



Contents lists available at ScienceDirect

## Journal of Pediatric Nursing

journal homepage: [www.pediatricnursing.org](http://www.pediatricnursing.org)

## Service learning: Nursing students' civic engagement with diverse populations of children with special needs

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## ARTICLE INFO

## Article history:

Received 31 October 2021

Revised 17 February 2022

Accepted 19 February 2022

Available online xxxx

## Keywords:

Service learning

Civic engagement

Special needs populations

Diversity

Health equity

Teaching strategies

## ABSTRACT

**Purpose:** There is limited knowledge of nursing students' perspectives about engagement with special needs populations. The purpose of this study was to identify the advantages/benefits and disadvantages/challenges of nursing students' engagement experience with children with special mental and physical disabilities. Recommendations to enhance student engagement experiences were also provided.

**Methods:** A descriptive, qualitative design was employed. Undergraduate nursing students ( $N = 28$ ) responded to open-ended questions about their civic engagement experiences at a community-based, respite care program for children with special needs. Student accounts underwent directed content analysis, with coding, category and theme development according to the Theory of Planned Behavior. The Atlas.Ti computer program was used to manage the data.

**Results:** *Advantages/Benefits:* Filling cognitive and experiential learning gaps, rewarding connections/relationships, positive emotions, perceptions and interactions, and fun and stress relief. *Disadvantage/challenges:* Managing negative/uncomfortable emotions and uncertainty, witnessing and managing disruptive behaviors, negative perceptions of program operations/expectations.

**Conclusions:** Students experienced cognitive, emotional, interpersonal and educational advantages and/or disadvantages while engaging with this defined population.

**Practice implications:** To enhance engagement faculty can provide education and anticipatory guidance, detail responsibilities and expectations, and/or utilize simulation for student preparation. Nurses and researchers can utilize community based participatory methods to guide discussions with community-based organizations to collaboratively develop strategies to institute, evaluate and enhance student engagement during service learning experiences with children who have special needs.

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The American Association of College of Nurses (AACN) outlines educational and curricular standards and best practices for baccalaureate nursing education that requires nursing students to develop an appreciation for diversity (American Association of Colleges of Nursing, 2013, 2021a). Service learning is an experiential learning method that allows students to make meaningful contributions to diverse communities and populations in need via civic engagement (i.e., volunteerism), while

helping students to achieve defined educational learning objectives and enhance their sense of civic responsibility (Adegbola, 2013; American Psychological Association, 2020, 2021). The changing demographics of the United States (US) require that nurses provide patient centered, culturally competent care to promote high-quality healthcare outcomes (American Nurses Association, 2021). Patient centered care identifies, respects, and address's patient differences, preferences, and needs (American Association of Colleges of Nursing, 2021b). The baccalaureate graduate must understand how to care for patients with diverse needs across the lifespan (American Association of Colleges of Nurses, 2021, 2021b; American Association of Colleges of Nursing, 2013). Nursing faculty must employ pedagogical strategies, such as service learning, that promote understanding of diverse populations.

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Despite these recommendations, current knowledge of how to support successful service learning experiences with diverse populations of children with special mental and physical health needs is lacking (Rosenkranz, 2012; Vogelgesang, 2004). Most civic engagement research focuses on strategies for implementing successful service learning experiences for nursing students in general (Amerson, 2012; Arvidson et al., 2017; George, 2015; Schmidt & Brown, 2016). The small body of service-learning research available largely focuses on typically developing children (Bassi, 2011; Rosenkranz, 2012), and adult populations (Amerson, 2012; Brown, 2017; Long, 2014). As a result, evidence suggests that nursing students' attitudes towards children with special needs and/or disabilities remain poor and nursing students feel inadequately prepared to provide culturally competent care to diverse populations (Ah & Cassara, 2013; Matziou et al., 2009). Engagement with children who have complex healthcare needs presents unique challenges that must be known. This study uses theoretically based concepts to identify nursing students' perceptions of the advantages/benefits and disadvantages/challenges of engaging with children with disabilities. This information can be used to inform the development of engagement experiences that promote positive attitudes towards children with special needs, a need identified in the literature (Matziou et al., 2009).

## Background

There is a dearth of qualitative research about nursing students' service-learning experiences with diverse populations in the United States (US). Senior level undergraduate nursing students ( $N = 22$ ) reported social growth and increased transcultural self-efficacy as a result of participating in service learning during an international mission trip to Guatemala (Amerson, 2012). Nurses in an associate degree program ( $N = 17$ ) reported increased awareness of diversity, culture, and lack of community resources after an international service learning trip to Belize (Brown, 2017; Long, 2014). These qualitative studies were conducted in non-US settings and researchers reported engagement mainly with adults and not children who have special needs or disabilities. One researcher used quantitative methods to evaluate the impact of service learning on senior level nursing students ( $N = 43$ ) as they performed health assessments on Special Olympic athletes in the US. (McGahee et al., 2018). Although results revealed positive benefits such as increases in personal competence, and autonomy, subjects responded to quantitative scale items that do not allow for free expression to outline nuanced details and rich data of their experience (McGahee et al., 2018). Qualitative methods allow for elicitation of rich data for a more nuanced understanding of the personal perspective of those engaged (Patton, 2015; Poth, 2021). A recent literature review revealed only one study whereby qualitative methods were used to examine the impact of service learning with a diverse US sample (Bassi, 2011). Senior level undergraduate nursing students ( $N = 18$ ) increased their sense of competence/autonomy by participating in a service-learning project about prevention of tobacco use in elementary school children. In this study, there was no discussion to indicate that these children had special needs (Bassi, 2011).

In most of these studies in US children, only the positive gains in student learning and developmental outcomes were reported (Bassi, 2011; McGahee et al., 2018). The negative aspects, disadvantages and/or challenges of engagement were left out. Engagement with children who have special healthcare needs pose complex unpleasant challenges requiring specialized care and knowledge that is not frequently discussed in the classroom (American Federation of Teachers, 2009; Centers for Disease Control and Prevention, 2021). An understanding of the range of positive and negative aspects of working with special needs children from the students' perspective can help educators develop strategies that support success and help students to overcome challenges as students engage with this special population. Current evidenced based recommendations include a need for community organizations to

collaborate with academic institutions to anticipate challenges, provide guidelines, and implement reflection and evaluation to ensure that meaningful learning and service related outcomes are met (Furco, 1996; George, 2015; Schmidt & Brown, 2016). To meet these recommendations, knowledge regarding the challenges and benefits of these service learning experiences from the students' perspective must be known. According to theory, beliefs about engagement in various behaviors are context specific and must be elicited from each individual (Ajzen, 1991; Fishbein & Ajzen, 2008). This prior research is also dated. To meet current recommendations, updated literature about student's contemporary perspectives of engagement is needed. The knowledge gained from learning the rich perspective of nursing students will inform the development of pedagogical strategies to foster productive engagement experiences with special needs children. Subsequently, student attitudes and success with caring for special needs children may be enhanced.

## Theoretical framework

The Theory of Planned Behavior (TPB) provided the theoretical underpinnings for this analysis. The concepts in this theory were used as the basis for analysis of the students' responses to the self-reflective questions posed. According to this theory, individuals have behavioral beliefs that influence participation in a particular behavior (Ajzen, 1991; Fishbein & Ajzen, 2008). These include beliefs about the benefits or advantages (i.e. what is good) of a behavior and/or the challenges or disadvantages (i.e. what is bad) of engagement in the behavior. These beliefs, good or bad, are proposed to influence the intention to engage in a particular behavior and subsequently engagement in that behavior (Ajzen, 1991, 2020a; Fishbein & Ajzen, 2008). The behavior, in this case, is engagement with a population of children with special needs. This theory also suggests that performing a behavior can influence beliefs/attitudes about the behavior and thus impact future intentions to perform the behavior again (Ajzen, 2020b). Research suggests that nursing students' attitudes towards children with disabilities are poor (Ah & Cassara, 2013), but carefully designed curriculum can influence their attitudes (Matziou et al., 2009).

The TPB's concepts provide the basis for eliciting knowledge that will inform pedagogical strategies that make students' perceptions of engagement with these children positive. As a result, students' attitudes towards these children may be enhanced and their intentions to engage again in the future increased. Based on this theory, behavioral beliefs embedded within the students' expression were identified and analyzed. Their beliefs served to inform the development of recommendations to prepare future students for these experiences. Improved preparation of nursing students may enhance engagement experiences and attitudes towards children who have special needs. The TPB has been utilized extensively in research to identify beliefs within the context of disability among diverse populations (Ang et al., 2015; Beatson et al., 2020).

## Purpose

The purpose of this study was to examine the perceived benefits or advantages and challenges or disadvantages of engagement with children who have special developmental needs, including learning difficulties, physical disabilities, or emotional and behavioral difficulties from the perspective of nursing students (Ceters for Disease Control and Prevention, 2021). This information was used to recommend strategies for enhancing civic engagement experiences with this population. The findings from this analysis will inform future collaborations to enhance student engagement experiences with special needs children at this facility. The specific aims of this study are to:

1. Identify nursing students' perceived benefits/advantages and challenges/disadvantages of civic engagement with children who have special mental and physical health needs.

2. Develop a list of recommendations to enhance nursing students' engagement experiences with children who have special needs.

## Methods

### Design

A qualitative, descriptive design, and Community-Based Participatory Research (CBPR) approach was used (Creswell, 2013; Patton, 2015; Poth, 2021). A qualitative design allows for elicitation of detailed rich data about nuances of the students' experiences from their perspective (Patton, 2015; Poth, 2021). A CBPR approach encourages mutual collaborative discussions among institutions so that identification of needs, priorities, and goals can be mutually identified (Minkler & Wallerstein, 2008).

### Setting

Students volunteered at a local facility that provides both a weekend respite care and an afterschool program for children with special mental, behavioral and physical disabilities. The students chose to volunteer at either the afterschool program for two days (three hours each day) or the weekend component of the program that consisted of one three-hour day during the week or a nine-hour day on the weekend. Students could choose to volunteer either two three-hour days or one nine-hour day to receive extra credit. At this facility, children engage in supervised recreational and educational activities, allowing parents to receive respite from caregiving.

### Participants

Undergraduate student participants were enrolled in one of three sections of a professional role course during the fall semester of 2019 during their junior year in a nursing program. The course was being taken to fulfill the requirements for a (BSN). There were three sections of this course containing 59 students. This was a sample of convenience since all students were eligible and those who volunteered completed self-reflective assignments that were included in this analysis. Students were included if they were enrolled in the course and attended the respite care program at least once and provided a self-reflective assignment. Participation was not required. Students were assured that their participation or lack thereof would not affect their grades so as to avoid coercion. The identity of the students who wrote the accounts remain anonymous. Demographic information about students are not disclosed in this manuscript to ensure protection of the rights of human subjects."

### CBPR approach

Prior to student engagement, the course instructor and director of the organization discussed the mutual benefits of student engagement. The organization identified service needs that would be fulfilled as students provided assistance by engaging with the children in recreational activities while at the respite center. The instructor discussed the need for students to fulfill program outcomes and course learning goals related to understanding the needs of diverse populations. The mission, philosophy and end of program objective for the BSN degree program stipulate the need for students to value diversity, learn to respect the dignity, worth, and uniqueness of themselves and others and to provide patient centered care (The College of New Jersey, 2021). One objective for their professional role course includes increasing students' knowledge of diverse human populations. Hence, students fulfilled the mission of the university and the learning goals for their professional role course while providing a needed service to a community via civic engagement at this facility (Minkler & Wallerstein, 2008).

### Procedures for data collection

Approval was received from the College's institutional review board (IRB). The study was granted exemption from IRB review and informed consent was not required since it was deemed an educational study. After approval, correspondence via electronic and video meetings took place with all investigators to organize data analysis tasks. Investigators analyzed 28 student accounts of their experiences volunteering with children with special mental and physical health needs as written in a self-reflection assignment. These accounts were written in an online learning management system. All investigators received the de-identified accounts of student experiences that served as the basis for this analysis. During electronic correspondence, meetings were scheduled for primary and secondary coding and theme development.

### Instrumentation

Students responded to semi-structured open-ended questions as part of a self-reflection assignment, resulting in reflective sharing. The questions were developed based on the Deal model that recommends that students describe their experiences objectively (i.e., activities, reactions, sensation), examine the experiences in relation to learning objectives for the course (i.e., understanding diversity, practicing a caring attitude), examine the experience from a personal perspective (i.e., feel positively, negatively), and articulate their learning to show applied knowledge or what they plan to utilize from the experience in future engagement experiences (i.e., learning, future plans) (Ash & Clayton, 2009). There were four questions that included 1). What was your gut reaction and sensory experience when you first entered the building and saw the children? (i.e., feelings, thoughts, reaction to smells, sights, sounds, staff, conversations). 2). What activities did you do to demonstrate a caring attitude towards the clients and the program and how did your knowledge about diversity help you? 3). What did you learn by participating? 4). Would you participate again or continue volunteering there? Why or Why not? The Deal model is widely recognized in service learning research as an effective way to help students reflect critically on their experiences (Ash & Clayton, 2009; House, 2013; Kawai, 2021; Molee et al., 2011).

### Data analysis

Directed content analysis and descriptive analysis of the student accounts took place (Hsieh & Shannon, 2005). An Atlas.ti computer program was used to organize the data and theme development. The reflective questions based on the Deal model allowed for analysis based on the TPB framework since students provided both the positive (i.e., advantages, good) and negative (i.e., disadvantages, bad things) responses related to each question. For example, questions about gut reactions allowed students to reveal both positive and negative reactions. These reactions were categorized as advantages or disadvantages when analyzed according to the TPB framework (Ajzen, 1991). A qualitative approach utilizing the blended frameworks of both theories allowed for an in-depth analysis of the responses to extrapolate useful, rich and detailed information (Creswell, 2013; Patton, 2015). Open primary coding took place first, followed by category and major theme development all via electronic meetings. Themes were finalized during electronic meetings, and disagreements were resolved via meetings by analyzing the data and existing theories and coming to consensus. Based on the resulting themes, tips to enhance student engagement with children who have special needs were developed and organized into table format.

### Trustworthiness

To increase the credibility of the findings and contribute to the trustworthiness of the qualitative data, analyst/investigator triangulation

was used (Creswell, 2013; Patton, 2015; Poth, 2021). The data analysis was conducted by five doctorally prepared and one master's prepared nurse investigators and two undergraduate nursing student research assistants. Each nurse investigator has extensive experience teaching diverse pedagogical strategies including civic engagement and service learning. All doctorally prepared investigators have conducted research with vulnerable populations. The undergraduate research assistants were trained in data analysis by the primary doctorally prepared investigator. All agreed on the final categories and themes.

## Findings

Students provided accounts of their engagement experiences and afterwards responded to questions for self-reflection. Of the 58 students enrolled in the course, a total of 28 students (47.5%) chose to volunteer and submit self-reflection accounts. Six students volunteered in the respite program and 22 volunteered in the afterschool program. Data saturation was reached where no new codes emerged after 15 accounts were analyzed (Creswell, 2013; Patton, 2015). However, all 28 student accounts, were included in this analysis. Seven broad themes and five sub-themes emerged representing behavioral beliefs about engagement with this population of children with special needs. Four themes outlined the benefits or advantages and three outlined disadvantages or challenges of engagement. The themes and subthemes were as follows:

## Benefits/Advantages

### Theme 1: Educational Benefits That Involved Filling Cognitive and Experiential Learning Gaps via New Learning and Application of Existing Knowledge

#### *New learning*

Students discussed learning new skills and learning about the needs, functional levels and capabilities of children with special needs. Students also learned about the activities, facilities and resources available for these children. Comments representing this theme include:

"I realized how important sensory information is for children with special needs and how important nonverbal communication is"

"the techniques that might work on a 'normal' teen would not help in this situation I learned that there is a very broad spectrum relating to autism and not all autistic kids will have the same behaviors"

"I learned the importance of these government subsidized programs for these parents this program gave them an opportunity to get errands done or get a full day of work in so that they could support their family"

"It was interesting to see the different activities they have for the kids to do, such as arts and crafts, computers, homework help, television, the BEAM interactive floor games, and other physical activity such as basketball."

#### *Application of nursing knowledge and skills*

Students identified their strengths and weaknesses through interactions with the children. Students also applied existing nursing knowledge about therapeutic communication, diversity, child development, and human needs as they interacted with the children.

"I utilized therapeutic communication with each child in my group which helped me communicate with them effectively and demonstrated a caring attitude"

"Due to my knowledge about diversity, I was able to work with the kids without demonstrating judgement towards them."

"There was a 13-year old that was getting very agitated by one of the other older kids and I was able to have him focus on what I was telling him and have him do calming breathing exercises to prevent him from having a meltdown.

"My knowledge that I learned in community health helped me understand what these parents were going through and how to make them feel better".

#### *Application of knowledge from prior similar experiences*

Students transferred knowledge from past similar experiences and used it to analyze and make application to assist with the current experience engaging with the children.

"I used to volunteer for the "named special needs programs at college" Using this prior experience working closely with people who have special needs, I was familiar with and not at all overwhelmed by the children who attended "named program".

"The children interacted with one another in a fun, playful matter. There was less fighting between the children at this program than the kids I worked with at the summer camp."

"I do have a lot of experience in similar setting I used to volunteer with the autistic summer program at a neighboring high school and this past summer I worked as a substitute aid for them. All of that knowledge and experience was very useful when volunteering."

### Theme 2: Positive Emotions, Interactions and Perceptions of Staff, Family, Children and the Facility

#### *Emotions*

Students reported the emotional impact of their experience as they frequently reported positive emotions as they participated in the program.

"when I saw the children having a good time it made me feel happy".

"I felt my heart warm as I saw all of the toys available for these special needs children and watched as each of their eyes lit up while they gravitated toward their personal favorites."

"I played with her for an hour and after that, she yelled 'Hi' and I swear I got so excited I almost screamed."

#### *Perceptions and interactions*

Students commented positively about the staff, family, children and the facility and reported positive interactions in detail. Students also commented on the parents' positive reactions to the services provided by the facility.



“It was so easy to get along with the staff and they were all very kind and welcoming...The kids were entertaining and easy to please”.

“The room was very clean and did not have any distinct smell to it... the facility was nicely equipped with activities for the kids to do... I was intrigued by the facility was very new and up-to date”.

“I saw many parents be very appreciative and thankful for everything... A lot of the parents would come to us and express their concern with their parenting skills, their lives and their children and I was able to comfort these families and reassure them that their children were in good hands”.

### Theme 3: Rewarding Connections and Relationships

Students discussed the connections made and relationships formed during their engagement with the children, staff, and families. Many students expressed a desire to return and volunteer again due to the rewarding and positive nature of these experiences.

“The bonds and friendships that are formed in the program made me feel so comfortable even though I was just another stranger for that day.”

“one kid kept asking if I was coming the next day this was a very touching moment for me and made the entire experience worth it”.

“It was a great experience and I really enjoyed the relationships I formed with the children during my short time there.”

“I would likely volunteer at ‘named facility’ again because I would feel bad leaving the children that I built a relationship with. One of the downfalls of volunteer work of this nature is exactly that, termination of the relationship. I was able to build a good relationship with one child in particular.”

### Theme 4: Fun and Stress Relief

Several students commented about how much fun they and the children had. Students also commented about how this experience brought about stress relief as it was a diversion from their normal educational routines.

“Playing with the kids and just being there was nice. They had fun and so did I. I would definitely volunteer there again when I have the chance. It was honestly a nice break from school, it was stress-relieving”.

“It was also a very fun experience and I enjoyed it.

“I loved how the experience was fun and relaxing.”

## Challenges/Disadvantages

### Theme 5: Experiencing Negative or Uncomfortable Emotions and Uncertainty

Students reported experiencing uncomfortable and/or negative emotions and managed them throughout the day. They often attributed these emotions to uncertainty due to the unfamiliarity of the new experience and unknown expectations.

“When I arrived, no kids were there yet, which made me nervous as I was still anticipating what I should expect... towards the end of the day, I was no longer nervous I was comfortable with all the staff and kids”.

“I was still nervous because I did not know any of the children, or their behaviors,... and I was afraid.. “As we entered into the play room and more children arrived, my nerves began to dissipate.”

“Upon entering I immediately felt uncomfortable...I was nervous the ‘boys name’ was going to it me so I attempted to turn by fear into empathy”.

“I was shocked by the age range that the program caters too..some were about to enter middle school, while others haven't even begun yet”.

### Theme 6: Students Discussed Witnessing and Lacking Knowledge of How to Manage Disruptive Behaviors

Students witnessed disruptive behaviors and commented on how they were impacted. The students also expressed difficulty and/or lack of understanding of how to manage disruptive behaviors.

“A mother had just dropped off her ten-year old son, and he started punching staff, yelling, and trying to run away and leave the building. I didn't know how to react”.

“The child was a young male, who was clearly in emotional distress and combative, which initially overwhelmed me, since I had never been in this sort of situation before.”

“It was a very difficult task to handle, the kids were a lot to handle.. because as I was trying to help someone, another kid would start screaming and running around.”

### Theme 7: Negative Perceptions of Staff and/or Facility Operations

Some students commented negatively about staff and facility operations that did not meet with their expectations and made them have negative feelings and perceptions of the experience.

“ I thought there should be more structure and schedule for the kids.”

“When the staff started to arrive, I did not get a very good feeling from them.”

“So it was quite chaotic. As the day went on it still seemed very chaotic”.

See [Table 1](#) for additional student expressions. (See [Table 2](#).)

## Discussion

The benefits/advantages and challenges/disadvantages of civic engagement with a population of children with special needs were identified based on student accounts of their experiences. Our study is unique since, to the authors' knowledge, this is the first study to document students experiences with special needs children from the perspective of nursing students using qualitative methods. A prior study used quantitative methods to detail student engagement with a special needs population (McGahee et al., 2018). This method allowed students to discuss

in detail the cognitive, emotional, and interpersonal advantages and disadvantages as a result of engagement. Overall, more advantages or benefits of engagement were identified compared to disadvantages or challenges. All findings will be used to refine future engagement experiences with children who have special needs at this location and other facilities providing similar services. The findings are detailed in the discussion below.

The identified benefits/advantages such as filling cognitive and experiential learning gaps are consistent with prior studies involving student service learning experiences with diverse populations. This experience allowed students to learn about and apply prior knowledge about diversity, caring, therapeutic communication, and functional levels and needs of special needs children. In prior qualitative studies, students similarly reported personal gains such as increases in academic, social, and personal development such as the sense of competence, autonomy, and integrity during a pilot service-learning project targeting tobacco use in school sample of typically developing elementary school US children without special needs (Bassi, 2011). Past students also identified increased transcultural self-efficacy, self-awareness, and understanding of diversity/culture when engaging internationally with mostly adult clients (Amerson, 2012; Brown, 2017; Long, 2014). Results for quantitative studies are mixed. Students reported increased cognitive and affective development including enhanced feelings of competence and autonomy on quantitative measurement scales while performing physical assessments on special needs children (McGahee et al., 2018). However, critical thinking, self-confidence, and feelings of cultural competence were reduced based on analyses using validated instruments after nursing student participated in a 15-h service learning intervention with a diverse community of adults (Nokes et al., 2005). Unique beliefs about engagement in behaviors are context specific and thus may vary and not be captured by the predetermined wording on scale measure items (Ajzen, 1991, 2020b; Ajzen, 2020a). Nevertheless, engagement with these children may allow students to fill gaps in knowledge and practice nursing knowledge and skills to make them competent providing care to this unique population of children.

The experience of positive emotions, interactions and perceptions of the staff, children, and facility and rewarding connections and relationships developed made the experience fun, relaxing and stress relieving. Many students expressed a desire to return and volunteer again. In prior studies, researchers did not report positive expressions from nursing students who volunteered internationally, but after witnessing lack of adequate resources students expressed gratitude for their country of origin (Long, 2014). In another study, nursing students who performed physical assessments of special needs children participating in Special Olympics did not show improvement in interpersonal relationship development involving understanding of differences in other people based on quantitative scale measures (McGahee et al., 2018). In this study, students did not engage socially long enough to form relationships as done in the present study. In addition, the qualitative methods used in the present study allowed for free expression and thereby more detailed accounts of the social and interpersonal impact of the experience, which is difficult to capture on quantitative scale measures (McGahee et al., 2018). Nevertheless, engagement at this respite program brought social and interpersonal benefits that made the experience rewarding and enjoyable for some students.

Challenges/disadvantages were identified including managing uncomfortable/negative emotions such as feeling nervous, uncomfortable, and feelings of fear. These feelings were mostly experienced by those who were uncertain about expectations and/or lacked experience engaging with these children and/or witnessing and managing their disruptive behavior. In prior studies, undergraduate students in an associate's degree in nursing (ADN) program similarly reported uncomfortable emotions that were different and included dismay, discomfort, anger, frustration, fear surprise and shock when encountering challenges or barriers to providing healthcare services to children and

**Table 1**  
Behavioral beliefs (N = 28).

Benefits/Advantages	Example Quote
Cognitive and Experiential Learning Gaps	New Learning "I learned to communicate with special needs children" "it was a learning curve to gage how to interact and how much they were capable of" "I also learned how broad the autism spectrum is as some children were far more functional than others....I have definitely learned to appreciate special needs populations" Application of Existing Nursing Knowledge "My knowledge of diversity helped me to recognize that each individual student is unique regardless of their shared characteristic" "I felt myself exemplifying a caring attitude towards the children when I accompanied them on rides with them" "Volunteering has made me more confident in my ability to interact with children with diagnoses. I felt like before I would overthink how to approach them...After following my gut feeling I would say that my skills have refined." Application of past experiences "I've worked with adults with intellectual disabilities but never children so I was interested to see how it would go." but those are college-aged special needs adults so it was very different from that. "I work with kids in my job, but this was a different experience because I have no experience work with special needs kids, like the ones today." "The class I work in usually has 8–12 fairly high functioning students, this group was about 30 kids with varying levels of functioning"
Positive Interactions and Perceptions of staff/family/children	"The staff was very friendly and funny...The kids were entertaining" "The program itself is a respectable idea that I appreciate" "the kids were very fun to be around and incredibly sweet and they" "The friendliness of the staff eased my nerves"
Positive Emotions	"As I entered the building, I got a positive feeling." "I was happy <i>boys name</i> finally started to engage with the other members of the group." "The sensory experience of the play room was remarkable, I was in awe"
Connections and Relationships	"I felt like I was hanging out with someone else's family" "I would volunteer again because the kids were very fun to be around...they get attached to new people very easily as the kids did me myself." "We first met the therapy dog and took him outside to go to the bathroom. I loved the therapy dog" "I loved the kids and I am going to miss them."
Fun and Stress Relief	"overall my experience was both fun and educational" "It is fun to play with all the kids though and get to meet all of them." "Both weeks I attended I had a great time"
Challenges/Disadvantages	
Negative/Uncomfortable Emotions /Uncertainty	"When I first entered the after-school program I was a little overwhelmed... I was worried" "My uncertainty quickly wore off and I became far more comfortable around the children in a matter of minutes" "I definitely got stressed out as the day went on."
Witnessing/Managing Disruptive Behaviors	"the (the child) got very upset with his Mother and swung at her...we were all very shocked and I was surprised that the mother had almost

**Table 1** (continued)

Benefits/Advantages	Example Quote
Negative Perceptions of Staff/ Facility Operations	no reaction to it.” “There was an incident where one of the students started attacking one of the staff members so many others joined in to help.” “I pretty rarely felt useful for the kids... I did not feel effective in helping those kids.” “the day did not seem to be planned out very well.” “the volume and disorganization were hard to deal with.” “The children had a movie day and sat watching Netflix for the whole 3 h which I thought was poor decision making on the employee's part”

families during service learning trips internationally (Brown, 2017; Long, 2014). For these students, emotions were mostly due to witnessing and reacting to the lack of resources for providing healthcare and witnessing cultural differences (Brown, 2017; Long, 2014). Students engaging with special needs children may experience negative/uncomfortable emotions if they lack experience and are uncertain about how to engage with this special population of children. Students gained experience managing these emotions as they engaged with this population of children.

A few students reported negative perceptions of staff and facility operations, comparing this program to similar programs and prior employment working with special needs populations. In prior studies, negative experiences and perceptions were not measured nor reported by nursing students who engaged with special needs children (McGahee et al., 2018) and diverse populations internationally (Bassi, 2011; Brown, 2017; Long, 2014). Nursing students often have prior experiences working with clients and are being taught how to provide the highest quality of care in their educational courses (American Association of Colleges of Nursing, 2021b). They may have a heightened sense to evaluate care provided based on prior experiences in employment or volunteering and/or in their courses for comparison. When volunteer experiences with special needs children do not measure up to expectations, and students are unsure of how these kinds of facilities operate, students may become critical evaluators of their experiences and program operations.

**Practice implications**

This service learning opportunity allowed nursing students to experience the challenges and benefits/rewards of engaging with children who have special needs. Students had the opportunity to apply previous nursing knowledge and skills such as effective communication and interaction with patients, families, staff and fellow workers. This opportunity also allowed students to gain experience managing emotions, expectations and disappointments. The insights gleaned from these accounts can inform efforts to enhance future engagement experiences at this local respite center and similar programs that service children with special needs. Based on these accounts, practice recommendations to enhance nursing students' engagement experiences with children who have special needs are discussed below.

Students reported unexpected emotions and uncertainty. Students also commented on lack of understanding regarding their responsibilities towards managing children who exhibit disruptive behaviors. Prior to engagement, student can be provided with education and anticipatory guidance about potential child negative and positive behaviors and the students' potential emotional reactions to these behaviors. Students can also be instructed about their responsibilities towards management of these behaviors. A simulated experience about how to react to and manage disruptive behaviors with role play can be

incorporated into course content as a communication/learning discussion activity. Students can be provided with scripts and expectations about their responsibilities and expected behaviors during these situations. Simulation allows students to practice and develop proficiency with communication and interpersonal skills in a safe environment prior to engaging with real clients in a practice setting (Eyikara & Baykara, 2017).

Students also commented on negative aspects of the program as they compared this experience with previous similar experiences. Lack of knowledge of expectations and program operations were reported. Prior to engagement, students can be provided with details about program operations and students' responsibilities. Topics such as child supervision, provider ratios, organization of responsibilities, and staff and student expectations can be discussed. Students can be informed about the recreational activities and other resources that are available at the center and be provided with the schedule of external trips and outings that take place. They can be informed about their responsibilities towards the students during these outings. Students can be encouraged to communicate with facility staff and program supervisors, asking questions to clarify expectations and also provide feedback and suggestions for improvement where necessary. The facility can collaborate with the course leaders to provide an educational orientation module that students can complete prior to engagement and that includes these topics. Providing detailed guidelines is important for ensuring that a meaningful impact is made on the community and the students (George, 2015).

In future collaborations with this respite program, more extended discussions between course leaders and facility administrators can take place to evaluate the experiences and develop collaborative strategies to enhance student engagement during future service learning experiences with this facility. The students' perspective as reported in this study will be shared with facility administrators to inform future collaborative efforts. Students in this study did not report that they shared any concerns or desires for service with facility staff or program supervisors. Students can be encouraged to have collaborative discussions with these persons to communicate their needs and ask about how best they can be of service. Students must learn to engage and collaborate with community leaders to promote mental and physical health and health equity among children with disabilities (American Nurses

**Table 2**  
Recommendations for enhancing engagement.

Recommendations	Content
Provide education and anticipatory guidance	-Child's functional levels and types of disabilities -Child disruptive behaviors -Child and staff age ranges -Students' potential emotional reactions
Provide orientation via online and written modules with details about program operations, responsibilities and expectations.	-Program expectations of students -Student-provider ratios and grouping procedures -Child supervision expectations -Staff responsibilities -Program activities/trips and schedules -Requirements for participation
Utilizing simulation with role play to prep students prior to engagement.	-Management of disruptive behaviors -Communication of needs, deficits, and desires with staff and program supervisors -Management of emotional reactions
Have frequent collaborative discussions between students, staff, facility supervisors and administrators to develop and evaluate and strategies to enhance student engagement	-Updates about program operations and student expectations -Additional programs or trainings to enhance student engagement and care provided -Collaborate on evaluation measures



Association, 2021). See table two that outlines these recommendations discussed See Table 2 for a detailed description of these implications.

### Limitations

Students volunteered to participate and complete the self-reflection assignment which may introduce bias as students who chose to volunteer may be different than those who did not in an indeterminate way. Certain students volunteered just one day while others volunteered two days. Those volunteering two days may have contributed a perspective that allowed for comparison of experiences from each day. Those who volunteered one day had one experience, to report. Results should be interpreted in light of this fact. Despite these potential biases, this study fills a gap in the literature about student engagement with special needs populations. Although findings reported in this article are limited the perspective discussed by this sample of students, they were interpreted using insights from commonly used theories/models and informed by rigorous analytic strategies. The results will inform future research about how to collaboratively plan and implement successful engagement experiences that draw on the respective strengths and expertise of community partners and academic institutions and the positive and negative experiences identified by students.

### Conclusions

Students experienced cognitive, emotional, and interpersonal advantages and/or disadvantages while engaging with this defined population. Course educational and student learning objectives were also met. Nursing students must learn to embrace diversity among children who have special needs, and not just tolerate them (American Association of Colleges of Nurses, 2021; American Nurses Association, 2021). Students commented on the diversity of ages, functional levels, race/ethnicity and behaviors of the children and thereby learned that diversity exists even within “diverse” groups. The population in the United States (US) is becoming more diverse with regard to the broad range of individual, population, and social characteristics (American Association of Colleges of Nurses, 2021; American Nurses Association, 2021). Similar service learning experiences with children who have special needs will therefore become vital for ensuring that nursing students continue to work towards fostering cultural competence. The knowledge from this study will be used to enhance future engagement experiences at this facility; ultimately ensuring that nursing students will be competent in providing appropriate care to children with special needs.

### Funding

This research did not receive any specific grants from funding agencies in the public, commercial, or not-for-profit sectors.

### Author contributions

**Conceptualization:** R.A., Developed the ideas, formulation/evolution and overarching research goals and aims; **Methodology:** R.A., designed the methods; **Formal Analysis:** R.A., M.D., T.J., T.P., D.K., M.M., V.I., and S.J., analyzed and synthesized the data; **Investigation:** R.A., conducted the research, participating in data collection; **Resources:** R.A. provided resources for data collection. **Data Curation:** R.A., managed the research data. **Writing-Original Draft Preparation:** R.A. wrote the original draft. **Writing-Review & Editing:** R.A., M.D., T.J., T.P., D.K., M.M., V.I., and S.J., participated in manuscript preparation/critical review, and revisions; **Visualization:** R.A., participated in preparations for visualization/data presentation; **Supervision:** R.A. had oversight and leadership responsibilities. **Project Administration:** R.A. provided project administration activities. **Final Approval:** R.A., M.D., T.J., T.P., D.K., M.M., V.I., and S.J., approved the final version. **Funding Acquisition:** N.A. No funding was required.

### Declaration of Competing Interest

Rahshida Atkins (R.A.), MaryAnn Dugan (M.D.), Tami Jakubowski (T.J.), Tracy Perron (T.P.), Deborah King (D.K.), Madeline McSweeney (M.M.), Vyacheslav Ivanof (V.I.), Shanda Johnson (S.J.) agree that they have no conflicts of interest. Declarations of interest: none.

### Acknowledgments

We would like to acknowledge the Special Parent Advocacy Group who collaborated with us for student engagement for the assignment related to this manuscript.

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