

Perceptions and experiences of Italian physiotherapists in managing patients' mental and cognitive health: a cross-sectional study

Inaihá Laureano Benincá^{1,3} , Maria Gattuso¹ , Stefania Butti^{1,3} , Mattia Mazzoleni² , Francesca Morganti^{1,3} 

¹Department of Human and Social Sciences, University of Bergamo, Bergamo - Italy

²Bergamo Order of Physiotherapists, Bergamo - Italy

³Centre for Healthy Longevity—CHL, University of Bergamo, Bergamo - Italy

ABSTRACT

Introduction: Mental and cognitive health content has been integrated into Italian guidelines for nearly five years. Therefore, this study aimed to investigate how these recommendations have translated into practice by examining the perceptions and experiences of physiotherapists in Italy.

Methods: A cross-sectional online survey was conducted between January 2024 and April 2025. Physiotherapists were reached through social media and official channels. Descriptive and regression analyses were used to examine participants' profiles, predictors of self-perceived competence, referral likelihood, and changes in educational training over time.

Results: Among 423 physiotherapists, 39.4% and 60.7% reported low competence in managing cognitive and mental health issues, respectively. Physiotherapists working in neurological practice had higher odds of feeling competent in both cognitive (OR = 2.47, $p < 0.001$) and mental health (OR = 1.90, $p = 0.040$) care and of receiving cognitive care referrals (OR = 1.94; $p = 0.003$). Greater clinical experience was associated with confidence in managing cognitive health ($p = 0.010$). Reliance on physiotherapists as an information source was linked to lower competence in cognitive health (OR = 0.53, $p = 0.023$). Years of experience predicted the educational training undertaken for cognitive and mental health care ($p = 0.034$).

Conclusion: The reported practice patterns may indicate care gaps and limited implementation of the national guidelines among physiotherapists in Italy. Since cognitive impairments and mental health issues are commonly encountered across physiotherapy specialties, we recommend that undergraduate curricula include more content in these areas and that additional opportunities for professional development be provided.

Keywords: Mental health, Psychological distress, Cognitive dysfunction, Education, Professional

What is already known about this topic?

- *Physiotherapy's role in mental health and cognitive impairment is underpinned by robust evidence and is receiving increasing recognition. While other countries have explored their application in practice, no data exist regarding Italian physiotherapists' clinical practice.*

What does the study add?

- *Although Italian physiotherapists acknowledge their role in managing patients' cognitive and mental health issues, they feel they lack competence, particularly regarding mental health. Targeted education, awareness among health professionals, and interdisciplinary collaboration are thus necessary.*

Introduction

In recent years, there has been a marked and accelerating growth in physiotherapy research within a broader

movement focused on neuropsychological health (1,2). This growing body of research helps enhance physiotherapists' practice and contributes to the recognition of their importance within the interdisciplinary healthcare teams responsible for prevention and treatment, particularly in areas where the usefulness of physiotherapists has previously been questioned (3). However, the translation of evidence into everyday clinical practice is not a straightforward process. Bridging this gap requires a multifaceted approach that includes up-to-date educational training, greater awareness of the role of physiotherapists among other healthcare professionals, and focused actions to support the adoption of evidence-based practice.

Received: December 11, 2026

Accepted: April 27, 2026

Published online: May 21, 2026

This article includes supplementary materials

Corresponding author:

Inaihá L Benincá

email: inaiha.laureanobeninca@unibg.it



Within this context, a relevant branch of physiotherapy is mental health. Psychological distress can be defined as an umbrella construct referring to a range of emotional and mental health difficulties, spanning from subclinical symptoms to clinically diagnosable conditions such as depression, anxiety, stress, and posttraumatic stress disorder (4). Individuals with psychological distress are at an increased risk for cardiometabolic conditions, sedentary lifestyles, social isolation, and frequently present neuropsychiatric symptoms (5). Physical activity and structured exercise can have a pivotal effect on the prevention and management of many such conditions, as has been extensively documented through high-quality research and in clinical guidelines over the past decade (6-9).

In addition to psychological distress, cognitive impairment is a critical component of neuropsychological health. Older adults recovering from hip fractures (10), individuals living with mild cognitive impairment or dementia (11), and those undergoing post-stroke (12) or traumatic brain injury (13) rehabilitation would benefit most from physiotherapy programs that integrate both physical and cognitive resources. Moreover, physical exercise plays a preventive role (14) and can reduce global cognitive decline and alleviate behavioral symptoms in individuals with mild cognitive impairment and dementia (15).

While physiotherapy education provides a solid foundation for addressing the physical aspects of rehabilitation, psychological distress and cognitive impairments in patients can significantly increase the complexity of the interventions that need to be implemented by physiotherapists (9,14). This is particularly relevant for older adults, as physical and psychological frailty often co-exist in this population. Accordingly, embracing a biopsychosocial model rather than a biomedical one becomes essential, as it acknowledges that psychological and social factors—along with biological ones—shape a person's health (17). This shift toward a more humanistic approach to healthcare emphasizes the connection between body and mind (18).

The most recent physical activity guidelines published by the Italian Ministry of Health in 2021 (19) provide updates on those released in 2019 (20). Notably, they include a chapter dedicated to physical activity as a tool for promoting mental health, with particular attention paid to individuals with mental health conditions and those with cognitive deficits and dementia. In the absence of physiotherapy-specific national guidelines, these recommendations offer a relevant contextual framework for Italian physiotherapists. Nearly five years have passed since these aspects were explicitly addressed in the national guidelines, so it is an opportune time to explore whether and how these inclusions have influenced clinical practice.

To this end, the primary outcome of the present study was to investigate the perceptions and experiences of Italian physiotherapists in managing patients with mental health conditions and cognitive impairments. Secondary outcomes were to examine whether (i) the physiotherapists' self-perceived competence in treating such patients depended on their years of practical experience, areas of clinical practice, and sources of information; (ii) the referrals the physiotherapists received were influenced by their areas of clinical

practice; and (iii) the physiotherapists' educational training had evolved over time.

Methods

Study design

This was a cross-sectional study. The reporting in this study conforms to the STROBE (21) and CHERRIES (22) framework.

Participants

To be eligible for inclusion in the study, the participants were required to be physiotherapists affiliated with a Provincial Order of Physiotherapists and to provide their informed consent to participate.

The sample size was calculated based on a previous study in which the same population had been analyzed (23). Currently, the total number of physiotherapists registered with all the Provincial Orders is 69,848 (24). Accordingly, based on the work of Taherdoost et al. (25), to achieve a 5% margin of error and a 95% confidence interval, a total of 384 responses were required to adequately represent this population.

This study received approval from the Ethics Committee of the University of Bergamo (Approval Number 2024_04_02). Before starting to answer the questionnaire, participants were informed about the expected duration of the survey. Prior to providing electronic informed consent to participate and proceed, they were given two information documents: the first contained detailed information about the study investigators and its objectives, the participation procedures, and the potential benefits and risks; the second described data processing, including what data would be collected, how and why it would be used, and how long it would be stored. All data were stored on a password-protected server.

Procedures

The questionnaire was delivered as an open survey and disseminated on the Internet through social media, the Provincial Orders of Physiotherapists in Italy, and the National Physiotherapists' Association. Of all the Provincial Orders, four agreed to share the questionnaire via email with their members. Subsequently, the National Physiotherapists' Association made the questionnaire available on its website for a period of three months and distributed it via email to all its members.

The social media channels used were dedicated to promoting physiotherapy courses and job opportunities. In addition, the National Physiotherapists' Association website was used, which is the official institutional platform of the Italian physiotherapy profession. The website provides regulatory updates, professional guidelines, and official communications addressed to licensed physiotherapists in Italy. It was a voluntary survey, and no incentives were offered. See Supplemental Material 1 for more information about how the survey was advertised.

The questionnaire was administered online using Google Forms (Google LLC, Mountain View, CA, USA). Items were not randomized, and no adaptive questioning strategy was used.



Respondents were able to navigate the survey and modify their answers using a “Back” button before submitting it. Each participant was allowed to complete the questionnaire only once by accessing it through their Google account. No cookies or IP address checks were used to prevent multiple submissions. Anonymity was preserved as no personally identifiable information, including email addresses, was collected. Each participant was assigned a unique identification number. The data were collected from January 2024 to April 2025.

Questionnaire

A preliminary version of the questionnaire was developed based on a review of the existing literature (26-30) and input from a panel of experts comprising physiotherapists and psychologists. To enhance clarity and comprehensibility, a focus group with 10 physiotherapists was subsequently conducted. The final version of the questionnaire included closed-ended, multiple-choice questions as well as optional open-text fields to allow the participants to provide information not captured in the predefined response options (Supplementary Material 1). Before proceeding with the questionnaire, the participants were provided with an explanation of the study’s purpose and data anonymity. They were then required to give their explicit consent for the use of their data for research purposes. The electronic survey platform was configured so that participants were required to answer all questions before submitting the survey.

The questionnaire had three sections, each displayed on a separate page:

1. *Participants’ characteristics*: These included age, sex, years of professional experience, region of work, main area of professional activity, setting of professional practice, and main sources of information used to acquire knowledge for clinical practice (7 items).
2. *Cognitive health section*: The participants were asked whether they had received educational training about the role of physiotherapy in cognitive improvement, whether they felt competent to manage patients with cognitive impairments, and in which clinical conditions they had observed cognitive deficits during their professional practice. They were also asked whether they had been requested by physicians to consider cognitive aspects during patient rehabilitation, whether they had ever treated patients who had been referred solely for cognitive or dementia-related issues, their opinion on the cognitive effects of motor rehabilitation, and whether they already included specific interventions targeting cognitive enhancement in their rehabilitation practice (7 items).
3. *Mental health section*: In this section, we queried whether the participants had gained prior work experience in mental health settings, which mental health conditions they had encountered in clinical practice, and whether their training had addressed the role of physiotherapy in supporting both physical and mental health in patients with mental health conditions. The participants were also asked whether they felt adequately trained to manage such patients, whether they had ever received

referrals specifically for mental health-related diagnoses, and which physical conditions they had observed among individuals with mental health conditions (6 items).

Data analysis

Only complete questionnaires were analyzed. First, a descriptive analysis was conducted using frequencies, percentages, and absolute values. Percentages are reported alongside the number of observed events (n) and the total number of participants who responded to the question (N), formatted as % (n/N). Subsequently, regression models were applied to examine the following outcomes: (a) self-perceived competence in managing patients with mental health and cognitive conditions (“yes,” “no,” “currently attending courses”); (b) whether the respondent had received patient referrals for these conditions (“yes,” “no”); (c) whether the respondent had been introduced during their educational training to the role of physiotherapy in managing the physical and mental health of patients with mental health conditions (“yes, in their physical health,” “yes, in their mental health,” “no”) and cognitive (“yes,” “no”).

Multinomial logistic regression was used for the outcomes with more than two categories, while binary logistic regression was used for dichotomous outcomes. For the models examining self-perceived competence (a), the following covariates were included: years of clinical experience, area of clinical practice (geriatric, musculoskeletal, neurological, and sports physiotherapy), and sources of professional information (other physiotherapists, scientific articles, courses, practical experience, clinical guidelines, and experts’ social media profiles). For the models examining patient referrals (b), the covariates included areas of clinical practice (geriatric, musculoskeletal, neurological, and sports physiotherapy). For the models examining educational exposure during training (c), the covariate was years of clinical experience categorized into four groups: 0-9, 10-19, 20-29, and ≥ 30 years.

The independent variables, *area of clinical practice* and *sources of information*, were transformed into dummy variables (“true” or “false”). Open-text responses were reviewed by the research team and grouped into new response categories when similar answers were identified. Categories with a frequency below 5% were not included in the analysis. Years of clinical experience were treated either as a continuous variable (a) or as a categorical variable (c). In all regression models, all selected predictors were entered simultaneously based on conceptual relevance.

For categorical predictors coded as dummy variables, the reference category corresponded to the absence of the characteristic (false). When entered as a categorical predictor, ≥ 30 years of experience was used as the reference category. For categorical outcomes, the reference outcome category was “no”.

Multicollinearity assumptions were assessed and met, and the model fit was evaluated using the Akaike Information Criterion (AIC). A p -value less than 0.05 was considered statistically significant. All the analyses were conducted using R version 4.3.3 (R Foundation for Statistical Computing, Vienna, Austria).

Results

A total of 434 responses were received, of which 11 were excluded because consent to participate was not provided. The data from 423 physiotherapists (294 female) were therefore included in the final analysis. The participants had a mean age of 42.2 years (SD = 10.7) and 18.3 years (SD = 10.7) of clinical experience. Most (88.5%) of the participants were located in Northern Italy.

The main areas of clinical practice were musculoskeletal (65.7%, 278/423), geriatric (39.7%, 168/423), neurological (37.3%, 158/423), and sports (12.2%, 52/423). Only one physiotherapist reported mental health as a main area of clinical practice (0.2%, 1/423). With regard to primary information sources, 81.1% (343/423) of the participants reported relying on courses, 75.2% (318/423) on their own practical experience, 53.7% (227/423) on clinical guidelines, 43% (183/423) on scientific articles, 33.1% (140/423) on other physiotherapists, and 9.7% (41/423) on expert profiles on social media. The most common practice settings were private clinics (35.2%, 149/423), followed by hospitals or accredited care facilities (30.5%, 129/423), home-based care (23.8%, 101/423), and residential care facilities (19.1%, 81/423).

Although 96% (406/423) of the physiotherapists believed that motor rehabilitation provides patients with cognitive benefits, 31.2% (132/423) reported having never included specific activities aimed at improving cognitive functioning in their treatments. Most (88.4%, 374/423) of the physiotherapists stated that they had been introduced to the role of physiotherapy in cognitive functioning during their educational training. However, 39.4% (167/423) reported not feeling competent to manage patients with cognitive deficits, while 10.8% (46/423) were currently attending courses to gain competence in this area. In terms of patient referrals, 39.9% (169/423) of the physiotherapists reported being asked to address cognitive aspects during patients' rehabilitation. Nevertheless, only 31.9% (135/423) had received a patient referred exclusively for cognitive impairment.

Less than a quarter (21%, 89/423) of participants reported having experience in a mental health setting. When asked whether the role of physiotherapists in mental health had been addressed during their educational training, 29.7% (126/423) responded that it had not, 22.2% (94/423) reported it had been covered in relation to both physical and mental health, and 43.7% (185/423) indicated it had been addressed only in the context of physical health. Despite this, 60.7% (257/423) of the physiotherapists stated that they did not feel competent in managing patients with mental health conditions, and at the time of the survey, 14% (59/423) were attending courses to acquire the necessary knowledge. Notably, the majority (84.6%, 358/423) had never received a patient referral specifically for a mental health-related condition.

The mental health conditions that the physiotherapists had encountered in their professional practice, the main physical conditions observed in patients with mental health conditions, and the conditions in which physiotherapists reported observing cognitive deficits can be found in Supplementary Material 2.

Multinomial logistic regression outcomes

With respect to the associations between self-perceived competence and years of experience, information sources, and clinical practice areas, our results showed that for each additional year of experience, the odds of the participants reporting competence to manage patients with cognitive deficits increased (OR = 1.03; 95% CI: 1.01-1.05; $p = 0.001$). The area of clinical practice was also associated with perceived sufficient competence. Compared to other areas of practice, the physiotherapists working in the neurological field had significantly higher odds of reporting competence in managing patients with cognitive deficits (OR = 2.47; 95% CI: 1.52-3.99; $p < 0.001$), whereas those in the musculoskeletal field had lower odds, although the overall association did not reach the predefined significance threshold (OR = 0.55; 95% CI: 0.34-0.90; $p = 0.055$). In terms of information sources, those who relied on other physical therapists for information had significantly lower odds of reporting competence (OR = 0.53; 95% CI: 0.33-0.86; $p = 0.023$; see Table 1).

With respect to managing patients with psychological distress, no significant association was found between years of experience and perceived competence ($p = 0.204$). However, the participants in the neurological field were more likely to report competence (OR = 1.90; 95% CI: 1.15-3.14; $p = 0.040$), while those working in geriatrics showed a nonsignificant trend toward higher odds of competence (OR = 1.66; 95% CI: 1.00-2.76; $p = 0.140$). No significant associations were found for the sources of information used to acquire knowledge ($p \geq 0.156$; see Table 1).

Their area of clinical practice was significantly associated with whether the participants had ever treated patients referred solely for cognitive impairment or dementia. Compared to other practice areas, the physiotherapists working in the neurological field had significantly higher odds of reporting such referrals (OR = 1.94; 95% CI: 1.24-3.05; $p = 0.003$). Those in the geriatric field similarly had higher odds, with the results approaching statistical significance (OR = 1.56; 95% CI: 0.99-2.45; $p = 0.052$). In contrast, those in the musculoskeletal area were significantly less likely to report patients being referred for cognitive reasons (OR = 0.41; 95% CI: 0.26-0.65; $p < 0.001$). No statistically significant associations were found in relation to referrals for conditions associated with mental health distress (Table 2).

Our findings regarding the association between years of experience and educational training demonstrated that years of experience significantly predicted whether the participants had received training to manage patients with cognitive deficits ($p = 0.010$). Compared to those with 30 or more years of experience, the physiotherapists with 0-9 years (OR = 0.18; 95% CI: 0.04-0.84), 10-19 years (OR = 0.13; 95% CI: 0.03-0.59), and 20-29 years (OR = 0.20; 95% CI: 0.04-0.93) had significantly lower odds of having received such training (Table 3).

Years of experience significantly predicted the educational training undertaken to manage patients with mental health distress ($p = 0.034$). Compared to the participants with 30 or more years of experience, those with 0-9 years' experience had significantly higher odds of having received training

TABLE 1 - Associations between self-perceived competence and years of experience, clinical practice areas, and information sources

Variables	Cognitive impairment			Psychological distress		
	Attending vs. No (OR [95% CI])	Yes vs. No (OR [95% CI])	p-value	Attending vs. No (OR [95% CI])	Yes vs. No (OR [95% CI])	p-value
Experience (years)	0.99 (0.95; 1.02)	1.03 (1.01; 1.05)	0.001	1.02 (0.99; 1.05)	1.01 (0.98; 1.03)	0.204
Area of practice						
Geriatric	1.12 (0.53; 2.33)	0.96 (0.60; 1.55)	0.925	1.28 (0.67; 2.44)	1.66 (1.00; 2.76)	0.140
Musculoskeletal	0.82 (0.37; 1.81)	0.55 (0.34; 0.90)	0.055	0.52 (0.27; 0.99)	0.77 (0.46; 1.29)	0.127
Neurological	1.35 (0.64; 2.84)	2.47 (1.52; 3.99)	<0.001	1.18 (0.63; 2.24)	1.90 (1.15; 3.14)	0.040
Sports	1.23 (0.46; 3.23)	1.29 (0.64; 2.56)	0.749	1.76 (0.74; 4.17)	1.17 (0.53; 2.58)	0.447
Sources						
Other PT	1.04 (0.50; 2.15)	0.53 (0.33; 0.86)	0.023	1.28 (0.68; 2.41)	0.84 (0.50; 1.42)	0.518
Scientific Articles	1.61 (0.75; 3.43)	0.79 (0.48; 1.28)	0.163	1.77 (0.92; 3.38)	1.38 (0.82; 2.32)	0.156
Courses	1.87 (0.70; 4.98)	1.10 (0.63; 1.93)	0.426	1.64 (0.70; 3.83)	0.92 (0.51; 1.67)	0.430
Own Experience	0.59 (0.28; 1.23)	1.25 (0.74; 2.11)	0.143	0.59 (0.30; 1.14)	0.80 (0.46; 1.39)	0.289
Guidelines	1.43 (0.68; 3.01)	1.02 (0.64; 1.62)	0.608	1.53 (0.81; 2.90)	0.95 (0.58; 1.56)	0.358

The outcome “self-perceived competence” categories were: “yes,” “no,” or “currently attending courses.” The latter refers to participants currently undertaking training to gain competence in managing patients with mental health or cognitive conditions. For all areas of clinical practice and sources of information, the reference category is False. p-values correspond to Type II likelihood ratio (LR) tests assessing the overall association between each predictor and the multinomial outcome. Odds ratios (OR) and 95% confidence intervals (CI) represent the estimated effects for each comparison with the reference category.

TABLE 2 - Associations between area of clinical practice and likelihood of receiving referrals for cognitive or mental health conditions

Area of practice	Cognitive referrals		Mental referrals	
	Yes vs. No (OR [95% CI])	p-value	Yes vs. No (OR [95% CI])	p-value
Geriatric	1.56 (0.99; 2.45)	0.052	0.82 (0.46; 1.47)	0.513
Musculoskeletal	0.41 (0.26; 0.65)	<0.001	0.72 (0.41; 1.28)	0.273
Neurological	1.94 (1.24; 3.05)	0.003	1.59 (0.91; 2.79)	0.102
Sports	0.65 (0.29; 1.44)	0.284	1.18 (0.50; 2.77)	0.695

For all areas of clinical practice, the reference category is False. p-values correspond to Type II likelihood ratio (LR) tests assessing the overall association between each predictor and the multinomial outcome. Odds ratios (OR) and 95% confidence intervals (CI) represent the estimated effects for each comparison with the reference category.

TABLE 3 - Associations between years of experience and educational training

Experience (years)	Cognitive impairment		Psychological distress			
	Yes vs. No (OR [95% CI])	p-value	Yes, physical vs No (OR [95% CI])	Yes, mental vs No (OR [95% CI])	Yes, both vs No (OR [95% CI])	p-value
30+	1		1	1	1	
0–9	0.18 (0.04; 0.84)	0.010	2.61 (1.24; 5.49)	3.81 (0.67; 21.7)	2.62 (1.15; 5.96)	0.034
10–19	0.13 (0.03; 0.59)		1.84 (0.93; 3.62)	3.17 (0.60; 16.51)	1.25 (0.57; 2.76)	
20–29	0.20 (0.04; 0.93)		1.19 (0.62; 2.29)	0.94 (0.14; 6.00)	0.70 (0.31; 1.54)	

p-values correspond to Type II likelihood ratio (LR) tests assessing the overall association between each predictor and the multinomial outcome. Odds ratios (OR) and 95% confidence intervals (CI) represent the estimated effects for each comparison with the reference category.

in physical health (OR = 2.61; 95% CI: 1.24-5.49) and both physical and mental health (OR = 2.62; 95% CI: 1.15-5.96). No significant differences were found for the "mental health only" category across the experience groups. Likewise, no significant differences were observed for the participants with 10-19 or 20-29 years of experience in any of the mental health training categories (Table 3).

The categories with <5% frequency that were excluded from the analysis were: cardiorespiratory, mental health, oncological, teaching, coordination/management, intensive care, pelvic floor, and pediatric for clinical practice areas; and multidisciplinary team and experts' social media profiles for sources of information.

Discussion

In this study, we explored the perceptions and experiences of Italian physiotherapists in managing patients' mental and cognitive health. Among others, our findings may indicate care gaps and limited implementation of the national guidelines among Italian physiotherapists.

Educational training

Our results indicated that education on cognitive functioning is more widely emphasized than that on mental health. While 88.4% (374/423) of the participants had been introduced to the role of physiotherapy in cognitive function, 70% (296/423) had received similar education regarding patients with psychological distress. Of those, only 26.2% (111/423) had been specifically informed about the role of physiotherapists in managing patients' mental health. These findings suggest that although training programs acknowledge the relevance of physiotherapy in mental health settings in Italy, this recognition is limited and primarily focused on physical outcomes despite strong evidence highlighting the broader mental health contributions physiotherapists can make (6-9).

The study participants with more years of professional experience were significantly more likely to have received training on their role in managing patients with cognitive impairments. Conversely, the findings for mental health training showed that the participants with 0-9 years of experience had significantly higher odds of having been trained in physical health and both physical and mental health, which reflects a positive shift in more recent training programs. However, when it came to training focused exclusively on mental health, this trend was not observed, which suggests that specific education in this area remains limited regardless of the number of years since graduation.

Self-perceived competence

Although physiotherapists are trained in and recognize the cognitive benefits of motor rehabilitation, nearly 40% (167/423) of those in our study reported feeling unprepared to manage patients with cognitive deficits. This finding is in line with those of previous studies (11,16), as it demonstrated that, while cognitive aspects are addressed during professional training, such education may not be sufficient to fully prepare clinicians for real-world practice. Moreover,

we found that increased professional experience was associated with greater confidence in managing patients with cognitive impairments, which may suggest that current training does not provide enough practical exposure. In fact, a recent study revealed that physiotherapy skills in dementia care are mainly acquired through "hands-on" learning in clinical environments (11).

A further finding of our study was that the participants who relied on other physiotherapists for information had significantly lower odds of reporting perceived competence. Although previous research has demonstrated that their colleagues' treatment choices play an important role in physiotherapists' clinical decision-making (31), the physiotherapists in our study appeared to rely less on peer input. Physiotherapists who rely on other experts may be influenced by a narrower informational ecosystem—a pattern that risks reinforcing existing practices rather than promoting the adoption of updated, evidence-based approaches.

Among the physiotherapists in our study, 60.7% (257/423) reported not feeling competent in managing patients with mental health conditions, and unlike cognitive deficits, this perception was not influenced by years of experience. This highlights a persistent gap in education that may hinder the development of essential skills in this domain. These findings are consistent with those from a study conducted in Portugal, in which coordinators of 19 physiotherapy programs acknowledged that general physiotherapy education training in mental health was insufficient (32). The competence of physiotherapists in such contexts is mixed (29), which possibly reflects international efforts, such as those in Australia, to establish mental health physiotherapy as a formal area of specialization (33). Although 96.9% (410/423) of the participants in our study reported relying on guidelines and scientific articles, their sources of information did not influence their perceived competence, which may reflect difficulties in the translation of scientific knowledge into clinical practice.

In line with the findings of Guitar et al. (12), who assessed physiotherapists' knowledge regarding cognitive functioning, our results showed that the physiotherapists working with neurological patients had greater confidence not only in managing patients with cognitive deficits but also those with mental health distress. Beyond highlighting the importance of such competencies for physiotherapists working with neurological conditions, this finding may reflect the Italian rehabilitation context, where patients with neurological conditions are often admitted to inpatient facilities and treated within multidisciplinary teams that include psychologists and neurologists, which can support physiotherapists in integrating the psychological dimension into their clinical practice.

As Quick et al. (16) indicated, there is a growing call to recognize dementia care as a specialized field within physiotherapy. Accordingly, some countries have developed dedicated mental health physiotherapy tracks (28). However, while specialized knowledge is undoubtedly essential for physiotherapists working directly in these domains, a foundational understanding of neuropsychological symptoms is equally important across all physiotherapy specialties, given their prevalence and potential impact on treatment outcomes.



Referrals

Referrals were assessed in this study due to their role in the Italian public healthcare system, where access to physiotherapy services within publicly funded or accredited settings requires a written referral from a general practitioner or specialist. Understanding how healthcare professionals perceive the role of physiotherapists in improving patients' quality of life is equally important, as it supports effective multidisciplinary collaboration, a topic that has been explored in previous research (34).

While they (39.9%, 169/423) had occasionally been asked to address cognitive aspects in rehabilitation, most (68.1%, 288/423) of the participants in our study never received referrals solely for cognitive impairment or dementia. To our knowledge, only one study, which was conducted in Germany and focused on Alzheimer's disease, has explored such referral patterns. The researchers found that just 6% of 801 patients had been referred to physiotherapy (35). These findings reflect a broader trend identified by Quick et al. (11), who highlighted the ongoing need to advocate for physiotherapy as an integral component of dementia care—a field still challenged by nihilistic attitudes. In contrast, more encouraging developments can be seen in acute care settings. For instance, greater recognition of the role of physiotherapy in managing cognitive impairment has been observed among practitioners working with patients following traumatic brain injury, with 90.7% reporting interdisciplinary collaboration to optimize outcomes (13). In addition, recognition is increasing regarding the need for better coordination with physiotherapists in managing patients with cognitive impairments following hip fractures (36).

This pattern is more pronounced for mental health-related conditions: 84.6% (358/423) of the participants in our study indicated that they had never received a patient referral explicitly for such cases. The recommendation or prescription of exercise by mental health professionals varies across countries. For example, in Switzerland, Germany, and Austria, more than half of professionals have reported using physical activity as part of the treatment (59.4%) and prevention (46.0%) of mental illness (37). In South Africa, 76% of mental health professionals indicated that they prescribe exercise at least occasionally (38), whereas in Brazil, approximately 41% reported never prescribing exercise, with only 12% doing so consistently (39). To the best of our knowledge, comparable data are not available for Italy. However, considering that physiotherapists in Italy are officially defined as healthcare professionals responsible for the prevention, treatment, and rehabilitation of motor and related functions following pathological events (40), we hypothesize that exercise prescriptions for patients with mental health conditions may also be underutilized in such contexts.

Interestingly, the physiotherapists working in the neurological field in our study had significantly higher odds of receiving cognitive impairment referrals, whereas those in the musculoskeletal field were less likely to report them. Indeed, 72.7% of the conditions in which participants observed cognitive impairments were related to the neurological field compared to only 8.2% in the musculoskeletal field (see Figure 1 in Supplementary Material 2). However,

the absence of significant results for mental health referrals appears counterintuitive. When asked about the physical conditions they observed in patients with mental health issues, chronic pain (37.4%) and musculoskeletal disorders (35.3%) were the most frequently reported (see Fig. 2 in Supplementary Material 2).

This study had some limitations. First, no objective or validated tools were used to comprehensively assess the study participants' competence; therefore, the findings may be subject to response bias and should be interpreted as exploratory. Second, the sample was predominantly composed of participants from Northern Italy, which may limit the generalizability of the findings to other regions of the country, particularly Central and Southern Italy. This geographic imbalance is relevant given regional disparities in healthcare organization and resource availability, as physiotherapists working in underrepresented areas may operate in different contexts that influence how patients' needs and access to care are identified and managed. Third, as multiple recruitment strategies were used, it was not possible to determine how many individuals had sight of the invitation to participate or how frequently they encountered it. Consequently, the findings may reflect the perspectives of physiotherapists who are more engaged within the professional community and who may have self-selected into the study.

Conclusion

This study suggests a gap between the acknowledged role of physiotherapists in addressing cognitive and mental health issues and their self-perceived competence. These results underscore the need to enhance education and training programs to better equip Italian physiotherapists.

Acknowledgments

We would like to express our sincere gratitude to the Ordine dei Fisioterapisti di Bergamo for their invaluable support in developing and disseminating this survey. We also thank the Ordini dei Fisioterapisti di Brescia-Mantova, Catanzaro-Crotone-Vibo Valentia, Parma-Piacenza, and Trento for sharing the survey with their members. Finally, and most importantly, we extend our thanks to the Federazione Nazionale degli Ordini dei Fisioterapisti (FNOFI) for making the survey available to all Italian physiotherapists.

Disclosures

Conflict of interest: The authors declare no conflict of interest.

Financial support: I.L.B., M.G., S.B., and F.M. were partially granted by Unione Europea—Next Generation EU (grant number PRIN-2022RAESSJ). The funder played no role in the design, conduct, or reporting of this study.

Authors' contributions: Conceptualization, I.L.B., M.M., and F.M.; methodology, I.L.B., S.B., and M.G.; formal analysis, I.L.B.; investigation, I.L.B. and M.G.; resources, M.M.; writing—original draft preparation, I.L.B.; writing—review and editing, F.M.; visualization, S.B.; supervision, F.M.; project administration, F.M.

Data availability statement: The data presented in this study are available on request from the corresponding author.



References

1. Han Q, Kim SM. Research progress and trends in exercise interventions for mild cognitive impairment: a bibliometric visualization analysis using CiteSpace. *J Multidiscip Healthc*. 2025; 18: 505-529. [CrossRef](#)
2. Heywood SE, Connaughton J, Kinsella R, et al. Physical therapy and mental health: a scoping review. *Phys Ther*. 2022;102(11): 1-16. [CrossRef](#) [PubMed](#)
3. Champoux M, Poirier A, Hudon C. Roles of physiotherapists in primary care teams: a scoping review. *BMJ Open*. 2025;15(2):e092276. [CrossRef](#) [PubMed](#)
4. Zhu Y, Jha SC, Shutta KH, et al. Psychological distress and metabolomic markers: a systematic review of posttraumatic stress disorder, anxiety, and subclinical distress. *Neurosci Biobehav Rev*. 2022;143:104954; Epub ahead of print. [CrossRef](#) [PubMed](#)
5. Stubbs B, Ma R, Schuch F, et al. Physical activity and mental health: a little less conversation, a lot more action. *J Phys Act Health*. 2024;21(10):963-964. [CrossRef](#) [PubMed](#)
6. Firth J, Siddiqi N, Koyanagi A, et al. The Lancet Psychiatry Commission: a blueprint for protecting physical health in people with mental illness. *Lancet Psychiatry*. 2019;6(8):675-712. [CrossRef](#) [PubMed](#)
7. Vera-Garcia E, Mayoral-Cleries F, Vancampfort D, et al. EPA guidance on physical activity as a treatment for severe mental illness: a meta-review of the evidence and position statement from the European Psychiatric Association (EPA), supported by the International Organization of Physical Therapists in Mental Health. *Schizophr Bull*. 2018;10:1-7.
8. Brooke LE, Lin A, Ntoumanis N, et al. Is sport an untapped resource for recovery from first episode psychosis? A narrative review and call to action. *Early Interv Psychiatry*. 2019;13(3):358-368. [CrossRef](#) [PubMed](#)
9. Palazuelos-González RA, Oude Voshaar RC, Liefbroer AC, et al. Impact of physical activities, sedentarism, and sleep on depression and psychological distress-prospective findings of the Canadian longitudinal study on aging. *J Affect Disord*. 2025;385:119413. [CrossRef](#) [PubMed](#)
10. McGilton KS, Vellani S, Zheng N, et al. Healthcare professionals' perspectives on rehabilitating persons with cognitive impairment. *Dementia (London)*. 2021;20(5):1772-1790. [CrossRef](#) [PubMed](#)
11. Quick SM, Lawler K, Shannon MM, et al. What is effective physiotherapy for dementia and how do we get there: a qualitative study. *Physiother Theory Pract*. 2025;41(7):1447-1457. [PubMed](#)
12. Guitar NA, Connelly DM, Murray LL, et al. A survey of Canadian physiotherapists' and physiotherapy students' knowledge and use of executive functioning assessments in clinical practice. *Physiother Can*. 2023;75(2):177-186. [CrossRef](#) [PubMed](#)
13. Adeyemi T, Daniel AS, Abudu FR, et al. Physiotherapists knowledge, attitudes, and practices about therapeutic interventions for cognitive and motor impairments in adult patients with traumatic brain injury. *Bull Fac Phys Ther*. 2024;29(1):78. [CrossRef](#)
14. Sofi F, Valecchi D, Bacci D, et al. Physical activity and risk of cognitive decline: a meta-analysis of prospective studies. *J Intern Med*. 2011;269(1):107-117. [CrossRef](#) [PubMed](#)
15. Law CK, Lam FM, Chung RC, et al. Physical exercise attenuates cognitive decline and reduces behavioural problems in people with mild cognitive impairment and dementia: a systematic review. *J Physiother*. 2020;66(1):9-18. [CrossRef](#) [PubMed](#)
16. Quick SM, Snowdon DA, Lawler K, et al. Physical therapist and physical therapist student knowledge, confidence, attitudes, and beliefs about providing care for people with dementia: a mixed-methods systematic review. *Phys Ther*. 2022;102(5): 1-11. [CrossRef](#) [PubMed](#)
17. Engel GL. The need for a new medical model: a challenge for biomedicine. *Science*. 1977; 196: 129-136. [CrossRef](#)
18. McGrath RL, Parnell T, Verdon S, et al. "We take on people's emotions": a qualitative study of physiotherapists' experiences with patients experiencing psychological distress. *Physiother Theory Pract*. 2024;40(2):304-326. [CrossRef](#) [PubMed](#)
19. Linee di indirizzo sull'attività fisica: Revisione delle raccomandazioni per le differenti fasce d'età e situazioni fisiologiche e nuove raccomandazioni per specifiche patologie. Ministero della Salute, 2021. [Online](#) (Accessed December 2025)
20. Ministero della Salute. Linee di indirizzo sull'attività fisica per le differenti fasce d'età e con riferimento a situazioni fisiologiche e fisiopatologiche e a sottogruppi specifici di popolazione. 2019. [Online](#) (Accessed December 2025)
21. Cevallos M, Egger M. STROBE (STrengthening the Reporting of Observational studies in Epidemiology). *Guidel Report Heal Res A User's Man* 2014; 2: 169-179.
22. Eysenbach G. Improving the quality of Web surveys: the Checklist for Reporting Results of Internet E-Surveys (CHERRIES). *J Med Internet Res*. 2004;6(3):e34. [CrossRef](#) [PubMed](#)
23. Santacaterina F, Miccinilli S, Sterzi S, et al. Rehabilitation after hip fracture surgery: a survey on Italian physiotherapists' knowledge and adherence to evidence-based practice. *Healthcare (Basel)*. 2023;11(6):799. [CrossRef](#) [PubMed](#)
24. FNOFI. Identikit dei Fisioterapisti Italiani: ecco i numeri della professione. Comunicato stampa 1.2023. [Online](#) (Accessed December 2025)
25. Hamed T. Determining sample size; how to calculate survey sample size. *Int J Econ Manag Syst*. 2017;2:237-239. [Online](#) (Accessed December 2025)
26. McGrath RL, Parnell T, Verdon S, et al. "People suffer and we see this": a qualitative study of the forms of patient psychological distress encountered by physiotherapists. *Physiother Theory Pract*. 2024;40(6):1300-1316. [CrossRef](#) [PubMed](#)
27. McGrath RL, Shephard S, Parnell T, et al. Recommended approaches to assessing and managing physiotherapy clients experiencing psychological distress: a systematic mapping review. *Physiother Theory Pract*. 2024;40(11):2670-2700. [PubMed](#)
28. Bravo C, Minano-Garrido E, Carballo-Costa L, et al. Beliefs and self-perceptions of Spanish mental health professionals about physical therapy in mental health: an observational survey study. *Healthcare (Basel)*. 2023;11(24):3136. [CrossRef](#) [PubMed](#)
29. McCurdy AP, Lamboglia CG, Lindeman C, et al. The physical activity sector within the treatment of mental illness: A scoping review of the perceptions of healthcare professionals. *Ment Health Phys Act*. 2020;19:100349. [CrossRef](#)
30. Tehrani R, Maki D, Teixeira MJC, et al. Correction: allied health professionals' experiences and views towards improving musculoskeletal services in the UK for patients with musculoskeletal and co-existing mental health conditions: a qualitative study. *BMC Musculoskelet Disord*. 2024;25(1):404. [CrossRef](#) [PubMed](#)
31. Gleadhill C, Bolsewicz K, Davidson SRE, et al. Physiotherapists' opinions, barriers, and enablers to providing evidence-based care: a mixed-methods study. *BMC Health Serv Res*. 2022;22(1):1382. [CrossRef](#) [PubMed](#)
32. Brito O, Carreira JC. Professional competences of the physiotherapists in the field of mental health in Portugal: a questionnaire based survey. *Ann Med*. 2021;53(sup1):2-3. [CrossRef](#)
33. Australian Physiotherapy Association. Statement from the Australian Physiotherapy Association on formalising the role of physiotherapy in mental health care. 1-5. [Online](#) (Accessed December 2025)
34. Kleemann E, Bracht CG, Stanton R, et al. Exercise prescription for people with mental illness: an evaluation of mental health



- professionals' knowledge, beliefs, barriers, and behaviors. *Br J Psychiatry*. 2020;42(3):271-277. [CrossRef PubMed](#)
35. Gandhi P, Klatt BN, Agrawal Y. Physical and vestibular physical therapy referrals in people with Alzheimer disease. *Alzheimer Dis Assoc Disord*. 2021;35(2):169-171. [CrossRef PubMed](#)
 36. Fox C, Hammond SP, Shepstone L, et al. Enhanced recovery pathway for older people with hip fracture and cognitive impairment in acute hospitals: the PERFECTED research programme including an RCT. *Program Grants Appl Res*; 2025: 1-88. [CrossRef](#)
 37. Imboden C, Mikutta C, Hemmeter U, et al. Physical activity in psychiatry: current state and challenges. *Sport Psychiatry*. 2024;3(4):187-195. [CrossRef](#)
 38. Marais BS. South African mental healthcare providers' views about exercise for people with mental illness. *S Afr J Psychiatr*. 2024;30:2227. [CrossRef PubMed](#)
 39. Kleemann E, Bracht CG, Stanton R, et al. Exercise prescription for people with mental illness: an evaluation of mental health professionals' knowledge, beliefs, barriers, and behaviors. *Braz J Psychiatry*. 2020;42(3):271-27. [CrossRef](#)
 40. Ministero della Sanità. Decreto 14 settembre 1994, n. 741 – Regolamento concernente l'individuazione della figura e del relativo profilo professionale del fisioterapista. 1995. [Online](#) (Accessed December 2025)