be a problem" (College Professor). Alternatively, other stakeholders discussed how costs might be contained by combining the operations of a nursing home and daycare. "If your staff are more engaged and feel more comfortable, you're gonna save money on that end, hopefully on turnover ...hopefully they're happier and they're more productive" (Social Work Staff Member at a Long-term Care Facility). The AAA staff member indicated how this could be profitable and support the nursing care side of the facility in particular,

I think you would end up being able to make a profit because...the residents on the long term care side a lot of times are gonna end up on Medicaid and that Medicaid is not profitable for facilities...whereas on the childcare end of things, childcare is profitable... the fact that you can set your childcare rate...and...you would probably be able to step it up a little bit because you're adding in this intergenerational piece.

However, the nursing home activities director felt that there may not be a savings or a profit. "I think it'll end up being the same because you're…not going to do daycare free and you're not going to do … carefree somebody's gotta pay for it so either way."

#### Architectural Considerations

Stakeholders discussed considerations about the architecture of the building and its importance and relationship to activities and interactions among residents and children. As related to earlier stakeholder comments (regarding concerns in environmental aspects and activities) the architect provided information on how this could be addressed. The architect discussed use of Universal Design and including residents in the design of the space.

For every little aspect starting from the individual bedrooms for older adults ... offering them that privacy in their bedroom... and we want to involve them with children... I would look into ... what kind of possibilities ... I give this individual person in his or her bedroom so then she or he can decide whether they want to interact with children or not.

The architect went on to explain an example of how architecture could facilitate whether residents wanted to interact with children, or vice versa:

Their window could be facing a childhood playground...or maybe they have a patio that they can...sit on...that's along the path of where the children take their daily field trip... seeing them or hearing them or interacting with them...would be a choice...and same thing for children...their playgrounds or their windows of their classrooms facing something... some type of activity that older adults do. (Architect)

In addition to creating a building that allows residents and children to choose when they interact, stakeholders noted other architectural features that would allow the children and residents to interact in less structured formats. "You could...have...their dining rooms

adjoining...have...a window kinda thing so they're all kinda eating in the same kinda vicinity...if you had the windows that would prevent the noise you know from the kids being a little noisy" (AAA Staff Member), and "a playground that...wheelchairs were able to go over or swings that adults were able to sit in" (NH Activities Director).

Putting safety measurements in place was also discussed in relation to the development of the building (relating back to earlier themes and subthemes regarding activities and concerns related to safety).

There would need to be a clear delineation...where you know, the two areas can be closed off... especially if there's ... an indoor entrance that connects the two ... let's say that I have a ... childcare center and then there's some there's some double doors that when you go through them there's the nursing home uhm those would ... need to secure and anybody trying to come in you know being screened (AAA Staff Member).

One stakeholder discussed different ways to begin the development of the building and the programs that would be running in it and noted how building a facility from the ground up could be expensive and risky. Therefore, integration into an already existing building could be a feasible option.

You could... start with a small child population...and figure out...exactly what the issues are gonna be and how to respond to them...building a brand-new facility...you're not going to know ...what all of the issues are going to be until you've sunk...money into that facility...it would be a...lot simpler if you did take a [preexisting] facility and tried then to introduce the children into that (College Dean).

Involving Diverse Stakeholders in the Development Process

Stakeholders discussed the different groups and types of people that must be involved throughout the lifetime of the facility to make it successful. "There can be a lot of community involvement just like every childcare has that open door policy for families to come in and ... share their culture and do activities with the children" (College Professor)

Before the facility is built, the community needs to be involved and supportive of the idea.

Talking to city officials that's the main thing...be prepared ... to talk about the importance of this program, the needs of the city...who does it serve and why is it important for us to serve them...you've got to be patient... keep pushing and pushing and making sure that you get your voice heard by a lot of different people and eventually you...need that one person...who would say "let's do this" and...they would start walking with you and...you'll you take faster steps, bigger steps, and hopefully in a few years this will ... happen (Architect)

The gerontology professor added that this facility "might be a selling point for ...people ...in town government ...it might attract people to come back in this area" (Gerontology Professor). A new facility could create new jobs. In an area such as Pitt County, with a university, this is even more important. "Trying to get alumni to move back here [Pitt County] ... that would be a perfect population to come back and be involved in this type of endeavor" (Gerontology Professor). In addition to city officials, parents of the children in the community need to be on board with the facility idea. "The buy in from the parents is very important...the parents have to be willing and open to this idea of having a childcare facility in ... [an] intergenerational center" (College Professor).

However, relating back to the subtheme Need for Education, while involving the public is necessary, the gerontology professor noted the difficulty in educating the public about such a facility.

One of your biggest challenges is going to be convincing the public...that this is...a good idea and the people that you're going to need to finance this...you're...gonna have to do some educational work with them to persuade them...that this is...going to be...a positive experience for both populations (Gerontology Professor)

Stakeholders also noted the diversity of the residents and children in the facility themselves.

"...you have to see from a lens of equity and purpose...some older adults may have different lived experiences with their life...some of them might not want children of color in their centers...they can have their own...implicit and explicit biases" (College Professor).

Understanding differences and biases among those in the facility is important. However, the stakeholder continued by noting, "I don't think income levels should...really make that big a difference...and I don't think the cultures might be...I think for them to accept children from their same community shouldn't be that big a struggle" (College Professor).

#### **Theme 3: Benefits**

### Benefits to Older Adults

Stakeholders discussed the benefits to the different populations being served in such a facility. The older "residents become mentors, they become educators, they become nurturers...it brings back memories...of taking care... [of] their children and their grandchildren. It gives them purpose; it gives them a sense of belonging" (NH Activities Director). The AAA staff member discussed the change that they see in residents when there are children present. "When they [residents] have children there, whether it be schools coming in or...it's their own

family...you can...see them brighten up...and...revert back to their previous role...as
grandparents and as parents...I definitely think it's a very valuable thing." Building upon the
earlier section regarding activities, when children are introduced to the living spaces of the older
adults, the activities that older adults can participate in are expanded. As stated by the AAA Staff
Member,

You...would probably have a lot more participation and people coming out of their room...some residents will say... 'that's childish I'm not playing that game'...when you're playing that game with a child all of a sudden you play... you're not doing it because you're being childish.

In addition, the talents of the older adults could be utilized in activities involving the children, which relates to the earlier comment regarding residents becoming educators, giving them a purpose and a sense of belonging.

Three different older adults...[I] asked them what their specialty was as a young person...one of them was a chef, the other one was an engineer, and the third one used to ...sing at her church...we developed a set of programs for them to work on with children...the engineer would do the science project... the chef would do a cooking project ... and ... the singer would do some type of dance or singing activity with the children (Architect)

Stakeholders explained that older adults with dementia or other cognitive impairments might benefit in a special way that residents without those impairments may not.

...for those with memory impairments that are further along with their dementia ...I really see a strong benefit for those residents ...they almost come out of that ...darkness ...they open up almost ...for those residents that seem less involved and

they're not as interactive or they're nonverbal they will...start to express you know you can tell they're happy they're smiling they're reaching for the children they're laughing (Social Work Staff Member at a Long-term Care Facility).

# Benefits to Children

Stakeholders describe how the facility could also be beneficial for the children. Some stakeholders discuss how interacting with older adults can help children understand aging. "It introduces them to...the aging population...how older people can be of many cognitive facets...physical abilities...and...teaches them not to be afraid of...people with...cognitive issues ... they do have value and purpose and...have a role in our community" (NH Activities Director). As noted by the architect, "it's...learning that being old is okay...being old is not a problem...there's a beauty in aging...it is really a number...it's all about your strength...your wants and your abilities, and it's different for every person, regardless of their age." These lessons provide an opportunity to combat ageism (as noted above in the Education section) by having children engage with older adults from a young age.

Other stakeholders discussed the benefit of learning lived experiences from older adults for the children.

I think they [older adults] would probably positively impact their growth and development by seeing what their lives were like or ... are like and... interacting with their lived experiences ... I think they would... grow from it in terms of understanding the different walks of life and different people's paths (Parent of Child in Childcare)

Children can also gain emotional enrichment from relationships with the residents. They "... can learn from ... the ... senior population ... whether it be an emotional relationship that they don't

have at home or ...simple skills that they can learn from older adults that they might not learn at home or even at school" (Memory Care Staff at a Long-term Care Facility). This was reiterated by the Director of a childcare facility regarding emotional development, "The empathy-building is ... such a different way than they build empathy and learn empathy with their peers ... it opens up a ... higher level of interactions, higher level of thinking."

The memory care staff member summarized well the many benefits to older adults and children many statements other stakeholders made regarding the benefits for both populations,

...for the resident...it could give them some purpose or feeling of purpose that they're helping a child or that they're participating in something...and...I could easily see a young child coming in and just sitting and doing something like coloring or playing a game or something with a resident and it being purposeful for both...and then for a child you know you don't ever really know what a child's homelife is like and some of them don't have grandparents or parents that are necessarily all that involved and so it could be beneficial for emotional and socialization for the children as well."

# Benefits to Staff

A final population that could benefit from the facility that stakeholders discussed were the facility staff. They believed that staff could have their own children at the daycare, and that would make their lives much easier, although this statement is counter to the earlier comment regarding children possibly being a distraction for workers (see facility operations section above), "It's very hard dealing with childcare and working a full-time job and having...my child here where I worked...I think would help with my stress level as an employee and as a mom" (Memory Care Staff at a Long-term Care Facility). Stakeholders believed that having the staff's children in the same building could also help them emotionally.

...letting the staff...take their breaks to go in and see their children...could be very beneficial for them emotionally 'cause they know they're safe...having the staff be able to trade off...and...choose what area they might want to work in would probably attract more people (Social Work Staff Member at a Long-term Care Facility)

Another stakeholder discussed the difficulty having enough nurses and CNAs to run the facility and having a daycare in the workplace might be an incentive for them to work there.

I can imagine a childcare center being a benefit for the workers in the nursing home...it's just a very difficult thing for them to find a high-quality center and as there's more need for actual you know RNs and CNAs like ... the benefit that a workplace can have if they're offering childcare inside their ... center (College Dean)

#### **Discussion**

Despite determining that an intergenerational facility is desired in Pitt County, the findings presented need to be interpreted with caution based on a few factors. The first factor is the sample size. Due to the time limitations of this project, and the number of long-term care and childcare facilities that exist in Pitt County, the sample size was limited to ten stakeholders. More interviews would have eventually led to data saturation (Merriam et al., 2016) which was not achieved with the sample size of ten. The second factor was the lack of diversity within the stakeholders. One stakeholder noted that future research should use informants with diverse ethnic or racial characteristics and a broad range of socioeconomic statuses. The third factor was the data collection method. Due to the COVID-19 restrictions, no interviews were done face-to-face. Typically, face-to-face interviews are longer and may yield more information than interviews over the phone or virtually (Irvine, 2011).

Areas of future research could expand on the data collected and should also be considered. Such research could help solidify some of the considerations that were not conclusive. Even though the focus of this research was on nursing homes with childcare centers, the data indicates that more research is needed about the most appropriate age of children in this type of intergenerational setting, and the best type of older adult setting beyond a nursing home (e.g., assisted living facility). An example of this is Providence Mount St. Vincent, in the state of Washington. They have nursing home care, but also assisted living and adult daycare programs. The facility includes a childcare program called the Intergenerational Learning Center that allows for residents and children to interact five days out of the week throughout different activities (Providence Health and Services, 2020). According to McAlister et al. (2019), "no empirical research has been conducted on the outcomes of the children attending this program yet, staff and observers report positive outcomes for both the children and the residents" (p. 515). This suggests that facilities like Providence Mount St. Vincent warrant research attention so that best practices in such settings can be developed and implemented in other states.

While the author initially believed that an intergenerational facility could create a cost savings by combining a nursing home and childcare, stakeholder interview data did not reach a consensus on whether this is true. More research is needed to determine if this could be a cost-effective way to care for the older and younger populations. Finally, there is a lack of research looking at the impact of intergenerational facilities on the participants, the community, and the impact on ageism, which could be researched in the future.

While it is unclear the extent that stakeholders have experienced programmed intergenerational interaction themselves, many noted their experiences observing interactions between older adults and children, and their experiences formed a consensus that both

populations could benefit from such interaction. Stakeholders used their own experiences seeing older adults with younger family members or with school children to infer that older adult in nursing homes would "brighten up" when around kids in daycare. This is particularly true for residents with memory impairments as stakeholders have seen those reactions when children are present. Stakeholders also believed that residents would be able to mentor, educate, and nurture the children, giving them a sense of purpose in their lives and bringing back memories from their previous years of caring for their own children/grandchildren, and/or prior roles they had (e.g., career). Those roles can also be used to inform the development of activities and give older adults an opportunity to display and share their talents as discussed in interviews. Stakeholders also reported that when children are involved in activities, rather than see the activity as childish, the older adults may be more willing to participate because they see it as an opportunity to mentor the children and enjoy themselves, rather than as a childish activity to complete for no reason. This was also tied to the activities that could be developed at the intergenerational facility. Arts and crafts, music, cooking, story time, and gardening were some examples of this, with the activities being more impactful by integrating intergenerational interaction.

Stakeholders believed that children who would regularly interact with older adults would have the opportunity to improve their ability to build and learn emotional skills such as empathy. Interaction with an older population will allow them to learn about the various cognitive and physical stages of life and will teach them that older adults still have a role in society. Learning about lived experiences directly from older adults could also benefit children as they could learn about the possibilities that life has to offer. All of this, in turn, benefits the next generation of older adults, as it has been found that nostalgia of experiences with older adults can decrease prejudice of older adults (Turner et al., 2018). Through discussion with stakeholders who noted

that their interest in the aging population came from experiences with their grandparents and this prior research, it appears that children who interact with older adults more often than those that do not are more likely to grow up and work with the aging population in a positive manner.

These intergenerational interactions, overall, could "reduce implicit ageist attitudes" (Requena et al, 2018, p. 384) which, in the present research has been identified as key component in changing people's minds about older adults and how they perceive them.

While the research did not initially focus on the benefit to staff in the facility, it was found that staff could possibly benefit from this intergenerational model. Stakeholders believed that staff who have children could enroll their children in the childcare at this facility which might ease stress levels or other concerns related to having a child far away from you while working. This could also, in turn, keep staff longer and reduce turnover. Some stakeholders noted that nursing home staff turnover often and can be difficult to keep consistent (Gandhi et al., 2021) and the stakeholders believed that this solution to childcare would be a motivator to keep staff in the facility.

Stakeholders also discussed concerns related to infectious disease and older adult susceptibility. Infectious diseases pose greater concerns within daycares and nursing homes. Children spread the diseases quicker due to their habit of touching things and putting their hands into their mouths (Nesti & Goldbaum, 2007). Nursing home residents have greater risk factors for infectious diseases due to their communal living and aging-related changes to immunity (Juthani-Mehta & Quagliarello, 2011). Combining children who catch and spread disease easily and nursing home residents who are more susceptible to disease caused concern for the stakeholders. This was consistent with recommendations regarding infection control such as washing hands, environmental cleaning, and disinfection, using personal protective equipment,

and outbreak management to be used in such a facility (Agency for Healthcare Research and Quality, 2017). Childcare and nursing home facilities have their own rules and regulations, as discussed earlier in the paper, that will dictate what is required for infection control.

Intergenerational care will require diligence and creativity to make sure that residents and children stay healthy.

In addition to infection control rules, other aspects of nursing homes and daycares are regulated and creating a combined facility could complicate these to an extent that is unknown in the present research. Some of these regulations might include safety measures as stakeholders mentioned being a concern. Stakeholders were concerned about older adults wandering, children running around, and tripping themselves or the other adults, and risks associated with activities that are more active. Solutions to these may include doors that lock to prevent older adults from roaming into the wrong side of the facility or to prevent children from wandering into the wrong side, spaces designated for children to run around, and proper furniture placement or walking devices to prevent falls.

Intergenerational facilities create new situations for children. Children may be interacting with older adults or death and illness for the first time, and this requires education and training for the staff. Thus, childcare workers should be well versed in talking about death, illness, and terminal illness with children and how to navigate the emotions that children may experience. Intergenerational facilities also create unique situations that childcare and nursing home workers likely have not experienced. In addition to this training for childcare workers, both childcare and older adult workers should be trained to work with both populations. This could include understanding environmental needs for both populations, including the diverse characteristics of each group.

Since this type of interaction in an intergenerational setting would be new for both populations, it important that older adults and children decide when and how they want to interact. Stakeholders believe that the building should create opportunities for different types of interactions. This may include a shared entryway for children and residents, windows facing the playground, a playground that allows wheelchair access, pathways in which children and older adults cross paths, a shared patio, adjoining dining rooms, and more. A variety of architectural ideas were mentioned by stakeholders; however, the question remains whether a facility should be built from the ground up or repurposed. Building from the ground up would allow for personalization of the facility which can include the above recommendations. However, once it is built, new concerns may arise that cannot be changed. Utilizing an already existing facility could prevent the personalization of the facility but may allow for needed changes to be noted so that they can be incorporated later in a new facility.

# Recommendations for Key Elements in an Intergenerational Facility in Pitt County

Although there were many important findings, 4 key recommendations emerged from the present study regarding the development of an intergenerational facility. It is recommended that:

- 1. Staff is trained in working with both populations, not just the one that they are staffed on.
- 2. Older adult interests and talents should be used whenever possible in determining the activities implemented, with equity in amount and types of activities to engage both the older residents and children.
- 3. Infection control and safety measures be put into place and that they follow the rules and regulations that are required of childcare and older adult care facilities.

4. The facility creates opportunities for different types of interactions through its architecture, and that an architect is involved with the development of the facility early in the process, as part of interviews and idea development.

#### Conclusion

The data collected from stakeholders reflects an interest in developing an intergenerational facility and is useful in succeeding research and projects related to this topic. Although the research was focused on Pitt County, NC stakeholders did note that this sort of facility would be beneficial everywhere, as older adults and children need care throughout the United States. The elements suggested for a facility that emerged from the stakeholder interviews should be considered in the future research and development of such a facility. Despite the limitations, there were several findings that contribute to the limited literature on intergenerational facilities that include a nursing home and childcare center. Also, the findings presented inform succeeding research and shed light on the possible impact that an intergenerational facility could have on older adults and children with the proper preparations of the facility.

# **Funding**

This research was supported by financial assistance from ECU Division of Research, Economic Development and Engagement, and ECU Honors College (URCA Award).

#### References

- Agency for Healthcare Research and Quality. (2017). A Unit Guide to Infection Prevention for Long-Term Care Staff (No. 16(17)-0003-4-EF).

  <a href="https://www.ahrq.gov/hai/quality/tools/cauti-ltc/modules/resources/guides/infection-prevent.html">https://www.ahrq.gov/hai/quality/tools/cauti-ltc/modules/resources/guides/infection-prevent.html</a>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa
- Cartensen, L., Freedman, M., & Larson, C. (2016). *Hidden in Plain Sight: How Intergenerational Relationships Can Transform Our Future*. Stanford Center on Longevity. <a href="https://longevity.stanford.edu/wp-content/uploads/sites/24/2018/09/Intergenerational-relationships-SCL.pdf">https://longevity.stanford.edu/wp-content/uploads/sites/24/2018/09/Intergenerational-relationships-SCL.pdf</a>
- Chen, Y-R, & Schulz, P. (2016). The effect of information communication technology interventions on reducing social isolation in the elderly: A systematic review. *Journal of Medical Internet Research*, 18(1), 1-11.
- Childcare Aware of America (2022). Childcare data center and state fact sheets: North Carolina. https://www.childcareaware.org/our-issues/research/ccdc/
- Child Stats (2018). Pop1 child population: number of children (in millions) ages 0–17 in the Uunited States by age, 1950–2019 and projected 2020–2050. Retrieved from <a href="https://www.childstats.gov/americaschildren/tables/pop1.asp">https://www.childstats.gov/americaschildren/tables/pop1.asp</a>
- Department of Health and Human Services. (2021). Nursing Facilities Licensed by the State of North Carolina. <a href="https://info.ncdhhs.gov/dhsr/data/nhlist\_a.pdf">https://info.ncdhhs.gov/dhsr/data/nhlist\_a.pdf</a>
- Department of Health and Human Services. (2015). Federal Register. 80(247). 80466-80582.

- Retrieved from <a href="https://www.govinfo.gov/content/pkg/FR-2015-12-24/pdf/2015-31883.pdf">https://www.govinfo.gov/content/pkg/FR-2015-12-24/pdf/2015-31883.pdf</a>
- Division of Child Development and Early Education. (2022). *Childcare Facility Search*. North

  Carolina Department of Health and Human Services.

  https://ncchildcare.ncdhhs.gov/childcaresearch
- Division of Child Development and Early Education. North Carolina Department of Health and Human Services. (2017). *Division of Child Development and Early Education Monthly Statistical Summary Report*. <a href="https://ncchildcare.ncdhhs.gov/County/Child-Care-Snapshot">https://ncchildcare.ncdhhs.gov/County/Child-Care-Snapshot</a>
- https://www.epi.org/child-care-costs-in-the-united-states/?gclid=CjwKCAiAq8f-BRBtEiwAGr3Dgf3h--DgNdApDK53dVejjxXjt7Eg3-co63N\_sgkaFjXH655EVIyybhoC8dUQAvD\_BwE#/NCU.S.

Economic Policy Institute. (2020, October). The Cost of Childcare in North Carolina.

- The Federal Interagency Forum on Child and Family Statistics. (2018). Child Population:

  Number Of Children (In Millions) Ages 0–17 In the United States By Age, 1950–2019

  And Projected 2020–2050. ECU, 2020
- Feyh, L., Clutter, J., & Krok-Shoen J. (2021). WISE (Wellness through Intergenerational Social Engagement): An Intergenerational Summer Program for Children and Long-term Care Residents. *Journal of Intergenerational Relationships*.
  - DOI: <u>10.1080/15350770.2021.1879706</u>
- Gandhi, A., Yu, H., & Grabowski, D. (2021). High nursing staff turnover in nursing homes offers important quality information. *Health Affairs*, 40(3), 384-391.
- Gruner, P. (2022, February 12). The Seeds of Greenville Montessori Students Repurpose

- Houseplants for Pitt County Seniors. Reflector.
- https://www.reflector.com/news/local/the-seeds-of-giving-greenville-montessori-students-repurpose-houseplants-for-pitt-county-seniors/article\_5bc2a185-6183-54b8-89b0-cecf8154e5ef.html
- Gualano, M., Voglino, G., Bert, F., Thomas, R., Camussi, E., & Siliquini, R. (2018). The Impact of Intergenerational Programs on Children and Older Adults: A Review. *International Psychogeriatrics*, 30(4), 451-468.
- Harris-Kojetin, L., Sengupta, M., Lendon, JP., Rome, V., Valverde, R., & Caffrey, C. (2019)

  Long-term care providers and services users in the United States, 2015–2016.

  National Center for Health Statistics, Vital and Health Statistics. 3(43).

  <a href="https://www.cdc.gov/nchs/data/series/sr-03/sr03-43-508.pdf">https://www.cdc.gov/nchs/data/series/sr-03/sr03-43-508.pdf</a>
- Holmes, V. (2021, August 23). *Boys and Girls Club celebrates opening of new center in West Greenville*. WCNT. <a href="https://www.wnct.com/local-news/greenville/boys-and-girls-club-celebrates-opening-of-new-center-in-west-greenville/">https://www.wnct.com/local-news/greenville/</a> celebrates-opening-of-new-center-in-west-greenville/
- Irvine, A. (2011). Duration, Dominance and Depth in Telephone and Face-to-Face Interviews: A Comparative Exploration. *International Journal of Qualitative Methods* 10(3), 209-215.
- Jansson, A., Muurinen, S., Savikko, N., Soini, H., Suominen, M., Kautiainen, H., & Pitkälä, K. (2017). Loneliness in nursing homes and assisted living facilities: prevalence, associated factors and prognosis. *The Journal of Nursing Home Research*, *3*, 43–49.
- Jones, C. (2017, January 4). Combining Daycare for Children and Elderly People Benefits All Generations. The Conversation. <a href="https://theconversation.com/combining-daycare-for-children-and-elderly-people-benefits-all-generations-70724">https://theconversation.com/combining-daycare-for-children-and-elderly-people-benefits-all-generations-70724</a>
- Juthani-Mehta, M., & Quagliarello, V. (2010). Infectious diseases in the nursing home setting:

- challenges and opportunities for clinical investigation. *Clinical Infectious Diseases*, 51(8), 931-936.
- Kaiser Family Foundation (2019). Total Number of Residents in Certified Nursing Facilities 2003-2019. Retrieved from <a href="https://www.kff.org/other/state-indicator/number-of-nursing-facility-residents/?currentTimeframe=0&selectedDistributions=number-of-nursing-facilityresidents&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc %22%7
- Maleki, M., Mardani, A., Chehrzad, M., Dianatinasab, M., & Vaismoradi M. (2019). Social Skills in Children at Home and in Preschool. *Behavioral Sciences*, (9)7, 74. https://doi.org/10.3390/bs9070074
- McAlister, J., Briner, E. L., & Maggi, S. (2019). Intergenerational Programs in Early Childhood Education: An Innovative Approach that Highlights Inclusion and Engagement with Older Adults. *Journal of Intergenerational Relationships*, 17(4), 505–522.
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative data analysis*. The Design of Qualitative Research. In Qualitative research: a guide to design and implementation, 4<sup>th</sup> ed. (pp. 195–237). John Wiley & Sons, Inc.
- National Academies of Sciences, Engineering, and Medicine. (2020). Social Isolation and Loneliness in Older Adults: Opportunities for the Health Care System. National Academies Press. <a href="https://doi.org/10.17226/25663">https://doi.org/10.17226/25663</a>
- National Center for Education Statistics (2019). *Childcare*. U.S. Department of Education.

  Institute of Education Sciences. <a href="https://nces.ed.gov/fastfacts/display.asp?id=4">https://nces.ed.gov/fastfacts/display.asp?id=4</a>
- National Institute on Aging (2017). *Residential Facilities, Assisted Living, and Nursing Homes*. <a href="https://www.nia.nih.gov/health/residential-facilities-assisted-living-and-nursing-homes">https://www.nia.nih.gov/health/residential-facilities-assisted-living-and-nursing-homes</a>

- Nesti, M., & Goldbaum, M. (2007). Infectious diseases and daycare and preschool education. *Journal de Pediatria*, 83(4), 299-312.
- Palacios-Ceña, D., Gómez-Calero, C., Cachón-Pérez, J. M., Velarde-García, J. F., Martínez-Piedrola, R., & Pérez-De-Heredia, M. (2016). Is the experience of meaningful activities understood in nursing homes? A qualitative study. *Geriatric Nursing*, *37*(2), 110–115.
- Pitt County Council on Aging. (n.d.). Senior Centers. Retrieved from <a href="https://www.pittcoa.com/senior-services/senior-centers/">https://www.pittcoa.com/senior-services/senior-centers/</a>
- Providence Health and Services. (2020). Intergenerational Learning Center.

  <a href="https://washington.providence.org/services-directory/services/i/intergenerational-learning-center">https://washington.providence.org/services-directory/services/i/intergenerational-learning-center</a>
- Requena, M., Swift, H., Naegele, L., Zwamborn, M., Metz, S., Bosems, W., & Hoof, J. (2018).

  \*\*Contemporary Perspectives on Ageism. International Perspective on Aging.

  https://doi.org/10.1007/978-3-319-73820-8
- Saldaña, J. (2013). The Coding Manual for Qualitative Researchers, 2<sup>nd</sup> edition. Sage.
- Simard, J., & Volicer, L. (2020) Loneliness and Isolation in Long-term Care and the COVID-19 Pandemic. *Jamda*, 21(7), 966-967.
- Schroll, M., Jónsson, P., Berg, K., & Sherwood S. (1997). An International Study of Social Engagement Among Nursing Home Residents. *Age and Ageing*, 26(2), 55-59. https://doi.org/10.1093/ageing/26.suppl 2.55
- Trybusińska, D., & Saracen, A. (2019). Loneliness in the context of quality of life of nursing home residents. *Open Medicine*, *14*(1), 354–361.
- Turner, R., Wildshut, T., & Sedikides, C. (2018). Fighting ageism through nostalgia. *European Journal of Social Psychology*, 48(2), 196-208.

- United States Census Bureau. (2020). *Quick Facts, United States*.

  <a href="https://www.census.gov/quickfacts/fact/table/US/AGE775219#AGE775219">https://www.census.gov/quickfacts/fact/table/US/AGE775219#AGE775219</a>
- United States Census Bureau. (2018). Older People Projected to Outnumber Children for First

  Time in U.S. History. https://www.census.gov/newsroom/press-releases/2018/cb18-41population-projections.html
- United States Census Bureau (2019). QuickFacts: North Carolina. Retrieved from, https://www.census.gov/quickfacts/fact/table/NC/PST045219
- Writer, P. (2022). The seeds of giving: Greenville Montessori students repurpose houseplants for Pitt County seniors. Reflector. <a href="https://www.reflector.com/news/local/the-seeds-of-giving-greenville-montessori-students-repurpose-houseplants-for-pitt-county-seniors/article\_5bc2a185-6183-54b8-89b0-cecf8154e5ef.html">https://www.reflector.com/news/local/the-seeds-of-giving-greenville-montessori-students-repurpose-houseplants-for-pitt-county-seniors/article\_5bc2a185-6183-54b8-89b0-cecf8154e5ef.html</a>
- Young, H. (2019, August 20). An Intergenerational Approach to Senior Care. In Home Care from Right at Home. <a href="https://www.rightathome.net/blog/intergenerational-approach-to-senior-care">https://www.rightathome.net/blog/intergenerational-approach-to-senior-care</a>
- Zhong, S., Lee, C., Foster, M. J., & Bian, J. (2020). Intergenerational communities: A systematic literature review of intergenerational interactions and older adults' health-related outcomes. *Social Science & Medicine*, 264, 1–11.

#### **Tables**

**Table 1**Percentage of older adults and children in NC Counties and locations

County & Town/City	Age 65 and older	Age 5 and under
Wake County	12.0%	6.0%

Martin County	23.9%	5.5%
Williamston	24.0%	3.8%
Beaufort County	24.6%	4.8%
Washington	23.0%	7.0%
Pitt County	13.9%	5.7%
Ayden, Pitt	19.4%	6.6%
Winterville	11.1%	6.1%
Greenville	10%	5.4%
North Carolina	16.7%	5.8%

Note. Data retrieved from US Census Bureau (2019)

 Table 2

 Exemplary Questions from Interview Guides

in?

Respondent	Sample Questions
Type	
Gerontology	1. Do you have or ever had intergenerational activities available at your facility,
	when children get to interact with older adults? If so, can you please explain
	what those interactions are like?
	a. In your opinion, do such interactions impact the older adults and/or
	children and if so, how?
	b. (If you didn't have intergenerational activities already) Can you
	please explain why you have not had any intergenerational activities
	previously at your facility?
	2. Do you think that Pitt County needs more intergenerational interaction? Why
	or why not?
	3. Do you think that an intergenerational facility as we define it would be
	beneficial to Pitt County?
Childcare	1. Is cost problematic for families in securing childcare/residents in securing
	care? If so, please explain.
	2. By combining a childcare center and nursing home, can you tell me how/if
	this would impact the amount and type of activities that children could engage

3. Do you foresee any issues with having a childcare center located in a nursing home that would concern you? If so, please explain.

# Gerontology &

# Childcare

- 1. If an intergenerational facility were to be built in Pitt County, what elements/aspects would be necessary to include in the facility to meet needs of the older adults and/or children?
- 2. Based on what I shared above, about cost effectiveness being part of this research, would combining a daycare with a nursing home be a cost savings? Please explain.
- 3. How might you develop ways for children to interact with older adults?

# Table 3

# Themes and subthemes of the study

# Themes and Subthemes

# Theme 1: Concerns

- Subtheme 1.1: Need for Education
- Subtheme 1.2: Environmental Aspects
- Subtheme 1.3: Facility Operations

## Theme 2: Considerations

- Subtheme 2.1: Activities
- Subtheme 2.2: Cost Considerations
- Subtheme 2.3: Architectural Considerations
- Subtheme 2.4: Diversity of Involvement

# Theme 3: Benefits

- Subtheme 3.1: Benefits to Older Adults
- Subtheme 3.2: Benefits to Children
- Subtheme 3.3: Benefits to Staff

**Table 4**Subthemes and supporting quotes

Subthemes	Supporting quotes
	• "You would really have to be careful. Older adults catch things" (Gerontology
Environmental	Professor)
Aspects	• "Older adults' health can be compromised if they were around a lot of germs"
(Theme 1:	(Parent of a Child in Childcare)
Concerns)	"That time of day of that afterschool care issort of an interesting time of day for
	seniors particularly with Alzheimer's like conditions, as you know the early evening,
	the sun setting[it's]an interesting time of day thought would have to be given to the
	hours of that time of day" (College Dean)
	• "In a group you might have some older adults that might not respond well to some of
	the activities" (Gerontology Professor)
	• "I think that it would need to be structured you would integrate rest timefor both of
	themin a lot of ways the older population is similar to kids" (Nursing Home
	Activities Director)
	• "I work with a lot of residents with dementia are elopement risksthat would be a
Facility	concernsecurity of the building for those that might have memory impairments"
Operations	(Social Work Staff at a Long-term Care Center)
(Theme 1:	• "There are a lot of restrictions toa childcare center" (College Professor).
Concerns)	
	"Music therapy program" (Area Agency on Aging Staff Member)
Activities	"Residents going over to the daycare part side and reading a story or somebody that
(Theme 2:	has art skills doing an art project with them (Nursing Home Activities Director)
Considerations)	

- "Engaging in activities like arts and crafts or story time or like I mean at that age of development like any sort of dress up or play or songs...or...cooking" (Parent of a Child in Childcare)
- "Do the snack with the older folks or maybe some of the older folks can read books to them" (College Professor)
- "Some older adults...come during free play time to observe children or to interact with children...somebody could help with meals and family style eating" (College Professor),
- "Other kinds of activities that were also conjoined like the gardening projects and the outdoor space" (College Professor)
- "I think musical activities are beneficial...storybook characters it was beneficial for the kids and it was beneficial for...the residents...doing the music class where it was learning to interact with the older people" (Nursing Home Activities Director)
- "Those other sort of virtual things I think would be good, not as good and not as impactful but...good enough" (Parent of a Child in Childcare)
- "There will always be a need for Zoom...Facebook or Facetime...we already have
  computers in the facility...for our residents... and we've been doing things like the Wii"
  (Nursing Home Activities Director)
- "... we all have that need to hear to feel and touch to smell to have face to face conversations" (Nursing Home Activities Director)
- "I think [older adults and children being together] opens up...the options of what you can do what kind of interactions...the experience" (Director of a Childcare Facility)
- "... using the wisdom of these older adults ... and you know and using some of their expertise would definitely help" (College Professor)

# "I know that it's [childcare] unaffordable for many and unattainable for many" (Parent Cost of a Child in Childcare) Considerations "I'm sure costs could be cut if you combined a facility...because you'd have one rent, (Theme 2: and two different things" (Parent of a Child in Childcare) Considerations) "Putting the two in one building would also save ... you've got two services under one roof so you're not having to have two separate structures so you're saving money there... I do wonder how much staff you would need to support it... I don't think the cost would be so much that that would uhm offset it too much" (Social Work Staff at a Long *Term Care Facility)* "a sound system in your courtyard and the residents could open their windows and hear Architectural live music..." (Area Agency on Aging Staff) Considerations "Little tables, big tables...I think some of the height differentiation and those sorts of (Theme 2: things...have to be there" (Parent of a Child in Childcare) Considerations) "If there happened to be a childcare center that was in jeopardy, and...maybe gonna fold...being able to...take that on and move the location" (College Dean) "There are... regulations for...adult care and a daycare center...so I think that both needs could be met...with separate licensures but still integrate the two" (Memory Care Staff at a Long Term Care Facility) "I think that the most important thing...is thinking about the licensures and certifications required...they're not uhm aligned for the two different populations" (College Dean). "If there is an intergenerational facility like this there could be intentional involvement on both sides but it's going to take a lot of creativity, lot of open mindednesses, lot of planning...because running a childcare center also has a lot of...rules and regulations that you need to follow when you do something like that" (College Professor)

	• "if you're sharing a kitchen if there's space that's being sharedyou gotta think about
	licensing and their sanitation inspections" (Director of a Childcare Facility).
	What I really like to achieve through design is giving that opportunity to them to uhm
	interact with children when and if they need to or they want to" (Architect).
	"Where Ithink that it would bebeneficial would be with residents who have
Benefits to	dementiawith music and with children and with instrumentsyou could see
Older Adults	engage[ment] going up'' (Nursing Home Activities Director)
(Theme 3:	• "I really feeland see a change in our residents when they are aroundchildren,
Benefits)	babies, especiallyfor those with memory impairmentsthey light up when children
	are around even those that are nonverbal may still be able to you know interact by
	tickling a child or you know wanting them to come sit on their lap I definitely think
	it's positive interaction (Social Work Staff at a Long Term Care Facility)
	• "The two things that make our residents the most happy, not everyone, but most of them
	babies, children and pets. Those are the two things that can really pull someone out of a
	negative space" (Social Work Staff at a Long Term Care Facility)
	"We really only learn through storiesyes we can read books and yes we can now
Benefits to	search everything onlinebut there is a power to storytellingit's always more
Children	believable if I tell you that I've done something than if just hear it from some third-
(Theme 3:	party personthat's the value for children" (Architect)
Benefits)	"There is something special about a child and the way that they relate to an older
	adultparticularly with dementiathere are a lot similarities in a child and the brain
	development of a person who has dementia" (Memory Care Staff at a Long Term Care
	Facility)

*Note*. Need for Education, Diversity of Involvement, and Benefits to Staff, did not have additional quotes to be displayed in the table and therefore are not included