

Physiotherapy management of nociplastic pain: A Delphi study of Italian specialists.

Abstract

Background and purpose: Nociplastic pain due to central sensitization (CS) is common in people suffering from chronic pain, but no clinical practice guideline is available in rehabilitative settings for patients' management.

The aim of this study is to achieve expert consensus on physiotherapy competencies in the management of people with nociplastic pain and suspected CS mechanisms.

Methods: A web-based Delphi process was employed. Experts in the rehabilitation field were recruited following pre-defined eligibility criteria. Following completion of three Delphi rounds the final list of competencies was generated.

Results: Twenty-three participants were recruited. They all completed Round 1 (23/23, 100%), twenty Round 2 and Round 3 (20/23, 87%). Following Round 1, seven areas were identified by the panel as crucial for CS physiotherapy management; 19 competencies out of 40 reached the consensus between experts, and nine additional competencies were added to Round 2 following literary review. Round 2 identified the agreement for all the 29 competencies. During Round 3, all the experts confirmed the final list generated through the consensus process.

Discussion: An agreement between experts was found for the final list of competencies that a physiotherapist should implement every time it approaches people with suspected CS mechanisms. Further research is needed to support the clinical utility of our findings and their applicability in daily practice.

Keywords: physical therapy; pain; central sensitization; Delphi technique

Introduction

Pain is a significant health problem for people with musculoskeletal disorders, particularly when it lasts over 3 months and becomes chronic ¹. Approximately 10% to 20% of individuals in Western society experience persistent pain, impacting general well-being and quality of life ². In many cases, the transition from acute to chronic pain seems to be related to neuroplastic changes occurring in the Central Nervous System (CNS), a well-known process called Central Sensitization (CS) ^{3,4}. CS is characterized by increased responsiveness of nociceptive neurons in the CNS to their normal or subthreshold afferent input ⁵. Evidence of CS has been described in patients with many chronic pain syndromes (e.g., fibromyalgia, irritable bowel syndrome, interstitial cystitis, etc.) ⁶. Due to the

increasing interest in CS, the International Association for the Study of Pain (IASP) has recently coined the term “nociplastic” to describe the third category of pain that is mechanistically distinct from nociceptive and neuropathic pain ⁷. Although CS is not the only cause, mechanisms of sensitizations of the CNS play an essential role in nociplastic pain ⁸. Early identification of people with suspected CS mechanisms is necessary due to higher severity of pain, reduced quality of life and poor prognosis ⁹. Despite this, no clinical practice guidelines are available to manage people with suspected CS in rehabilitative settings ^{2,6,10,11}. Since the 1950s, one of the most valuable methods to address clinical practice consensus in health and medicine was the Delphi technique ¹². Delphi consensus method aims to develop convergence of minds on a topic of interest where knowledge is limited, insufficient or conflicting ¹³. Based on this, this Delphi study aims to reach a consensus on the physiotherapy management of people with pain and suspected CS mechanisms in the Italian scenario.

Methods

Design

A web-based Delphi process was employed and is reported following the Conducting and Reporting Delphi Studies (CREDES) recommendations to ensure the quality and transparency of the consensus process ¹². This study has been reviewed by the Ferrara University Hospital Ethics Committees (246/2021/Oss/AOUFe). Google form was used to construct and distribute to participants a three-round survey. Participants had two weeks to complete each round. Two reminders were sent to non-responders one week and one day before the conclusion of each round. Consensus criteria were defined for each round to establish the agreement between participants. At the end of the third round, participants received a report of all practices that reached a consensus. All procedures of the web-based Delphi are reported in Figure 1.

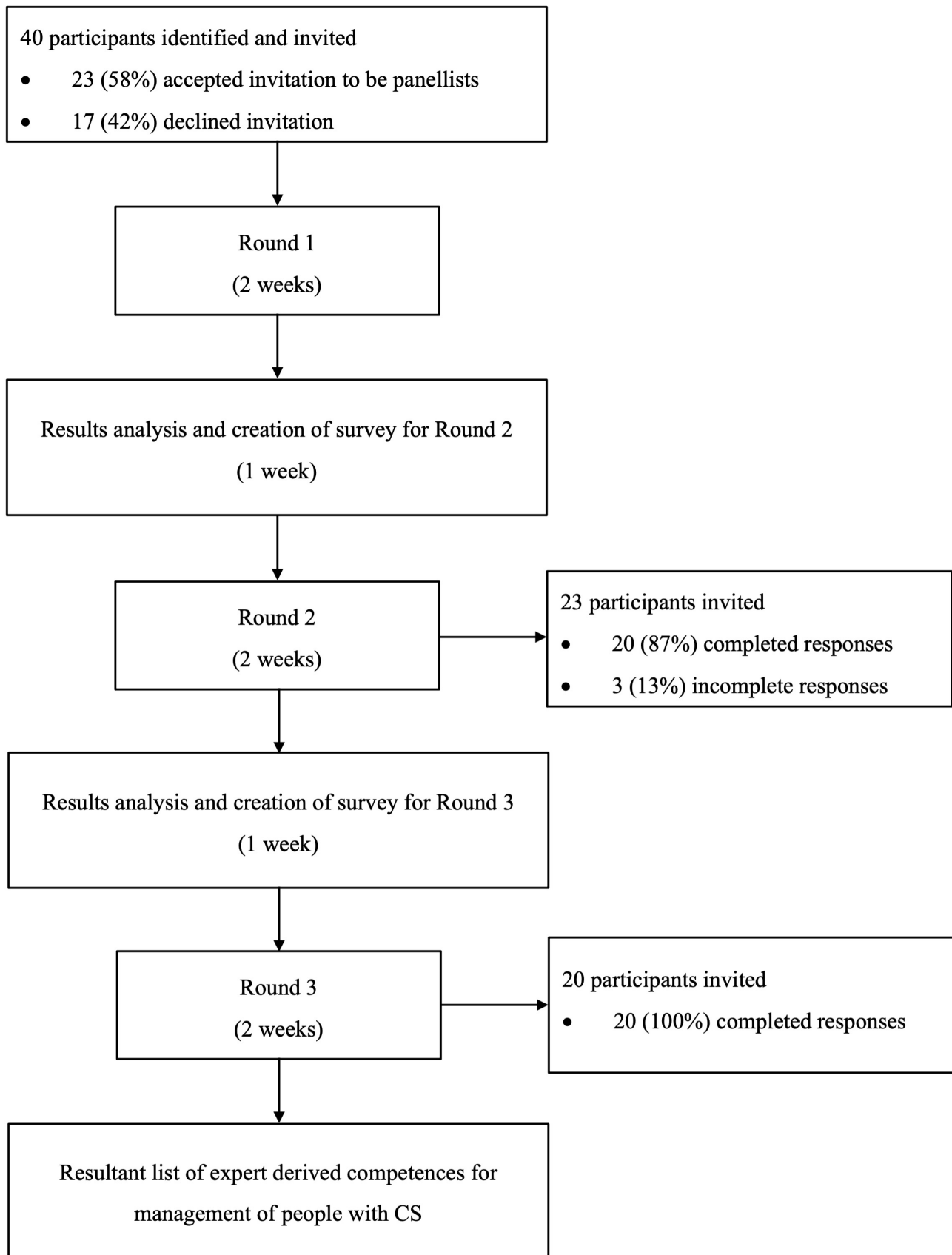


Figure 1. Details of web-based Delphi process

Steering committee

A steering committee was formed to develop and conduct this project, ensuring methodology and data analysis quality. The steering committee consisted of 5 of the authors of this study. The first author (AB) has a doctorate in neuroscience and experience in pain field research. The co-author (MM) is a lecturer in Master Program in Applied Physiotherapy in Manual Therapy with long experience in pain management. The remaining three members of the steering committee were physiotherapists (AS, IT, GA).

Participants

The selection of experts followed pre-defined eligibility criteria, according to CREDES recommendations. Eligibility criteria were: (1) physiotherapy degree and specialization in Orthopedic Manipulative Physical Therapy in the Italian context, (2) lecturer at International Federation of Orthopedic Manipulative Physical Therapists (IFOMPT) courses, (3) clinical and/or academic expertise in pain syndromes management. A minimum number of participants was defined at 20, as described in the literature, if the background of the Delphi participants is homogeneous¹⁴. The anonymity of participants was guaranteed as the entire process was handled by the steering committee, and participants didn't know who was participating in the panel.

Recruitment

Forty potential panellists were invited to participate in the web-based Delphi process by mail. All invited participants were informed about the aims and procedures of the study and had one week to confirm their participation. Participants who agreed to participate in the consensus process completed an electronic informed consent form, conflict of interest and general information form.

Procedure

Round 1

In Round 1, panellists evaluated the usefulness of physical therapist competences in managing people with signs of CS through closed-ended questions. A list of physical therapist competences is well described by World Confederation for Physical Therapy (WCPT) guideline for physical therapist professional entry-level education¹⁵ and translated in the Italian context by Physical Therapist Core Competencies^{16,17} (Table 1). Furthermore, for every competence included, panellists have to explain how they act in their clinical practice every time they approach people where a CS mechanism is suspected; the use of open-ended questions in this phase allows to avoid bias due to predetermined contents¹⁸. Panellists who didn't respond within the deadline were excluded from the study. All

answers collected in Round 1 were analyzed and discussed by the steering committee before constructing the Round 2 survey.

Table 1 – List of competencies following different frameworks

Physical therapist practice following WCPT	Physical therapist competencies following Italian “core competence”
Examination/assessment of the patient	Evaluation
Formulation of a diagnosis, prognosis and plan	Formulation of a functional diagnosis Formulation of a functional prognosis Planification of an intervention
Consultation with own expertise and determination when patient needs to be referred to another health professional	
Implementation of an intervention/treatment programme	Implementation of an intervention
Determination of the outcomes of any intervention/treatment	Assessment of intervention results
Make recommendations for self-management	Provide advice

Round 2

Agreement between closed-ended questions was assessed by analyzing yes and no percentages¹⁹. Physiotherapist competences that reached high consensus in Round 1 (level of agreement $\geq 50\%$) were included in the final list of competences. Competences that reached a level of agreement between 49% and 17% were included in Round 2. Competences that reached low consensus in Round 1 (level of agreement $< 17\%$) were removed from the final list of competences, and the panel was informed about the exclusion. Competences generated from a preliminary literary review conducted by the steering committee and not mentioned by the panel was included in Round 2. Panellists were asked to comment if they agreed with the inclusion of competences from literary review and to explain motivation if they disagree. The decision to include the literary review in Round 2 was to avoid reducing the stream of thoughts and ideas generation specific of the Delphi method¹⁴.

Round 3

Analysis of Round 2 and steering committee discussion was completed as for Round 1. A list of answers that achieved consensus was generated and sent to all participants who completed Round 2. Panellists were asked to comment on the results to include components of physiotherapy practice in the final list of competencies and behaviors for the management of people with CS mechanisms.

Data management and analysis

Three members of the steering committee (AS, IT, GA) were responsible for data management and analysis. Characteristics of the sample and survey answers were inputted into an Office Excel worksheet and analyzed using descriptive statistics. Qualitative data were collated in an Office Word document. Frequencies and percentages were used to establish consensus between answers of the three rounds of this Delphi process. Consensus criteria were set for each round as specified in the previous sections.

Results

Participants

Twenty-three of the invited experts decided to take part in the study. Most participants were male (96%) with a mean age of 42 years (SD 6.8). The most common highest academic qualification among participants was a bachelor's degree (48%), followed by an MSc (39%) and PhD (13%). They usually worked for 16-20 years (35%). Most participants work as freelancers in private practice in their physiotherapy clinic (87%). Detailed characteristics of the sample are reported in Table 2.

Table 2 – Characteristics of the panel of experts

		Participants (n = 23)	%
Age (years)		42.2 (6.8)	
Sex	M	22	95.6
	F	1	4.4
Highest academic qualification	Bachelor's degree	11	47.8
	Master of Science	9	39.1
	PhD	3	13.1
Work experience (years)	5 - 10	2	8.7
	11 - 15	6	26.1
	16 - 20	8	34.8
	> 20	7	30.4
Work	Self employed	20	86.9
	Employee	3	13.1

Round 1

All the participants completed Round 1. Consensus about behaviors that a physiotherapist should implement in managing people with CS signs was achieved for all the proposed areas, with a mean percentage of agreement of 93.1%. The exact percentages of the agreement for each area are reported in Table 3. Furthermore, panellists have to decline how they act in their clinical practice for every area included.

Area 1: detection of rehabilitative needs

Panellists were consulted about identifying other professionals to be involved in the management of people with CS signs. The most cited professional was a psychologist (16/23, 69.6%), and it was directly included in the final list of professionals; pain therapists (6/23, 26.1%) and general practitioners (5/23, 21.7%) were included in Round 2 for further discussions about their inclusion in the final list. Other professionals such as neurologists, anesthesiologists, rheumatologists, or psychiatrists didn't reach the 17% of consensus and were excluded.

Area 2: assessment and examination

Panellists were consulted about the patient's medical history and clinical examination useful for identifying people with suspected CS mechanisms. The presence of concomitant chronic disease was cited by the 21.7% (5/23) of the panel and was included in Round 2. The most cited diseases included in the final list were: the presence of psychological stress factors or yellow flags (anxiety, depression, kinesiophobia, catastrophizing, negative beliefs about the pain) cited by 82.6% (19/23) of the panel, disproportionate pain compared to the lesion (18/23, 78.2%), diffuse pain without clear body distribution (16/23, 69.6%), pain duration beyond three months (14/23, 60.9%), presence of allodynia or hyperalgesia (13/23, 56.5%). Physical inactivity and fatigue (4/23, 17.4%) were included in Round 2 due to literary review results²⁰. The ineffectiveness of previous medical or physiotherapy treatments were excluded without reaching 17% of consensus. Assessment tools useful to identifying potential CS mechanism were: Central Sensitization Inventory (CSI) (17/23, 73.9%), Tampa Scale of Kinesiophobia (TSK) (16/23, 69.6%), Pain Catastrophizing Scale (PCS) (13/23, 56.5%) and Quantitative Sensory Test (QST) (12/23, 52.2%). Assessment tools specific for psychological disorders (Depression Anxiety Stress Scale (DASS), Generalized Anxiety Disorder Assessment (GAD-7), Pain Anxiety Symptom Scale (PASS-20), Hospital Anxiety and Depression Scale (HADS) (5/23, 21.7%), Fear-Avoidance Beliefs Questionnaire (FABQ) (9/23, 39.1%) and Pain Self-Efficacy Scale (PSEQ) (7/23, 30.4%) were included in Round 2.

Area 3: clinical reasoning

The majority of the panel (19/23, 82.6%) voted this area as specific to the physiotherapy process, not limited to people with CS mechanisms. For this reason, no other behaviors were identified.

Area 4: diagnosis formulation

Panellists were consulted about the identification of screening tools and diagnostic criteria useful to identify patients who have symptoms that may be related to CS mechanisms. The most cited instruments included in the second round were the Central Sensitization Inventory (CSI) score²¹ (5/23, 21.7%) and the algorithm proposed by Nijs to differentiate predominant neuropathic, nociceptive and CS pain [2] (4/23, 17.4%). Smart's classification for central pain²² cited by the 13% (3/23) of the panel was included due to literary review results^{2,10,22-24}. 17.4% (4/23) of participants declared that no diagnostic criteria were valid for identifying people with possible CS mechanisms.

Area 5: prognosis formulation

Panellists were consulted about the consequences that a CS mechanism may have on prognosis definition.

The most cited consequence was a longer recovery time that reached 78.2% (18/23) of the consensus and was included in the final list; uncertainty about the prognosis (7/23, 30.4%) and special need for an educational approach to pain mechanisms (5/23, 21.7%) was included in Round 2.

Area 6: treatment plan and intervention

Panellists were consulted about treatment modalities and how to promote therapeutic alliance between patient and physiotherapist. Sharing of treatment goals (15/23, 65.2%) and patient education (12/23, 52.2%) were the most cited alliance strategies and were included in the final list. Treatment rational explanation (6/23, 26.1%) and patient empowerment (4/23, 17.4%) were included in the second round. The most cited treatment modalities were education about pain mechanisms (21/23, 91.3%), therapeutic exercise (18/23, 78.3%), general physical exercise (12/23, 52.2%) and a tailored rehabilitative approach (12/23, 52.2%). Treatment modalities included in Round 2 for further discussions were: self-efficacy promotion (10/23, 43.5%), graded exposure activity (8/23, 34.8%), manual therapy (7/23, 30.4%) and the use of pleasant activities for the patient (4/23, 17.4%). According to literary support, cognitive behavioural therapy (2/23, 8.7%) was included in Round 2⁸.

Area 7: post-treatment assessment

Panellists were consulted about verifying treatment results when they approach a patient with a suspected CS mechanism. Most of the sample declared using pre-treatment assessment tools to verify the efficacy of therapy and goals achievement (15/23, 65.2%). Other modalities were: patient interview about symptoms regression (8/23, 34.8) and reported improvement in activity and participation (7/23, 30.4%). All these assessment modalities didn't reach the 50% of consensus and were included in the second round.

Area 8: recommendations for self-management

Panellists were consulted about key points valuable to promote self-efficacy in CS management. Education about CS mechanisms and related psychosocial and environmental factors was the only key point in Round 2 due to consensus superior to 17%.

Round 2

Twenty participants completed the second round. All the interventions that passed to the second round reached a consensus percentage superior to 50% and were included in the final list. Following literary review, the assessment and examination area was enriched with: pain that gets worse at night and sleep disorders, bad general health conditions, bilateral pain, hypersensitivity to non-painful stimuli,

memory, concentration, and mood disorders ⁸. In the treatment plan and intervention area, low-intensity mobilization, neurodynamic techniques, and transcutaneous electrical nerve stimulation were found in the literature and included in Round 2 ²⁵. A detailed list of behaviors and agreements is reported in Table 3.

Round 3

Twenty participants completed the last round, and the final list of behaviors that a physiotherapist should implement in managing people with CS signs was confirmed. (Table 3)

Table 3 – List of competencies and agreement for each Delphi round

Area		% Of agreement	
		Round 1	Round 2
Detection of rehabilitative needs	Involvement of:		
	Psychologist	69.6	
	Pain therapist	26.1	90
	General practitioner	21.7	75
Assessment and examination	Presence of:		
	Concomitant chronic disease	21.7	90
	Psychological stress factors or yellow flags	82.6	
	Disproportionate pain	78.2	
	Diffuse pain	69.6	
	Pain duration > 3 months	60.9	
	Allodynia or hyperalgesia	56.5	
	Physical inactivity and fatigue	17.4	90
	Pain worst at night and sleep disorders ^a		95
	Bad general health condition ^a		85
	Bilateral pain ^a		80
	Hypersensitivity to non-painful stimuli ^a		100
	Memory, concentration, and mood disorders ^a		90
	Use of:		
Central Sensitization Inventory	73.9		
Tampa Scale of Kinesiophobia	69.6		
Pain Catastrophizing Scale	56.5		
Quantitative Sensory Test	52.2		

	Assessment tools for psychological disorders	21.7	90
	Fear-Avoidance Beliefs Questionnaire	39.1	90
	Pain Self-Efficacy Scale	56.5	
Diagnosis formulation	Use of:		
	Central Sensitization Inventory	21.7	95
	Nijs algorithm	17.4	95
	Smart's classification for central pain ^b	13.1	90
Prognosis formulation	Longer recovery time	78.2	
	Uncertainty about the prognosis	30.4	75
	Need of educational approach about pain mechanisms	21.7	95
Treatment plan and intervention	Strategies:		
	Sharing of treatment goals	65.2	
	Patient education	52.2	
	Treatment rational explanation	26.1	100
	Patient empowerment	17.4	100
	Pain neuroscience education	91.3	
	Therapeutic exercise	78.3	
	Physical exercise	52.2	
	Tailored rehabilitative approach	52.2	
	Self-efficacy promotion	43.5	100
	Graded exposure activity	34.8	100
	Manual therapy	30.4	65
	Use of pleasant activities for the patient	17.4	85
	Cognitive behavioural therapy ^b	8.7	95
	Low intensity mobilization ^a		65
	Neurodynamic techniques ^a		60
	Transcutaneous electrical nerve stimulation ^a		50
Post-treatment assessment	Use of pre-treatment assessment tools	65.2	
	Interview about symptoms regression	34.8	95
	Reported improvement in activity and participation	30.4	95
Recommendations for self-management	Education about CS mechanisms	39.1	100

^a behaviors included in Round 2 following literary review

^b behaviors included in Round 2 following literary review despite agreement percentage

1 **Discussion**

2 This is, to our knowledge, the first web-based, three rounds, Delphi consensus process to identify
3 cardinal points of physiotherapy management for people with signs and symptoms of sensitization.
4 One of the main issues about CS detection was the need to differentiate between the process occurring
5 in the CNS responsible for neural signaling amplification and chronic pain ²⁶. The identification of
6 CS as one of the major contributors to pain maintenance shifted attention away from considering a
7 peripheral mechanism as the principal responsible for long-lasting pain.

8 Experts identified the participation of psychologists, pain therapists and general practitioners as
9 mandatory for a comprehensive approach to people with suspected CS syndrome. Identifying the
10 rehabilitation team's professionals is essential for guaranteeing the best results of pain rehabilitation
11 ^{27,28}. A multidisciplinary rehabilitative team should be part of the biopsychosocial approach useful in
12 the management of a complex phenomenon like CS ²⁹. Looking at the European context, a survey on
13 people with chronic pain found that their general practitioner saw the 70% of respondents but only
14 the 2% of the sample were treated by a pain management specialist; the Italian scenario was a little
15 more encouraging with involvement of pain specialist in the 43% of the sample ⁹.

16 Proceeding with the list of competences, analysis of the patient's medical history and clinical signs
17 belonging to the physical and psychological state of the person appears to be crucial for CS process
18 identification. Psychological stress factors seem to influence the pain-facilitating pathways,
19 contributing to pathological modifications identified in CS patients ³⁰. Although the identification of
20 pain mechanisms goes beyond this project, the presence of altered psychological aspects needs to be
21 considered in the physiotherapy management of CS. Also, the assessment of possible yellow flags
22 seems to be crucial for the success of the physiotherapy process due to the importance of psychosocial
23 factors related to chronicity of pain ³¹. The search of psychosocial factors in chronic syndromes
24 management is well supported in the literature ^{32,33}, but screening for yellow flags remains uncommon
25 in clinical practice ^{34,35}. This lack may be due to the weak link identified between psychosocial factors
26 related to patient condition and the psychosocially based intervention recommended ³⁴.

27 The experts endorsed the identification of defined screening tools for the detection of possible CS
28 mechanisms. However, a recent systematic review highlights the difficulty in defining a gold standard
29 to evaluate the presence of CS ³⁶. The complexity of CS cannot be fully explained by assessing clinical
30 features suggestive of sensitization, like widespread pain or hyperalgesia ^{29,37}. The panel identified
31 the CSI as the most useful screening tool for CS detection. However, the lack of a gold standard
32 measure of CS makes the content validity of the CSI challenging to be directly verified ³⁸,
33 and the use of CSI is suggested in combination with other clinical features of CS (e.g., pain duration,
34 evoked pain hypersensitivity) ³⁹. The presence of widespread hyperalgesia and allodynia was

35 identified as crucial in people with CS ³⁹; a recent Delphi study on tests for CS assessment identified
36 PPT and temporal summation as feasible and suitable to be used in general practice ⁴⁰. All the
37 panellists recommended using clinical reasoning for diagnosis and prognosis definition. The IASP
38 tried to help clinicians in their clinical reasoning process, providing criteria for the classification of
39 pain affecting the musculoskeletal system and considering CS as a critical underlying mechanism of
40 nociplastic pain ⁴¹. The identification of CS as a possible explanation of severe pain and other
41 symptoms experienced by the patient may facilitate the management of pain syndromes, including
42 prognosis formulation. Predominant CS pain seems to be related to poor prognosis. Therefore it's of
43 prime importance to identify those patients for the definition of the best treatment option ¹⁰.
44 Treatment planification and intervention require a common goal definition that is necessary for a
45 strong therapeutic alliance ⁴². Patient education about pain mechanisms was observed as efficacy in
46 pain syndromes with predominant sensitization components when combined with other therapeutic
47 approaches, such as therapeutic exercise or cognitive behavioral therapy ^{8,43}. All the mentioned
48 treatment modalities focus on the top-down approach, working on how the central nervous system
49 processes noxious input and how pain is finally perceived ⁴⁴. Top-down and bottom-up approaches
50 need to be combined to produce the best individually tailored intervention ²⁹, working on
51 psychological and physical components of long-lasting pain ³⁴. Due to the multifaceted nature of CS,
52 also post-treatment assessment needs to be adapted. Modifications in pain symptoms cannot be the
53 only way to measure pathology evolution; pain variability might not represent a reliable indicator of
54 treatment efficacy when a sensitized central nervous system is present. For this reason, a long-term
55 assessment focused on all the biopsychosocial aspects is mandatory ²⁹.

56

57 ***Strengths and limitations***

58 Strengths of this study include the quality and transparency of the consensus process in line with the
59 CREDES recommendations ¹². The sample size was in line with evidence-based recommendations
60 ¹⁴. Furthermore, Delphi results represent a practical guideline for clinicians in managing people with
61 suspected CS syndromes and being the starting point of future research on physiotherapists' behaviors
62 in chronic pain syndromes treatment. A limitation of this study was that the panel was mostly made
63 up of male self-employed physiotherapists and, therefore, not fully representative of the profession.
64 Furthermore, the study recruited only national experts, and the consensus may not fully represent an
65 internationally accepted point of view.

66

67 **Conclusion**

68 This study has led to expert consensus-derived lists of competencies that a physiotherapist should
69 implement every time approaches people with suspected CS mechanisms. A detailed list of steps was
70 defined to better characterize the physiotherapy process applicable in clinical practice. These steps
71 derived from existing procedures described in the literature and were integrated with additional
72 behaviors identified by the participants in this web-based Delphi process. Our results can open the
73 door to a new way to decline the physiotherapy approach to specific health conditions where theory
74 and practice struggle to find a meeting point. Further research is needed to support the clinical utility
75 of the final list of physiotherapy behaviors and its applicability in daily practice.

76

77 **Implications for Physiotherapy Practice**

- 78 • This study suggests that clinical practice guideline is necessary to manage people with
79 suspected central sensitization in a rehabilitative setting.
- 80 • This study provides an expert consensus-derived list of competencies that a physiotherapist
81 should implement every time approaches people with suspected sensitization.

82

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85

86 **References**

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S1 CREDES Checklist:

Recommendations for the Conducting and REporting of DElphi Studies (CREDES)[1]

Items of reporting	Reported on page
<i>Purpose and rationale.</i> The purpose of the study should be clearly defined and demonstrate the appropriateness of the use of the Delphi technique as a method to achieve the research aim. A rationale for the choice of the Delphi technique as the most suitable method needs to be provided.	3
<i>Expert panel.</i> Criteria for the selection of experts and transparent information on recruitment of the expert panel, sociodemographic details including information on expertise regarding the topic in question, (non)response and response rates over the ongoing iterations should be reported.	4, 5, Table 2
<i>Description of the methods.</i> The methods employed need to be comprehensible; this includes information on preparatory steps (How was available evidence on the topic in question synthesised?), piloting of material and survey instruments, design of the survey instrument(s), the number and design of survey rounds, methods of data analysis, processing and synthesis of experts' responses to inform the subsequent survey round and methodological decisions taken by the research team throughout the process.	4-7, Figure 1
<i>Procedure.</i> Flow chart to illustrate the stages of the Delphi process, including a preparatory phase, the actual 'Delphi rounds', interim steps of data processing and analysis, and concluding steps.	Figure 1
<i>Definition and attainment of consensus.</i> It needs to be comprehensible to the reader how consensus was achieved throughout the process, including strategies to deal with non-consensus.	5
<i>Results.</i> Reporting of results for each round separately is highly advisable in order to make the evolving of consensus over the rounds transparent. This includes figures showing the average group response, changes between rounds, as well as any modifications of the survey instrument such as deletion, addition or modification of survey items based on previous rounds.	7-11, Table 3
<i>Discussion of limitations.</i> Reporting should include a critical reflection of potential limitations and their impact of the resulting guidance.	13, 14
<i>Adequacy of conclusions.</i> The conclusions should adequately reflect the outcomes of the Delphi study with a view to the scope and applicability of the resulting practice guidance.	14
<i>Publication and dissemination.</i> The resulting guidance on good practice in palliative care should be clearly identifiable from the publication, including recommendations for transfer into practice and implementation. If the publication does not allow for a detailed presentation of either the resulting practice guidance or the methodological features of the applied Delphi technique, or both, reference to a more detailed presentation elsewhere should be made (e.g. availability of the full guideline from the authors or online; publication of a separate paper reporting on methodological details and particularities of the process (e.g. persistent disagreement and controversy on certain issues)). A dissemination plan should include endorsement of the guidance by professional associations and health care authorities to facilitate implementation.	NA

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