


# Inclusion of physiotherapists in clinical practice guidelines: The Chilean experience


*Inclusão de fisioterapeutas em diretrizes de prática clínica: a experiência chilena*

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## Abstract

**Introduction:** Including physiotherapists is crucial for developing comprehensive clinical practice guidelines (CPGs) to manage health conditions related to impaired movement and functional capacity. The methodology used to develop these guidelines may influence the extent of their inclusion. **Objective:** To assess the association between the development methodology and the inclusion of physiotherapists in CPGs for the Explicit Health Guarantees (GES) program of the Chilean Ministry of Health (ChMH). Additionally, for CPGs developed using the Evidence to Decision (EtD) framework, we aimed to examine the association between the inclusion of physiotherapists on the expert panel and the generation of recommendations relevant to their clinical practice. **Methods:** A cross-sectional study was conducted to analyze 148 CPGs developed by the ChMH up to December 2022. The CPGs were retrieved from the official ChMH website, which hosts CPGs developed with the original ChMH and those produced using the EtD framework. **Results:** The use of the EtD framework-based methodology for CPG development was significantly associated with a higher likelihood of including physiotherapists in the expert panel (OR 3.62; CI 95% 1.76 to 7.43). Moreover, the inclusion of physiotherapists in CPGs developed with the EtD framework-based methodology was significantly associated with a higher likelihood of generating recommendations related to their clinical practice (OR 18.41; CI 95% 3.80 to 89.09). **Conclusion:** The EtD framework-based methodology for developing CPGs of the GES program designed by the ChMH likely contributed to the inclusion of physiotherapists on expert panels and facilitated the development of recommendations relevant to their interventions.

**Keywords:** Evidence-based practice. GRADE Approach. Physical therapy specialty. Practice guidelines as topic. Rehabilitation.

## Resumo

**Introdução:** A inclusão de fisioterapeutas é fundamental para o desenvolvimento de diretrizes de prática clínica (DPCs) abrangentes para o gerenciamento de condições de saúde relacionadas ao movimento prejudicado e à capacidade funcional. A metodologia usada para desenvolver essas diretrizes pode influenciar a extensão de sua inclusão. **Objetivo:** Avaliar a associação entre a metodologia de desenvolvimento e a inclusão de fisioterapeutas nas DPCs para o programa de Garantias Explícitas de Saúde (GES) do Ministério da Saúde do Chile (ChMH). Além disso, para as DPCs desenvolvidas usando a estrutura Evidence to Decision (EtD), objetivou-se examinar a associação entre a inclusão de fisioterapeutas no painel de especialistas e a geração de recomendações relevantes para sua prática clínica. **Métodos:** Realizou-se um estudo transversal para analisar 148 DPCs desenvolvidas pelo ChMH até dezembro de 2022. As DPCs foram recuperadas do site oficial do ChMH, que hospeda DPCs desenvolvidas com o ChMH original e aquelas produzidas usando a estrutura EtD. **Resultados:** O uso da metodologia baseada na estrutura de EtD para o desenvolvimento de DPCs foi significativamente associada a uma maior probabilidade de inclusão de fisioterapeutas no painel de especialistas (OR 3,62; IC 95% 1,76 a 7,43). Além disso, a inclusão de fisioterapeutas em DPCs desenvolvidas com a metodologia baseada na estrutura EtD foi significativamente associada a uma maior probabilidade de recomendações relacionadas à sua prática clínica (OR 18,41; IC 95% 3,80 a 89,09). **Conclusão:** A metodologia baseada na estrutura de EtD para o desenvolvimento de DPCs do programa GES projetadas pelo ChMH provavelmente contribuiu para a inclusão de fisioterapeutas nos painéis de especialistas e facilitou o desenvolvimento de recomendações relevantes para suas intervenções.

**Palavras-chave:** Prática baseada em evidências. Abordagem GRADE. Especialidade de fisioterapia. Diretrizes práticas como tópico. Reabilitação.

## Introduction

Physiotherapy aims to develop, restore, and maintain optimal movement and functional capacity throughout life.<sup>1</sup> It is provided when factors such as aging, injuries, pain, diseases, disorders, conditions, or environmental influences threaten movement and function.<sup>1</sup>

This complex discipline<sup>2</sup> relies on the best available evidence, integrating the physiotherapist's experience and the patient's values and preferences<sup>3</sup> to achieve the best possible outcomes. To do this, physiotherapists must continually update their knowledge, a challenging process given the numerous primary and secondary studies published daily.<sup>4</sup> In this context, clinical practice guidelines (CPGs) are considered a viable solution because they can offer recommendations related to the diagnosis, treatment, and other areas of clinical practice,<sup>5</sup> thus bridging the gap between evidence and practice.

In 2004, the Chilean Ministry of Health (ChMH) implemented the Explicit Guarantees in Health (known as GES program in Chile). This strategy incorporates 85 health conditions for which one or more CPGs have been created to guide the interventions. Three studies have assessed the methodological quality of these CPGs,<sup>6-8</sup> concluding that they need improvement in several evaluated domains, including methodological rigor, applicability, and stakeholder involvement. These assessments were conducted using the Appraisal of Guidelines for Research & Evaluation (AGREE) tool<sup>9</sup> and its second version (AGREE II).<sup>10</sup> Stakeholder involvement (Domain 2 on the AGREE II instrument) considers the points of view of the patients or target population if the potential users of the guide are clearly defined, and the inclusion of all the relevant groups of professionals for the health condition.<sup>10</sup> In the case of the Chilean CPGs, this domain received a score of 4.8 (SD = 1.36) out of a maximum of 7 points.<sup>8</sup> Additionally, evaluating the methodological quality of CPGs focused on rehabilitating different health conditions has also revealed shortcomings in stakeholder involvement.<sup>11,12</sup> This could affect the overall assessment of the other CPGs,<sup>13</sup> and, ultimately, the quality-of-care patients receive.

The ChMH has been updating and improving the methodology of the CPGs included in the GES program. This includes the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach to assess the quality of the evidence,<sup>14</sup> as well as other aspects considered in the Evidence to Decision (EtD) framework.<sup>15,16</sup> This approach could enhance the inclusion of all the stakeholders in the different health conditions, including physiotherapists. This study aimed to determine the association between the development methodology and the inclusion of physiotherapists in developing CPGs under GES program of the ChMH. Additionally, for CPGs developed under the EtD

framework, the study examined the association between the inclusion of physiotherapists in the panel of experts and the generation of recommendations related to their clinical practice.

## Methods

A cross-sectional study was conducted, analyzing the CPGs developed by the ChMH to manage the 85 health problems included in the GES program up to December 2022. The CPGs were obtained in their most up-to-date version from the official ChMH website.<sup>17</sup> When the CPGs were published with an updated methodology based on the EtD framework, their previous versions developed without the GRADE approach were also obtained. Two evaluators independently extracted the information from the CPGs, and a third reviewer resolved any discrepancies.

A standard form in Google Forms<sup>®</sup> was used to collect the information about the CPGs, including publication year, methodology used to develop the CPG, the total number of professionals and physiotherapists included on the panel of clinical experts, number and type of recommendations given by the CPG (diagnosis, treatment, and follow-up), and recommendations related to physiotherapy practice. If a physiotherapist had a role in the methodology or organizing team of the CPGs, these roles were not counted if they differed from participation on the panel of clinical experts.

For this study, health problems and recommendations were considered relevant to physiotherapy practice when associated with physical dysfunction leading to activity limitation<sup>18</sup> due to aging, injuries, pain, diseases, disorders, conditions, or environmental factors. Physiotherapy interventions in the assessment, diagnosis, prognosis, and treatment phases must address these issues.<sup>1</sup>

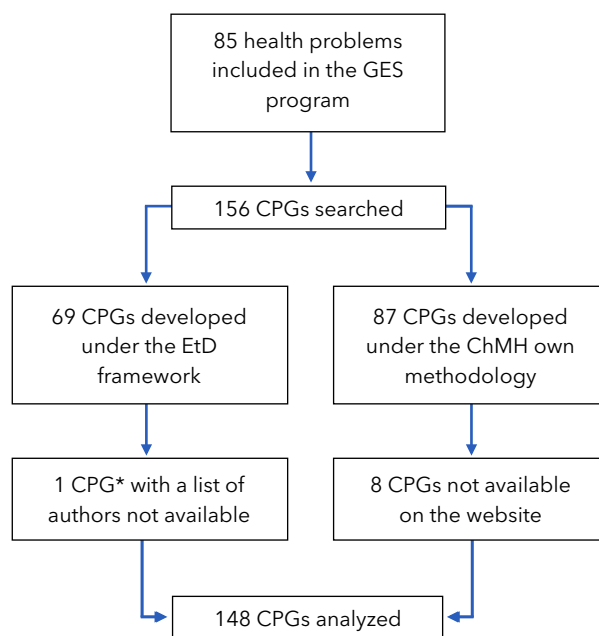
### Data processing and synthesis

Categorical variables were described using absolute and relative frequency, while quantitative variables were described using the median and interquartile range (IQR). Univariate logistic regression was performed to determine the association between the inclusion of physiotherapists and the methodology used to develop the CPGs. The same analysis was conducted for CPGs developed with the EtD framework-based methodology

to determine the association between the inclusion of physiotherapists on the panel of clinical experts and the presence of recommendations related to their clinical practice. All the analyses were performed with the STATA 15.1<sup>®</sup> statistics package, with a significance level set at 0.05.

## Results

A total of 148 CPGs were analyzed (Figure 1). These guidelines were published between 2005 and 2021 (Table 1). The health problems addressed by the CPGs were predominantly related to oncological (20.14%) and cardiorespiratory diseases (14.58%) (Table 2; [Supplementary Table 1](#)). Sixty-nine CPGs (47.92%) were developed with the EtD framework-based methodology, and 88 CPGs (61.11%) were related to physiotherapy practice (Table 2). Additionally, 52 CPGs (36.36%) included physiotherapists on the panel of clinical experts.



**Figure 1** - Flow chart of the number of clinical practice guidelines (CPGs) analyzed

Note: ChMH = Chilean Ministry of Health; EtD: Evidence to Decision; GES = Explicit Guarantees in Health. \*CPG that did not have a list of authors was still included in the analyses, with data related to authors being considered missing data.

**Table 1** - Clinical practice guidelines publication frequency

Year of publication	n (%)
2005	1 (0.69)
2006	0 (0.00)
2007	2 (1.39)
2008	0 (0.00)
2009	2 (1.30)
2010	21 (14.58)
2011	8 (5.56)
2012	1 (0.69)
2013	28 (19.44)
2014	5 (3.47)
2015	5 (3.47)
2016	2 (1.39)
2017	26 (18.06)
2018	22 (15.28)
2019	11 (7.64)
2020	5 (3.47)
2021	5 (3.47)

**Table 2** - Types of health problems addressed by the clinical practice guidelines

Types of health problems	n (%)	EtD framework*	Related to the CP of the PT*
Chronic noncommunicable	13 (9.03)	7 (53.85)	5 (38.46)
Cardiorespiratory	21 (14.58)	8 (38.10)	21 (100)
Oncological	29 (20.14)	16 (55.17)	29 (100)
Neurological	19 (13.19)	9 (47.37)	17 (89.47)
Musculoskeletal	12 (8.33)	5 (41.67)	12 (100)
Ophthalmological	12 (8.33)	7 (58.33)	0 (0.00)
Dental	9 (6.25)	5 (55.56)	0 (0.00)
Behavioral	5 (3.47)	2 (40.00)	0 (0.00)
Infectious	7 (4.86)	3 (42.86)	1 (14.29)
Auditory	5 (3.47)	2 (40.00)	3 (25.00)
Other	12 (8.33)	5 (41.67)	0 (0.00)

Note: EtD = Evidence to Decision; CP = clinical practice; PT = physiotherapists. \*Percentage calculated on the number of clinical practice guidelines by health condition.

When the EtD framework-based methodology was used to formulate recommendations, the likelihood of including physiotherapists in the expert panel increased significantly, with an odds ratio (OR) of 3.62 (CI 95% 1.76 to 7.43). Furthermore, in CPGs related to the

physiotherapists' clinical practice, the EtD framework-based methodology in developing CPGs further increased this association, with an OR of 7.10 (CI 95% 2.77 to 18.20). Of the CPGs developed using the EtD framework-based methodology (n = 69), 40 (57.97%) were related to the physiotherapists' clinical practice (Table 3), and 35 (51.47%) included physiotherapists on the panel of experts. The expert panels comprised a median of 14.5 (IRQ 12 - 16) health professionals, with a median of 1 (IRQ 0 - 1) physiotherapist. This distribution is consistent even considering only CPGs related to the physiotherapists' clinical practice, with a median of 1 (IRQ 0 - 2) physiotherapist.

**Table 3** - Clinical practice guidelines developed with the Evidence to Decision framework-based methodology according to the health problem addressed

Types of health problems	n (%)	Related to the CP of the PT*
Chronic noncommunicable	7 (10.14)	2 (28.57)
Cardiorespiratory	8 (11.59)	8 (100)
Oncological	16 (23.19)	16 (100)
Neurological	9 (13.04)	8 (88.89)
Musculoskeletal	5 (7.25)	5 (100)
Ophthalmological	7 (10.14)	0 (0.00)
Dental	5 (7.25)	0 (0.00)
Behavioral	2 (2.90)	0 (0.00)
Infectious	3 (4.35)	0 (0.00)
Auditory	2 (2.90)	0 (0.00)
Other	5 (7.25)	1 (20.00)

Note: CP = clinical practice; PT = physiotherapist. \*Percentage calculated on the number of clinical practice guidelines by health condition.

The 69 CPGs developed using the EtD framework-based methodology included a total of 574 recommendations: 72 about diagnosis (12.54%), 474 about treatment (82.58%), and 28 about follow-up (4.88%). Each CPG had a median of eight recommendations (IRQ 6 - 10). Of all the recommendations, 43 (7.49%) were related to the physiotherapists' clinical practice (Supplementary Table 2). Including physiotherapists in the expert panel of the CPGs developed using the EtD framework-based methodology significantly increased the likelihood of including recommendations related to physiotherapists' clinical practice, with an OR of 18.41 (CI 95% 3.80 to 89.09).

## Discussion

The use of the EtD framework-based methodology in developing and updating Chilean CPGs was associated with including physiotherapists on the panel of clinical experts. This association was stronger when these CPGs were related to the physiotherapists' clinical practice. Additionally, including physiotherapists on the panel of experts on the CPGs developed with the EtD framework-based methodology was associated with an increased likelihood of recommendations related to their clinical practice.

This is the first study to evaluate the association between the methodology used in developing CPGs and the inclusion of physiotherapists on their panels of experts. Most health problems in the analyzed CPGs were related to oncological and cardiorespiratory diseases. Specific CPGs for physical activity and exercise have been designed for these health conditions. However, these CPGs have shown low to moderate methodological quality when assessed with the AGREE II instrument,<sup>10</sup> with an average score of 64% in terms of stakeholder involvement for those guiding the management of oncological diseases,<sup>19</sup> as well as 60% and 52% in cardiovascular diseases<sup>11</sup> and respiratory diseases,<sup>20</sup> respectively.

According to our definition, 88 (61.11%) CPGs were related to the physiotherapists' clinical practice. However, none of the five CPGs related to behavioral problems or mental health were associated with the physiotherapists' practice, likely due to the limited knowledge of their possible impact on these conditions.<sup>21,22</sup> Additionally, the definition and role of physiotherapists vary according to each country's context and legislation. In Chile, physiotherapists not only use human movement, physical agents, and new techniques to treat patients,<sup>2</sup> but also apply respiratory care interventions like airway permeabilization and ventilatory support.<sup>23</sup> However, only three of the 43 recommendations related to the physiotherapists' clinical practice addressed noninvasive mechanical ventilation in chronic obstructive pulmonary disease and preterm patients.

Rehabilitation-related health professionals, such as physiotherapists, must keep their knowledge up-to-date to base their practice on the best available evidence.<sup>3</sup> For this, CPGs are essential in synthesizing and assessing the evidence to provide recommendations for daily clinical practice.<sup>24</sup> However, for CPGs to fulfill this

function, their adaptation, construction, and updating<sup>25</sup> must be based on systematic and transparent methods.<sup>15,16</sup> These methods should incorporate the preferences of the end-users of these CPGs,<sup>26</sup> and include all the professionals involved in the prevention, diagnosis, treatment, and rehabilitation of specific health problems.

This study has limitations. The analysis shows an association, not a causal relationship, between the use of the EtD framework-based methodology and the inclusion of physiotherapists, as well as the generation of recommendations related to their clinical practice. Many factors may contribute to an increase in the inclusion of physiotherapists in the development of CPGs, such as the possible learning curve effect. Additionally, one of the CPGs lacked a correct listing of professionals on the panel of experts, and eight CPGs developed with the ChMH methodology were not available on the website. Nevertheless, the analysis included 95% of the CPGs, a proportion considered representative. Furthermore, data extraction and the determination of whether the health problems included in the CPGs were related to the physiotherapists' clinical practice were performed by clinicians experienced in cardiorespiratory and oncological diseases. However, two physiotherapists independently extracted and analyzed the data about the included CPGs.

Future studies could explore the inclusion of other rehabilitation professionals to assess the possible underrepresentation of these disciplines in the development of CPGs related to their clinical practice. This could help identify issues that may lead to incomplete management of various health problems, potentially affecting the functionality and quality of life of the end users of the CPGs. Additionally, qualitative research should investigate the perspectives and meaning of rehabilitation professionals regarding their participation in CPG development and their views on the possible underrepresentation of certain health problems in their field.

## Conclusion

The use of the EtD framework-based methodology in developing CPGs for the GES program designed by the ChMH appears to have facilitated the inclusion of physiotherapists on expert clinical panels. This inclusion was more pronounced when these CPGs were related to the physiotherapists' clinical practice.

Moreover, the inclusion of physiotherapists on panels for CPGs developed using the EtD framework-based methodology was associated with the generation of recommendations pertinent to their clinical practice.

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## Authors' contributions

RGA was responsible for the conceptualization, data curation, formal analysis, project administration, supervision, visualization, and writing of the original draft. RGA, RVC, KA, CRS, and FSB were responsible for the investigation; RGA and PS, for the methodology. RVC, KA, CRS, FSB and PS were responsible for the writing, review and editing. All authors approved the final version.

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