A School of Nursing and a Community Service Agency Close the Gap for Rural Families with Health Disparities During COVID-19: A Novel approach to Clinical Education and Service-Learning

Christina Aplin-Snider
University of Michigan-Flint

Lyn Behnke
University of Michigan-Flint

Elizabeth Fulks
University of Michigan-Flint

ABSTRACT

This descriptive study involving over 50 students, both undergraduate and graduate nursing students. A modified Community Service Attitudes Scale was given pre and post service-learning activity to the students.

Students overwhelmingly reported an increase in their cultural awareness, their ability to work effectively with others and their feeling of making a real difference for those they served in the activity.

Utilization of a service-learning activity (SLA) via health fairs is an effective pedagogy to offer clinical hours and exposure to professional situations for nursing students. The impact of the SLA is multifactorial on the students and on the community served.

During the COVID-19 pandemic, in-person clinical experiences for undergraduate and graduate nursing students were limited due to closures or limitations at many clinical sites. This situation challenged the school of nursing (SON) faculty at a Midwestern public university to develop alternative clinical opportunities for their students. These faculty considered service-learning, as this approach has long been considered an effective way to offer students learning opportunities in communities and with populations, they would not otherwise have access to in traditional online or in-seat courses (Sandberg, 2018; Sheikh, 2014).

Therefore, over one winter semester, these faculty met with the staff of a large, primarily rural community service agency (CSA) to plan four health fairs to be held across the state. These health fairs allowed nursing students to gain clinical experience while providing much needed health screenings for low-income, preschool children and their families, a population who often lacked access to these state-required services. Such access was further limited by the challenges posed by COVID-19.

This descriptive pilot study used a pre-post survey method to determine students'

perceptions of service-learning before and after their participation in community health fairs planned through a partnership between SON faculty and CSA staff.

Literature Review

In the past five years, hundreds of studies have assessed the impacts of service-learning. Results from multiple studies indicated that service-learning is mutually beneficial, as communities gain needed services while students gain educational experiences (Beebe et al., 2021; Bryant et al., 2017; Bryant-Moore et al., 2018; Copeland, 2021; Gosse & Katic-Duffy, 2020; Gresh, 2021; Kayser, 2017; Smith et al., 2017). Findings also have shown that service-learning contributes to students' professional development, learning, cultural competence, and understanding of the social determinants of health. These benefits are addressed briefly below. This study's novelty lies in the identification of the benefits service-learning—in the form of planning and working at community health fairs—has for students.

Professional Development

Service-learning as a pedagogy has multiple benefits for nursing students, including professional development (Hermann, 2020). For nursing students, the career socialization process begins in pre-graduate education where they learn socialization and communication skills while working with populations they will later care for as healthcare professionals. In service-learning students learn to recognize and understand social problems, develop a sense of civic responsibility, and gain confidence in their ability to affect patient health (Kayser, 2017). The results of a study examining the effects of international vs. local service-learning showed no statistically significant difference in the level of professional nursing values (PNV) developed between the two groups. This finding indicates that local service-learning helps nursing students develop professional nursing values as effectively as does international service-learning (Ferrillo, 2020). Furthermore, Huffmaster et al. (2017) noted that service-learning activities (SLAs) encourage personal and interpersonal development and an understanding of social responsibility, while also strengthening professional socialization among nursing students.

Student Learning

Many studies have documented how service-learning enhances student learning. First and foremost, SLAs provide an ideal opportunity for students to gain exposure to a variety of clinical settings while accumulating valuable clinical hours (Hawkins, 2019). Moreover, Elliott et al. (2021) noted that service-learning opportunities foster essential nursing foundations while providing community exposure for nursing students. Regarding specific skills, nursing students who participated in service-learning reported that it improved their readiness skills, problem solving abilities, therapeutic communication, and critical thinking, as well as their awareness of patients' cultural differences and health disparities (Beebe et al., 2021; Humphrey, 2021).

In another study, student journals revealed a common theme of service-learning fostering empowerment and comfort in treating patients who have been ignored or marginalized due to community and social barriers (Huffmaster et al., 2017). Overall,

the combination of academia and service-learning results in a more relevant curriculum that considers the needs of the healthcare environment. Finally, placing the learner in a work-like setting with mutually beneficial activities results in a pedagogy that improves patient care and helps meet nursing students' needs (Spencer, 2021).

Cultural Competence

Service-learning can help students meet clinical objectives for attaining cultural competency as they face new challenges and opportunities. For example, students in one study reported an increased awareness of cultural differences after participating in SLAs (Beebe et al., 2021). In another study, students providing care to low-income individuals in Appalachia during a Regional Area Medical event recounted life-changing interactions with patients who had significant health disparities and were culturally different from them in many aspects (Aplin-Snider & Vossos, 2022). Finally, another group of nursing students reported developing heightened cultural awareness, knowledge, confidence, and sensitivity from engaging in a SLA (Dyches et al., 2019).

Understanding the Social Determinants of Health

Participation in SLAs has been shown to increase nursing students' understanding of social justice and the ability to identify the social determinants of health (Beebe, 2021; Bryant et al., 2018; Hermann, 2020). Copeland et al. (2021) noted that the SLA in their study had a positive effect on student attitudes and reflections, a finding indicating SLAs could help promote the provision of patient-centered care for individuals experiencing homelessness.

With patients experiencing health disparities in various forms, nursing faculty need to build a curriculum that educates students about these patients' needs (Huffmaster et al., 2017). In one study, students reported having an increased awareness of health disparities after participating in an SLA (Beebe et al., 2021). Students also have reported being exposed to and having a new understanding of how health disparities affect their learning and perception (Aplin-Snider & Vossos, 2022). Finally, working with disadvantaged individuals during SLAs allows nursing students to develop more compassion towards poor and disadvantaged patients (Hawkins, 2019).

Community Benefits

Community members served by student SLAs report receiving significant support from the student activities in the form of healthcare, education, and feelings of being cared for and about (Beebe, 2021). Community-academic partnerships are essential to service-learning and exposing the gaps in health-related services (Voss, 2016). Students also play a critical role in helping organizations with resources that are stretched thin. Moreover, project successes were directly related to students' providing a rich learning experience for themselves and community members by taking on tasks that would otherwise fall to organization staff (Voss, 2016). CSAs have described students who volunteer on projects as valuable partners whose help is desired moving forward (Bachelder et al., 2020). Community partners also reported that the projects enabled clinics to implement changes for which they otherwise lacked resources (Beebe, et al., 2021). In one project, agency evaluations of the students were excellent;

in another, the community partners reported that the students made a significant contribution to their mission in the community (Huffmaster et al., 2017). Other community partners also reported that the SLA helped the organization build sustainable infrastructure (Gresh et al., 2020).

Theoretical Framework

Leninger's Cultural Care Model informed the development of this SLA. Collaborating with the client to design a new style of care to promote the client's health and well-being is foundational to this model (Petiprin, 2020). All care modalities require collaboration and participation among nurses and clients, which in this study include the CSA and the parents of children receiving care. With such collaboration, the project participants were able to identify, plan, and implement the fairs to meet the needs of medically underserved families in the surrounding rural communities.

Leininger's model promotes the development of nursing actions and decisions based on cultural knowledge and culturally based ways providing meaningful and satisfying holistic care with our partners. In this project, the students could see these theoretical underpinnings in action.

Methodology

Setting

The Northeast Michigan Community Service Agency (NEMCSA) serves 21 counties in the rural northeast corner of Michigan. NEMCSA offers early childhood services, school success partnerships, housing, and client services, as well as services for the aging population. This CSA is funded by several federal grant agencies and has a yearly operating budget of 52 million dollars. These federal monies come with requirements, goals, and care standards for NEMCSA's target populations. While 18% percent of Michigan's population lives in rural counties, only 17% family physicians work in these counties. This paucity of primary care providers makes it difficult for the agency to meet the Early Head Start (EHS) and Head Start (HS) program requirements to provide well child physicals, immunizations, and dental and lead screenings. The COVID-19 closures of primary care practices further reduced EHS/HS programs access.

The poverty rate in NE Michigan ranges from 11.4% (Otsego County) to 19.5% (Alcona County). In Alcona County, 22.4% of children will have experienced homelessness by the fifth grade, and 22.9% in Iosco County. Eighteen of 21 counties had higher than average percentages of children receiving free or reduced-price meals. Such statistics indicate that Michigan has a significant population of vulnerable individuals, which in turn results in a higher likelihood of this population experiencing the negative determinants of health (Walcheski, 2021). Fourteen counties with the highest poverty rates in the State of Michigan are within NEMCSA's service area, and seven counties in the service area saw recent increases in the percentage of their population living below the federal poverty rate.

In the 2020 NEMCSA needs assessment, healthcare was the top concern in the service area (NEMCSA, 2019). One suggestion was to "….create stronger access on a more frequent basis to mobile-traveling offices, machines, testing equipment or increasing the number of providers/centers" (NEMCSA, 2019, pg.19). Also from the assessment: "another practical option is increasing the number of Nurse Practitioners and allowing them to travel into homes as part of the outpatient, patient relocation/transfer and home care services; checking on recovery, prescription transfer systems, and reconciliation, as well as after care support" (NEMCSA, 2019, pg. 19).

Regarding care access, Michigan has 758 Health Professional Shortage Areas (HPSA), 244 dental HPSAs, 243 mental health HPSAs, and 271 primary care HPSAs in. Of the 271 primary care HPSAs, 113 (42%) are in NE Michigan within NEMCSA's service area (data.hrsa.gov/geo).

Human Subjects Protection

This study was approved by the relevant IRB (HUM 00207128). Study participation was voluntary and anonymous, and not all students who participated in the health fairs completed the study survey.

Student Recruitment

The 65 students enrolled in pediatric courses included in the Doctor of Nursing Practice (DNP) and the Master of Science in Nursing (MSN) programs were invited via a course announcement to participate in the health fairs (to accumulate clinical hours) and the accompanying study to document their perceptions of the SLA.

Data Collection

Participants were asked to complete a pre- and post-activity survey, a modified Community Service Attitudes Scale that included one open-ended qualitative question (Appendix A) and was accessed via Blackboard. The survey was anonymous, and the faculty were unable to track which students had completed it.

Students received health fair reminder announcements a week before each fair was held. Students also received a reminder to complete the post-activity survey within a week after each fair was held. Multiple reminders were sent at various times, as the four health fairs were held at different sites throughout the state and not all students attended all four fairs. In fact, due to the travel distance involved, it was unusual for a student to attend more than one fair. Thus, it was important to capture students' pre- and post-activity thoughts and perceptions as close to the fairs as possible.

Faculty at the fairs verbally reminded the students to complete the surveys. Faculty also gave printed survey copies to each student before it was decided that the data processing would be too complicated if both paper and electronic surveys were used. This decision may have been a crucial mistake, as participation likely would have been much higher had the paper surveys been included. The N also changed after the semester ended. The survey data were downloaded from Blackboard and analyzed as reported in the results section.

Health Fair Planning and Implementation

During initial health fair planning meetings, SON and CSA members evaluated existing resources and determined those that needed to be created. SON graduate students were tasked with helping to plan the inaugural event with close faculty supervision. The undergraduate students developed educational materials for the attendees.

To provide structure and staff for the fairs, CSA staff made reservations to attend the fairs. Each fair offered six basic services, as described below.

- Well child visits (height, weight, vital signs, a physical examination, immunization review, vision and audiology screenings, and interaction with parents to review and evaluate the screening results)
- Parent/child education pamphlets (gun safety, healthy eating, handwashing, healthy dental practices, sun safety, helping young children cope with COVID, proper car seat use, the importance of well child evaluations, and the benefits of exercise)
- Lead level evaluations
- Nutritious snacks
- A safe play area
- Bicycle helmets (Police and firemen were on site to interact with the attendees and provide each child with a bicycle helmet)
- Books and donated toys

Two of the four health fairs had a mobile dental unit offering screenings and appointments. Two fairs had county health departments on site to administer immunizations. Two counties also had community mental health services available for parents who screened positive for depression. One fair had bicycles that were raffled from free raffle tickets provided at check in.

Fair organization improved with each successive fair. While the first health fair set up and tear down was time consuming, the last time it took only about 30 minutes. A faculty member and her husband fabricated individual booths for physicals. Tables and chairs were provided by faculty and the fair site. Faculty provided medical supplies such as otoscopes and ophthalmoscopes. The university simulation lab provided paper supplies, gloves, and masks. Faculty members developed a height board. Weight, vision, and hearing tests were completed in a private space provided by the CSA site. CSA staff managed reception activities. Equipment was stored in a faculty member's motorhome and record keeping was completed and held by the CSA. Health Information Portability Accountability Act (HIPAA) issues were minimized by using site staff, students, and faculty who were knowledgeable about HIPAA. A volunteer guided each family through the stations to ensure they did not miss any of the offered services.

With faculty supervision, undergraduate students obtained vital signs, gave out educational pamphlets, and performed lead level testing. Also under faculty supervision, graduate family nurse practitioner students performed physical assessments in semi-private booths with children who were accompanied by their parents. Faculty brought students in to observe when an abnormal finding was discovered.

Results

One hundred and forty children participated in the health fairs. Abnormal physical examination or lead level findings were immediately communicated to the child's primary care provider via phone. One child was sent directly to an emergency department, as their primary care provider's office was closed on that Wednesday afternoon.

Of the 65 students invited, 50 students participated in the health fairs, either via direct care or development of educational material. Of those participating in direct care, 10 completed the pre-activity survey, and five completed the post-activity survey. Student demographic information is presented in Tables 1 (pre-activity survey) and 2 (post-activity survey). Results from the pre-activity survey indicated that eight of the 10 students had prior community service experience, while two did not. Among the students with community service experience, seven volunteered once a year and one volunteered monthly.

Table 1. Pre-Activity Survey Participant Demographics (n=10)

Characteristic	**Number of Participants**
Age	
17	-
18-20	-
21	-
22	-
23-29	2
30-39	4
40 or older	4
Gender	
Female	9
Male	-
Did not disclose	1
Race	
African American	1
Hispanic	-
Native American	-
Asian	1
White	8
Multiracial	-
Other	-
College Rank	
Undergraduate	-
Graduate	10

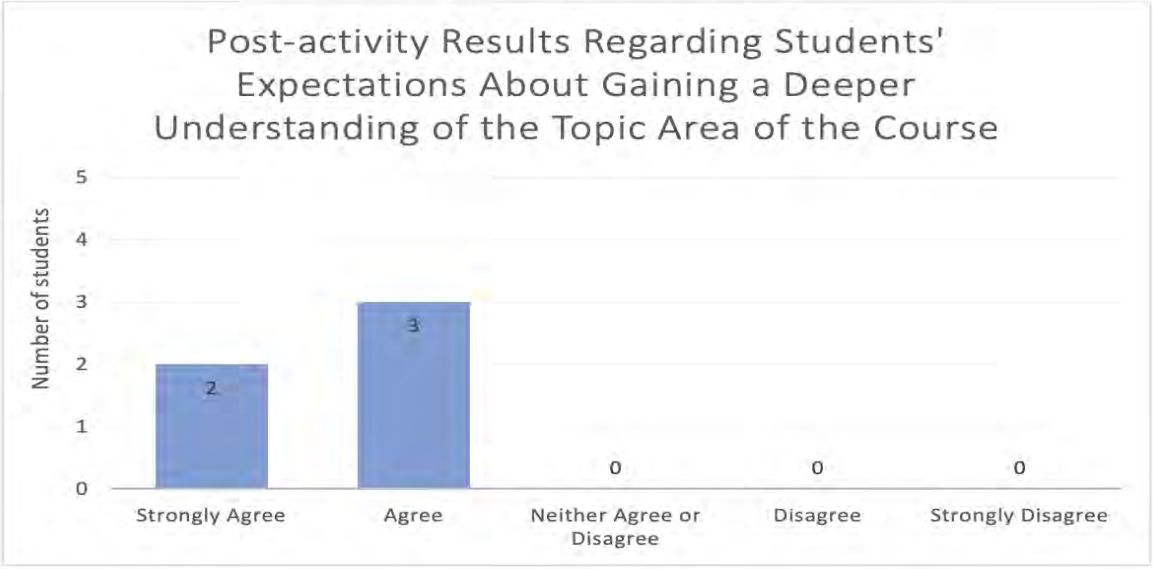
Table 2. Post-Activity Survey Participant Demographics (n=5)

Characteristic	Number of Participants
Age	
17	-
18-20	-
21	-
22	-
23-29	1
30-39	2
40 or older	2
Gender	
Female	4
Male	-
Did not disclose	1
Race	
African American	-
Hispanic	-
Native American	-
Asian	1
White	4
Multiracial	-
Other	-
College Rank	
Undergraduate	-
Graduate	5

Learning

Regarding the question of whether they would gain a deeper understanding of course topics through the SLA, in the pre-activity survey, six of the 10 students strongly agreed, two agreed, and two neither agreed nor disagreed. In the post-activity survey, all five of the students either strongly agreed (n=2) or agreed (n=3) that they gained a deeper understanding of course topics from the SLA (Figure 1).

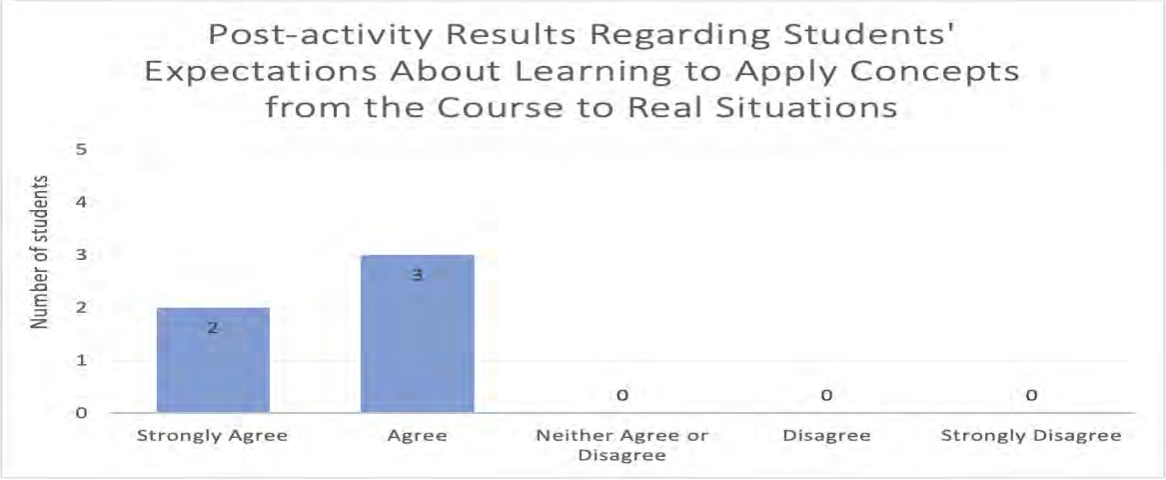
Figure 1.



Concept Application

Regarding the question about whether they felt they would learn to apply course concepts to real situations from the SLA, in the pre-activity survey, six of the 10 students strongly agreed, three agreed, and one neither agreed nor disagreed. In the post-activity survey, all students either strongly agreed (n=2) or agreed (n=3) that they learned to apply course concepts to real situations from the SLA (Figure 2)

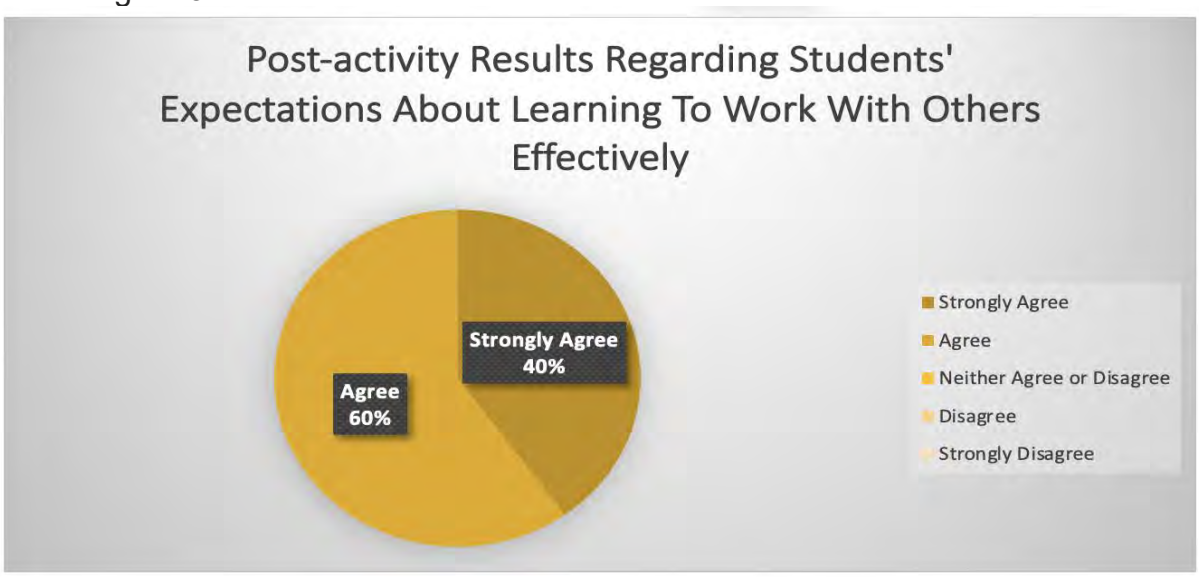
Figure 2.



Teamwork

Regarding their expectations of learning to work with others effectively during the SLA, in the pre-activity survey, four of the 10 students strongly agreed, five agreed, and one neither agreed nor disagreed that they would experience such learning. In the post-activity survey, all students either strongly agreed (n=2) or agreed (n=3) that they learned to work with others effectively during the SLA (Figure 3).

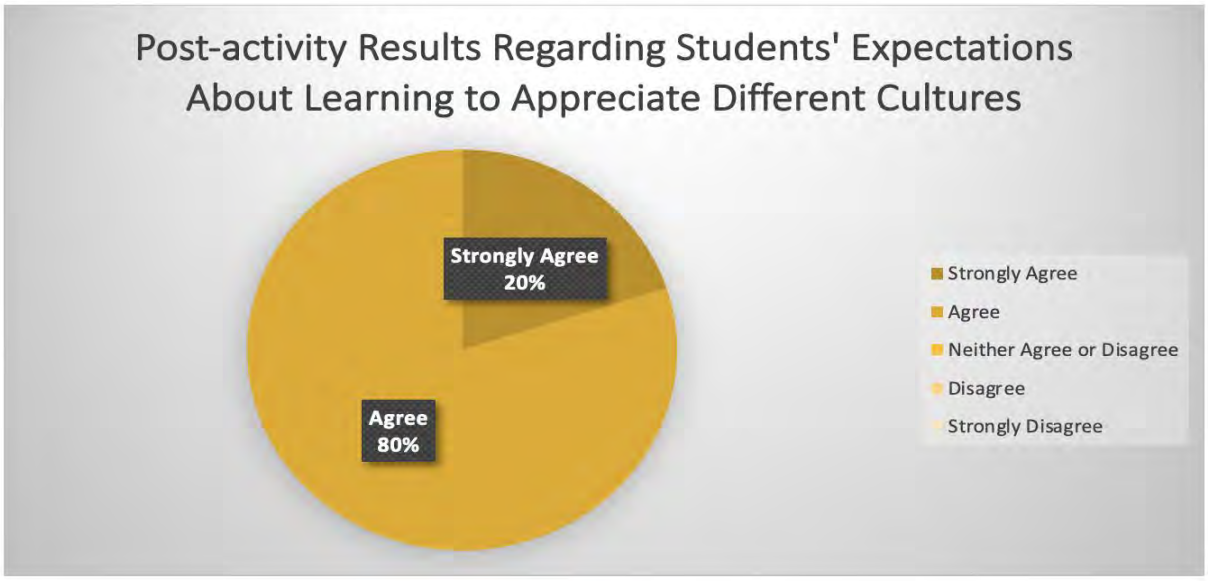
Figure 3.



Cultural Awareness

Students also were surveyed about their expectations of learning to appreciate different cultures. In the pre-activity survey, four of the ten students strongly agreed, four agreed, and two neither agreed nor disagreed that they would experience such learning. In the post-activity survey, one student strongly agreed and four students agreed that this learning occurred (Figure 4).

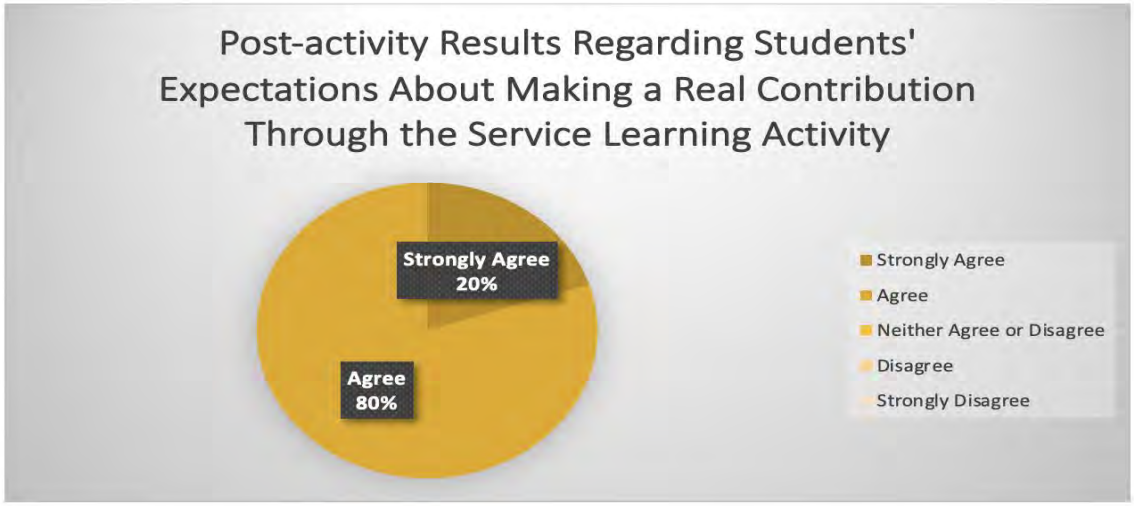
Figure 4.



Meaningful Contribution

Finally, students were asked to rate their expectations regarding their ability to make a real contribution through the SLA. In the pre-activity survey, three of the ten students strongly agreed, four agreed, two neither agreed nor disagreed, and one disagreed with the statement. In the post-activity survey, one student strongly agreed and four agreed that they made a real contribution through the SLA (Figure 5).

Figure 5



Discussion

The SLA design was successful, as it provided care to preschool children and families, delivered rich clinical experiences for students, and promoted relationship building for all involved. The students reported the SLA advanced their ability to work as a team, appreciate cultural differences, understand the real-world impacts of the social determinants of health, and make a real contribution. Moreover, students experienced professional mentoring, modeling, and collegiality among themselves, faculty, and CSA staff.

One unanticipated program benefit was the collaborative learning that took place between the undergraduate and graduate students. The graduate students helped the undergraduate students learn more about the importance of and techniques for performing physical examinations outside a traditional exam room. The undergraduate students helped the graduate students understand the need for a curriculum that is scaffolded in purpose and completeness as well as the ability to have creative adaptations of the traditional physical examination.

The health fairs increased the number of children screened for health and dental issues. Word of mouth and targeted marketing likely will increase future health fair participation from the 140 children who participated in these four fairs. The CSA staff appreciated student and faculty efforts to help them meet the health requirements for the children and families they serve and expressed their desire to continue the collaboration. For the 2021-2022 school year, 1,515 children were newly enrolled in the CSA and 947 students completed required screenings for developmental, sensory, and behavioral concerns within 45 days. Of these children, 265 were identified as needing follow-up assessment or formal evaluation to determine disability status (NEMCSA, 2019). Obviously, not all of these children were screened in this round of health fairs.

While families were not specifically queried about their satisfaction with the program, many parents were effusive in their appreciation for the program. One mother was overheard telling a friend that her child had just received the most thorough physical examination she had ever had in her life.

Addressing Limitations and Challenges

All the information gained during the health fairs was examined with a view to produce even more successful fairs in the future. As with all pilot studies, we encountered several challenges and limitations. This study's most significant limitation was its small sample: 65 students were invited to participate in the SLA, 50 students participated, in either the health fairs and/or the CSAS survey. Ten students actively involved in hands-on care completed the pre-activity survey, and five completed the post-activity survey. The low student participation levels likely were due to schedule-related factors, as the study did not correspond with an actual undergraduate course and the health fairs were scheduled during the summer (after the conclusion of the semester). To maximize student and family involvement, health fairs should be held in the months of April, May, August, and September instead of June and July. Furthermore, informal discussions revealed that, because half of the fair sites were more than an hour drive from the university, Mondays would be better fair days than other days of the week.

The CSA held a debriefing session and identified the challenges of hosting health fairs: the need to hold the fairs outside due to COVID, weather conditions/wind, and scheduling issues. Nursing faculty identified challenges related to improving student participation, documenting student perceptions, and ensuring the program captures the richness of service-learning. All of these challenges will be reviewed in planning future fairs.

Implications for Education

The results from this small pilot study suggest the importance and benefits of SLAs for graduate nurse practitioner students. No data were collected from the undergraduate students who participated, as they were not in an actual course during the study. However, undergraduate students verbally reported the benefits they received from their participation: faculty mentoring, interaction with children and faculty, and an increased awareness of the health disparities among health fair attendees.

Designing health fairs to provide clinical learning opportunities to nursing students and care to children is an innovative pedagogy that meets the needs of both community members and students. These health fairs also served as an important source of clinical experiences for students during a time when traditional clinical sites were closing or limiting student participation due to the COVID-19 pandemic. For this reason, these fairs will be used routinely with these courses and viewed as an additional option for clinical education in other courses.

It is noteworthy that the design process for this health care program parallels translational research methods as well as the nursing process. From its conception to evaluation, this health fair program also aligns with recommendations from the American Association of Colleges of Nursing for implementing a final DNP project.

Future Research

It is anticipated that, with an improved schedule and strengthened methods and data collection, this small pilot study can be replicated and expanded to include more than 100 students. While only graduate students were surveyed in this pilot study due to their class schedule, undergraduate students will be included in the future. Including both types of students will allow researchers to compare and contrast their views on SLAs. Additionally, the clinical and cultural competence of those participating in an SLA could be measured against those who did not participate. Indeed, there are many areas within this study concept for further exploration of how service-learning affects the many aspects of student learning.

Conclusion

This SON-CSA collaboration was a true working partnership that resulted in an SLA that benefited students, faculty, CSA staff, children and families, and the communities involved. This collaboration also can serve as an important link to care for underserved children and families. Plans are underway for replication and expansion of this study and the health fairs in spring/summer 2022

References

Aplin-Snider, C. & Vossos, H. (2022). Insights on the development of a service-learning course: The people of Appalachia and what nurse practitioner students and faculty learned along the journey. *Journal of service-learning in Higher Education 14*(1). https://journals.sfu.ca/jslhe/index.php/jslhe/article/view/335

Bachelder, A., Bassette, A., Bryant-Moore, K., Hayman, K., Rainey, L., & Williams, C. (2018). Use of service learning to increase master's-level nursing students' understanding of social determinants of health and health disparities. *Journal of Transcultural Nursing*, *29*(5), 473-479. https://doi.org/10.1177/1043659617753043

Batchelder, A., Buckley, M., Cohen, Z., Coy, A., Gresh, A., Greensfelder, A., Jacques, K., LaFave, S., Mermer, J., Thamiselvan, V., & Warren, N. (2020). Service learning in public health nursing education: How COVID-19 accelerated community-academic partnership. *Public Health Nursing*,*38*(2), 248-257. https://doi.org/10.1111/phn.12796

Beebe, L. H., Elliott, L. M., Whitaker, H., & Gladson, C. (2021). Our own words: Baccalaureate Nursing Students Describe Academic service-learning Experiences. *SAGE Open Nursing*. https://doi.org/10.1177/23779608211010960

Bryant-Moore, K., Bachelder, A., Rainey, L., Hayman, K., Bessette, A., & Williams, C. (2018). Use of service-learning to increase master's-level nursing students' understanding of social determinants of health and health disparities. *Journal of Transcultural Nursing, 29*(5), 473–479. https://doi.org/10.1177/1043659617753043

Bryant, K., Matthews, E., & DeClerk, L. (2017). Integration of service-learning into a doctoral-level qualitative research methodology course. *Nurse Educator, 42*(6), 299–302. https://doi.org/10.1097/NNE.0000000000000387

Copeland, D. J., Johnson, P., & Moore, B. (2021). Effects of a service-learning experience on health-related students' attitudes toward the homeless. *Nursing Forum, 56*(1), 45–51. https://doi.org/10.1111/nuf.12510

Dyches, C., Haynes-Ferere, A., & Haynes, T. (2019). Fostering cultural competence in nursing students through international service immersion experiences. *Journal of Christian Nursing, 36*(2), E29–E35. https://doi.org/10.1097/CNJ.0000000000000602

Elliott, L., Galdson, Humphrey Beebe, L., C., & Whitaker, H. (2021). In our own words: Baccalaureate nursing students describe academic service-learning experiences. *Sage Open Nursing*, *7*, 1-8. https://doi.org/10.1177/23779608211010960

Ferrillo, H. (2020). Measuring professional nursing value development in students participating in international service learning: A quasi-experimental study. *Nurse Education Today, 84*, 104221. https://doi.org/10.1016/j.nedt.2019.104221

Gosse, N. L., & Katic-Duffy, A. (2020). Nursing student and faculty perceptions of reciprocity during international clinical learning experiences: A qualitative descriptive study. *Nurse Education Today, 84*, 104242. https://doi.org/10.1016/j.nedt.2019.104242

Gresh, A., LaFave, S., Thamilselvan, V., … (2020). Service-learning in public health nursing education: How COVID-19 accelerated community-academic partnership. *Public Health Nursing (Boston, Mass.), 2021*(38), 247–256. https://doi.org/10.1111/phn.12796

Hawkins, M. D. (2019). Barriers to preceptor placement for nurse practitioner students. *Journal of Christian Nursing, 36*(1), 48–53. https://doi.org/10.1097/CNJ.0000000000000519

Health resources & Services Administration (2021). Data.hrsa.gov/geo. Accessed 18 December 2021. data.hrsa.gov/geo (HPSA info)

Herrmann, A. D. (2020). Service-learning and professional values development of baccalaureate nursing students. *Nursing Education Perspectives, 41*(5), E47–E49. https://doi.org/10.1097/01.NEP.0000000000000484

Huffmaster T. M., & Smith, R. (2017). Building community engagement: Incorporation of service-learning in a nursing curriculum. *Nurse Education Today*, *52*, 63–65. https://doi.org/10.1016/j.nedt.2017.01.013

Kayser, C. (2017). Cultivating community-responsive future healthcare professionals: Using service-learning in pre-health humanities education. *The Journal of Medical Humanities, 38*(4), 385–395. https://doi.org/10.1007/s10912-017-9456-2

Northeast Michigan Community Service Agency (NEMSCA). (2019). *Community Needs Assessment*. https://www.nemcsa.org/userfiles/filemanager/p7dsx2s7fiq8pgt0bgai/

Petiprin, A., (2020) Culture care theory. Nursing-Theory.org. https://nursing-theory.org/theories-and-models/leininger-culture-care-theory.php

Sandberg, M. T. (2018). Nursing Faculty Perceptions of Service-Learning: An Integrative Review. *The Journal of Nursing Education, 57*(10), 584–589. https://doi.org/10.3928/01484834-20180921-03

Sheikh, K. R. (2014). Expanding Clinical Models of Nurse Practitioner Education: Service Learning as a Curricular Strategy. *The Journal for Nurse Practitioners, 10*(5), 352–355. https://doi.org/10.1016/j.nurpra.2014.03.009

Smith, B. D., Marshall, I., Jr., Anderson, B. E., & Daniels, K. K. (2017). A partnership forged: BSW students and service learning at a historically Black college and university (HBCU) serving urban communities. *Journal of Human Behavior in the Social Environment, 27*(5), 438–449. https://doi.org/10.1080/10911359.2017.1295005

Spencer, J. A. (2021). Integrating service learning into the RN to BSN curriculum with the application of QSEN competencies. *Journal of Professional Nursing, 37*(6), 1044–1048. https://doi.org/10.1016/j.profnurs.2021.08.007

Voss, H. C. (2016). Preceptors' experience of nursing service-learning projects. *The Journal of Nursing Education, 55*(3), 150–154. https://doi.org/10.3928/01484834-20160216-05

About the authors:

Christina Aplin-Snider is an Associate Professor in the School of Nursing at the University of Michigan-Flint. sniderch@umich.edu

Lyn Behnke is an Assistant Professor of Nursing in the School of Nursing at the University of Michigan-Flint.

Elizabeth Fulks is a Clinical Instructor in the School of Nursing at the University of Michigan-Flint

Acknowledgements: we would like to acknowledge our practice partner for this service-learning project, Northeastern Michigan Community Service Agency (NEMSCA). They were phenomenal to work with during this project and our partnership endures as we plan to continue to collaborate and facilitate more annual health fairs to meet some of the healthcare needs of the underserved families of this area of Michigan.

Christina would also like to acknowledge her late father Carl Lee Kidder who was her first editor and inspiration for all of her writing from the time she was a small child.