the independent variable, walking, is measured as participants who walk 20 minutes or more per day. The mediator, social isolation, is measured using a standardized 9-item score, including closeness and frequency of contact with children, friends, and other family members, and participation in group activities. We analyzed the effect of walking on loneliness and the role of social isolation as a mediator of that relationship using structural equation modeling. Our results suggest that walking is significantly associated with lower levels of both social isolation (B=-.10) and loneliness (B=-.05). As well, there is a positive association between social isolation and loneliness, as social isolation increases, so does loneliness (B=0.31). Moreover, results from the mediation analysis using bootstrapping suggest that social isolation partially mediates the relationship between walking and loneliness (B=-.03). Our findings confirm the benefits of PA on wellbeing. This research provides evidence that suggests establishing walking programs may decrease the risk of loneliness. Future interventions concentrated on lowering social isolation through PA among older adults should consider the opportunity to reduce loneliness.

THE IMPACT OF FUNCTIONAL DISABILITY ON HOSPITALIZATION SPENDING IN SINGAPORE
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Singapore is one of the fastest-aging populations due to increased life expectancy and lowered fertility. Lifestyle changes increase the burden of chronic diseases and disability. These have important implications for social protection systems. The goal of this paper is to model future functional disability and healthcare expenditures based on current trends. To project the health, disability and hospitalization spending of future elders, we adapted the Future Elderly Model (FEM) to Singapore. The FEM is a dynamic Markov microsimulation model developed in the US. Our main source of population data was the Singapore Chinese Health Study (SCHS) consisting of 63,000 respondents followed up over three waves from 1993 to 2010. The FEM model enables us to investigate the effects of disability compounded over the lifecycle and hospitalization spending, while adjusting for competing risk of multi-comorbidities. Results indicate that by 2050, 1 in 6 older adults will have at least one ADL disability and 1 in 3 older adults will have at least one IADL disability, an increase from 1 in 12 elders and 1 in 5 elders respectively in 2014. The highest prevalence of functional disability will be in those aged 85 years and above. Lifetime hospitalization spending of elders aged 55 and above is US$24,400 (30.2%) higher among people with functional disability compared to those without disability. Policies that successfully tackle diabetes and promote healthy living may reduce or delay the onset of disability, leading to potential saving. In addition, further technological improvements may reduce the financial burden of disability.

SELF-PERCEPTION OF AGING AND ASSOCIATED CHARACTERISTICS AMONG OLDER ADULTS
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Positive self-perception of aging has been linked to better physical and psychosocial health outcomes among older adults. Negative self-perception of aging has been associated with poorer health consequences including depression, limited mobility, and mortality. Despite significant findings, the comprehensiveness and quality of self-perception of aging research still warrants further investigation, especially when identifying factors for intervention. Using a large random stratified sample of AARP Medicare Supplement insured members, age=65 years, with continuous coverage for ≥12 months, self-perception of aging and various sociodemographic, medical, and psychosocial characteristics were examined using Chi-square and multivariate logistic regression models. Self-perception of aging was measured using the five-item Attitudes Towards Own Aging subscale. Characteristics of interest included age, gender, health status, resilience, purpose, optimism, social network, physical activity, depression, falls, vision, hearing, oral health, and sleep quality. Propensity weighting was used to adjust for potential survey non-response bias. Of weighted survey respondents (N=14,046), 59% exhibited a positive self-perception, while 41% exhibited a negative self-perception. Respondents with a positive self-perception were more likely to be healthier, younger (<75 years), more active (≥3days), less depressed, have more diverse social networks, higher resilience, and purpose. Negative self-perception was associated with poorer health, older age, depression, and poorer vision, hearing, oral health, and sleep quality. The strongest characteristics associated with positive self-perception were purpose, resilience, physical activity, and social networks. Depression and sleep quality were the strongest characteristics associated with negative self-perception. Interventions targeting these characteristics could be beneficial in promoting positive self-perception of aging and health over time.

THE CURRENT SITUATION AND INFLUENTIAL FACTORS OF FRAILTY IN ELDERLY PATIENTS WITH DIABETES IN CHINA
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Patient with diabetes may increase the incidence of frailty. Frailty cause chronic inflammation and insulin resistance. The purpose of this study is to investigate the current situation of frailty and its influencing factors in elderly patients with diabetes. Totally 300 elderly patients with diabetes were selected from a tertiary hospital in Zhengzhou of China via convenience sampling method, and were investigated by self-designed general information questionnaire, TFI (Tilburg Frailty Indicator) and SDSCA(Scale of Diabetes Self-care Activities). Totally 296 valid questionnaires were collected. A total of 137 elderly patients with diabetes suffered from frailty and the prevalence was 46.3%. The mean score of total frailty was (5.26±2.87) and the scores for each dimension were as follows: physical frailty (2.79±2.08), psychological frailty (1.40±0.94) and social frailty (1.07±0.75). Multiple linear regression showed that comorbidity, self-management behavior, glycosylated hemoglobin, educational degree, polypharmacy and smoking were the major
influential factors (P<0.05). The prevalence of frailty in elderly patients with diabetes was at a high level, containing different degrees of physical, psychological and social frailty. Medical staff should attach great importance to the assessment of frailty among elderly patients with diabetes, take targeted and holistic interventions timely to prevent or delay the development of frailty.

A QUALITATIVE STUDY ON THE COGNITION AND EXPERIENCES MOBILITY DEVICES USE IN KNEE OSTEOARTHRITIS PATIENTS OF CHINA

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The benefits of mobility devices for knee Osteoarthritis Patients include reducing burden of knee joint, enhancing confidence and increasing autonomy, yet many who might benefit from using mobility devices do not use them. The purpose of this study is to explore the cognition and using experiences about mobility devices use in patients with knee osteoarthritis of China. Naturalistic inquiry research was adopted, 15 patients with knee osteoarthritis were recruited and Semi-structured interviews were conducted. Data were analyzed based on conventional content analysis methodology. Two themes of using experiences about mobility devices were extracted, including positive feelings, negative feelings. Cognition about mobility devices use included light consciousness, incorrect attitude. Mobility devices have a positive effect on knee osteoarthritis patients, but some patients lack sufficient understanding and face many problems in the use of mobility devices. Policy Support, greater physician involvement, positive peer modules, and safe, visually appealing devices would promote greater acceptance and satisfaction of mobility devices with knee osteoarthritis patients.

DESCRIBING A CONCEPT OF NURSE INTUITION AND IMPLICATIONS FOR DEMENTIA CARE IN NURSING HOMES

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The purpose of this concept analysis was to explore nurse intuition historically and in current literature, appraise the value of nurse intuition to research and practice, and discuss implications for practice in caring for residents with behavioral and psychological symptoms of Dementia (BPSD) in nursing homes. To date, no research has examined the presence or utility of nurse intuition in the nursing home setting. A conceptual analysis using pragmatic utility was chosen and based on the work of Walker and Avant (2005). In the literature, nurse intuition is characterized by attributes of knowledge not preceded by inference, knowledge that is holistic in nature, independent of linear thinking, and drawn from synthesis instead of analysis. Nurse intuition is based on preconditions of experience, empathy, limited information, and limited time to make vital decisions about patient care. Studies on nurse intuition have been criticized for their lack of rigor and empirical evidence of the effect of nurse intuition on positive patient outcomes. The attributes of intuitive nursing practice have important implications in nursing applied to residents with BPSD. The nursing home nurse with extensive educational and experiential knowledge is well-situated to understand the complex, changing needs of residents exhibiting various forms of BPSD in an effort to communicate their needs. Future studies on nurse intuition should focus on early education in dementia care, nurse residency-mentor programs to enhance intuitive thinking in the management of BPSD, and more empirical studies on the use of intuition in the context of dementia care.

MITOCHONDRIAL-DERIVED PEPTIDE, SHLP2, A NOVEL PROTECTIVE FACTOR IN PARKINSON’S DISEASE

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Mitochondrial DNA (mtDNA) variants are associated with a wide range of diseases of aging, from diabetes to Alzheimer’s, as well as with longevity itself. However, to date, little work has thoroughly examined the functional roles of mtDNA variants in such age-related diseases or the therapeutic potential of mitochondrial-derived peptides (MDPs) in these conditions. Our lab hypothesizes that mtDNA SNPs could affect MDPs, and we recently showed that a mtDNA SNP is associated with reduced circulating levels of an MDP called humanin and with cognitive decline. How other mtDNA SNPs affect MDPs and disease risk has yet to be analyzed. Remarkably, a recent paper showed a mtDNA SNP (m.2158 T>C) reduces the risk of Parkinson’s disease (PD). Of note, this SNP changes lysine (K) 4 to arginine (R) of a MDP called SHLP2, which is encoded by the 16S rRNA region of the mtDNA. SHLP2 acts as a neuroprotective factor and as a metabolic regulator. We hypothesized that K4R SHLP2 – produced by individuals who carry mtDNA m.2158 T>C – is a protective factor for Parkinson’s disease. Cycloheximide-treated pulse-chase experiments additionally showed that K4R SHLP2 is more stable than WT SHLP2. WT SHLP2 has a polyubiquitination whereas K4R SHLP2 diminish the polyubiquitination. K4R SHLP2 more potently inhibits PD toxin (MPP+) induced apoptosis in neuronal cells. K4R SHLP2 reverse the mitochondrial membrane potential loss and mitochondria respiration defect in TFAM heterozygous knockout MEFs. Altogether, SHLP2 has the therapeutic potential as a precision medicine in PD.

“WITH AGE COMES WISDOM:” A QUALITATIVE REVIEW OF ELDER PERSPECTIVES ON HEALTHY AGING IN THE CIRCUMPOLAR NORTH

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Cross-cultural research has shown marked variation in health outcomes across the world’s older adult populations. Indeed, older adults in the Circumpolar North experience a variety of health disparities. Because aging is a biological process rooted in sociocultural context, there exists great variation in the ways older adults define and experience healthy, or “successful,” aging in their communities. The aim of this analysis was to synthesize qualitative research among