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Editorial Comment

# Combating Frailty and COVID-19: The Power of Vaccination and Physical Activity

The COVID-19 pandemic has severely threatened public health worldwide, mainly affecting older adults, the most vulnerable population. Our latest issues focus on the crucial topics of frailty, COVID-19, vaccination, depression, physical activity, and falls among older adults. Through a collection of insightful articles, we gain a deeper understanding of the intricate relationship between these factors and explore strategies to mitigate their impact on the health and well-being of older individuals.

## 1. Understanding frailty and its impact on older adults

Frailty, a decline in physiological functions, is a significant concern for older adults as it increases the risk of falls and diminishes their quality of life. In the review article of the current issue, Chen and Liao[1] highlight the importance of addressing sarcopenia, a chronic inflammatory condition associated with hormonal imbalances, and suggest nutritional supplementation and moderate exercise reduce the risk of falls and promote healthy aging.

## 2. Depressive symptoms and sarcopenia: A complex connection

Sato et al.[2] investigated the association between depressive symptoms and sarcopenia in older individuals requiring long-term care. Depression is closely associated with cerebrovascular disease, malnutrition, and sarcopenia, particularly impacting muscle mass. This calls for monitoring depressive symptoms and proactive interventions to prevent sarcopenia in older adults requiring care.

## 3. Impact of decreased physical activity and loneliness on older adults

Gen et al.[3] found that during the COVID-19 pandemic, older adults experienced a decrease in frequency of going out, lower levels of physical activity, increased feelings of loneliness, and musculoskeletal pain, all of which were interconnected and had adverse effects on the health and well-being of older individuals.

## 4. Addressing muscle weakness post-COVID-19 infection

Muscle weakness is a prevalent issue among older adults post-COVID-19 infection. Tai et al.[4] investigate hand grip strength among older adults after COVID-19 hospitalization. Their study highlights the need for proactive identification and management of muscle weakness to aid in the rehabilitation process and improve functional outcomes.

## 5. Maintaining physical activity during the pandemic

The COVID-19 pandemic has resulted in lifestyle changes, including decreased physical activity and increased social isolation. Nishida et al.[5] explore the relationship between the frequency of exercise at home and worsening depression among community-dwelling older adults during the pandemic. Their findings underscore regular physical activity's importance in mitigating the negative impact on mental health.

## 6. COVID-19 vaccines in frail older adults: Effectiveness and safety

Chou et al.[6] discuss the immunogenicity, effectiveness, and safety of COVID-19 vaccines in frail older adults. Frailty decreases resilience and increases the complexity of COVID-19 infection outcomes in older individuals. The review of available data indicates that vaccination elicits immune responses, reduces infection rates, and enhances safety, particularly in long-term care facilities.

## 7. The role of vaccination in mitigating frailty progression

Hirose et al.[7,8] present two articles focusing on the progression of frailty during the COVID-19 vaccination programs. Vaccination is crucial in mitigating frailty progression, with vaccinated individuals exhibiting mitigation behaviors, experiencing less mental distress, and demonstrating better immune system functioning. These results emphasize the importance of vaccination in preventing frailty among older adults.

## 8. Conclusion

In conclusion, addressing the impact of frailty, depression, and the COVID-19 pandemic on older adults requires a comprehensive approach that combines vaccination programs, regular physical activity, and targeted interventions. By tackling the underlying factors contributing to frailty, such as sarcopenia and depressive symptoms, we can reduce the risk of falls and improve the overall quality of life. Vaccination is critical in preventing frailty progression and enhancing immune system functioning. Additionally, regular physical activity promotes mental health and overall well-being. We can encourage our aging population's health, resilience, and vitality through preventive measures and tailored interventions.

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