

# Issues of comorbidity in clinical guidelines and systematic reviews from a rehabilitation perspective

Prof. Dr. Thorsten Meyer, Kolja Wulff, MPH

Rehabilitation Sciences | Health Services Research in Rehabilitation, School of Public Health, University of Bielefeld, Germany

## Background

Systematic reviews have a major role for evidence-based care. They found the basis for clinical guidelines and should affect clinical decision making. In rehabilitation, typical patients have co- or even multimorbidities, present in different patterns. These additional diseases/conditions have influences on the patients' functioning including their social participation and tend to make the interventions even more complex. Clinical decision making in rehabilitation practice should get support from research how to deal with co- or multimorbidity regarding the usefulness of the intervention. Our aim was to approach the problem of how issues of co- or multimorbidity are represented in systematic reviews, by means of these questions:

- How are issues of comorbidity and multimorbidity dealt with in the development of clinical guidelines?
- How do systematic reviews currently integrate issues of comorbidity or multimorbidity?
- How could or should we approach the issue of comorbidity in systematic reviews in rehabilitation care?

## Results

→ *How do issues of comorbidity and multimorbidity relate to the development of clinical guidelines?*

It has been acknowledged that guidelines should include explicit statements on how to deal with multimorbidity. While there were reviews on guidelines that did not address issues of comorbidity at all, others reported that 85% of the guidelines already address comorbidity issues, 70% provide specific but rather weak evidence-based recommendations.

→ *How do systematic reviews currently integrate issues of co- or multimorbidity?*

We identified 49 systematic reviews on low back pain (LBP) published between 2004 and 2017 and excluded 11 reviews for various reasons. In the remaining 38 reviews we found only scant evidence that comorbidities were considered. If acknowledged, comorbidities are dealt with only superficially:

- in terms of introducing LBP as a multifactorial disorder or disorders that are associated with LBP, esp. mental disorders or social risk factors
- as exclusion criteria within original studies or systematic reviews: at least 1 out of 4 original studies excluded patients due to comorbidities of LBP
- as a target of an intervention, e.g. anti-depressant therapy
- in the planning of the review in terms of planned subgroup analysis
- as outcomes, e.g. depression, anxiety, fear avoidance
- in the conclusion section as necessary target groups of the intervention

## Conclusion

There is a clear-cut need to address comorbidities both in systematic reviews and clinical guidelines. Systematic reviews should consider co-/multimorbidities in their ex-/inclusion criteria. Researchers should extract data on comorbidities from the original studies, and address the topic of pre-specified subgroup analyses. Still, the theoretical and empirical basis for the inclusion of comorbidities issues in systematic reviews has to be further developed both in epidemiological and clinical studies.

## References

This paper has been originally published in an open-access supplement of the European Journal of Physical and Rehabilitation Medicine, where you find further references:

Meyer T, Wulff K (2019) Issues of comorbidity in clinical guidelines and systematic reviews from a rehabilitation perspective. Eur J Phys Rehabil Med 55(3): 364-371 (doi: 10.23736/S1973-9087.19.05786-1)

## Methods

### Literature search

- on theoretical papers on comorbidity and multimorbidity within evidence-based medicine, esp. Journal of Clinical Epidemiology and the German Journal ZEFQ

### Search for systematic Cochrane reviews

- for interventions for people with unspecific low back pain as a case in point and comorbidity issues

### Additional information

- by comorbidity related works from the development of German national care guidelines
- on works from the German College of General Practitioners and Family Physicians
- of the development of rehabilitation therapeutic standards

## Discussion

The application of evidence from clinical studies/ systematic reviews on interventions should take into account the special needs of co- or multimorbid patients. The exclusion of patient groups with co- or multimorbidities from clinical studies does not necessarily mean that the results can not be applied on these patients. However, effect modification due to co- or multimorbidities should be analysed by means of clinical studies, which is rarely done.

→ *How could or should we approach the issue of comorbidity in systematic reviews, with a special emphasis on rehabilitation care?*

To acknowledge this issue it is important to consider, identify and analyze comorbidities in clinical studies based on clinical knowledge, which should in turn be broached by respective systematic reviews.

