



Reply to Comment on: Self-Care Evaluation in COPD

We would like to thank the letter authors for their enthusiasm regarding our new instrument, the Self-Care in Chronic Obstructive Pulmonary Disease Inventory (SC-COPDI; Matarese et al., 2019). We wholeheartedly agree with the point that patients with chronic disease must be fully engaged in their care. We also agree that the self-care of chronic obstructive pulmonary disease (COPD) must involve actions to improve and maintain psychological well-being. In fact, the Theory of Self-Care of Chronic Illness (Riegel, Jaarsma, & Stromberg, 2012), on which the SC-COPDI is based, was recently updated to emphasize the important contributions of symptoms to the self-care process (Riegel, Jaarsma, Lee, & Stromberg, 2019). As noted in that article, symptoms—including both physical and psychological symptoms—affect self-care maintenance, monitoring, and management. Specifically, symptoms can blunt the desire to perform self-care, motivate health-care resource use, and greatly influence perceptions of health, well-being, and quality of life.

In the process of instrument development and validation, we considered assessing the self-care behaviors performed by COPD patients to maintain their psychological stability, monitor and manage psychological distress with items that were very similar to those suggested by the letter authors. Unfortunately, during the validation process (specifically in content validity testing with patients and in confirmatory factor analysis), these items were only marginally related to self-care practices and were consequently eliminated. We too were disappointed to see that patients did not see the relevance of these items to their self-care behaviors. It may be that patients with COPD can be so overwhelmed by physiological symptoms, such as dyspnea, fatigue, cough, and sputum, that they prioritize these clinical manifestations above psychological factors in their daily self-care. Another explanation is that depression and anxiety are unrecognized by patients until they cause severe clinical manifestations and require attention. Many of the somatic symptoms associated with depression and anxiety such as fatigue, exercise intolerance, and breathlessness overlap with symptoms caused by COPD, especially in severe stages. Thus, patients often attribute these symptoms to their lung disease rather than their psychological response. Moreover, the prevention and management of physical manifestations can reduce the psychological manifestations, strengthening the patients' beliefs that these feelings can be treated by treating the COPD.

We agree that research is needed to investigate these issues more extensively. The importance of anxiety and depression in COPD and their impact on COPD patients' quality of life was

also highlighted in our recent study, where we found that depressive symptoms negatively influenced COPD patients' mental and physical quality of life, and, more interestingly, that family caregivers' anxiety negatively influenced patients' physical quality of life (Ivziku, Clari, Piredda, De Marinis, & Matarese, 2019). As this study demonstrates the reciprocal influence of psychological distress in patients and family caregivers, we also strongly recommend studying psychological distress at a dyadic level.

We designed the SC-COPDI to be a conceptually clear and focused measurement of self-care behaviors with strong validity in measuring effective self-care. We agree that the SC-COPDI does not include all the self-care behaviors that the patients could or should perform. In future research, additional measures, such as those measuring psychological factors, should be added to address the specific research questions of the investigators. We look forward to seeing research using the SC-COPDI with such additional measures.

Lastly, we thank the letter authors in recognizing the importance of including the self-care confidence measure in the assessment of self-care in COPD. Patients' confidence in their ability to perform self-care has proven to be a key mediator and moderator of self-care over several different studies (Caruso et al., 2019; Cené et al., 2013; Hammash et al., 2017; Massouh et al., 2019; Riegel et al., 2011). For this reason, in many of our self-care measures, we included a separate Self-Care Confidence Scale, and we warmly encourage the use of this measure in all self-care research (www.self-care-measures.com).

In conclusion, we are grateful to the letter authors for giving us the opportunity to describe additional elements of our work in developing the SC-COPDI. We hope that the SC-COPDI will be helpful in documenting the self-care behaviors and the impact on outcomes in this ill patient population.

Maria Matarese

*Research Unit of Nursing Science,
 Campus Bio-Medico University of Rome, Italy*

Claudio Barbaranelli

*Department of Psychology,
 Sapienza University of Rome, Italy*

Barbara Riegel

*School of Nursing, The University of Pennsylvania,
 Philadelphia, PA, USA*

ORCID iD

Maria Matarese <https://orcid.org/0000-0002-7923-914X>

References

- Caruso, R., Rebora, P., Dellafiore, F., Fabrizi, D., Riegel, B., Ausili, D., & Di Mauro, S. (2019). Clinical and socio-demographic determinants of inadequate self-care in adults with type 1 diabetes mellitus: The leading role of self-care confidence. *Acta Diabetologica, 56*, 151–161. doi:10.1007/s00592-018-1259-z
- Cené, C. W., Haymore, L. B., Dolan-Soto, D., Lin, F. C., Pignone, M., DeWalt, D. A., . . . Corbie-Smith, G. (2013). Self-care confidence mediates the relationship between perceived social support and self-care maintenance in adults with heart failure. *Journal of Cardiac Failure, 19*, 202–210. doi:10.1016/j.cardfail.2013.01.009
- Hammash, M. H., Crawford, T., Shawler, C., Schrader, M., Lin, C. Y., Shewekah, D., & Moser, D. K. (2017). Beyond social support: Self-care confidence is key for adherence in patients with heart failure. *European Journal of Cardiovascular Nursing, 16*, 632–637. doi:10.1177/1474515117705939
- Ivziku, D., Clari, M., Piredda, M., De Marinis, M. G., & Matarese, M. (2019). Anxiety, depression and quality of life in chronic obstructive pulmonary disease patients and caregivers: An actor-partner interdependence model analysis. *Quality of Life Research, 28*, 461–472. doi:10.1007/s11136-018-2024-z
- Massouh, A., Skouri, H., Cook, P., Huijter, H. A. S., Khoury, M., & Meek, P. (2019). Self-care confidence mediates self-care maintenance and management in patients with heart failure. *Heart & Lung, pii: S0147-9563(19)30132-3*. doi:10.1016/j.hrtlng.2019.07.008
- Matarese, M., Clari, M., De Marinis, M. G., Barbaranelli, C., Ivziku, D., Piredda, M., & Riegel, B. (2019). The self-care in chronic obstructive pulmonary disease inventory: Development and psychometric evaluation. *Evaluation & the Health Professions, 163278719* 856660. doi:10.1177/0163278719856660
- Riegel, B., Jaarsma, T., Lee, C. S., & Strömberg, A. (2019). Integrating symptoms into the middle-range theory of self-care of chronic illness. *Advances in Nursing Science, 42*, 206–215. doi:10.1097/ANS.0000000000000237
- Riegel, B., Jaarsma, T., & Strömberg, A. (2012). A middle-range theory of self-care of chronic illness. *Advances in Nursing Science, 35*, 194–204. doi:10.1097/ANS.0b013e318261b1ba
- Riegel, B., Lee, C. S., Albert, N., Lennie, T., Chung, M., & Song, E. K., . . . Moser, D. K. (2011). From novice to expert: Confidence and activity status determine heart failure self-care performance. *Nursing Research, 60*, 132–138. doi:10.1097/NNR.0b013e31820978ec