Editorial

Designing Interventions to Promote Self-Care

Barbara Riegel[1,2], Tiny Jaarsma[3,4], Anna Stromberg[3,5]

[1] *Center for Home Care Policy & Research at VNS Health, New York, NY, USA (mail: briegel@nursing.upenn.edu)*
[2] *School of Nursing, University of Pennsylvania, Philadelphia, PA, USA*
[3] *Department of Health, Medicine, and Caring Sciences, Linkoping University Linkoping, Sweden*
[4] *University Medical Center Utrecht, Utrecht, the Netherlands*
[5] *Department of Cardiology, Linkoping University, Linkoping, Sweden*

Citation: Riegel B, Jaarsma T, Stromberg A."Designing Interventions to Promote Self-Care" (2025) *Infermieristica Journal* 4(3): 143-146. DOI: 10.36253/if-3747

The importance of self-care is widely acknowledged and research studying self-care is common. Studies of self-care have increased exponentially over time, with only seven articles on self-care of chronic illness published in 1990 and 467 articles published on the topic in 2024. Many of the studies have been descriptive and we now know much about the self-care behaviors of people in countries around the world. In general, we can say that self-care is poor in many persons with chronic illness,[1] and effort is needed to improve self-care behavior in ill populations, healthy populations, and people of all ages. This is an important observation that has stimulated clinicians and scientists to understand self-care that is poor and develop interventions to address this widespread issue.

Relatively few interventions have been tested and found to influence self-care. Patient education is our traditional approach, but lack of knowledge is only one of many reasons why someone is not engaged in self-care. Based on this, we call on the healthcare provider community to put the same effort into developing interventions to influence self-care as the effort that has been put into describing self-care. The purpose of this editorial is to describe an approach that can be used to focus our efforts and build on each other's work to develop interventions to effectively improve self-care in our patients with chronic illness.

We wrote a theory of self-care of chronic illness, which is used widely to understand and promote behaviors that maintain physical and emotional health (i.e., self-care maintenance), promote awareness of physical and emotional changes (i.e., self-care monitoring), and address signs and symptoms before problems get out of control (i.e., self-care management).[2] In 2019 we updated the theory emphasizing the importance of symptoms.[3] Recently we updated the theory again to reflect the evolution in our thinking.[4] In that update we summarize broadly what has been learned about micro, meso, and macro-level factors influencing self-care, Micro level factors include variables such as perceptions, attitudes, values, personality characteristics, and perceived control. Sensory losses, comorbid conditions, symptom recognition, the treatment regimen, and cognition are also potent micro-level influences on self-care. Meso level factors focus on groups, organizations, and communities such as family, social support, workplace and school norms, social media, and culture. Macro level factors include the environmental factors affecting the ability to care for oneself like limited access to fresh food, long commutes to access health care, and community violence that limits access to safe outdoor activities. Many, if not all, of these factors have been described in populations across the world. These micro, meso, and macro-level factors are important because they help us anticipate problems and

tailor interventions when we work with patients. However, further guidance is needed on the design and testing of standardized self-care interventions.

An important addition to the theory update is a detailed discussion of six essential intrapersonal requirements for self-care. These requirements – experience, knowledge, skills, reflection, decision-making, and motivation – provide direction for the design of self-care interventions (Figure 1). We refer to these six aspects as requirements because even the best intervention addressing a macro level factor such as access to fresh food will not promote self-care if the individual does not know the importance of healthy eating and is not motivated to eat fresh foods.

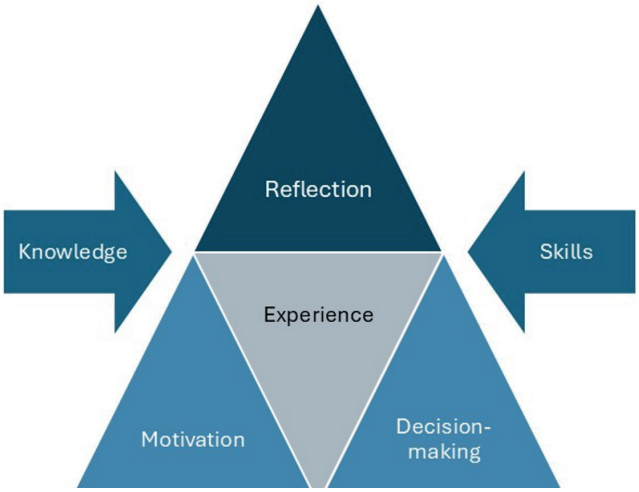

Figure 1. Essential intrapersonal requirements for effective self-care. Some level of expertise in these six factors is required for effective self-care (*Reprinted with permission from ANS Advances in Nursing Science*).

Self-care involves numerous skills such as reading food labels, how to use an inhaler, and how to manage diuretics when working in an occupation requiring travel. However, these skills are rarely the focus of self-care interventions. For example, a systematic review found only 17 studies of educational interventions on understanding and using nutrition labels.[5] Participants in these studies were school-aged children, older adults, and those with diabetes. The interventions typically focused on nutrition label reading as part of a healthy eating intervention delivered to groups in community or school settings. The shortest intervention was a 10-minute booklet viewing session. We argue that skills are required for successful self-care. There is no fixed time required to master a skill because it depends on the complexity of the skill and prior experience, but 10 minutes is probably not sufficient.

Another example of an intervention designed using one of the six essential intrapersonal requirements is an intervention designed to promote decision-making about self-care management. Such an intervention might involve an assessment of experience, knowledge, and skills, which are used to tailor discussions involving reflection or an approach promoting motivation. An example of a successful approach to supporting patient decision-making is captured in a systematic review of 58 studies of self-management support strategies in primary care settings.[6]

An important lesson learned from a recent meta-analysis of self-care interventions in patients with various chronic conditions was that comprehensive self-care interventions (ie, those addressing self-care maintenance, self-care monitoring, and self-care management) had the best effect on outcomes.[7] In sub-group analysis, interventions using individual face-to-face or telephone modes of delivery, and those employing behavioral feedback, social support, or reminders were more efficacious compared with interventions that did not use these features. Further, the efficacy of comprehensive interventions improved between 2008 and 2022, suggesting that interventions are getting better over time. These findings are helpful in providing direction for future work. In future reviews, it would be helpful if interventions were categorized in terms of the essential intrapersonal requirements used in each intervention. This would allow us to determine if some requirements are more effective than others and if other requirements should be added to the list.

The future of self-care research is in interventions. The World Health Organization argues that self-care interventions are promising and exciting approaches to improving health and well-being because they hold the promise of being good for everyone and moving us closer to realizing universal health.[8] Self-care interventions can increase individuals' choice and autonomy when they are accessible, acceptable and affordable. We need to build on the insights gained from the voluminous

descriptive studies published over the past 20 years to help our patient populations to improve their self-care. We believe that these six essential intrapersonal requirements for self-care can provide direction for both clinicians and scientists seeking to improve self-care.

References

1. Jaarsma T, Stromberg A, Ben Gal T, et al. Comparison of self-care behaviors of heart failure patients in 15 countries worldwide. *Patient Educ Couns*. 2013;92(1):114-120. doi: http://dx.doi.org/10.1016/j.pec.2013.02.017
2. Riegel B, Jaarsma T, Stromberg A. A middle-range theory of self-care of chronic illness. *ANS Adv Nurs Sci*. 2012;35(3):194-204. doi: http://dx.doi.org/10.1097/ANS.0b013e318261b1ba
3. Riegel B, Jaarsma T, Lee CS, Stromberg A. Integrating Symptoms Into the Middle-Range Theory of Self-Care of Chronic Illness. *ANS Adv Nurs Sci*. 2019;42(3):206-215. doi: http://dx.doi.org/10.1097/ANS.0000000000000237
4. Riegel B, Jaarsma T, Stromberg A. An Update to the Middle-Range Theory of Self-Care of Chronic Illness. *ANS Adv Nurs Sci*. 2025; Published ahead of print. doi: http://dx.doi.org/10.1097/ANS.0000000000000594
5. Moore SG, Donnelly JK, Jones S, Cade JE. Effect of Educational Interventions on Understanding and Use of Nutrition Labels: A Systematic Review. *Nutrients*. 2018;10(10):1432. doi: http://dx.doi.org/10.3390/nu10101432
6. Dineen-Griffin S, Garcia-Cardenas V, Williams K, Benrimoj SI. Helping patients help themselves: A systematic review of self-management support strategies in primary health care practice. *PLoS One*. 2019;14(8):e0220116. doi: http://dx.doi.org/10.1371/journal.pone.0220116
7. Lee CS, Antoniadou M, Jaarsma T, Riegel B, Westland H. The comparative efficacy of comprehensive self-care interventions in chronic illness: An updated meta-analysis of randomized controlled trials. [In review].
8. World Health Organization. *WHO guideline on self-care interventions for health and well-being, 2022 revision*. Geneva, Switzerland: World Health Organization; 2022. (186 p.)