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Understanding the factors influencing Physiotherapists' attitudes towards working with people living with dementia.

ABSTRACT

Background. Research suggests healthcare professionals feel uncomfortable or inadequately prepared to provide care to people living with dementia. Importantly, research on the attitudes of physiotherapists towards people with dementia is limited. The objective was to assess personal, educational, and clinical experiences on physiotherapists' attitudes towards working with people with dementia.

Materials and Methods. An online survey was completed by registered physiotherapists. Data were collected on their dementia knowledge, confidence, and attitudes. Structural equation modeling (SEM) evaluated the factors associated with attitudes of physiotherapists.

Results. A total of 231 physiotherapists completed the survey. Participants' scores on knowledge of dementia were excellent. Interactions with people with dementia were positive (67.4%) and access to rehabilitation was important (70.4%). However, most respondents reported a lack of confidence and strategies to successfully deal with cognitive (42.5%) or behavioral (58.3%) symptoms. In the SEM, only education ($p=0.048$) was significantly related to attitude. Specifically, more education was related to more positive attitudes.

Conclusions. Scores on knowledge of dementia were high. Yet, most respondents reported reduced confidence from a lack of skills to manage behavioural or cognitive symptoms associated with dementia. More education related to working with people with dementia was significantly related to positive attitudes among physiotherapists.

Keywords: attitudes, dementia, physiotherapy, survey and questionnaires

INTRODUCTION

It is imperative for healthcare providers to have the knowledge, ability, and confidence to work with people living with dementia as globally the numbers of people living with dementia is increasing. Currently, 50 million people are living with dementia and that number is predicted to be 152 million by 2050 (WHO, 2019). Providing optimal care to this large population will pose serious challenges for healthcare providers, especially if they are unprepared. To provide optimal care, it is critical to investigate the factors that influence healthcare professionals' attitudes towards working with people living with dementia. Unfortunately, general attitudes of physical therapist and physical therapy assistants towards working with older adults becomes increasingly negative when older adults have dementia (Staples & Killian, 2012).

Attitudes are a combination of beliefs, past experiences, and feelings regarding a concept, person, or object that influences behaviour (Staples & Killian, 2012). Negative attitudes of healthcare professionals towards people living with dementia can result in low expectations of benefit from therapy and poor clinical outcomes (Staples & Killian, 2012). Existing research examining healthcare professionals' attitudes towards working with people living with dementia has predominantly focused on medical, nursing, and social work cohorts. Among psychology and nursing students, predominantly negative attitudes towards working with people living with dementia have been documented (Kahana et al., 1996). Staples and Killian (Staples & Killian, 2012; Staples & Killian, 2012) found attitudes among physiotherapists and physiotherapist assistants working in skilled nursing homes towards people with dementia were adversely influenced by disease severity. Additionally, the existing delivery of dementia-specific education and training by the institution also had an adverse impact (Staples & Killian, 2012; Staples & Killian, 2012)

Balance, gait, and mobility impairments are common and progressive features in dementia and physiotherapists have an indispensable role to play in providing treatment to remediate these impairments (Suttanon, Hill, Said, & Dodd, 2013; Wittwer, Webster, & Menz, 2010). Importantly, physiotherapy can positively impact both the people living with dementia PLWD and their caregiver's quality of life (Hill et al., 2009; Suttanon, Hill, Said, & Dodd, 2010; Telenius, Engedal, & Bergland, 2015). Yet, some healthcare practitioners believe that people with dementia are unable to improve functionally with rehabilitation interventions (Staples & Killian, 2012). These types of attitudes are contrary to existing literature that supports rehabilitation for people with dementia across settings and disease severity (Burton et al., 2015; Forbes et al., 2008). General beliefs in the efficacy of therapeutic services, self-perceived adequacy to provide services, and beliefs in efficacy of other ancillary services can predict positive attitudes of healthcare professional students towards working with people with Alzheimer's disease (Kane, 2003).

As the number of older adults who have dementia increases, physiotherapists will have more direct contact with clients with dementia across all clinical settings (e.g., acute care, rehabilitation hospitals, and outpatient community settings). An understanding of physiotherapists' attitudes of working with people who have dementia across these clinical settings and the experiences that inform their attitudes has not been done. By assessing and understanding if physiotherapists have sufficient education, knowledge, and confidence to provide care to people with dementia, we can identify opportunities to address and increase dementia competency. The objectives of this study were to assess dementia education, experience (both clinical and personal), confidence, and overall attitudes amongst physiotherapists towards working with clients who have dementia.

METHODS

Study Design

A cross-sectional study using a secure web-based survey was used. Recruitment for the study occurred between March 1 and 28, 2018. This study was approved by the Health Sciences Research Ethics Boards at the University of Western Ontario, London, Canada.

Participants

Eligible participants were registered physiotherapists working in Canada and who were graduates of an entry-level to practice Masters of Physical Therapy program. The Masters of Physical Therapy is the primary entry to practice degree in Canada.

Questionnaire Development

The questionnaire covered eight domains: 1) academic and professional training regarding dementia; 2) knowledge of dementia; 3) clinical experience in working with people who have dementia; 4) confidence in working with people with dementia; 5) attitudes on working with people with dementia; 6) exposure to people with dementia outside of clinical practice; and 7) demographic information.

The survey consisted of 69 questions covering: eligibility to participate in the survey (2 items); explicit learning experiences regarding dementia (8 items); knowledge of dementia using the Knowledge in Dementia Scale (Elvish et al., 2014) (16 items); percentage of caseload that is comprised of clients with dementia (2 items); interest in working with people with dementia (1 item); beliefs on having the strategies to deal with behavioural and/or cognitive symptoms (2 items); confidence in working with people with dementia using the Confidence in Dementia Scale (Elvish et al., 2014) (9 items); attitudes on working with a dementia caseload (9 items) (Staples & Killian, 2012); personal experiences with people with dementia (3 items); and demographics (5 items).

The Knowledge in Dementia Scale (Elvish et al., 2014) is a 16-item self-report questionnaire that is scored on an agree/disagree scale (“agree” responses are given a score of 1 to items 2, 3, 5, 6, 9, 11, 13, 15 and given a score of 0 to items 1, 4, 7, 8, 10, 12, 14, 16). The scale has a maximum score of 16, with higher scores indicating better knowledge. The Confidence in Dementia Scale (Elvish et al., 2014) is a 9-item self-report questionnaire scored on a 5-point Likert scale with anchored ratings of ‘not able’ (score of 1) and ‘very able’ (score of 5). The scale has a minimum score of 9 and a maximum score of 45, with higher scores indicating stronger confidence. Attitudes towards working with people with dementia was modified from the scale developed by Staples and Killian (Staples & Killian, 2012) to be applicable to physiotherapists practicing in Canada. There were 9 questions on a 5-point Likert scale from strongly agree (score of 1) to strongly disagree (score of 5).

Data 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 90% 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.

Structural equation modelling (SEM) was used for the primary analysis to evaluate the proposed relationships of knowledge, education, confidence, personal experiences with people with dementia, and clinical caseload working with people with dementia on the attitudes of physiotherapists in the structural model. To assess model fit, the Tucker-Lewis Index (TLI) (Tucker & Lewis, 1973), the comparative fit index (CFI) (Bentler, 1990), and the root mean

square error of approximation (RMSEA) (Steiger & Lind, 1980) were used. For the TLI and CFI, values at 0.90 and above, and less than 0.08 for RMSEA indicate acceptable model fit (McDonald & Ho, 2002). The analysis followed a two-step approach to SEM. In the first step, a confirmatory factor analysis (CFA) was used to evaluate the measurement model and the fit of the variables to their respective latent constructs where appropriate. All latent and observed variables were allowed to correlate with each other and their variances were fixed at 1. The theoretical model (structural model) was then tested for model fit. (Figure 1) All SEM analyses were conducted with the maximum likelihood method of estimation using AMOS 24.0 (version 24, IBM Corp, Armonk, New York) statistical software.

RESULTS

A total of 281 started the survey and 231 registered physiotherapists completed at least 90% of the survey questions. Respondents' mean age was 32.6 ± 5.8 years and 77.4% (n=178) were female. In our sample, 17.0% (n=39) were practicing for less than 2 years, 23.6% (n=54) practicing for 2-5 years, 31.0% (n=71) practicing for 5 to 10 years, and 28.4% (n=65) practicing for more than 10 years. An interest in working with older adults with dementia was reported by 49.7% (n=112).

Knowledge of Dementia.

The average score on the Knowledge in Dementia Scale (Elvish et al., 2014) was 14.4 and respondents correctly answered the questions 90.1% of the time. (Table 1)

Education on Dementia

Only 36.8% (n=85) reported they received education or specific training related to dementia and/or working with people with dementia since graduation. The training was either within a specialty geriatrics course or part of another course outside of their physiotherapy degree.

Within these explicit learning experiences, the number of people reported the following topics were covered: 96.5% (n=82/85) basic overview of common dementia-related diseases, 84.7% (n=72/85) impact of dementia on the individual and his/her caregiver's physical well-being, 81.2% (n=69/85) communication strategies to engage clients that have dementia, 74.1% (n=63/85) pathophysiology of dementia diseases, 72.9% (n=62/85) prevalence of common dementia diseases, and 38.8% (n=33/85) pharmacological management of dementia diseases. Interestingly, 40.0% (n=34/85) of the respondents felt that the additional training they received was insufficient to effectively work with people with dementia.

Experience Working with People with Dementia.

In clinical practice, 60.2% (n=139) respondents had worked with clients with dementia in their clinical practice since graduation. In the previous 12 months, 68.3% (n=95/139) of these people indicated treating clients with dementia, the caseload percentage ranged from 0.5 to 33%. One-hundred and thirty-five respondents (58.4%) reported personally knowing someone with dementia. These interactions were rated positive by 67.4% (n=91/135), neutral by 22.2% (n=30/135) and 10.4% (n=14/135) rated their personal interactions as negative. The majority of respondents reported that knowing someone with dementia made a positive impact on how they view the need for access and providing rehabilitation services: 70.4% (n=95/135) agreed, 27.4% (n=37/135) were neutral, and 2.2% (n=3/135) disagreed.

Confidence in Working with People with Dementia.

Overall, the data suggests respondents do not feel confident working with clients who have dementia. (Table 2) Respondents tended to rate their confidence to understand and to interact with a person with dementia lower when clients cannot communicate well verbally. Only 7.8%

(n=18/231) of the sample felt able or very able” in response to the survey question, “I feel able to understand the needs of a person with dementia when they cannot communicate well verbally.”

Attitudes to People with Dementia.

Ninety percent (n=209/231) of respondents disagreed or strongly disagreed to the question, “I believe people with dementia should not have access to intensive inpatient rehabilitation.” Yet, 74.0% (n=171/231) agreed or were neutral to the question, “I believe that a diagnosis of dementia will result in a limited ability to learn while in rehabilitation.” (Table 3) The data were ambivalent regarding whether respondents feel that working with this population leads to stress or burn out. Fifty-two percent (n=119/231) of survey respondents disagreed or strongly disagreed when asked, “I would prefer to work with people with dementia compared to other patient groups.”

Structural Equation Modeling

Examination of the model fit indices for the measurement model demonstrated acceptable fit (CFI= 0.91, TLI= 0.90, RMSEA = 0.06). All factor loadings remained significant (range from $p < .001$ to $p = .023$) demonstrating that each of the indicators were significant contributors to their respective latent constructs. The model fit indices for the structural model demonstrated acceptable model fit (CFI= 0.90, TLI= 0.88, RMSEA = 0.07). The only significant predictor of attitudes towards working with people with dementia was education ($\beta = -0.16$, $p = 0.048$).

DISCUSSION

The objective of the study was to assess academic and professional training regarding dementia, knowledge of dementia, clinical experience in working with people who have dementia, confidence in working with people with dementia, attitudes on working with people with dementia, and exposure to people with dementia outside of clinical practice among practicing physiotherapists in XXX. This study found that physiotherapists have sound knowledge about

dementia, but only a third had been exposed to education or specific training related to dementia and/or working with people with dementia since graduation. The majority of physiotherapists reported positive experiences with people with dementia that they personally knew and this had a strong influence on their opinion that people with dementia deserve access to rehabilitation services. At the same time, respondents did not feel they had the tools to provide care to clients when behavioural and cognitive symptoms were involved. Importantly, education was the only significant predictor of attitudes to working with people with dementia. Specifically, more education was related to more positive attitudes. This is the first study that the authors are aware of that has explored which factors among physiotherapists are related to attitudes to working with people living with dementia.

Understanding the attitudes of physiotherapists to working with people with dementia is important as a lack education can lead to adverse effects on clinical practice. (Staples & Killian, 2012). Previous research showed a lack of knowledge about dementia among physiotherapists (Lusardi & Wong, 1994). Our study demonstrated the positive finding that knowledge of dementia has improved among physiotherapists in the intervening years, likely reflecting an advancement in both research and clinical practice. Lorio et al. (Lorio, Gore, Warthen, Housley, & Burgess, 2017) found increased knowledge and education among physiotherapy students resulted in positive attitudes towards working with people who have dementia. Education during the training of physiotherapists is essential, as our study demonstrated a minority of respondents reported having obtained additional education related to dementia outside of their physiotherapy degree. Consistent with findings from a previous study,(Meuser, Boise, & Morris, 2004) our study of practicing physiotherapists found more education was significantly related to more positive attitudes to working with people living with dementia. Yet, there remains a gap in the education that does not

translate into improving all physiotherapists' confidence to work with people living with dementia. Importantly, our research further found only 59% of respondents who had obtained additional education outside their physiotherapy degree felt they had sufficient training to effectively work with people living with dementia.

The majority of respondents indicated a strong advocacy for people living with dementia having access to intensive inpatient rehabilitation. Yet, there may be structural barriers within the health care system impacting physiotherapists that are not remedied by addressing their education needs alone, as it is often not physiotherapists who decide whether to provide rehabilitation to the population living with dementia. Institutions may not see the need to provide dementia-specific education and training to physiotherapists if physiotherapy is not acknowledged as something important to people with dementia and in managing the economic burden of dementia.

Three quarters of our respondents agreed that disease severity impacts rehabilitation expectations and goals. Staples and Killian (Staples & Killian, 2012; Staples & Killian, 2012) found attitudes among physiotherapists and physiotherapy assistants working in skilled nursing homes were adversely influenced by disease severity. Agreement that disease severity may adversely impact rehabilitation outcomes is not necessarily the result of a negative attitude to delivery of care. Rather agreement can be an informed understanding of a client's potential magnitude of change across disease severity. Literature supports rehabilitation interventions being able to make meaningful change in balance, strength, and mobility among people with mild to moderate dementia (Lam et al., 2018; Muir-Hunter, Lim Fat, Mackenzie, Wells, & Montero-Odasso, 2016; Muir & Yohannes, 2009). Rolland et al. (Rolland et al., 2007) were able to demonstrate that older adults with severe dementia living in a long-term care setting were able to make meaningful gains in mobility through participation in a 12-month structured exercise

program. These findings highlight the availability of continuing education opportunities after graduation to busy practicing clinicians that reflect emerging research in rehabilitation for people with dementia is important.

Our study found that despite physiotherapists' adequate knowledge levels, they generally did not feel confident towards working with people with dementia. The lower confidence in providing clinical care to people living with dementia was related to the clinicians having insufficient cognitive and behavioural management strategies. These findings are consistent with research from Kahana and colleagues (Kahana et al., 1996) who found high confidence was a significant predictor of positive attitudes of healthcare professionals working with people with dementia. Hall et al. (2017) found in their qualitative study that physiotherapists reported significant pressures related to implementation of treatment guidelines that may not be appropriate or that standard treatment practices need to be adapted for people with dementia (Hall, Watkins, Lang, Endacott, & Goodwin, 2017). Fjellman-Wiklund et al. (2016) reported physiotherapists use an iterative process that is framed within their own experiences of working with people living with dementia to find successful treatment strategies that facilitate delivery of care. A one size fits all approach in delivery of care is not appropriate and clinicians need to be flexible and have a repertoire of skills to draw upon to meet the unique needs of people living with dementia. (Fjellman-Wiklund, Nordin, Skelton, & Lundin-Olsson, 2016). The identification of behavioural and cognitive symptoms that interfere with the delivery of rehabilitation (McGilton et al., 2007; McGilton, Wells, Davis, Naglie, & Biscardi, 2007) and respondents lack of strategies to deal with these symptoms strongly advocates for providing education that is specific to working with clients with dementia and their unique health care needs.

Limitations.

There are several limitations to the study we want to highlight. Self-report measurements may be influenced by social desirability; specifically, respondents may have answered the questionnaire in a manner that they think the investigators want them to answer or reflects well on the respondent. Respondents were told that their responses were anonymous and this should have limited potential response bias. We included surveys with up to 10% missing responses and the question with the most missing responses among the included surveys at 52% was percentage of caseload comprising clients with dementia. Due to the high non-response rate on this question, the information may misrepresent the exposure level of therapists working with people with dementia. Lastly, people who volunteer to be in studies are usually different than those who do not participate and therefore the responses are not generalizable to all physiotherapists who are practicing in Canada or other countries.

CONCLUSION

Knowledge of dementia was high, but the majority of respondents lacked confidence working with this population and felt they did not have the skills to manage behavioural or cognitive symptoms associated with dementia. Education was significantly related to positive attitudes to working with people with dementia. This study advocates for more education in general and specifically in the areas of communication strategies and skills to address behavioural and cognitive symptoms seen across the spectrum of disease severity of dementia that can interfere with rehabilitation. Future research should examine the best way to deliver this education to enhance confidence among physiotherapists in working with people with dementia and ultimately optimize client care.

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Table 1. Responses of physiotherapists on the Knowledge in Dementia Scale.

Question	n (%)	
	Agree	Disagree
Permanent changes to the brain occur in most types of dementia. (n=230)	206 (89.6%)	24 (10.4%)
People who have dementia will usually show the same symptoms. (n=228)	10 (4.4%)	218 (95.6%)
Dementia can be caused by a number of small strokes. (n=231)	191 (82.7%)	40 (17.3%)
Currently, most types of dementia cannot be cured. (n=231)	219 (94.8%)	12 (5.2%)
When people with dementia walk it is usually aimless. (n=231)	17 (7.4%)	214 (92.6%)
People with dementia will eventually lose all their ability to communicate. (n=231)	42 (18.2%)	189 (81.8%)
People with dementia who are verbally aggressive nearly always become physically aggressive. (n=231)	9 (3.9%)	222 (96.1%)
Brain damage is the only factor that is responsible for the way people with dementia behave. (n=231)	10 (4.3%)	221 (95.7%)
It is possible to catch dementia from other people. (n=231)	5 (2.2%)	226 (97.8%)

My perception of reality may be different from that of a person with dementia. (n=230)	223 (97.0%)	7 (3.0%)
People with dementia never get depressed. (n=230)	1 (0.4%)	229 (99.6%)
Anger and hostility occur in dementia mostly because the “aggression” part of the brain has been affected. (n=231)	39 (16.9%)	192 (83.1%)
Dementia is a general term which refers to a number of different diseases. (n=231)	219 (94.8%)	12 (5.2%)
The history and background of people with dementia plays a significant part in their behaviour. (n=230)	177 (77.0%)	53 (23.0%)
Physical pain may result in a person with dementia becoming aggressive or withdrawn. (n=231)	222 (96.1%)	9 (3.9%)
A person with dementia is less likely to receive pain relief than a person without dementia when they are in hospital. (n=231)	161 (69.7%)	70 (30.3%)

Table 2. Responses of physiotherapists on the Confidence in Dementia Scale.

Question	n (%)				
	Not Able				Very Able
	1	2	3	4	5
I feel able to identify when a person may have dementia. (n=231)	24 (10.4%)	97 (42.0%)	92 (39.8%)	15 (6.5%)	3 (1.3%)
I feel able to understand the needs of a person with dementia when they <u>can</u> communicate verbally. (n=231)	23 (10.0%)	89 (38.5%)	80 (34.6%)	36 (15.6%)	3 (1.3%)
I feel able to understand the needs of a person with dementia when they <u>cannot</u> communicate verbally. (n=231)	24 (10.4%)	97 (42.0%)	92 (39.8%)	15 (6.5%)	3 (1.3%)
I feel able to interact with a person with dementia when they <u>can</u> communicate well verbally. (n=229)	12 (5.2%)	35 (15.3%)	87 (38.0%)	84 (36.7%)	11 (4.8%)

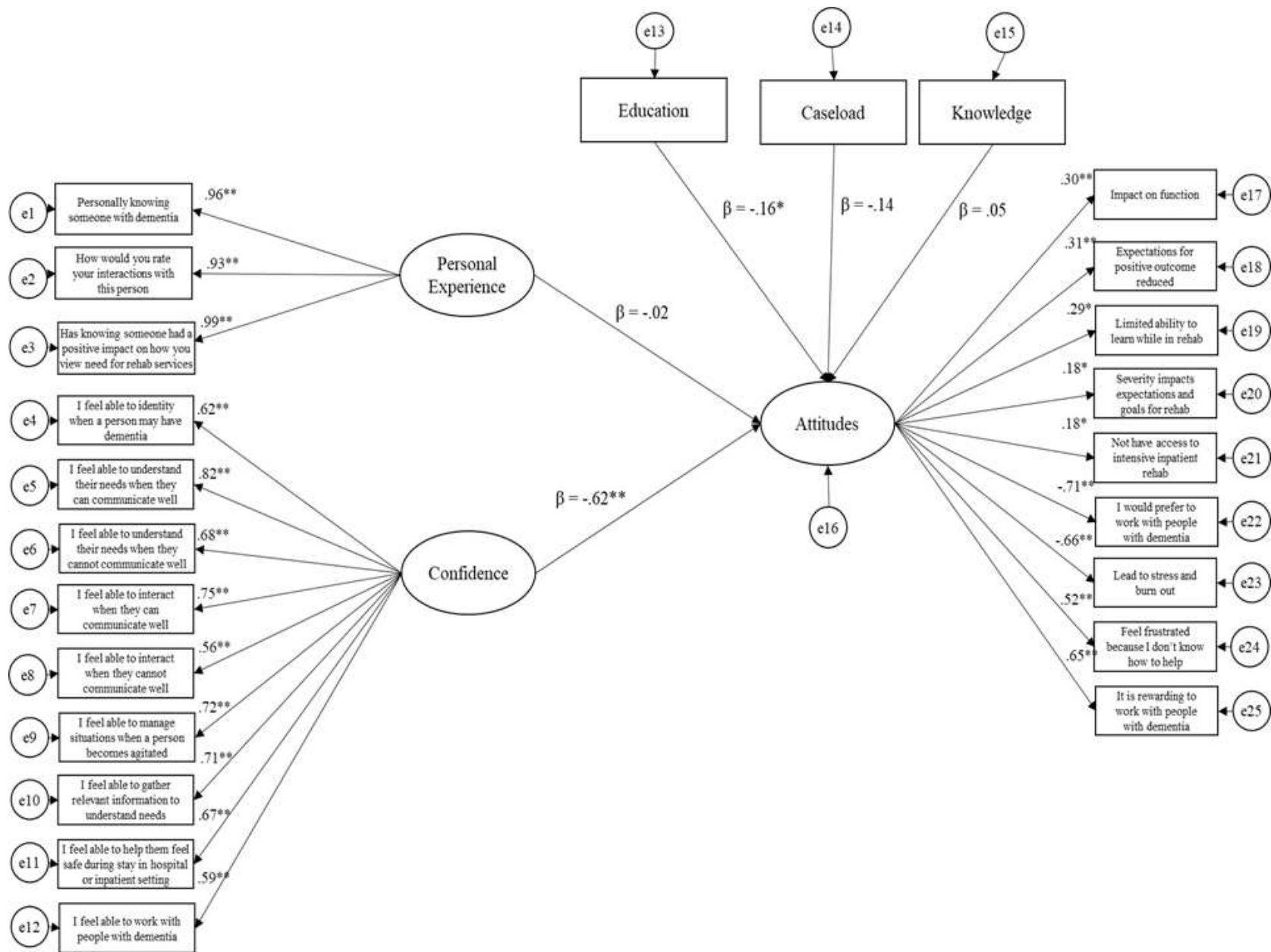
I feel able to interact with a person with dementia when they <u>cannot</u> communicate well verbally. (n=231)	10 (4.3%)	74 (32.0%)	81 (35.1%)	60 (26.0%)	6 (2.6%)
I feel able to manage situations when a person with dementia becomes agitated. (n=231)	23 (10.0%)	89 (38.5%)	80 (34.6%)	36 (15.6%)	3 (1.3%)
I feel able to gather relevant information to understand the needs of a person with dementia. (n=231)	9 (3.9%)	56 (24.2%)	83 (36.0%)	71 (30.7%)	12 (5.2%)
I feel able to help a person with dementia feel safe during their stay in a hospital or inpatient setting. (n=229)	12 (5.2%)	35 (15.3%)	87 (38.0%)	84 (36.7%)	11 (4.8%)
I feel able to work with people who have a diagnosis of dementia. (n=231)	8 (3.5%)	36 (15.6%)	82 (35.5%)	80 (34.6%)	25 (10.8%)

Table 3. Responses of physiotherapists on attitudes towards dementia.

Question	n (%)				
	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I believe that a diagnosis of dementia, regardless of disease severity, negatively impacts functional recovery with rehabilitation interventions. (n=231)	16 (6.9%)	90 (39.0%)	41 (17.8%)	74 (32.0%)	10 (4.3%)
My expectations for a positive outcome from rehabilitation for a person with dementia are less than a person without dementia. (n=231)	8 (3.5%)	103 (44.6%)	66 (28.6%)	46 (19.9%)	8 (3.4%)
I believe that a diagnosis of dementia will result in a limited ability to learn while in rehabilitation. (n=231)	7 (3.0%)	107 (46.3%)	57 (24.7%)	55 (23.8%)	5 (2.2%)
I believe that the disease severity strongly impacts the expectations and my goals for rehabilitation for a person with dementia. (n=231)	46 (19.9%)	128 (55.4%)	32 (13.9%)	22 (9.5%)	3 (1.3%)

I believe people with dementia should not have access to intensive inpatient rehabilitation. (n=231)	2 (0.9%)	6 (2.6%)	14 (6.1%)	92 (39.8%)	117 (50.6%)
Compared to other patient groups, I think I would prefer to work with people with dementia. (n=231)	4 (1.7%)	15 (6.5%)	93 (40.3%)	94 (40.7%)	25 (10.8%)
I think working with people with dementia would lead to stress and burn-out for me. (n=231)	12 (5.2%)	74 (32.0%)	76 (32.9%)	55 (23.8%)	14 (6.1%)
I feel frustrated because I do not know how to help people with dementia. (n=231)	6 (2.5%)	73 (31.6%)	78 (33.8%)	63 (27.3%)	11 (4.8%)
It is rewarding to work with people that have dementia. (n=231)	21 (9.1%)	102 (44.1%)	93 (40.3%)	12 (5.2%)	3 (1.3%)

Figure 1. Structural equation model examining the factors related to positive attitudes among physiotherapists to working with people with dementia.



Note: Structural equation model displaying standardized estimates (β); **, denotes significance at $p < .05$; ***, denotes significance at $p < .001$; 'e' refers to error variance.