

A – Research concept and design
 B – Collection and/or assembly of data
 C – Data analysis and interpretation
 D – Writing the article
 E – Critical revision of the article
 F – Final approval of article

Received: 2023-10-17

Accepted: 2023-12-14

Published: 2023-12-20

Barriers, facilitators and impact of the COVID-19 pandemic on the physiotherapy intervention for people with dementia or cognitive impairment

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Abstract

Introduction: The mitigation measures during the COVID-19 pandemic contributed to very limited activity of rehabilitation services for adults with cognitive decline and dementia. This study aimed to characterize the barriers, facilitators, and impact of the COVID-19 pandemic on the rehabilitation process of people with dementia or cognitive impairment.

Material and methods: An online survey directed to physiotherapists working in mental health collected data on the professional and training experience of the physiotherapists, as well as data on the population with dementia or cognitive impairment, and on the barriers and facilitators in accessing/obtaining results in physiotherapy in the pandemic period.

Results: Sixty-three physiotherapists participated in this study. Three main barriers hindering these people in accessing or obtaining good results in the rehabilitation process were: (i) interruption of rehabilitation processes/restricted access to specialized monitoring in situations of prophylactic isolation; (ii) break in the routine of the person with dementia and caregiver; (iii) disruption to social interaction (isolation, distancing from their social networks). Regarding facilitators, the most important were: (i) greater proximity between people with dementia and their caregiver/family; (ii) intervention in the natural context of the person with dementia; (iii) greater proximity of professionals to the caregiver and the person with dementia.

Conclusions: Barriers and facilitators identified in this study are crucial for physiotherapy interventions in different critical contexts (e.g., social restriction/ seasonal variations), and have an impact on the healthy lifestyle of people with dementia, including in physical activity promotion.

Keywords: cognitive dysfunction, COVID-19, dementia, mental health, rehabilitation



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Introduction

Dementia is a common neurodegenerative disease, inducing memory loss, cognitive impairments, and reduced ability to perform daily activities. The global estimate of people living with dementia was around 50 million in 2018 and this number is expected to triple by 2050 [1,2]. In Portugal, although a decrease in population is expected, the prevalence of this condition is estimated to be around 1.9% at present and is expected to double to 3.82% in 2050. This can be explained by the increase in the number of people over 85 years of age, which is expected to more than double between 2018 and 2050 [3].

The negative effects of the COVID-19 pandemic on the population's mental health are all too evident, particularly in cases where the disease was contracted [4] and in people at increased risk of infection, such as the elderly [5]. To reduce the probability of infection among older people in nursing homes several recommendations were issued [6], such as forbidding visitors's access to the facilities and stopping group activities, and increasing social isolation [7], which has a negative impact on the mental health of this already fragile population.

Older people are vulnerable to the COVID-19 pandemic and are the population group where the mortality rate is higher [8]. A new case of dementia is estimated every 3 seconds worldwide [9], which elevates this condition to the status of a pandemic in a population that tends to be aged and socially isolated. The double impact of dementia and COVID-19 raises the level of concern for people living with dementia. These people have limited access to quality information about COVID-19 and may experience difficulties in recalling the safety measures recommended by health authorities, or in understanding public health information addressed to them [7]. Moreover, both a functional decline and dementia are associated with higher rates of mortality in older people with COVID-19 [10,11]. Considering this scenario, it is vital to provide both physical protection from infection and adequate care to this population.

Rehabilitation services were essential during the pandemic to optimize physical and cognitive functioning and reduce disability [12]. Rehabilitation improves functional outcomes in adults with different conditions, such as cognitive decline in people with dementia. Moreover, early intervention can reduce the prevalence and delay the onset of cognitive decline in people with dementia [13].

Physical activity and exercise are core interventions of rehabilitation in mental health, as part of a multidisciplinary intervention. The effectiveness of physical activity and exercise interventions on mental health has

been shown in several contexts [14-16]. Specifically in people with dementia, physical activity has been associated with a lower incidence of all-cause dementia, and resistance exercise has been linked to slower cognitive impairment [17,18].

Social and healthcare institutions have focused on managing the high number of patients with COVID-19, and on reducing the risk of exposure to the virus and its transmission. To protect both healthcare workers and patients, the use of personal protective equipment and visitation restrictions were imposed, and rehabilitation services were limited in their activity.

Research concerning the existence of barriers to the care of people with mental health or cognitive decline during the COVID-19 pandemic is scarce. This study aimed to characterize the barriers, facilitators, and impact of the COVID-19 pandemic on the rehabilitation process of people with dementia or cognitive impairment from the perspective of physiotherapists with clinical experience in the field.

Materials and methods

Within the scope of Research and Development activities, the Working Group on Mental Health Physiotherapy of the Portuguese Association of Physiotherapists, in partnership with the Alzheimer Portugal Association, collected data on the physiotherapists' perceptions and attitudes towards barriers, facilitators, and the impact on access to physical therapy services for people with dementia and cognitive impairment during the first 6 months of the COVID-19 pandemic. Physiotherapists were invited to participate in this study using a national mailing list of physiotherapists registered in the Portuguese Association of Physiotherapists, and also via social media. After we received an expression of interest in participating in the study, a follow-up email clarified the inclusion criteria for participating: (i) having expertise in taking care of people with dementia and cognitive impairment (ii) having experience with the challenges of providing care to this population in a pandemic situation due to COVID-19. Physiotherapists were excluded if they did not agree to participate in this study.

Data were collected through an online questionnaire, beginning with a description of the study and its aims. Participants had to indicate, before starting the questions, whether they gave their consent to participate in the study. After consenting to participate, the study questionnaire was presented. No identification or contact information was collected from the participants, thus guaranteeing the anonymity and confidentiality of the data.

Instrument to assess physiotherapists’ perceptions and attitudes

A questionnaire specifically designed for this purpose was developed using a methodology divided into 2 distinct phases: Phase 1 (November 2020), content was pre-selected based on existing literature in this area [20, 21]; Phase 2 (December 2020), 2 meetings were held involving 4 physiotherapists with more than 5 years of experience in dementia care, for validation of additional content.

In Phase 1, the research team was dedicated to fully understand the context of rehabilitation delivery in-home care for frail people during the pandemic, collecting recent and crucial related studies. At the end of this phase, different domains were pre-selected for validation in the next phase, such as (i) critical mechanisms for referencing patients; (ii) relevance of monitoring processes; (iii) fears related to exposure risk, and others.

In Phase 2, the pre-selected domains were discussed and validated by 4 expert physiotherapists who were invited for an online session (25 minutes). Following this were 20 minutes of open discussion on new ideas for barriers and facilitators in delivering rehabilitation and for domains of the impact in rehabilitation limited access for people with dementia in the COVID-19 pandemic.

The questionnaire began by asking for participants’ informed consent and study participation approval. Then it was divided into different domains: (i) characterization of people with dementia or cognitive impairment (most prevalent age groups, diagnosis of cognitive impairment, dementia diagnosis); (ii) characterization of the physiotherapists’ work context (home, hospital, health center, continuing care unit, clinic/office, other); (iii) characterization of physiotherapists’ professional experience (expertise in the field (years), experience in projects development in a multidisciplinary team, experience as a certified trainer in the field, seminars / congresses, postgraduation in the field, academic degree in the field); (iv) physical therapy strategies used for taking care of people with dementia or cognitive impairment – (aquatic therapy, multisensory therapies, exercise, touch, gamification, reminiscence). Finally, this questionnaire provided three different lists to characterize the challenges experienced by physiotherapists taking care of people with dementia and cognitive impairment during the COVID-19 pandemic, namely:

- i. factors considered barriers to access/results obtained with physiotherapy using a scale of 0 (any impact) – 5 (severely affect);
- ii. factors considered to facilitate access/results obtained with physiotherapy using a scale of 0 (does not facilitate) – 5 (fully facilitates);

- iii. impact of the pandemic on the physiotherapy process using a scale of 0 (without impact) – 5 (total impact).

This questionnaire was made available online using a Google Form and disseminated within physiotherapists working in mental health in Portugal, allowing it to be completed during the month of January 2021.

Statistical procedures

Data analysis was performed using descriptive measures, including frequencies and also mean and standard deviation ($x \pm SD$). Specifically, the professional experience and training of physiotherapists, as well as the characterization of the population with dementia/cognitive impairment in physical therapy were described based on frequency analysis. Additionally, the barriers and facilitators, as well as the impact in accessing/obtaining results for physical therapy intervention in times of pandemic, were analyzed, taking into consideration the % of 5-point quotation and $x \pm SD$ values.

Results

Description of physiotherapist work context and professional experience

The characteristics of workplace, professional experience and training of the surveyed physiotherapists are shown in Table 1.

Tab. 1. Description of professional and training experience of the surveyed physiotherapists

Workplace	Percentage %
People’s Home	18.6
Hospital	6.8
Long-term Care Unit /community	25.4
Clinic/Office	11.9
Social and solidarity private institution	33.9
Other	3.4
Professional Experience (yrs)	
Up to 5 yrs	42.4
5–10 yrs	32.2
>10 yrs	25.4
Professional experience in multidisciplinary team	
Yes	27.1
No	72.9

Specific training in this field	
Experience as a trainer	
Yes	86.4
No	13.6
Frequency of seminars/congresses	
None	16.9
Up to 10 hours	28.8
10–35hours	30.5
>35 hours	23.7
Webinars	
None	47.5
Up to 10 hours	35.6
10–35 hours	11.9
>35 hours	5.1
Postgraduate	
Yes	16.9
No	83.1
Master's degree	
Yes	6.80
No	93.2
Doctoral degree	
Yes	0.00
No	100.00

Description of the people with dementia/cognitive decline treated by the participants

The characteristics of those treated by the questionnaire participants concerning age, cognitive impairment and dementia are shown in Table 2.

Tab. 2. Characteristics of the people with dementia/cognitive decline treated by the participants

Characteristics of people with dementia/cognitive decline doing physiotherapy	Percentage %
Age (yrs)	
< 65 yrs	16.9
65–85 yrs	67.8
> 85 yrs	15.3
Cognitive decline	
Yes	88.1
No	11.9
Dementia	
Yes	83.1
No	16.9

Barriers to accessing/obtaining results in physiotherapy during the pandemic

In the analysis of barriers to accessing/obtaining results in physiotherapy by people with cognitive decline/ dementia, the average results indicated 8 factors as moderately important: (i) insufficient or inappropriate referral mechanisms; (ii) interruption of rehabilitation processes/restricted access to specialized monitoring in a prophylactic isolation context; (iii) difficulty in accessing and using computer systems for sessions (in real time; for autonomous work) of telephysiotherapy (digital literacy); (iv) reduced mental health literacy; (v) difficulty in referrals to other professionals (in periods of exacerbation; new symptoms); (vi) adherence to treatment in its new formats (e.g., resistance to assume new responsibilities in physiotherapy treatment); (vii) fears of the patient and family associated with the pandemic situation; (viii) low motivation of the family-user dyad.

The following factors were indicated as severely limiting access/obtaining results in physiotherapy: (i) disruption in the routine of the person with dementia and caregiver; (ii) breakdown in social interaction (isolation, distancing from your social networks); (iii) personal protective equipment (PPE) and physical distancing hindering communication and impacting on the relationship with the person with dementia, which can lead to behavioral changes (Table 3).

Considering the % of answers scoring 5 (severely affects the physiotherapy process), at least 3 barriers could be highlighted: interruption of rehabilitation processes/restricted access to specialized follow-up in a prophylactic isolation context; (ii) disruption in the routine of the person with dementia and caregiver; (iii) breakdown of social interaction (isolation, distancing from your social networks).

Facilitators in accessing/obtaining results in physiotherapy during the pandemic

Considering the analysis of the facilitators in accessing/obtaining results in physiotherapy for people with cognitive impairment/dementia, the results indicated only 2 factors as residually important: (i) valuation of going outside by people with dementia; (ii) alternative ways of dealing with the mental health problem (e.g., more information available; concerns with management of communication using PPE) (Table 4).

The following factors seem to be considered negligible, as they represented just over 10% of responses scoring 5 points (high impact): alternative ways of dealing with the mental health problem (e.g., more information available; concerns with the management of communication using PPE); enhancement of the caregiver's ability to decentralize from the act of caring,

Tab. 3. Characterization of the barriers to accessing/obtaining results in physiotherapy during the pandemic

Barriers to accessing/obtaining results in physiotherapy	x ± SD	% answers scoring 5
Risk of exposure of professionals (lack of PPE; PPE not certified)	2.13 ± 1.80	8.50
Insufficient or inappropriate referral mechanisms	3.17 ± 1.76	25.4
Interruption of rehabilitation processes / restricted access to specialized monitoring in a prophylactic isolation context;	3.94 ± 1.47	49.2
disruption in the routine of the person with dementia and caregiver	4.06 ± 1.32	49.2
Difficulty in accessing and using computer systems for sessions (in real time; for autonomous work) of telephysiotherapy (digital literacy)	3.40 ± 1.47	27.1
Reduced mental health literacy	3.28 ± 1.64	28.8
Breakdown in social interaction (isolation, distancing from your social networks	4.13 ± 1.37	57.6
Limitation of rehabilitation material (limitation of material resources in home-based physiotherapy)	2.38 ± 1.86	13.6
Personal protective equipment (PPE) and physical distancing hinder communication and relationship with the person with dementia, which can lead to behavioral changes	4.02 ± 1.28	47.5
Difficulty in referrals to other professionals (in periods of exacerbation; new symptoms)	3.21 ± 1.63	22.0
Polymedication / self-medication	2.21 ± 1.77	11.9
Adherence to treatment in its new formats (e.g., resistance to assume new responsibilities in physiotherapy treatment)	3.12 ± 1.52	1.9
Fears of the patient and family associated with the pandemic	3.77 ± 1.52	42.4
Low motivation of the family-user dyad	3.02 ± 1.59	15.3
Time constraints of professionals (time spent on disinfection; PPE accommodation; traveling time)	2.88 ± 1.79	18.6
Economic/financial constraint	2.77 ± 1.94	23.7
Lack of encouragement to find out physiotherapist services (poor interprofessional network)	2.46 ± 1.85	11.9
Distrust and concerns regarding confidentiality on the part of the caregiver	1.52 ± 1.78	6.80
Caregivers' time constraints	2.17 ± 1.76	8.50

x – mean, SD – standard deviation.

trusting and delegating their competencies to the reference professionals. All other factors were considered as moderate facilitators.

Impact of the pandemic on the rehabilitation process

When assessing the impact of the pandemic on the rehabilitation process of people with cognitive decline/dementia, the average results indicate 3 factors that generated a severe impact on the rehabilitation process, namely: (i) worsening of the clinical status (including comorbidities) of the person with dementia; (ii) increased risk of falling; (iii) change in

opportunities to practice physical activity (Table 5). The first two factors also coincided with the highest percentage of level 5 responses (>50%). The impossibility of holding group sessions also seems to have an important impact, as considered by physiotherapists working in the area.

Discussion

This study aimed to characterize the barriers, facilitators, and impact of the COVID-19 pandemic on the rehabilitation process of people with dementia or

Tab. 4. Characterization of facilitators in accessing/obtaining results in physiotherapy during the pandemic

Facilitators in accessing/obtaining results in physiotherapy	$\bar{x} \pm SD$	% answers scoring 5
Intervention in the natural context of the person with dementia, i.e., home	3.30 ± 1.47	22
Closer relationship between the caregiver and the person with dementia and health professionals (visits and treatment at home; permanent use of telephone contact)	3.33 ± 1.52	22
Families deepened their knowledge about the trajectory of the disease and about the complications that arise in a crisis (e.g., pandemic)	3.24 ± 1.59	22
Enhancement of the caregiver's ability to decentralize from the act of caring, trusting and delegating their competencies to the reference professionals	3.22 ± 1.34	13.6
Closer relationships between people with dementia and their caregivers	3.27 ± 1.67	23.7
Valuation of going outside by people with dementia	2.51 ± 1.93	16.9
Providing more training and discussion groups for caregivers (online, with no costs, in a more personalized format)	3.10 ± 1.65	22
Alternative ways of dealing with the mental health problem (e.g., more information available; concerns with management of communication using PPE)	2.71 ± 1.49	13.6
Positive experience with previous approaches	3.24 ± 1.47	13.6

\bar{x} – mean, SD – standard deviation.

Tab. 5. Characterization of the impact of the COVID-19 pandemic on physiotherapy in people with cognitive impairment/dementia

Impacts of the pandemic on the rehabilitation process	% answers scoring 5	$\bar{x} \pm SD$
Withdrawal from services	27.1	3.38 ± 1.65
Worsening of the clinical status (including comorbidities) of the person with dementia	52.5	4.23 ± 1.12
Increased risk of falling	50.8	4.02 ± 1.30
Intervention plan to carry out with the help of the caregiver	15.3	3.10 ± 1.43
Changing the treatment plan	20.3	3.33 ± 1.39
Referral to integrated convalescent care units (caregiver respite)	22.0	2.52 ± 2.06
Decreased frequency of interventions	47.5	3.81 ± 1.65
Most intervention strategies are inconclusive due to the multitude of risk factors	20.3	2.85 ± 1.74
Insufficient human resources for home rehabilitation	30.5	3.00 ± 1.96
Changing opportunities to practice physical activity	40.7	4.06 ± 1.16
Impossibility of holding group sessions	61.0	3.92 ± 1.78
Modification of the social support network	40.7	3.73 ± 1.50

\bar{x} – mean, SD – standard deviation.

cognitive impairment, from the perspective of physiotherapists with experience in the area.

Barriers to accessing/obtaining results in physiotherapy during a pandemic

The results of the present study indicate three main barriers to accessing or obtaining good results in the rehabilitation process of these patients, namely: (i) interruption of rehabilitation processes/restricted access

to specialized monitoring in situations of prophylactic isolation; (ii) break in the routine of the person with dementia and caregiver; (iii) break in social interaction (isolation, distancing from your social networks). It is essential to reflect on the possible impact of (i) the interruption of rehabilitation processes/restricted access to specialized monitoring in situations of prophylactic isolation during the COVID 19 pandemic, but also in other social restricted contexts (e.g., geographically

isolated contexts or seasonal conditions). This factor has the potential to exacerbate the functional dependency of individuals with dementia/ medium-term cognitive decline, as suggested by Eklund et al. [22] in a longitudinal study of continuous care for frail elderly people over a year. In this study, the authors refer to the importance of continuous care in a multidisciplinary team to guarantee reasonable levels of independence during activities of daily living, but also to prolong the possibility of these people ageing with quality in their homes.

Regarding the importance of breaking the social interaction and routine of people with dementia/cognitive impairment during the COVID-19 pandemic, it is important to understand the significance that new technologies can have in compensating for these factors. For example, during these critical periods of isolation, people with dementia/cognitive impairment would benefit from the implementation of digital tools (e.g. exergames), as these are methodologies capable of providing rewarding experiences of interaction between players (socialization experiences), thus also allowing caregivers to engage in pleasurable activities [23]. Exergames have been presented as a relevant tool to motivate elderly people to exercise regularly alone at home, especially in the case of physically and cognitively frail elderly [24]. On the other hand, technologies can also facilitate the development of virtual physiotherapy programs/sessions for people with dementia/cognitive impairment. The authors Cheung and Peri [25] reported the various experiences carried out in the virtual monitoring of these patients in the context of a pandemic, indicating fundamental factors for their success, namely, training for facilitators (in this case, physiotherapists), the adequacy of virtual programs to users' expectations, as well as the importance of ensuring easy access to the platforms used.

Facilitators in accessing/obtaining results in physiotherapy during the pandemic

Regarding the facilitators in the rehabilitation process of people with dementia/cognitive impairment during the COVID-19 pandemic, it is important to discuss some factors that were surprisingly considered to be of residual significance. For example, for people with dementia, the appreciation of going outside does not seem to have facilitated the rehabilitation process. In an exploratory study on the impact of the pandemic on changing the lifestyles of elderly people, Di Santo et al. [26] reported that many participants began to spend more time in passive recreational activities, reducing opportunities for meaningful activities outside. Moreover, the caregiver's ability to decentralize the act of caring, trusting and delegating their skills to reference

professionals was poorly regarded as a facilitator of physiotherapy outcomes. In fact, this could be partially explained by the consensus that standard therapy for people with dementia and their families is focused on having a productive daily routine, which is obviously dependent on the caregiver's engagement [27], and not in decentralizing the act of caring to other health professionals. The caregiver is crucial for the well-being of people with dementia, especially in promoting physical activity. A previous study [28] explored the determinants of physical activity for older adults with Alzheimer's disease and highlighted the crucial role of caregivers in mediating participation in physical activity care. Caregivers may decide about program participation, treatment and interventions, provide task assistance, or encourage engagement, and therefore they are considered a central piece of this puzzle.

Impact/s of the pandemic on the rehabilitation process

Three factors had a severe impact on the rehabilitation process, namely: (i) worsening of the clinical state (including comorbidities) of the person with dementia; (ii) increased risk of falling; and (iii) change in opportunities to practice physical activity. The first two factors also coincided with the highest percentage of level 5 responses (>50%). The impossibility of holding group sessions also seems to have had an important impact for physiotherapists working in the area. Working in a group to deliver physical activity specialized programs for people with dementia is not a novelty. However, a recent study aimed to characterize the major determinants of the success of such programs and concluded that people with dementia and their carers enjoyed attending an exercise class, especially if they knew that (i) the class had been developed for people with dementia and their family carers, and (ii) it was facilitated by professionals and volunteers with knowledge of and previous experience with dementia [29].

Interestingly, evidence supports the idea that exercise interventions reduce the risk of falls in people with cognitive impairment, as confirmed by a systematic literature review that was conducted in 2021 [30]. This review explained that at least 30% of positive results in reducing falls are explained by exercise-based interventions. In a crisis context, such as the COVID-19 pandemic, thinking about engaged strategies for physical activities might be difficult for physiotherapists, as it depends on complex and personal approaches, such as linking exercise therapy to a client's daily life, discovering changes in daily life, and making structured preparations for clients to begin physical activity [31]. All these strategies are very difficult to implement in a context where the physiotherapist's physical contact

is limited, and therefore it could explain why the opportunities to practice physical exercise changed.

From a different perspective, in order to increase the opportunities in physical activity practice, and despite the context of COVID-19 pandemic, other baseline limitations must be considered because of the dementia diagnosis. Telenius et al. [32] highlighted apathy and lack of initiative, memory problems and confusion, dependence on others and lack of access to dementia-specific exercise programs as constituting important barriers to participation in physical activities for this group of people. They also maintain that such participation must be perceived as a fun and meaningful experience.

Moreover, the social isolation caused by the pandemic could contribute to explaining the increased risk of falling, bearing in mind that, in this period, frail old people avoided participating in different outdoor activities, tending to lose physical abilities, such as balance [33]. Due to the worsening health status in people with dementia, physiotherapists should design a more comprehensive physiotherapy strategy. One of the most important recommendations was to think of caregivers as having a crucial role in mediating this process [33]. However, this poses new challenges for physiotherapists, as we know that informal caregivers are unfamiliar with physiotherapy's aims and strategies [34], and this might create difficulties in their role in supporting the adoption of new physical activity habits.

Study limitations and future research

The questionnaire was specially designed for this study using a panel of experts in the area to discuss and select the special content to be included, but was only validated by a group of experts regarding its content. However, it refers to a special, new, and emergent global context, namely, the COVID 19 pandemic, which justifies the designing of brief, easy, and simple appropriated methodologies. This questionnaire could be a basis for continuing the investigation into access to physiotherapy for people with dementia, specifically in other critical periods for global public health. Another limitation is the lack of information on the demographic data of the participants, including gender and age, since these may be important determinants in the collected data. However, data related to the professional experience, which may be the most relevant regarding the aims of the study, were collected in detail. Moreover, only data on physiotherapy perceptions and attitudes were collected and the perspectives from the person with dementia and other stakeholders were not considered. Future research might combine the caregiver's perceptions and attitudes, mainly because

there is a tendency for caregivers to be unfamiliar with physiotherapy approaches.

The results presented in this study were collected 2 years ago (2020-2021), yet they have crucial importance for longitudinal research designing in people with dementia. Due to the importance of physiotherapy as a way to engage people with dementia in physical exercise approaches, future research might be focused on inhibiting the effects of the pandemic in physical and psychosocial domains, by implementing exercise – and physiotherapy-based programs in people with dementia. These studies should be carefully designed to compare (in the long term) people with different repertoires of limiting access to physiotherapy during the pandemic.

Conclusion

This study makes a significant contribution to understanding the barriers and facilitators of the COVID-19 pandemic on the rehabilitation process of people with dementia or cognitive impairment. However, its findings might also be important for measuring the impact of limited access to rehabilitation services in other contexts, e.g. social restricted contexts (e.g. geographically isolated contexts).

Interruptions to rehabilitation, breaks in the routine and breaks in social interaction were the main barriers identified in this study. On the other hand, closer relationships between people with dementia, their caregivers, and health professionals, interventions in the natural context of the person, and more knowledge about the trajectory of the disease and the complications in a crisis were identified as facilitators of the rehabilitation process for people with dementia or cognitive decline from the perspective of physiotherapists with experience in the field. Therefore, people with dementia living at home in the context of social restriction should have access to (i) continuous care in a multidisciplinary team; (ii) the implementation of rewarding and pleasurable digital tools (e.g. exergames); (iii) physical activity programs mediated by their caregivers.

A worsening of the clinical state, increased risk of falling, and a change in opportunities to practice physical activity were noted by physiotherapists as having the main impact on the barriers identified during the COVID-19 pandemic. Regular participation in physical activity is difficult for people with dementia, and harder in critical contexts, such as in the pandemic, but also in seasonal contexts such as cold weather months. The role of physiotherapists in this context might involve working together with caregivers to make physical activity fun and engaging for people with dementia.

Funding

This research received no external funding.

Conflicts of interest

The authors declare no conflicts of interest.

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