relevant based on nurses' scope and domains of practice and for which there is evidence linking nursing interventions to outcome achievement.
Purpose: This paper provides an historical view of nursing sensitive outcomes measurement and presents the findings of two empirical studies exploring outcome indicators sensitive to nursing care.
Methodology: A scoping review of the theoretical and empirical literature was conducted. Evidence for the following nurse-sensitive outcomes was reviewed: functional status, symptoms, mortality, health care utilization, safety, and satisfaction. Two studies, one involving acute care, and the second involving acute care, home care, and long-term care settings, were conducted testing the outcomes for sensitivity to nursing care and evaluating approaches to measurement. The first study involved secondary analysis of hospital discharge abstract databases, focusing on the relationship between nurse staffing, nurse education, and 30-day hospital mortality. The first study employed a longitudinal descriptive design; data were collected at the time patients were admitted to health services, daily for symptom outcomes, and at health care discharge. Data on nursing interventions were collected through chart audit.
Results: High quality care is conceptualized as having three dimensions: ensuring that care is safe, effective, and provides patients with the most positive experience possible. The outcome domains and approaches to measurement were found sensitive to nursing interventions and nurse staffing variables in acute care, home care, and long-term care settings.
Conclusion: Nursing sensitive outcomes measurement is feasible and there are valid and reliable measures for assessing nursing sensitive outcomes. Patient-centred care underscores the importance of a multi-disciplinary approach to outcomes measurement and should include the patient's perspective in outcomes measurement. This paper concludes with a discussion of where nursing sensitive outcomes measurement fits within a patient-centred approach to care.

92 INVITED

Selecting appropriate outcome measures for exercise interventions in cancer survivors

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Background: Selecting appropriate outcome measures for clinical exercise trials is a balance between the desire to show positive results (what is likely to change) and the desire to demonstrate clinically meaningful results (what is important to change). Moreover, selecting an appropriate primary outcome measure will depend on the patient population, the type of exercise intervention, and the timing of the exercise intervention (e.g., during treatment, survivorship, end of life). The purpose of this presentation is to provide an overview of: (a) the various outcome measures that have been examined in previous exercise trials in cancer survivors, (b) theoretical models that may be useful in organizing, selecting, and analyzing outcome measures for exercise trials, and (c) exercise trials that have tested some of the proposed theoretical relationships among the various outcome measures.
Materials and Methods: An overview of the literature of previous exercise interventions trials in cancer survivors and theoretical models of exercise outcomes in cancer survivors.
Results: Exercise interventions in cancer survivors have typically measured multiple outcomes from multiple health categories including health-related fitness (e.g., aerobic capacity, muscular strength and endurance, flexibility, body composition), objective physical functioning (e.g., chair rise, stair climb, lifting/reaching), patient-reported physical functioning (e.g., physical functioning subscales from various quality of life scales, late-life function scale), activities of daily living (e.g., housework, gardening, shopping), biomarkers (e.g., insulin, immune function), psychosocial functioning (e.g., depression, anxiety, stress, self-esteem, happiness), and quality of life (e.g., various quality of life scales). Few studies have included treatment or disease outcomes. Moreover, few studies have included outcome measures from all the key health categories or followed a theoretical model in the selection of the outcome measures. Finally, few studies have examined whether changes in health-related fitness or objective physical functioning mediate changes in patient-reported outcomes or treatment/disease outcomes.
Conclusions: Exercise researchers have included a wide variety of outcome measures in their trials with the most common being health-related fitness, psychosocial functioning, and quality of life. Moreover, many exercise researchers have selected a health-related fitness outcome as their primary outcome. Although such an outcome has a high likelihood of changing, it may not be considered clinically meaningful by itself. Consequently, researchers should consider including additional clinically relevant outcomes for cancer survivors and examine the link between fitness and functioning, and the clinical outcomes. Moreover, selecting a health-related fitness outcome as the primary outcome typically requires a much smaller sample size to demonstrate efficacy which usually leaves the trial underpowered for other clinically important outcomes. Ideally, the selection of outcomes measures should be influenced by the needs of the particular patient population and follow a theoretical model, most likely including measures of health-related fitness, objective physical functioning, patient-reported physical functioning, activities of daily living, psychosocial functioning, quality of life, and treatment/disease outcomes.

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Design and methodological challenges in cancer-related quality of life research

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The presentation will examine challenges related to the design and methodology of research that focuses on capturing 'quality of life' in people with cancer. The relationship between health-related and general quality of life (QoL) concepts and the underlying assumptions (e.g. stability, dimensionality, scope) will be reviewed and critiqued. Specifically, issues such as multi-morbidity, complex marginalisation, transition periods (childhood, adolescence, adulthood, old age; stages of cancer) will be explored with regard to quality of life concerns. Questions about who contributes to the conceptualisation of (health-related) QoL and whether QoL can ever be considered an outcome measure (as opposed to temporary process measure) will be discussed. The conceptual debate will then be followed by a brief examination of how quality of life is currently 'assessed' in various clinical and non-clinical settings and contexts.
Several quality of life measures are used in the literature (e.g. Life Satisfaction Index, Visual Analog QoL scale, Quality of Life Index, Quality of Life Index, Philadelphia Geriatric Morale, Quality of Life Scale, Faces Scale and Hospice Quality of Life Index. They vary in the number of items, content domains, degree of internal and external validity and cancer specificity. Findings from a review of systematic reviews in the area of cancer-related QoL studies show that primary studies frequently combine multiple QoL measures with psychometric properties that have been ascertained to a varying degree. Rarely, measures are adapted and examined for their sensitivity and specificity in distinct environments and with subgroups of cancer patients.
Frequently, narrow inclusion/exclusion criteria create an artificially constrained sample whose QoL is assessed (usually but not always the same narrow set of individuals that matched the validation criteria for the instrument) and then extrapolated to a larger group. Study instrumentation itself may rule out study participation of people with communication, mobility or sensory impairments. If sampling, consenting and study administration procedures are not adjusted. Non availability of alternative formats to obtain consent, exclusive reliance on proxy respondents, insufficient researcher training, reliance on a single QoL measure may compound inaccuracy of findings. Few research publications indicate whether specific accommodations were made for people with cancer-related impairments to participate in a research project. Non-inclusion in QoL studies may have serious consequences There is no guarantee that health interventions are effective in the same way or may even carry risks for individuals whose 'QoL' has not been considered in primary studies. Examples from effectiveness and observational QoL studies will be used to examine specific problems.
The presentation will conclude with a number of key recommendations for future cancer-related QoL research.

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Patient-reported outcomes in cancer research

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As a result of new and improved therapeutic interventions, cancer survival rates are improving and the nature of cancer care is changing. Many cancers are now being managed as chronic diseases, treated over a prolonged period of time to achieve disease control, prolongation of life and palliation. High quality cancer care aims to improve a range of patient outcomes including not only survival but also important subjective outcomes such as symptom control, functioning and health related quality of life. Meeting those challenges requires routine use of robust and valid measures of patient self-reported outcomes in cancer research and care.
This presentation will describe the current state of the art in this research area in 3 sections:

1. Development and evolution of patient-reported outcome measures (PROMs), including health status questionnaires, quality of life instruments, screening measures for psychological morbidity and measures focusing on single concepts such as pain, fatigue, satisfaction with care.
2. Using PROMs in clinical trials as primary or secondary outcomes of treatment. Examples will be given from trials successfully implementing PROMs. The impact on those findings on clinical decision-making will