



Comparing the effectiveness and cost-effectiveness of self-management interventions in four high priority chronic diseases in Europe

Development of a taxonomy for self-management interventions (SMIs) for patients with type 2 diabetes, obesity, COPD and heart failure

*Work Package 2*



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## Abbreviations

COPD	Chronic Obstructive Pulmonary Disease
COS	Core Outcome Set
DCP	Delphi Consensus Process
SMI	Self-management intervention



## What's a taxonomy?

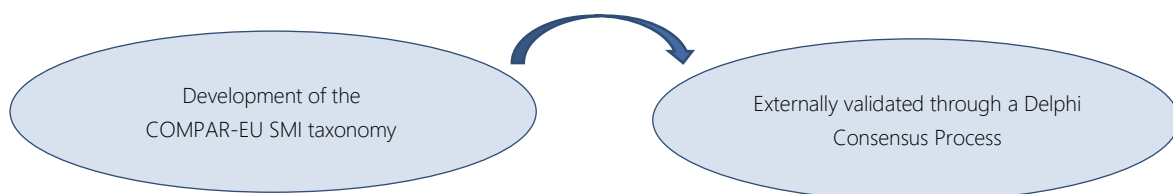
A taxonomy is a classification system that breaks down complex interventions into their essential components. These components characterise the intervention. Within each dimension, there may be further subdimensions depending on the complexity. A taxonomy promotes clarity of how to define and compare complex interventions.

## Purpose and value of developing a COMPAR-EU SMI taxonomy

There is no common definition of the concept of self-management in research, policy and practice. The interventions and thus the varying contents are often not well described in the literature. Great heterogeneity can be found when outcomes are reported. This makes comparison between interventions challenging. Furthermore, it implies serious limitations in application of research into practice. This heterogeneity revealed the need to work on a common taxonomy for self-management that contributes to advance in this field. There have been made some significant contributions to conceptualise SMIs over the last years. However, most of them are focused on "self-management support" and have not been externally validated.

The COMPAR-EU project aims to compare self-management interventions and thus needs a classification system as a starting point. Developing a taxonomy is a first step in providing a common language among researchers, clinicians and policymakers for future research and implementation of SMIs at clinical, organisational and policy level. The objective of the COMPAR-EU team was to develop and validate a self-management taxonomy for chronic conditions that allows for identification of all key characteristics of SMIs. The resulting taxonomy serves as a basis for the data extraction. It informs the characterisation of the interventions in order to make them comparable within a specific condition.

## Process of the taxonomy development



The COMPAR-EU SMI taxonomy was developed in different stages with several improvement steps. First, previously published taxonomies of self-management and classifications were reviewed. For this, systematic



reviews identified in a previous EU funded project (PRO-STEP) were analysed and complemented by further desk-review and snowballing. Based on this, an iterative process and discussion within the COMPAR-EU was carried out to construct the first version of the taxonomy. After that, a modified Delphi Consensus Process (DCP) took place. A DCP is a technique for gathering opinions from different stakeholders with the aim of reaching a consensus/ an agreement. International experts in SMI and/or taxonomies were invited to participate in a two-round online survey. In the first round (May/June 2018), all participants were asked to rate the importance of each domain, sub-domain and element of the taxonomy using a Likert scale, ranging from 1 (lowest importance) to 9 (highest importance). After consideration of predefined decision rules, some components were eliminated, modified or new components were added after the first round. In the second round (June/July 2018), participants were shown a graphical representation of the mean and median scores of the answers from the first round and their own answers. Participants were asked to confirm or change their original score with the goal of coming somewhat closer to a consensus. Twenty-six participants completed the second round. The analysis of the second round followed the same decision rules and processes applied in the first round. By keeping the most important components, the final taxonomy was developed and externally validated.

## The COMPAR-EU SMI taxonomy

The COMPAR-EU SMI taxonomy is composed of 132 components, classified in 4 domains, 25 sub-domains and 103 elements. The overall agreement of the international experts in the DCP was considerably high. This confirms the appropriateness of the general structure of the taxonomy. We will use this taxonomy to analyse thousands of published trials on SMIs and to categorise the described interventions. It should also serve as a basis for future efforts in analysing, designing and implementing SMIs, particularly for SMIs designed for people living with chronic conditions.

As part of WP3 – Eliciting patients’ priorities and preferences - we have developed 4 core outcome sets (COS), driven by identified patients’ priorities. We developed one COS per disease: type 2 diabetes, obesity, COPD, and heart failure. A COS consists of at most 15 outcomes that are considered to be most important to measure the success of SMIs. Patients, researchers, and healthcare professionals agreed upon the final versions of the COS through a DCP. In COMPAR-EU these outcomes are prioritised in comparing different interventions. To learn more about the prioritisation of patient-important outcomes in COMPAR-EU, read our report on the [COS Workshop on 10<sup>th</sup> and 11<sup>th</sup> of July in Berlin.](#)



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