Correlates of Frailty in Late Middle-Aged Patients With Schizophrenia

Mei-Yeh Wang, PhD, RN  
Department of Nursing, Cardinal Tien Junior College of Healthcare and Management, New Taipei City, Taiwan  
Yun-Xuan Kang, MSN  
Department of Nursing, Cardinal Tien Hospital, New Taipei City, Taiwan

Purpose:

Frailty is a condition characterized by an increased vulnerability to external or internal stressors and reflecting an age-associated decline in multiple physiological systems. The specific pathological pathways underpinning frailty have not been clearly determined. Nevertheless, aging-related cumulative loss of physiological reserve in multiple physiological systems such as immune and endocrine systems may increase the risk of developing frailty with aging. Inflammatory cytokines alterations have been supported as a risk factor of schizophrenia. Moreover, patients with schizophrenia have higher rates of increased weight gain and related metabolic comorbidities than the mentally healthy people. Factors that involved in the initiation of the vicious cycle of frailty including depressive symptomatology and cognitive impairment are also pervasive in schizophrenia. In addition to normal age-emergent factors that influence physical capacity, disease-related characteristics may place schizophrenia patients at risk of developing frailty. Furthermore, individuals with schizophrenia have accelerated physical aging compared with the overall population. Thus, the question of whether patients with schizophrenia would manifest frailty during the late middle-aged period is deserved to be investigated. This study aims to assess the prevalence rates of physical frailty components and related factors in late middle-aged patients with schizophrenia.

Methods:

Physical frailty components were assessed including poor endurance (i.e., exhaustion), shrinking (i.e., body weight loss), and slowness (i.e., low gait speed). Exhaustion was assessed using two items from the Center for Epidemiological Studies Depression Scale (CES-D). Participants who answer “some or a little of the time” or “most of the time” to either the following two statements were categorized as exhausted: (a) I felt that everything I did was an effort, and (b) I could not get going. Weight loss was identified as the participants experienced unintentional weight loss of greater than 5% of body weight of the previous year. Gait speed was measured via the five-meter walking time. Depressive level and cognitive function were assessed by the CES-D and the Short Portable Mental Status Questionnaire (SPMSQ), respectively.

Results:

A total of 65 patients were assessed. Participants ranged from 55 to 65 years of age with a mean age of 59.46 years. 63.1 % of the participants were female. The prevalence rates of physical frailty components were exhaustion (67.7 %), body weight loss (21.5%), and low gait speed (16.9 %). There was no significant difference in the percentage of number of each component between gender. Results of univariate logistic regression shows that depressive level (aOR = 1.149, 95% CI = 1.062–1.242) significantly associated with exhaustion after adjustment for age, sex, BMI, fall history, and cognitive function. Cognitive function (aOR = 0.613, 95% CI = 0.433–0.869) significantly associated with slowness after adjustment for age, sex, BMI, fall history, and depressive level.

Conclusion:

Poor endurance was the most prevalent frailty component in late middle-aged patients with schizophrenia. More than 15% of participants reported at least one component of physical frailty. Results of this preliminary study suggest a relationship between frailty, depression and cognitive function.
Title:
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Keywords:
frailty, middle-aged and schizophrenia

References:

Abstract Summary:
Patients with schizophrenia have accelerated physical decline with age coupled with risk factors linked with frailty development. Our results show that poor endurance was the most prevalent frailty component and was closely associated with depression in late middle-aged patients with schizophrenia.

Content Outline:
Background

Frailty is a condition characterized by an increased vulnerability to external or internal stressors and reflecting an age-associated decline in multiple physiological systems. The specific pathological pathways underpinning frailty have not been clearly determined. Nevertheless, aging-related cumulative loss of physiological reserve in multiple physiological systems such as immune and endocrine systems may increase the risk of developing frailty with aging. Inflammatory cytokines alterations have been supported as a pathophysiology of schizophrenia. Moreover, patients with schizophrenia have higher rates of increased weight gain and related metabolic comorbidities than the mentally healthy people. Factors that involved in the initiation of the vicious cycle of frailty including depressive symptomatology and cognitive impairment are also pervasive in schizophrenia. In addition to normal age-emergent factors that influence physical capacity, disease-related characteristics may place schizophrenia patients at risk of developing frailty. Furthermore, individuals with schizophrenia have accelerated physical aging compared with the overall population. Thus, the question of whether patients with schizophrenia would manifest frailty during the late middle-aged period is deserved to be investigated.

Aims

This study aims to assess the prevalence rates of physical frailty components and related factors in late middle-aged patients with schizophrenia.
Methods

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First Primary Presenting Author

 Mei-Yeh Wang, PhD, RN
 Cardinal Tien Junior College of Healthcare and Management
 Department of Nursing
 Associate Professor
 SinDian Dist
 New Taipei City
 Taiwan

Professional Experience: 1. 2012-present – Associate Professor, Department of Nursing, Cardinal Tien Junior College of Healthcare and Management, New Taipei City, Taiwan. 2. 2009-2012 –Assistant Professor, Department of Nursing, Cardinal Tien Junior College of Healthcare and Management, New Taipei City, Taiwan. 3. 2003-2009 –Instructor, Department of Nursing, Cardinal Tien Junior College of Healthcare and Management, New Taipei City, Taiwan. 4. 1997-2003 –Instructor, College of Nursing, Taipei Medical University, Taipei City, Taiwan. 5. 1995-1997 –Instructor, College of Nursing, Chang Gung University, Taipei City, Taiwan. 6. 1991-1993 –RN staff, Kaohsiung Medical University Chung-Ho Memorial Hospital, Kaohsiung City, Taiwan.

Author Summary: Mei–Yeh Wang had completed her PhD from Taipei Medical University and currently works as an associate professor in Department of Nursing, Cardinal Tien Junior College of Healthcare and Management. Her research is related to patients with mental disorder and focuses on the assessment and non-pharmacological intervention of fatigue and sleep disturbance. She has published more than 20 papers in reputed journals.

Second Secondary Presenting Author

Corresponding Secondary Presenting Author
Yun-Xuan Kang, MSN  
Cardinal Tien Hospital  
Department of Nursing  
Head Nurse  
Xindian Dist.  
New Taipei City  
Taiwan

**Professional Experience:** 1995-present – Head Nurse, Cardinal Tien Hospital, New Taipei City, Taiwan.  
1984-1992 – RN staff, Cardinal Tien Hospital, New Taipei City, Taiwan.  

**Author Summary:** Yun-Xuan Kang currently works as a head nurse in Department of Nursing, Cardinal Tien Hospital. She has more than 20 years of clinical experience in psychiatric nursing and has expertise of acute care of individuals with mental disorder.