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Physiotherapy students' attitudes toward working with people with dementia: a cross-sectional survey

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ABSTRACT

Aims: To understand personal, educational and clinical experiences and the attitudes of physiotherapy students towards people with dementia.

Methods: Online survey questionnaire. Physiotherapy students in the last year of a two-year Masters of Physical Therapy (MPT) entry-to-practice degree program (n=59) were surveyed. Descriptive statistics were used to analyze the data.

Results: Fifty-five students participated (93%). The majority of students (n=52/55, 77%) had at least one clinical placement working with people with dementia. Overall, 53% (n=29/55) felt their academic training was sufficient to effectively work with people with dementia. Moreover, 82% (n=45/55) reported their confidence was greatest working with people who could communicate well verbally.

Conclusions: Disease-based knowledge was strong, yet just over half felt their academic training was sufficient to effectively work with people with dementia. The findings support the need for more training, particularly in communication strategies, to support students to effectively work with client with dementia upon graduation.

Keywords: attitudes, dementia, students, survey and questionnaires

INTRODUCTION

Dementia is a set of diseases that result in progressive symptoms of memory loss, difficulty thinking or problem solving and a reduced capability to complete everyday tasks.¹ Globally, 35.6 million people are estimated to be living with dementia and that number is expected to double by 2030.² Importantly, the majority of people with dementia live in the community and will come into contact with healthcare professionals through many care settings.¹ The combination of a growing percentage of adults over the age of 65 years and the increasing prevalence of dementia makes it imperative that healthcare providers have the knowledge, skills and empathy to work with older adults with dementia.

Balance, gait and mobility problems are common and progressive in dementia.^{3,4} Physiotherapists have an integral role to play in the provision of interventions to remediate these problems to improve mobility, independence and to positively impact both the person with dementia and their caregiver's quality of life.⁵⁻⁸ Exposure to working with people with dementia varies with the clinical practice setting, physiotherapists working in skilled nursing facilities have reported a caseload of 43% people with dementia⁹ and inpatient geriatric rehabilitation up to 35%¹⁰.

The provision of competent care to people with dementia has been acknowledged as a global challenge for healthcare providers.¹¹ Lusardi and Wong surveyed a sample of physiotherapists and found the majority had inaccurate information and also lacked knowledge about Alzheimer's disease.¹² Additionally, physiotherapists report increasingly negative attitudes towards working with people with dementia as the disease progresses.⁹ Healthcare professionals have also identified a range of cognitive and behavioural symptoms of dementia that adversely influence therapeutic interventions^{13,14}, importantly a majority of physiotherapists report a lack of skills to work or modify treatment in response to these symptoms.⁹ Importantly, Travers et al.

¹⁵ demonstrated self-confidence and dementia education were important in shaping positive attitudes and care practices towards people with dementia.

Attitudes are the sum of beliefs, past experiences and feelings in regard to a concept, person or object that can influence behaviour.⁹ Negative attitudes, or at the very least non-positive attitudes, toward people with dementia have been found not only in practicing healthcare professionals, but also in medical ¹⁶ and nursing students ¹⁷. Personal, educational and clinical experiences are key areas that influence students' attitudes during their training prior to graduation.^{17,18} That is, positive experiences in these areas lead to more positive attitudes. Non-positive and negative attitudes are influenced by a lack of knowledge of the disease and subsequent lack of confidence in treating, communicating, and managing a person with dementia.¹⁵ Students who are not sufficiently trained may rely on their own experiences, stereotypes and prejudices as a basis for their attitudes.¹⁹ Importantly, a structured intervention program to enhance doctoral physiotherapy students perceived sufficiency of knowledge and skill related to dementia resulted in greater confidence and predicted willingness to work with older adults.²⁰

An understanding of physiotherapy students' perceptions of working with people with dementia and the experiences that inform their attitudes, both outside and within their clinical training, has limited research. As the number of people with dementia increase, physiotherapy students will have direct contact with people with dementia across all clinical settings (e.g., acute care, rehabilitation hospital, and outpatient community settings) during training and will need to be able to work with this patient group upon graduation. By assessing and understanding if students believe they have sufficient education, knowledge and confidence to provide care to people with dementia, we can ensure that training experiences are provided in a meaningful way

and lead to competent practitioners upon graduation. The objectives of this study were: 1) to assess what physiotherapy students think about working with people with dementia, 2) to describe personal, educational and clinical experiences of physiotherapy students towards people with dementia, and 3) to assess physiotherapy students perceptions about the dementia content in their course on reflection of their clinical placements.

METHODS

Study Design

This was a cross-sectional study using a Web-based survey of students in the entry-level Masters of Physical Therapy (MPT) program of the School of Physical Therapy, XXXXX. A modified Dillman approach was used to maximize participation in the study.²¹ There were three recruitment prompts for the study - the initial notification, one week later and then two weeks after the second prompt. The questionnaire was closed 4 weeks after the first recruitment notification. Recruitment for the study occurred between June 1 and 28, 2018. This study was approved by the Health Sciences Research Ethics Boards at the XXXXX. Participation in the survey was voluntary and consent was implied through questionnaire completion.

Participants

Physiotherapy students in the last year of a two-year Masters of Physical Therapy (MPT) entry-to-practice degree program were eligible to participate. At the time of the survey, students had completed all their academic course work and 900 hours in clinical placements. In the academic course work, students had received one 2-hour lecture on “Physiotherapy and the patient with dementia” in the first year of the program covering a basic overview of dementia diseases, prevalence, pathophysiology, pharmacological management, impact on the person and their caregiver, and communication strategies.

Questionnaire Development

Qualtrics® software (Qualtrics, Provo, Utah) was used to develop the web-based survey. The questionnaire items were based on existing literature of attitudes of health-care professionals working with people with dementia and input from content and survey experts. Two physiotherapists and six physiotherapy students evaluated the questionnaire for face and content validity, and readability. The questionnaire was trialed in a cohort of physiotherapy students in the year preceding the one that was surveyed. Minor revisions were made to the wording of items based on their feedback. The average time to complete the survey was 12 minutes.

The final questionnaire consisted of 59 questions covering: 1) experience with people with dementia prior to starting the physiotherapy program (8 items), 2) academic training in the program (7 items), 3) knowledge of dementia using the Knowledge of Dementia Scale by Elvish et al.²² (16 items), 4) confidence in working with people with dementia using the Confidence in Dementia Scale by Elvish et al.²² (9 items), 5) attitudes based on the work by Staples and Killian⁹ (10 items), 6) clinical experience working with people with dementia during program (6 items), and 7) demographics (3 items). (See Appendix 1 for the questionnaire)

The seven questions on academic training were developed for the current study from the work by Connaughton and Gibson.¹⁹ The Knowledge in Dementia²² scale is a 16-item self-report questionnaire. The scale has a maximum score of 16, with higher scores indicating better knowledge. The Knowledge in Dementia Scale has demonstrated good internal consistency and content validity.²² The Confidence in Dementia Scale²² is a 9-item self-report questionnaire on the person's ability to work with a person with dementia in a given scenario. Each item is evaluated on a 5-point Likert scale with 1 indicating "not able" through to 5 indicating "very

able". The Confidence in Dementia Scale has demonstrated good internal consistency and content validity.²²

The nine questions on attitude to rehabilitation potential and outcomes, and belief of how disease severity impacted physiotherapy were derived from the work by Staples and Killian⁹. The questions were modified to be applicable to physiotherapy students from the original paper that evaluated practicing physiotherapists – (Two questions were removed, “Productivity demands limit my ability to treat patients with Alzheimer’s disease/dementia” and “Reimbursement is more restrictive for patients with Alzheimer’s disease/dementia as compared to those without Alzheimer’s disease/dementia”). The first five questions ask for beliefs in dementia using a 5-point Likert scale ranging from strongly agree to strongly disagree. The next questions explored three of the belief statements in more detail as how physiotherapy treatment is impacted by disease severity. Grading of disease severity was defined for respondents in the questionnaire as per Staples and Killian⁹: mild dementia – person having loss of short term memory, decreased judgement, safety concerns, difficulty with mathematical calculations, and an inability to comprehend abstract ideas; moderate dementia – person having difficulty with speech and language, labile personality changes, changes in usual grooming habits, apraxia, urinary incontinency, wandering, hallucinations or paranoia, and depression; severe dementia – person having an inability to perform basic activities of daily living, inability to remember how to walk, use the toilet, eat or swallow, minimal to no communication, immobile, and requires total care.

Analysis

Data from the Qualtrics® software were exported into an Excel (Microsoft Corp, Redmond, Washington) file and then imported into IBM SPSS software (version 25, IBM Corp, Armonk, New York) for statistical analysis. *A priori* it was established that any questionnaires

with less than 80% of survey items completed would be removed from the analysis. Categorical responses were summarized using frequencies and percentages and continuous variables were summarized with means and standard deviations. Responses entered into text boxes were reviewed to identify categories.

RESULTS

There were 59 students eligible to participate and 55 completed the online questionnaire for a response rate of 93%. All completed questionnaires were entered into the data analysis. The average age of the students was 25.3 ± 2.1 years, 66% (n=36/55) female and the highest degree earned prior to starting the physiotherapy program was a baccalaureate degree at 82% (n=45/55).

Exposure to People with Dementia Prior to Starting Physiotherapy Program

A paid or volunteer experience that included working with people with dementia prior to starting the program was reported by 36% (n=20/55) of the students. The most common setting where the students were exposed was 40% (n=8/20) in a nursing home. A little over half of the students (n=11/20, 55%) rated the experience as positive, though 15% (n=3/20) felt neither positive nor negative and 30% (n=6/20) reported the experience as negative. Working with people with dementia was reported as having a positive impact on their view of people with dementia needing access to and provision of rehabilitation in 95% (n=19/20) of students.

Personally knowing a person with dementia was reported by 51% (n=28/55) of students. Interaction between the student and the person with dementia was rated a positive experience by 38% (n=11/28), neither negative nor positive for 47% (n=13/28) and negative by 15% (n=4/28). The majority of students (n=27/28, 96%) indicated that knowing someone with dementia made a positive impact on how they viewed the need for access to and provision of rehabilitation to this patient group.

Academic Training

On reflection of their experiences in clinical placements, 53% (n=29/55) felt the academic training in the program was sufficient to allow them to effectively and empathetically work with people with dementia. Sixty percent of students (n=33/55) identified pharmacological management and communication strategies as insufficient for their needs.

Knowledge of Dementia

The average response on the Knowledge of Dementia scale was 13.9 ± 1.8 , with a range of 8 to 16. (Table 1) Eleven questions were answered correctly by more than 85% of the sample.

Confidence in Working with People with Dementia

Confidence ratings were the highest in situations where the person with dementia was able to communicate verbally. (see Supplementary Table 1) Specifically, 82% (n=45/55) students felt they were able to interact with a person with dementia when the person can communicate well verbally. In contrast, only 31% (n=17/55) felt able to interact with a person with dementia who could not communicate well verbally.

Attitudes for Working with People with Dementia

The majority of students (n=25/55, 46%) expected a diagnosis of dementia would negatively impact functional recovery and 47% (n=26/55) reported they would have lower expectations for a successful rehabilitation outcome. (see Supplementary Table 2) At the same time, 80% (n=44/55) believed people with dementia should not be denied access to rehabilitation. Only 6% (n=3/55) expressed an interest to preferably work with people with dementia and 44% (n=24/55) believed working with people with dementia would lead to stress and burn out for themselves.

The impact of dementia on physiotherapy rehabilitation was nuanced when the severity of dementia was considered. Forty-two percent (n=23/55) believed that moderate and severe disease would negatively impact rehabilitation and 33% (n=18/55) believed only severe disease would affect functional recovery. Seventy-one percent (n=39/55) felt the ability to learn was limited in all disease severities, while 29% (n=16/55) identified only severe disease.

Experience working with people with dementia in clinical placements

The majority of students (n=52/55, 77%) reported working with people with dementia during their clinical placements. Ninety percent (n=47/52) had experiences in the acute care hospital setting and 58% reported occurrence in private clinics (n=30/55). People with dementia comprised on average 12.8±18.9% of the students' caseloads, with a range of 1% to 90%. Sixty-seven percent (n=35/55) noted their clinical preceptors commented and/or acted positively to the people with dementia. Only 12% (n=6/55) students reported the clinical preceptor made negative comments or acted negatively to the clients with dementia.

DISCUSSION

Our study demonstrated that a majority of students had been exposed to people with dementia prior to starting physiotherapy through volunteer experience or by personally knowing someone with dementia. In both cases, the experience had a positive impact on the students' view of people with dementia having access to rehabilitation. Just over three quarters of the students had experience through their clinical placements of working with people with dementia. This finding highlights the importance of clinicians having the skills and abilities, even at the entry to practice level, to be able to work effectively and confidently with people with dementia. There was a strong knowledge base demonstrated, though a wish for a greater repertoire of communication strategies to be able to effectively work with people was highlighted. There was

also strong advocacy among the students to support people with dementia having access to rehabilitation. Importantly, just over half of the respondents felt their training was adequate to work with people with dementia, highlighting there is a need to develop more effective methods for the delivery of information in the areas that students felt were inadequate. This is the first study that the authors are aware of that has explored personal, educational and clinical experiences and the attitudes of physiotherapy students before and during their training towards people with dementia.

The students in our survey demonstrated very positive attitudes and strong advocacy for people with dementia having access to rehabilitation services. The students also displayed a nuanced understanding that disease severity can impact expectations, for example that people with severe disease may have the greatest challenges in making gains in function during rehabilitation compared to people with mild disease. In support of these attitudes is a growing body of literature that people with dementia are able to make functional gains with intensive inpatient geriatric rehabilitation across disease severity.^{23,24} Yet, very few student expressed an interest to preferably work with people with dementia and 44% believed working with people with dementia would lead to stress and burn out of themselves. The students in the sample only received a single 2-hour lecture on physical therapy and the patient with dementia and only a little over half of the student felt that their training was adequate. The work by Lorio et al.²⁰ demonstrated that a 12-hour multimodal training program for physiotherapy students yielded increased confidence and knowledge of working with people with dementia, this provides support for more comprehensive training in the curriculum prior to students going out on clinical placements.

Unlike the results by Lusardi and Wong ¹² that found physiotherapists had inaccurate information about dementia, our sample scored very strongly on the knowledge of dementia questionnaire. The differences in the results possibly reflect changes in the emergence and interest of physiotherapy rehabilitation research in the area of care for people with dementia. Additionally, the high public health profile of dementia has been accompanied with a recommendation for competence of health-care professionals working with this patient population.¹ The current guidelines for curriculum content in Canadian university physical therapy programs have dementia listed as a key indicator condition. Entry to practice physiotherapists are expected to have understanding in etiology, pathophysiological mechanisms, natural history, typical clinical presentation (signs/symptoms, impairments), differential diagnoses, prognosis, current physiotherapy management and basic non-physiotherapy management. The information presented in this paper can be used to help shape the weighting of the content to provide physiotherapy students during their academic training with the focus that has clinical relevance.²⁵

Staples and Killian ⁹ found physiotherapists working in a nursing home setting had increasing negative attitudes to working with people with dementia as the people declined cognitively. Consistent with the research that has identified negative attitudes among physical therapists to working with people with dementia, twelve percent of the students reported their clinical preceptor had made negative comments or acted negatively to clients with dementia. Staples and Killian found the negative attitudes reflected physiotherapists did not feel the education, training and resources were sufficient to maximize outcomes in this patient population. The current study highlights the need for greater education among practicing physical therapists as well as physical therapy students. Communication strategies were an area

in which the students lacked confidence. The use of an interprofessional-based format for the delivery of education to students at the university level for this patient population should be explored. Involving physical and occupational therapy and speech-language pathology students using case studies could be helpful in the case of moderate and severe dementia to assist with developing successful communication strategies.

There are several strengths and limitations that need to be addressed for this study. One limitation is the results come from one class at one university, therefore they are not representative of all physiotherapy students in Canada or students in other countries. We recommend that further research be undertaken across multiple schools in different jurisdictions to understand the experiences of students better. The scale developed by Staples and Killian⁹ on attitude to rehabilitation potential and outcomes, and belief of how disease severity impacted physiotherapy was modified to be applicable to physiotherapy students. The revised set of questions therefore may not possess the same psychometric properties reported for the original set of questions. The Strengths of the study include the high completion rate and our exploration of experiences with people with dementia within and outside of their physiotherapy program. We also included an open-ended question for the students to present in their own words what they had learned from working with people with dementia.

CONCLUSIONS

The majority of students had worked with people with dementia before and during their physiotherapy training, highlighting the prevalence of dementia and the need to understand the attitudes to working with this patient group. Attitudes were generally positive to working with people with dementia and disease-based knowledge was strong. Students reported the greatest confidence in working with people with dementia who had minimal communication deficits.

DISCLOSURE OF INTEREST

The authors report no conflict of interest.

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Table 1. Responses by physiotherapy students on the Knowledge in Dementia Scale²². (n=55)

Question	Agree	Disagree
1. Anger and hostility occur in dementia mostly because the “aggression” part of the brain has been affected.	12 (22%)	43 (78%)
2. Dementia is a general term which refers to a number of different diseases.	54 (98%)	1 (2%)
3. Dementia can be caused by a number of small strokes.	49 (89%)	6 (11%)
4. People with dementia will eventually lose all their ability to communicate.	16 (29%)	39 (71%)
5. People with dementia’s history and background plays a significant part in their behaviour.	45 (82%)	10 (18%)
6. A person with dementia is less likely to receive pain relief than a person without dementia when they are in hospital.	30 (55%)	25 (45%)
7. People with dementia who are verbally aggressive nearly always become physically aggressive.	4 (7%)	51 (93%)
8. When people with dementia walk it is usually aimless.	11 (20%)	42 (80%)
9. Permanent changes to the brain occur in most types of dementia.	49 (89%)	6 (11%)

10. Brain damage is the only factor that is responsible for the way people with dementia behave.	5 (9%)	50 (91%)
11. Physical pain may result in a person with dementia becoming aggressive or withdrawn.	52 (95%)	3 (5%)
12. People who have dementia will usually show the same symptoms.	8 (15%)	47 (85%)
13. Currently, most types of dementia cannot be cured.	55 (100%)	0
14. People with dementia never get depressed.	1 (2%)	54 (98%)
15. My perception of reality may be different from that of a person with dementia.	52 (95%)	3 (5%)
16. It is possible to catch dementia from other people.	3 (5%)	52 (95%)

The questionnaire was scored on an agree/disagree scale (agree responses are given a score of 1 and disagree responses are given a score of 0) for each statement. Items 1, 4, 7, 8, 10, 12, 14, 16 are reversed scored, therefore disagreeing with the statement reflects a correct response. Maximum score is 16, indicating better knowledge.