Better understanding of adverse health symptoms has long been recognized as a core area of nursing research (Bliss, 2003), and symptom management is a central aspect of nursing practice. The symptom science model (SSM) was developed at the National Institute of Nursing Research (NINR) to guide intramural research programs in biobehavioral research, symptom management, and tissue injury; in addition, it is hoped that the model will find broad application for symptom science research across the National Institutes of Health and the wider research community (Cashion & Grady, 2015). The SSM describes an investigative sequence involving description of complex symptoms, phenotypic characterization, biomarker discovery, and clinical application. The SSM is not a theoretical model for a phenomenon as such. Instead, the steps in the sequence and their application across the diverse NINR areas of the intramural research programs imply integration of biopsychosocial variables, including advances in omics and other emerging areas of nursing science (Corwin et al., 2014; also see Henly et al., 2015), in the quest for extending and deepening knowledge about symptoms and symptom management to optimize patient outcomes and health-related quality of life (Cashion & Grady, 2015).

The NINR (n.d.) invited symptom science experts to propose and discuss research questions with potential to advance the field. The proposed questions were complex—ranging from omics-based phenotype descriptions of symptoms to elucidation of mechanisms responsible for symptom presentation and course to personalized management of complex symptoms within family and psychosocial context. The methods suggested for study of these issues in symptom science were novel—like the problems themselves—including omics designs, new measurement approaches (e.g., the item response theory-based Patient Reported Outcomes Measurement Information System), health trajectory modeling, models for dynamic systems, and multilevel models, all of which can be superimposed on use of big data and new sequential multiple assignment randomized trial and multiphase optimization strategy trial experimental designs for evaluation of symptom interventions (Corwin et al., 2014; Henly, Wyman, & Findorff, 2011; NINR, n.d.).

Just as nurse scientists are central to the symptom science research endeavor because they possess training in both clinical and research enterprises (Cashion & Grady, 2015, p. 484), nursing journals should be central to dissemination of findings from symptom science research. At the same time, the larger cadre of nursing scientists is increasingly interdisciplinary, including not only nurses with PhD training in nursing science but also nurses with PhD training in related fields and persons with PhD training in related sciences who are interested in and committed to nursing science; dissemination will also necessarily occur in journals of related fields. Careful and deliberate planning for dissemination is critical to ensuring that emerging knowledge is shared and available for use by researchers and clinicians in an efficient way. In particular, it is essential that findings from nursing research do not become orphaned in the literature of related fields and likewise that findings disseminated in the nursing literature be accessible to all scientists and clinicians developing and using new knowledge from symptom science. Cross-fertilization in the literature is needed to advance depth, breadth, and clinical application in symptom science.

The questions and the methods of symptom science entail challenges in dissemination across the investigative sequence. Description of complex symptoms has long been a central concern of nursing science, has been well-documented in the nursing literature, and is familiar to nursing researchers and clinicians, but, I suspect, has not been significantly accessed by those outside of nursing. Phenotypic characterization of complex symptoms and biomarker discovery introduce concepts, theories, and perspectives arising from dramatic advances in biological sciences that have not yet been fully incorporated in nursing research (Henly et al., 2015) and are little represented in the nursing literature (except for specialized journals such as Biological Research for Nursing)—instead, research findings are often disseminated widely across the literatures of related fields, making for challenges in the discoverability of research findings about phenotypic characterization and biomarker discovery in symptom science. Clinical application, the last step in the investigative sequence, depends critically on access to and informed use of findings from fundamental science; papers like those in the Biology Review Series at Nursing Research are needed to summarize and critique findings from basic symptom science research for translation to clinical understanding and intervention design.

Author-investigators, editors, peer reviewers, and publishers all have roles to play in the dissemination of symptom science research. Author-investigators need to carefully consider the selection of journal for publishing their research, including consideration of journal mission, reviewer expertise, and readership that needs to be informed or influenced by the findings. Editors are responsible for clearly announcing their interest in receiving papers with symptom science content, including
the particular focus or aspect in the investigative sequence; when stretching beyond past traditional boundaries, editors of nursing research journals are responsible for seeking out peer reviewers with the technical and clinical expertise needed to critically assess papers submitted to their journals. In light of the fast pace of discovery, peer reviewers have responsibilities to verify the accuracy of cited literature, assess completeness and relevance of methods across the wide span of approaches used in symptom science (from patient-reported outcomes to direct observation, to laboratory-based techniques), and state clearly what the paper adds and its potential for clinical application. In light of the widespread dissemination, editors need to work with publishers to ensure that papers across the breadth of symptom science research efforts are discoverable across areas typically used to market their products. To enhance discoverability, certain key words from the MeSH Browser (U.S. National Library of Medicine, 2015) should be consistently used: nursing research, signs and symptoms, specific symptom names. Today, current contents of a wide variety of journals are enabled by free subscription to electronic tables of contents (eTOCs); sign up for this feature to be informed about findings as they appear in the literature. Careful attention to referencing practice across literatures will also help to support rapid and efficient uptake of new knowledge.

*Nursing Research* is a general nursing research journal with a broad editorial mission. Submissions from symptom science research across the investigative sequence, from preclinical to translational research, are invited. Papers describing advances in fundamental science bearing on symptom science research are suitable as Biology Reviews. Primary reports detailing observational or experimental findings in animal or human studies are published as regular articles or brief reports, as are results of translational and clinical research on symptom management; depending on the focus, these papers may be considered for publication under the Point-of-Care or Health Equity Research banners. We are committed to providing expert peer review and wide dissemination of the symptom science papers that we publish, with the ultimate aim of supporting use of knowledge that eases symptom burdens and enhances quality of life for individuals, families, and communities.

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