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Correlates of Frailty in Late Middle-Aged Patients With Schizophrenia

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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:

Correlates of Frailty in Late Middle-Aged Patients With Schizophrenia

Keywords:

frailty, middle-aged and schizophrenia

References:

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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

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.

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Conclusion

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