

## LETTER TO THE EDITOR

## Geriatric frailty determinants in India

Dear Editor,

I am writing to discuss and comment on the research titled, "The prevalence of frailty and its relationship with sociodemographic factors, regional healthcare disparities, and healthcare utilization in the aging population across India," composed by Sunny Singhal et al.<sup>1</sup> The study provides valuable insights into the prevalence of frailty in India's aging population and its intricate relationship with socio-demographic factors and healthcare utilization. However, there are some critical gaps that need addressing.

The authors noted a descending trend in Frailty Index (FI) statistics (49.7% vs. 46.8% vs. 34.5%) from states with lower to those with higher performance. This information, however, is confined to the abstract section. In the main text, and in figures (Figure 1, Figure S1),

the authors merely stated these values. However, specific mean values were not provided in that figure either. Additionally, in the abstract methodology, religion-based FI was revealed as a variable; however, the results of this variable are missing in the abstract results. It is significant to provide an interconnected methodology and results to ensure better readability, cohesion, and consistency. This helps to avoid confusion and ambiguity among readers.<sup>2</sup>

Within the study, a 32-variable deficit model (3dVD) was employed due to its simplicity. However, it's important to note that there are other models that are equally simple, require minimal clinical expertise, and offer a rapid measurement of the FI. These models include the Fried Frailty Phenotype (FFP) model, the Clinical Frailty Scale (CFS), the Groningen Frailty Indicator (GFI), and the FRAIL Scale.

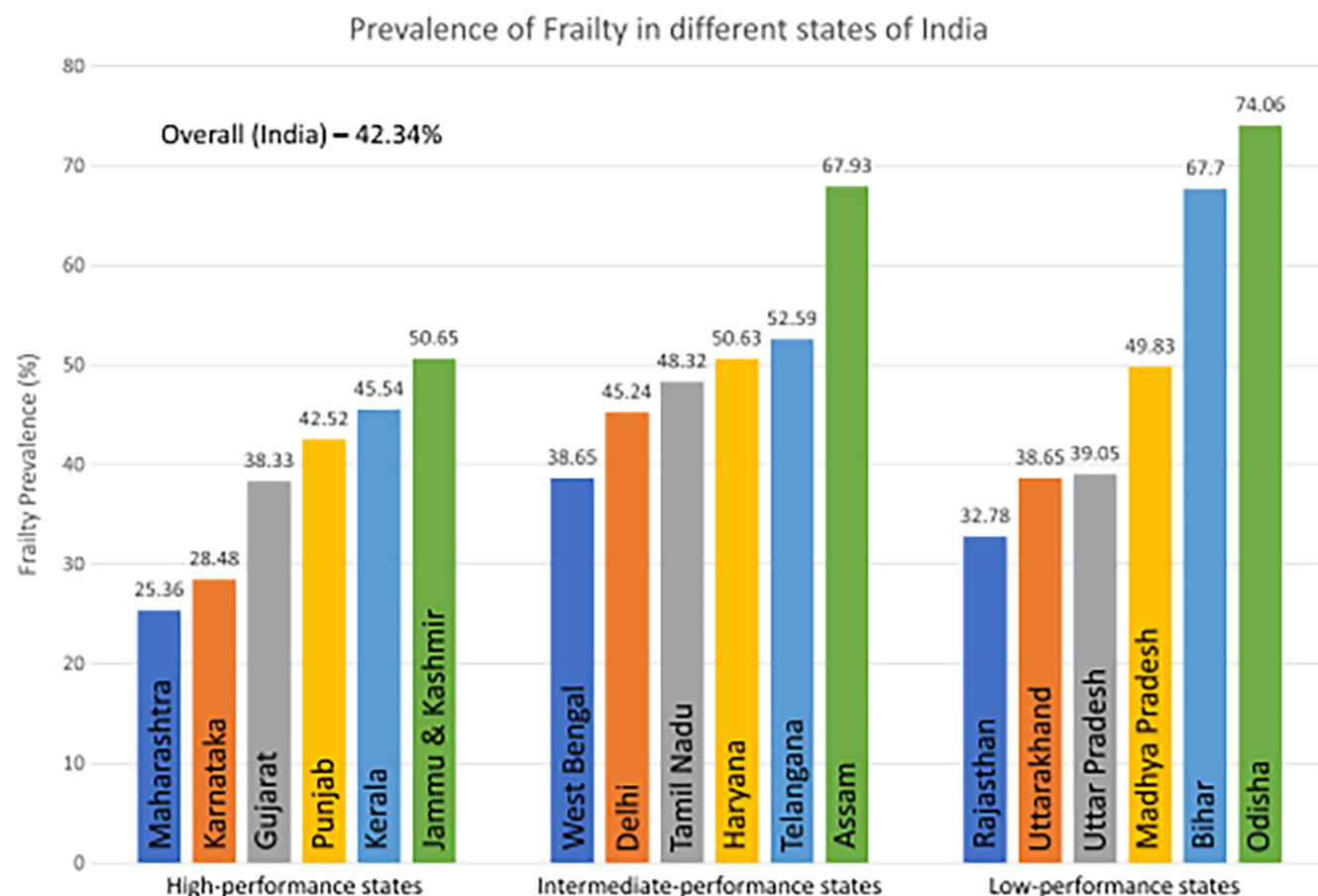


FIGURE 1 Prevalence of frailty in different states of India distributed as per the health index.

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These scales are simpler and more effective indicators of frailty, without the complexities associated with the 3dVD model. While the 3dVD model relies on 32 variables, the other models consist of fewer variables and components (ranging from 5 to 15). In addition, FI, FFP, and CFS exhibit more precision, accuracy, and reliability.<sup>3</sup>

Providing distinguishing attributes of the specific model employed is substantial to justify the approach, aid replication, and help understand the trade-offs and advantages of their chosen methodology. The 3dVD model includes physical, cognitive, and psychological aspects of health deficits, thereby providing a comprehensive assessment, and is practical for large-scale studies, eliminating extensive clinical assessment.<sup>4</sup> However, it might introduce bias (52%, reported in one study) due to subjective inclusion criteria.<sup>5,6</sup> The comprehensive nature of this model increases its complexity and may not measure certain physical phenotypes emphasized by the phenotypic model.<sup>7</sup>

Recognizing high-risk populations and acknowledging the underlying causes is pivotal for policymakers to formulate proactive interventions. It entails building comprehensive home- and community-based services, conducting geriatric training efforts for healthcare professionals, and developing policies to offer caregivers the assistance they need.<sup>8</sup> This information, however, is missing from the article.

In females, a combination of hormonal imbalances (ranging from 5.9% to 57.3%), social roles (46%),<sup>9</sup> longevity (15.4%),<sup>10</sup> and emotional unavailability of a spouse (31%) contributes to increased frailty in older women compared to men. Moreover, polypharmacy, limited healthcare access, psychological factors, financial dependence (common in India), and physical and emotional stress due to women's caregiving role lead to early frailty onset.<sup>11,12</sup> With respect to caste and education, potential factors contributing to disparities encompass variations in healthcare accessibility and quality, socio-economic circumstances, cultural norms, and additional environmental determinants.<sup>13</sup>

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## CONFLICT OF INTEREST STATEMENT

All authors declare no conflict of interest.

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## SUPPORTING INFORMATION

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