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The Integration of Long-Term Care and Personal Support Worker Education: Evaluation of a Living Classroom Experience

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ABSTRACT

The shortage of Personal Support Workers (PSW) to meet the needs of residents in long-term care (LTC) homes have been well documented, and the issue has been made more acute in the context of the global COVID-19 pandemic. The living classroom (LC) has been implemented as one approach to addressing the need to train PSWs and attract them to the sector. A mixed-methods program evaluation of a LC program was undertaken. Surveys were carried out with students during and at the end of the program. Focus groups and individual interviews were carried out with staff, residents, and students. Program implementation was successful, and several program graduates were employed in the LTC home upon graduation. Key stakeholders were satisfied with the program, and students had improved attitudes toward the LTC sector. Opportunities for improvement were noted and addressed. The LC model is an approach that can be used by LTC homes and their educational partners to deliver high-quality, integrated PSW programs. It can be used to help address the serious staffing shortages in the LTC sector.

KEYWORDS: Long-term care; personal support worker; education program; program evaluation.

KEY PRACTITIONER MESSAGE

1. The Living Classroom model is an interprofessional learning approach that can be used by Long-Term Care Homes and their academic partners to address serious staff shortages in the long-term care sector, and improve the quality of the program delivery.
2. While being immersed in the long-term care environment, student attitudes changed and learners were able to see the rewards of working in long-term care (LTC). Graduates may be more likely to choose to work in LTC.
3. Collaboration and strong partnerships between all stakeholders are critical to success.

INTRODUCTION

The ongoing COVID-19 pandemic has had a tremendous impact on older adults living in Long-Term Care (LTC) Homes. Data from May 2020 illustrates that, in Canada, 85% of COVID-19 deaths were attributed to LTC Residents (Hsu et al., 2020). The impact of the pandemic brings up many considerations for staffing in LTC Homes as we move towards recovery from COVID-19. It is well known that changes in demographic trends, life expectancy, and prevalence of complex chronic conditions and comorbidities among older adults are contributing to an increase in the demand for LTC services in Canada. Authors of a report by the Ontario Long-term Care Association (OLTCA) indicate that among those living in LTC with dementia, 90% had some form of cognitive impairment, 86% needed support with activities of daily living, 80% experienced neurological disorders, 76% suffered from cardiovascular diseases, and 62% from musculoskeletal diseases (OLTCA, 2019).

In Ontario, Personal Support Workers (PSWs) (known in North America as nursing assistants), comprise 72.3% of all front-line staff working in LTC (OLTCA, 2014). They are the health care team members spending the most time with residents. The COVID-19 pandemic has placed significant demands on healthcare teams in LTC. The sector had staffing shortages before the pandemic was declared in 2020; however, with many provincial health offices issuing directives focused on restricting staff including PSWs to working at only one site, the problem has been magnified (Duan et al., 2020).

While the demand for LTC services is increasing, the availability of PSWs is not meeting requirements. In a survey conducted by the OLTCA (2019), respondents reported: "difficulty filling shifts and 90% experienced challenges recruiting staff. Of these positions, PSWs were the hardest positions to fill..." (p. 8). A critical PSW staffing shortage was identified as a key issue affecting the sector in eight round tables attended by over 350 LTC home stakeholders (Ontario Health Coalition by Unifor, 2019). Stakeholders attributed the shortage to the working conditions of the occupation and declining enrollment in PSW training programs.

Given that most PSWs work in LTC, it would seem advisable to enhance PSW training by offering expanded placements in LTC environments where they are immersed in that context. One way of addressing this challenge is the Living Classroom (LC) model (Boscart et al., 2017). Conceived as a collaboration between a post-secondary institution and a LTC home (Garbutt et al., 2019), the LC is defined as "...an interprofessional educational approach whereby a PSW program is delivered within the context of a LTC home, with the teaching consisting of faculty, students, LTC teams, residents and families, who engage with each other within a culture of interactive learning" (p. 3). Our change theory posits that the LC is a training modality for educating PSWs resulting in program graduates who would be more familiar with the LTC setting and thus more likely to choose it as their place of work. The LC can help to ameliorate the shortage of PSWs since the LTC home hosting the classroom can more readily recruit its graduates. A salient trait of the LC is that it provides strong gerontological content that can be readily assimilated and practiced, by providing students the opportunity to experience real-life, workplace experiences.

The Living Classroom

Algonquin College (AC) is a Community College in Ottawa, Ontario, Canada. It has a wide range of entry-level health care programs, including a PSW program. The PSW program conforms to Ministry of Colleges and University standards. The Perley Rideau Veterans' Health Centre (Perley Rideau) is a bustling community campus with 450 LTC beds, a 12-bed Guest House providing respite care, and a Senior Village with 139 independent-living apartments. The two organizations began talks to join to develop a LC model, recognizing the potential benefits for program graduates as well as the LTC sector. The program was modeled from the LC described by Boscart and colleagues (Boscart et al., 2017, 2019, 2020).

A steering committee was established with decision-makers from both partners. This committee developed a work plan and documents to make the LC a reality, including a memorandum of understanding, a membership agreement, a "space use" agreement, and a communication plan Additionally, a working committee was established to determine the key processes required for a successful program. Such tasks included: engagement of residents, families, and staff on the affected units; determining the layout, materials, and equipment required for the learning space; developing a budget; obtaining relevant approvals for the renovation of the space; and designing enhanced learning opportunities within an LC delivery model. The working group met monthly and was able to identify a space that would be suitable. Space on a clinical unit was adapted to accommodate the classroom, laboratory, storage, and student locker space. All provincial regulations

were followed to ensure safety, for example, the classroom remained a locked space when not in use.

The existing PSW program curriculum was adopted wholly in the LC classroom. The class schedule was altered to reflect having a dedicated classroom and to take advantage of the clinical units for both lab and clinical practice. Students had an on-site orientation session that included an overview of the PSW program and the LC experience. Students were also provided with an orientation and campus tour at the college main campus.

Mentorship training sessions were offered to the PSWs who would be supporting students on the clinical units. The goals of the mentorship training were to provide an overview of the PSW LC program, including an explanation of the courses and associated learning objectives, and the important role of the PSW mentor. Documentation of student performance and approaches to providing constructive feedback to learners were also reviewed.

A program evaluation was carried out, focusing on the first cohort of students to complete the program. The objectives of the evaluation were to 1) describe the experience of key stakeholders of the LC program; 2) describe students' attitudes related to LTC and care of the older adults, and 3) describe the challenges and successes of the LC program.

METHODS

A mixed-methods program evaluation was carried out (Palinkas, et al., 2011) using surveys, focus groups, and individual interviews conducted with students, staff, and residents across the timeframe of program implementation and completion. The purpose of selecting this methodology was to leverage the complementary aspects of qualitative and quantitative data. The quantitative perspective was an important component of the program evaluation to measure the effectiveness of the LC concept while the qualitative methods describe both the opportunities for improvement and strengths in the LC processes from the perspective of the stakeholders (Palinkas, et al., 2011). Quantitative and qualitative data were merged to address the evaluation objectives (Creswell & Plano Clark, 2010; Palinkas et al., 2011). Research ethics approval was obtained through the AC Research Ethics Board prior to data collection. Students were approached to participate in the evaluation by email and in-class announcements from the LC program coordinator. Perley Rideau residents were recruited through the Family and Friends Council and clinical staff. Staff participants were approached by the PSW supervisor, other staff, and the research coordinator.

Focus groups and interviews were transcribed verbatim, and the transcripts were reviewed for accuracy. All interviews were read through, then coded to sort and organize the data, taking note of illustrative quotes. The analysis involved the triangulation of all data gathered: surveys, focus groups, individual interviews, documents, and process information from LC staff. To facilitate the comparison of the data across all sources, a matrix was created. VF, JP, and MC conducted the initial coding, which was iteratively reviewed by other members of the evaluation team.

RESULTS

Table-1 provides the intake and graduation data for the first cohort of the program. Of note, students who were not successful in courses during the second semester at the main campus the site was able to join the LC program to repeat their required courses. The following themes were identified: 1) the physical environment and its impact on the students' experience; 2) student attitudes toward LTC; 3) communication and staff engagement, and 4) the learning experience.

Table-1. Intake and graduation rates LC program

Intake and Graduation Students	N
Original registration	21
LC students continuing to 2nd semester	16
Students joining 2nd semester in LC program	7
Number of graduates from the original cohort	13
Total number of graduates	19
Students hired by the Perley Rideau	6

Note: N = Frequency

The Physical Environment and Services

The results of the survey (n = 12) conducted at the end of the first semester are reflected in Table-2. Additionally, students shared in focus groups that they appreciated the warm learning environment and interaction with residents.

> *I think it's great and it's nice to have that interaction with the residents, as well. Because sometimes they'll [residents] knock on the door and they'll just want to cut through. So, I think it's very, very positive.* --- Student

> *I like the smaller classroom. I think it's more intimate, we can talk to each other and the teacher can actually associate with us and get our opinions on everything and with a big classroom it's a lot harder. So, I find that we like having it better teaching here. I find I've been doing better with the smaller classroom than a bigger one.* --- Student

Table-2. Views on availability and quality of services for LC program students at the Perley Rideau site (averages)

Type of Service Provided	M
Locker room is accessible	5.00
I have access to the cafeteria	4.83
The classroom /lab is a good place to learn	4.67
Locker room is adequate for my needs	4.36
I have access to study areas	4.08
I have access to the internet	3.75
I have access to a working printer	3.42

Note: M = Average score. M ranges from 1 (never) to 5 (always)

To make the classroom more inviting, the artists, students, and residents worked together in an interprofessional art activity (Figure 1).

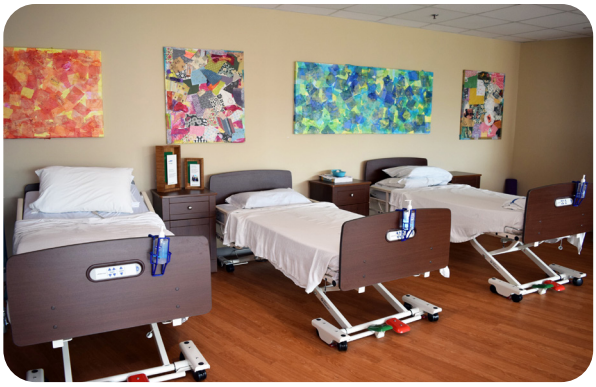

Figure 1. Lab space - artwork created by residents and students

The Perley Rideau artists and students shared insights related to the interprofessional activity that in turn improved the learning space:

> *So, we used a lot of large canvasses and filled the spaces and the walls quite well, and I think when we put those up, it added a lot more warmth and also made the classroom environment match the environment outside the classroom where there's lots of art on the walls and it was more integrated. ...But when we did that, it made the classroom integrate more with the hallways and the residential areas just outside the door of the classroom.* --- Art Instructor

> *I like the artwork that we just added recently, and the warm colors of the walls, like the lighting and the color of the walls and the wooden floors, actually create a warm feeling.* --- Student

The students also identified some areas that they would recommend improving such as more access to power outlets, the internet, and cafeteria services. Although students and staff identified positive interactions with residents, they were mindful that learning and studying were occurring in the resident's home. In the first year of the program, lack of access to the classroom created some challenges related to students waiting for their instructor. One of the nurses on the unit shared this concern:

> *At the very end of the hallway, there is a quiet spot there. Again, residents like to sit in the sun, read their books, and visit. Students will go down there, and they'll take over the chairs.... So, yes, the classroom was built on a unit, but I find it interferes with the quality of life of the residents.* --- Nurse

Students also shared their feelings related to this issue of restricted space and classroom access:

> *Sometimes there's, like, 10 of us in the hall and we feel in the way. I feel so bad that we're blocking the way because sometimes the residents have to squeeze by in their wheelchairs and we have to go over against the wall.* --- Student

These issues were all addressed by LC program staff at the end of the first semester.

Student Attitudes Toward LTC

Evolving views of LTC

During the interviews and focus groups, participants shared their attitudes towards LTC. One advantage of the LC approach was how it challenged the attitudes of PSW students towards LTC and older people living in the sector. Many students came into the program with preconceived ideas about LTC and residents in the home. Some of these attitudes included concerns they had seen or heard about in the media.

> *I was worried about elderly abuse before I came to long-term care.* --- Student

Before joining the program, many students felt the residents' quality of life would be poor and that there would be limited means to provide holistic care for them.

> *I thought it would be depressing. That I would go*

> *there, and the residents would be in their chairs staring at the wall and looking miserable.* --- Student

Since undertaking the program, many participants described how their attitudes had changed. There was a greater acknowledgment of the PSW role and its importance in the LTC home, including how the PSW can make a difference and help the resident to maintain a level of independence.

> *This role is about helping people to still have their independence. And I like it.* --- Student

Staff recognized how the students were able to make meaningful connections with the residents. Not only did they have the opportunity for increased exposure to residents with cognitive challenges, such as dementia, but they were able to make inter-generational relationships that were valued by students and residents.

> *We were strangers to them, but as the weeks progressed, I found that my residents just got more comfortable with me and more willing to participate and let me do what I had to do, and almost happy to see you in the morning.* --- Student

Despite the low response rate to the end-of-program survey, 87% or six out of 7 students of the LC program were more likely to work in LTC compared to those taking the program at the main campus (76% or 10/13). Some students expressed that completing their program in LTC validated that this was the type of career they wanted to pursue.

> *I want to help the residents, but I also want to help their families when they're dealing with a loved one who has dementia, Alzheimer's, I want to help them process.* --- Student

> *Here, they have so many activities for everyone, which is really nice to see the residents involved in everything.* --- Student

Challenges of the LTC setting

Despite positive experiences, students also shared their views related to the staffing model in LTC and indicated this would negatively influence their decision to work in the setting.

> *It's not enough (staffing). We meet the physical needs and everything, but I find sometimes we don't meet all the emotional needs. Student I mean, I enjoyed my placements and the consolidation but seeing how much is put on these PSWs, I don't know if I could do it. It changed my mind about working in [LTC].* --- Student

Interprofessional team member perspectives

Interprofessional team members articulated that students in the LC program were warm and open to learning. During an interprofessional learning activity, the staff, residents, and students reflected on long-term care and the role of the PSW. Residents shared with the group the value that the PSWs brought to their lives, and a participating staff member remarked that:

> *I thought they were great, a great group. And I found the more encouraging words they heard and the more honoring words they heard about how great they were here, how important their mission was, and how much the residents were appreciating them, [the more they] seem to increase because you give them space [to grow]...* --- Art Instructor

Communication and Staff Engagement

Prior to the start of the program, many communication and outreach activities were undertaken. These activities are included in Table-3. Some staff focus group participants recalled communication approaches used prior to the start of the program.

Table-3. Communications activities prior to LC program launch

Internal	External
Perley Rideau town halls	External activities
- Before construction, informed Perley Rideau community LC plans	- Student recruitment activities by AC i.e.: social media communications
After program launch	- Radio interview with representatives from the College and the Perley Rideau
- Meetings with residents and staff of the participating home areas	- Perley Rideau newsletter shared via social media
- Mentorship education	- Press releases from both AC and Perley Rideau ·
- Newsletter articles	- Presentations at local and provincial senior's care organization meetings
- Presentation to Friends and Family council/Resident council	
- Regular, just in time communication with people involved in elements of training (based on specific learning activities that would affect different departments i.e.: labs in seniors housing)	

> *Well, I was aware of it [LC program] through workplace notification, messages from the CEO...* --- Art Instructor

> *It was [discussed] at town halls, so I knew that that was coming.* --- Nurse

Despite the best efforts of program leadership, there were gaps in communication identified by some focus group participants. Nursing staff and residents felt that the new program was a "fait accompli" prior to them finding out about it.

> *We were basically told what was going to happen same time as the residents, and that we would lose that room. We were blind going into it. Management knew exactly what was happening. We don't know when classes are in session. We don't know which days they're in. Imagine that classroom is there, but we're closed off to it.* --- Nurse

> *It was just by the grapevine, I think, for the most part. What I mean by that is just somebody in our dining room learned this, I don't know how, and then passed the word on to the rest of us.* --- Resident

When developing the program, a consultation meeting was held with PSWs working on the resident home area. Feedback from the PSWs at that time resulted in the creation of the mentorship training program. One focus group participant indicated that as part of that meeting:

> *They just talked to us about the students coming, they will be sending them to the floor for training, etc. All [Resident Home Area Name] PSWs were there...it was just an information session, and we were encouraged to voice any concerns.* --- PSW

Prior to the start of the program, mentorship training was offered to the PSWs that would be working with the students day-to-day on the floor. Thirty PSWs out of a possible 42 participated. An overall student schedule was posted in the home area, and PSW mentors were provided with skills checklists. While mentorship training was well attended and different communications channels were used (Table-3), none of the PSWs that participated in the evaluation focus group had been at the mentorship training sessions. Focus group feedback underlines that more communication is always better throughout the LC program and ensures that those who are selected to be mentors are supported in their roles.

> *Maybe if it's communicated to us before, like, "Okay, we have some students coming on. We just wanted to concentrate on bed making." Then we could tell them the best time to come.* --- PSW

The Learning Experience

Theory classes were delivered in a classroom that was designed as a flexible learning space, with desks that could be re-configured depending on the class activity, four beds, and associated equipment and supplies to practice lab skills. For lab practice, students were able to take advantage of the resident home areas and resident care needs to practice psychomotor skills. For example, if students were learning bed-making, they would spend a brief time in the classroom/lab practicing the skill then moved to the home area to make residents' beds. Curriculum adaptations were made based on the setting (for example, students learned skills for home care in the Senior's Village, rather than in a simulated apartment). Students were supervised in the home areas by PSW mentors. Feedback on the learning experiences spanned the activities that were part of the classroom and outside of the classroom. The integration of the two areas was also described, with an emphasis on the realization that the LC was truly more than just a classroom.

Classroom experience

The small class size was a definite advantage communicated by students, and they had positive feedback about the educators that taught in the classroom and lab.

> *I just think it's a great learning environment. I like the fact that it's a smaller class. It's more intimate, and I mean, the teachers are great and the Perley's a wonderful organization and a great place to learn.* --- Student

> *I would recommend it for returning students, like myself. Because I am a mature student who does have a family, this program and the schedule really suited my needs. I like that we were, I think, at most 16 people and our professors knew us by name, and I just found it—we were more like a family..* --- Student (who had started the program at the main campus)

Students had mixed opinions of one in-class activity where residents would come to the classroom to share their experience with a health problem or life situation. They were concerned that the time that the resident was in class was taking time away from

"teaching" a challenging subject matter (Anatomy and Physiology).

> *Some of them [guest speakers] were great. Some—it didn't really apply to our studies. They should have come in on an easier class where taking that time away wouldn't really affect us because it's a complex course.* --- Student

Along with integrating residents in classroom activities, interprofessional team members were included as part of classroom education. For example, the Psychogeriatric Nurse and PSW presented to the students:

> *We went and we co-presented on the symptoms of dementia. We talked about dementia, delirium, and depression. So, to provide them with education. The instructor was great. The students were great.* --- Psychogeriatric Nurse

Experiences outside the classroom

Overall, the students highly valued and enjoyed their experiences on the resident home areas, both for their lab practice that took place on the floors, as well as their clinical placements that are an integral part of the program. Students valued the input and support from PSWs and other team members and felt well prepared for their clinical placements and their eventual roles as PSWs.

> *I was lucky and I got two very, very good PSWs, which made it enjoyable to come every day. So that was nice.* --- Student

> *I thought the nurses that were on the floor that we were on for our clinical, they were awesome. They were helpful.* --- Student

> *They [physio] also had students the same time that we were on clinical and I found on my floor, at least, their mentors, the students that were with physio, they were all super nice and my PSW and them actually got together and sat us all down and explained how we're both students but for different things.* --- Student

> *It taught me how to do it and then the clinical and the preceptorship taught you how to actually use it in the real world. So, I found the experience invaluable, and I feel comfortable taking on the role as PSW because of the training that I received.* --- Student

Some of the students related negative experiences with the PSWs that supervised them. In turn, some PSWs shared that they felt that the responsibility of supervising students was not always equally shared and that they were not given a choice as to whether they wanted to work with students. In addition, they were not used to having students come to the home area to focus solely on a specific skill.

> *I felt like she [my PSW mentor] didn't want me there. I felt like a nuisance sometimes. Honestly, I was just following her around. She wouldn't let me do this stuff. I just felt unwanted. I enjoyed my clinical. I enjoyed working with the residents. Just I had a bad experience with my PSWs.* --- Student

> *And sometimes we feel like it's the same staff members doing the mentoring. Might like to mix it up a little bit. Give us a little bit of a break.* --- PSW

> *When we had other students before—not this program, from outside—they would come at 7 and they would do everything. They wouldn't come just specifically to do beds, they learn everything. So, it's kind of new for us to just have the coming in students…or them focusing on specific tasks only.* --- PSW

Even with these negative experiences, most PSWs spoke about the efforts they made to teach and model resident-centered care, give constructive feedback to the students, and how they felt responsible for properly training future PSWs who may become their co-workers.

> *But, of course, if I'm training, you want them to learn the correct way, because I always think they're going to come here and work with me, and this is—you show, but you don't talk down, and you don't say [correct] them to mean a negative way.* --- PSW

> *Just share the knowledge that we have…Yeah, to help them to learn…somebody helped me, and I would like to spread this from here to there and make it go on to the other generations…they might end up working with me…* --- PSW

A living classroom is more than a classroom – Integration of classroom and clinical learning

Students spoke to the benefits they experienced from participating in the LC program – notably, how the program was "integrated", those strong connections were made between the activities in the lab and the classroom, and their experiences in the home areas.

> *I should also mention that it's integrated. So, we*

> *learned our skills and then used them right away which I found very helpful. We didn't go through a whole semester and then do our skills because I would have forgotten.* --- Student

> *The clinical [lab] once a week is very advantageous because you learn and then you do it and then you go back to class, and you learn something else. I found that that worked well for me.* --- Student

Participants also discussed how their experience in the LC program was more than a "classroom" or academic experience. Students spoke to the relationships they formed with residents and family members as a valuable part of their learning experience. Residents and other team members spoke to the value of having students present in the home areas.

> *I think we all agree that the students are definitely an asset. They try to be helpful within the limits of what the PSWs will allow.* --- Resident

> *It's just nice to get them when they're just kind of sprouting, when they're learning which is great, and, again, they were engaging, the instructor was great, the classroom was clean. It was vibrant. It was engaging. It was a good experience.* --- Art Instructor

DISCUSSION

The LC is an interprofessional approach to learning with residents and families as the experts in their lived experience. The Algonquin LC at the Perley Rideau Veterans' Health Centre created an effective environment to learn about and care for older adults. Students described their satisfaction with the program, in particular, the small class size and the immersion in the clinical setting, which in turn helped improve their overall experience. This was described as an advantage of the LC approach (Boscart et al., 2017, 2020). Despite reporting some negative attributes of the LTC setting, such as staffing challenges and heavy workload, PSW students of the LC were more likely to work in LTC, which is consistent with findings from Boscart and colleagues (Boscart et al., 2020).

Students, staff, and residents described the benefits of participating in a LC program, notably how the program was "integrated" and those strong connections were made between the activities in the lab and the experiences on the clinical unit, the resident home area. Transfer of knowledge from the textbook and classroom to practical application allowed the students to practice a person-centered approach for residents with complex care needs. Feedback from the first intake of LC students was used to improve how residents and families shared relevant lived experiences aligned with the students' learning objectives. As described by Boscart et al. (2017), maximizing the experiential learning as opposed to keeping theory and practice separated is critical to developing PSWs who will support quality care in LTC.

Given that the LC was built from a re-purposed space, the physical environment was important to assess during this evaluation. While seen as an overall asset to their learning experience, there was also the tension between the typical College student experience and needing to be respectful and mindful of the residents' living space. While the physical environment was not mentioned by participants in the program evaluation by Boscart et al. (2020), physical space is an important consideration for the LC model (Boscart, 2019).

Overall, the staff and residents had positive experiences with PSW students integrated into resident home areas at the LTC home. While for some staff, it was a challenge adjusting to the integrated model, others reported that the students brought positive energy that was an asset to the home. Staff members highlighted the need for improved communication between the organization, faculty, and the staff who would work with students. Having a single point of contact at the point of care (the PSW supervisor) supported the integration of the students within the team. Staff also highlighted the importance of mentorship training for PSW mentors. These are important considerations to facilitate a model that supports successful teaching, mentorship, and building successful relationships. In the LC evaluation conducted by Boscart and colleagues (2020), staff discussed the benefits of having PSW students integrated into the care in the home areas and that it would have been helpful to have a better understanding of the students' background to better support them in their learning.

Importantly, students described that their attitudes related to LTC also changed. Students spoke of an appreciation of the rewards of working in LTC and being able to have a positive impact on the lives of residents. Improvements in students' attitudes/perceptions toward LTC settings and residents were reported in the evaluation of the LC model by Boscart and colleagues (2020). Parallels can also

be made with the experience of entry-level nursing students. In a review of the literature focusing on nursing students' perceptions of working in aged care settings, Algoso and colleagues concluded that "clinical experiences in the aged care settings can encourage compassionate care..." (Algoso et al., 2016, p. 278). Swanlund and Kujath (2012) attributed improvements in nursing students' attitudes toward older adults and the choice to work with older adults to experiences in the clinical setting.

LIMITATIONS

While this study provides useful insights for education and health care professionals considering the creation of a LC, there were real-life circumstances posing limits to the significance of our findings. Although similar LC programs exist, the dearth of published evaluations means that there is not a body of literature to contextualize and compare our findings.

From a methodological perspective, including administrators and faculty among evaluation participants would have led to a more robust evaluation effort. We recognize the validity of all participants' points of view and are cognizant that they are embedded in the way they experience their reality. At the same time, had we included a wider variety of stakeholders' perspectives, we would have obtained a richer picture of the LC program implementation.

Despite our best efforts, a key group of study participants, PSWs who participated in the mentorship training sessions and guided students in the home areas, were not properly identified and recruited for participation in the focus groups. This resulted in interviewing PSWs that collaborated in a variety of students' placements experiences, but who did not participate directly in the formal mentorship orientation and tasks. Finally, our sample size for surveys and focus groups is small.

CONCLUSION

The LC model promotes interprofessional learning with hands-on experience in the long-term care setting. Effective communication with all stakeholders ad a strong partnership between the academic institution and LTC home is essential in the development of a successful LC. Measuring success via the implementation of an ongoing evaluation framework to further understand the impact of the LC will be a priority for this team going forward. While being immersed in the environment, the integrated program allows students to determine whether the LTC setting is their career destination of choice. This program evaluation illustrates that attitudes related to LTC changed during the student experience as students were able to see the rewards of working in LTC and have a positive impact on the lives of residents. Additionally, graduates from the LC were more likely to work in LTC making the LC model a successful workforce and recruitment strategy. Although the health human resources challenges facing LTC are complex and there is no one solution, the LC model is a promising option for homes seeking to support the ongoing development of Personal Support Workers prepared to care for the frail elderly in LTC.

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The Effects of Musical Therapy on Parkinson's Patients

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ABSTRACT

Parkinson's disease is a progressive neurodegenerative disorder that affects motor skills and mobility. Despite the studies conducted to find the treatment of this disease continues, there is no definite treatment yet. Besides the treatment to control and slow down the disease, patients also need the support of different methods and psychosocial interventions. Music therapy, as one of these supportive interventions, has been found to have positive effects supported by current studies. Positive improvements are achieved in the general well-being of the patients with effects such as rhythm follow-up by active or receptive methods, affect and socialization created by the authorities. There are many studies in which music and rhythmic sounds are used to prevent loss of balance and, therefore, the risk of falling. Many studies investigating the effects of music therapy for Parkinson's patients have found that it has positive effects on improving the motor skills of patients, preventing balance disorders and the risk of falling, ensuring psychological well-being, and socializing many people with the same problems in studies that apply music therapy as a group. In this study, which compiles the general effects of music therapy in Parkinson's patients, the results of current studies will be shared.

KEYWORDS: Parkinson's Disease; music therapy; aging.

KEY PRACTITIONER MESSAGE

1. Parkinson's disease is a degenerative brain illness that affects several brain areas. To manage and slow down the condition, patients need a combination of treatments and psychological interventions in addition to drugs.
2. When it comes to treating diseases in Anatolian history, the approach of offering support and treatment via music plays a significant part.
3. Music therapy has been shown to benefit Parkinson's disease patients in a variety of ways, including improving motor skills and lowering the risk of falling. Music therapy, when used in a group setting, has been shown to improve psychological well-being and socialize a large number of people who are dealing with similar issues.

INTRODUCTION

Parkinson's is a neurological disease that progresses degeneratively in several parts of the brain. James Parkinson described this disease in 1817 as "shaking palsy," which is characterized by the loss of dopaminergic neurons in the substantia nigra in the upper brain region. While the symptoms are first seen in only one-half of the body, they spread to the whole body in the later period, and in the most advanced stage, the patients completely lose their ability to move (akinesia) (Seyyar, 2015). Although the exact cause of the disease is not known, some risk factors have been identified. Patients may need care due to symptoms such as trembling of hands, arms, legs, jaw, and face, stiffness of the arms, legs, and trunk, slowness of movement, poor balance, and coordination (WHO, 2016). Although there are some current studies, there is currently no definitive treatment for Parkinson's disease. Treatment is applied to slow the disease and increase functional lifespan.

The improvement of the patient's well-being with a multidisciplinary team is very important and constitutes the focus of treatment (Fleisher et al., 2018). In addition to the clinical symptoms, it can be said that the prodromal period of the disease is quite long. However, it is not prioritized because the disease cannot be resolved with clear and definitive treatments and cannot make a meaningful contribution if this stage is noticed. Since there are approximately 6 million variations of Parkinson's disease known in the world and individual preferences, tastes, and emotions are included in this heterogeneity, personalized methods are mandatory in the treatment and management of the disease (Bloem et al., 2020). Besides, it can be said that applications such as music therapy are important both for people who age as a preventative and after the diagnosis of Parkinson's. There are many studies in the literature showing the significant effect of music therapy and music-related practices on Parkinson's disease.

Through a brief review of the evidence, this article intends to contribute to the literature by highlighting the grounds for suggesting music therapy as a conventional and risk-free treatment as a support practice in the management of Parkinson's disease.

Parkinsonism and Parkinson's Disease

Parkinson's disease is a neurodegenerative disease with an increasing incidence nowadays. When the causes of the disease are examined, it can be said that while the effect of genetics is 3–5%, environmental effects are also important triggers. Although there is a monogenic tendency, 90 genetic risk variants can reveal 16–36% of the risk of intergenerational transmission of non-monogenic Parkinson's disease (Bloem et al., 2021). Parkinson's disease's prodromal phase can even begin as early as 20 years of age (or possibly more) from the onset of motor parkinsonism (Heinzel et al., 2019).

In professions with creative content, decreased creativity, sleep difficulties, and other abnormalities have spread during the previous several days. Even if the warning symptoms aren't noticed, it can happen. This situation is seen in many people who are diagnosed with Parkinson's at advancing ages. The process of making the diagnosis is generally based on the clinic. In particular, the presence of bradykinesia with the cardinal signs of resting tremor, rigidity, or both is used to diagnose the disease. However, these problems do not fully explain the disease. Prognostic counseling for non-motor symptoms is critical and provides an accurate description of the subtypes of the disease (Feigin, 2019).

Conditions such as slowing down in movements, stiffness in the muscles, deterioration in posture and balance are called parkinsonism, where similar symptoms are seen but may be caused for different reasons. Since these two tables are very similar to each other, history, imaging methods, and laboratory results can be used to distinguish them. The causes of Parkinsonism can be summarized as follows (Yaman & Ceviz, 2013, pp. 104–105): (1) ***Idiopathic Parkinson's Disease*** is an illness with no recognized cause. (2) ***Parkinson-Plus Syndromes*** relate to substantia nigra losses that are followed by losses in the striatum and other regions of the brain, as well as degenerations as a result of these losses. As a result, certain new symptoms have been noted. (3) "***Secondary Parkinsonism***" can be caused by vascular illnesses of the substantia nigra, tumors, chemical exposure such as carbon monoxide, manganese, and intoxication, normal pressure hydrocephalus, and adverse effects of schizophrenia medicines. (4) ***Parkinsonisms Accompanying Hereditary Neurodegenerative Diseases*** is the type of Parkinson's disease seen in samples like Wilson disease, which begins in early adulthood. Because it's typically curable, it's vital to have a comprehensive diagnosis as soon as possible.

The disease is more common in adults over the age of 60, is more common in men, and affects people

from all socioeconomic groups. Parkinson's disease is believed to affect one out of every 100 adults over the age of 65(Yaman & Ceviz, 2013).

Etiology

The basal ganglia in the middle part of the brain consist of structures that communicate with each other. The basal nucleus consists of five pairs of nuclei located in the white matter, deep in the hemisphere of the brain. These structures are nucleus caudatus, putamen, globus pallidus, substantia nigra, nucleus subthalamic, capsula interna, thalamus, corpus callosum (Poewe, et al., 2017). Three main problems are observed when a disease related to the basal nucleus occurs to use abstract thought to dominate a voluntary movement (Köylü, 2017): involuntary movements, deceleration, and insufficiency in movements although there is no paralysis, disturbances in posture, muscle tone, and gait.

The loss of dopamine receptors seen in Parkinson's disease is associated with widespread degeneration of the substantia nigra. Although the general cause of the disease is unknown in Parkinson's, the known risk factors can be listed as: male gender; advanced age; genetic predisposition; insufficient intake of vitamins and minerals such as B3, B6, zinc, iron; oxidative stress; infections; use of anti-cholesterol and anti-inflammatory drugs; environmental toxicity and pesticide exposure (Gökçe & Boyraz, 2017).

Lifestyle decisions and environmental factors come to mind while considering the cause of Parkinson's disease. In addition, being 60 years of age or older is another important risk factor (Ascherio & Schwarzschild, 2016). This disease is more common in males than females. As with many other neurodegenerative diseases, telomere dysfunction, genomic instability, epigenetic changes, ubiquitin-proteasome, autophagy-lysosomal system, and mitochondrial defects may predict neuron loss (González-Casacuberta et al., 2019). Although the patients have postural instability and gait disorder with a tremor in the foreground, the phenotype of this condition is correlated with the severity of the disease. Clinical subtypes show different phenotypes according to the underlying pathological causes. However, since these phenotypes differ in prognosis and with treatment, this situation has not been given much attention (Jankovic & Tan, 2020).

Symptoms

Parkinson's disease begins insidiously and progresses slowly. Parkinson's disease first appears with nonspecific symptoms. Idiopathic REM sleep behavior disorder, which can increase Parkinsonism-related dementia by 63%, is the leading prodromal symptom that is expected to cause prominent symptoms of Parkinson's in the following periods. This risk is much higher in the older population and those with a history of neurological anomalies. The abundance and variety of prodromal symptoms increase the risk of Parkinson's with prominent symptoms (Darweesh et al., 2018; Fereshtehnejad et al., 2019; Huber et al., 2011).

In the prodromal stage, the process begins with discomfort, exhaustion, numbness, tingling, slowed motions, and tremors at rest, and proceeds with considerable losses. Over time, you may notice a loss of scent, diarrhea, weariness, weakness, and personality changes. Geriatric syndromes such as sleep disturbances and malnutrition might occur as a result of therapy side effects or disease-related problems. Tremors, stiffness, bradykinesia, and gait abnormalities are common motor function deficits (Duncan et al., 2013, p. 200; Kadastik-Eerme et al., 2016, p. 2; LaRocco, 2015). The sickness is followed by many classifications and scales that classify the symptoms. Table-1 summarizes one of these scales, the Hoehn Yahr Scale (Gökçe & Boyraz, 2017).

Table-1. Hoehn-Yahr Scale

Stages	Symptoms
Stage I	Unilateral tremor, rigidity, akinesia, postural instability. Symptoms are mild.
Stage I-II	There is unilateral axial involvement.
Stage II	Bilateral tremor, rigidity, akinesia, decreased facial expressions, swallowing difficulties, axial rigidity (especially in the neck region), forward-bent posture, slow or shuffling gait, general stiffness, postural abnormalities.
Stage III	In addition to the findings in stage II, balance disorder begins to be observed. Even with moderate dysfunction, the patient can perform activities independently.
Stage IV	The patient needs help with some or all of his daily activities. There are severe symptoms and a visible disability.
Stage V	The patient is wheelchair-bound or bed-bound.

Music Therapy Interventions

When the definitions of practices related to music

therapy in the literature are examined, approaches that differ around certain principles are seen. While the definition of music-based interventions covers all the different types of interventions that use music for therapeutic purposes, it is stated that music therapy is music-based interventions applied by a trained music therapist using various elements of music (such as singing, composing, dancing, listening) within a program. Musical medicine, in which music is purely medical, includes a variety of music-based interventions offered by health professionals that have health-promoting goals but do not include the therapeutic relationship and musical interplay that are often characteristic of music therapy. Rhythmic auditory stimulation is a method applied by matching natural rhythmic functions (such as balance and walking) with a certain rhythm (Sihnoven et al., 2017).

These basic distinctions are elaborated for different types of diseases. For example, music-based interventions based on playing rhythm instruments are used to improve motor skills and improve circulation in the upper extremities in patients with a history of stroke. Methods such as singing and mouth rhythm are recommended against aphasia. The type of music therapy that is associated with actively making and participating in music is considered active, and the type based on listening is receptive (Sihnoven et al., 2017; Tümata, 2017).

Music Therapy in Turkish Culture

Music is a cultural phenomenon and has different structures in different parts of the world. At the same time, music is an important element that has been used to improve health from history to the present. Music is applied as a therapy and support method, especially for some diseases that have morally compelling effects (such as mental illnesses, pain complaints, and terminal illnesses). When we look at Anatolian history, the approach of providing support and treatment with music is based on the old group therapy practices in the psychiatric hospitals established in Damascus, Cairo, and Bursa during the Ottoman period, trying to give relief to the souls of the patients with a traditional instrument called the "baksı" of the shamas in Central Asia (Seyyar, 2015). Farabi (870–950) categorizes the impact of maqams on the soul in Table-2 (Tümata, 2017).

Interventions are carried out on a regular basis in this situation. . In 2019, Can and Ylmaz conducted a study in Turkey that looked at scholarly literature related to music therapy. The receptive technique was adopted in the majority of the 121 studies, which were mostly unpublished publications (N = 37) and theses (N = 34). (Can & Yilmaz, 2019). These studies show how music therapy may help people in a variety of settings.

Table-2. Maqams in Turkish Music and Their Effects

Maqam	Effects of Maqam
Rast	It gives people "sefa" (joy, peace).
Rehavi	It gives people "beka" (perseverance, the idea of eternity).
Küçük	It gives "hassasiyet" (sensitivity) to people.
Büzürk	It gives people "havf" (feeling of shyness or avoidance).
Isfahan	It gives people the ability to move and a sense of confidence.
Neva	It gives people a taste and refreshment.
Uşşak	It gives a person "dilhek" to laugh.
Zirgüle	It gives people sleep, which is called "nevm".
Saba	It gives people "şecaat" (courage, strength).
Buselik	It gives strength to people.
Hüseyni	It gives people "sulh" (calmness, comfort).
Hicaz	It gives a person "tevazu" (humility).

Effects of Music Therapy and Music-Related Support in Parkinson's Patients

Loss of dopaminergic neurons and progressive neurodegenerative processes observed in Parkinson's patients may lead to loss of balance. There are many studies in which music and rhythmic sounds are used to prevent loss of balance and, therefore, the risk of falling. In the study conducted by Dalla Bella et al. in 2015, it was found that melodies and metronome sounds played outside rhythmically allowed long-term improvements in motor skills (such as an increase in walking speed and an expansion in stride length). This process, which is closely related to the brain mechanisms in the cerebellum-thalamocortical network, also contributes to issues such as timing and coordination in movements, perception, and performing the simple tasks given within the scope of studies quickly and accurately. Based on the improvements in timing skills, sensorimotor abilities, and perception, it was recommended to recommend music-related support practices to Parkinson's patients (Bella et al., 2015).

Another research on this issue included a dance program as part of music-related support methods. Perreira and her colleagues did a thorough review of 45 randomized controlled studies that investigated music therapy and music-related support activities for Parkinson's patients and included older citizens (Perreira et al., 2018). Some of the research included in the study discovered that music had a substantial influence to walk with and without rhythmic

sound stimulation. When it was explored whether headphones or speakers were more successful in the application of music therapy, it was shown that both applications may have considerable impacts. According to the majority of research, music therapy should be utilized to enhance motor abilities in Parkinson's patients. The results of an intervention trial with one participant between the ages of 40 and 60 who was in Stage II and Stage III of the Hoehn and Yahr Scale were comparable in a recent study by Park and Kim (2021). The results revealed that drumming with rhythmic cueing considerably boosted the experimental group's engine capacity and mobility.

Brown et al. (2010) investigated the performance of Parkinson's patients who walked a ten-meter path with and without music and discovered that music had a significant positive influence (Brown et al., 2010). At the same time, Dotov et al. stated that music has additional benefits such as reducing anxiety, increasing well-being, correcting postural instability, improving cognitive functions, and reducing fatigue (Dotov et al., 2017). On the other hand, Pohl et al. (2020) emphasized that, according to mixed-method studies in which they evaluated group music therapy quantitatively and conducted focus group discussions with the physiotherapists of the group, group music therapy in Parkinson's patients improved both social, psychological, and medical conditions. The group-based music intervention adds value to mood, alertness, and quality of life in patients with Parkinson's disease.

In the example of Turkish culture, however, no study was found in which Turkish music maqams were used in Parkinson's patients, but Çarıkçı et al. found that the oscillation listened to with a metronome made a significant difference in the rhythmic walking abilities of Parkinson's patients. In the intervention study conducted on 26 people, it was found that the music intervention had a positive effect on walking by increasing the walking speed and stride length of the individuals in the intervention group (Çarıkçı et al., 2020).

CONCLUSION

In the case of progressive and incurable health issues, it is possible to state that the disease has an impact on health-related quality of life and self-efficacy. In this case, the goal in this situation should be to maintain and increase the general well-being of patients with therapeutic interventions and programs that will provide biopsychosocial support. In this respect, interventions that have positive effects in different areas are recommended not only for medical treatment and healthy living habits, but also for socialization, protection and development of physical abilities, and psychological well-being.

Music therapy is one of the easiest, most effective, and cost-effective forms of these supportive treatments. Many studies investigating the effects of music therapy for Parkinson's patients have found that it has positive effects on improving the motor skills of patients, preventing balance disorders and the risk of falling, ensuring psychological well-being, and socializing many people with the same problems in studies that apply music therapy as a group. With the training programs structured by the Ministry of Health, music therapy takes its place as a new profession in the field of health. In addition, receptive music therapy can also be applied by periodically listening to melodies structured by different health professionals.

Various research in the field have shown that even singing, counting rhythms, or doing the provided motor skill tasks while accompanied by rhythm may make considerable benefits. In this respect, it can be concluded that the application of music therapy and rhythm studies to Parkinson's patients should be recommended for the patients to have a pleasant time, socialize, develop their motor skills and feel competent.

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Lo, C. L., & Su, Z. Y. (2018). Developing multiple evaluation frameworks in an older adults care informa-tion system project: A case study of aging country. Journal of Aging and Long-Term Care, 1(1), 34-48. doi:10.5505/jaltc.2017.65375.

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Vision and Mission

The major goal of the Journal of Aging and Long-Term Care (JALTC) is to advance the scholarly contri-butions that address the theoretical, clinical and practical issues related to aging and long-term care. The JALTC, while making efforts to create care services for older people at the best quality available that are more humane, that pay special attention to people's dignity, aims from the perspective of the whole aging process- to discuss Social Care Insurance as a human right, to contribute care for older people to be trans-formed into an interdisciplinary field, to integrate care services for older people and gerontological concepts and to create more effective collaboration between them, to enhance the quality of care services for older people and the quality of life of caregivers from medical, psychological and sociological perspectives, to highlight the cultural factors in care for older people, to increase the potential of formal and informal care services, to provide wide and reachable gerontological education and training opportunities for caregivers, families and the older people.

Aims and Scope

"National Association of Social and Applied Gerontology (NASAG)"has recently assumed responsi-bility for the planning and introduction of a new international journal, namely, the Journal of Aging and Long-Term Care (JALTC). With world societies facing rapid increases in their respective older populations, there is a need for new 21st century visions, practices, cultural sensitivities and evidenced-based policies that assist in balancing the tensions between informal and formal longterm care support and services as well as examining topics about aging.

The JALTC is being launched as the official journal of the NASAG. The preceding journal aims to foster new scholarship contributions that address theoretical, clinical and practical issues related to aging and long-term care. It is intended that the JALTC will be the first and foremost a multidisciplinary and interdis-ciplinary journal seeking to use research to build quality-based public policies for long-term health care for older people.

It is accepted that aging and long-term care is open to a diverse range of interpretations which in turn cre-ates a differential set of implications for research, policy, and practice. As a consequence, the focus of the journal will be to include the full gamut of health, family, and social services that are available in the home and the wider community to assist those older people who have or are losing the capacity to fully care for themselves. The adoption of a broader view of aging and long term care allows for a continuum of care support and service systems that include home base family and nursing care, respite day care centers, hospital and hospice care, residential care, and rehabilitation services. It is also crucial to be aware that life circumstances can change suddenly and dramatically resulting in the need for transitional care arrange ments requiring responsive, available, accessible, affordable and flexible health care service provision.

For further assistance and more detailed information about the JALTC and the publishing process, please do not hesitate to contact Editor-in-Chief of the JALTC via sending an e-mail: editor-in-chief@jaltc.net Editor-in-Chief: Emre SENOL-DURAK

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