



Patient's Own Perception of Health and Frailty in HIV

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Background & Objective

- Frailty is a multifactorial clinical syndrome with causes originating from viral infection, treatments, comorbidities, genetics, lifestyle, and the environment.
- Frailty is specifically important to people with HIV as the occurrence has been documented about 10 years earlier than in the general population.
- Systematic identification of frailty is nearly impossible as it would require regular testing of physical function and body composition.
- Self-rated health (SRH) is a known predictor of future disability and mortality.
- Could SRH be used to identify people who are at higher risk of having frailty, prioritizing this group for further testing and intervention?
- Therefore, the objective was to estimate the extent to which frailty and frailty indicators are statistically predictive of self-rated health (SRH) in people living with HIV.

Methods

- We used the questionnaire data from the Positive Brain Health Network (+BHN) cohort.
- The +BHN is a prospective study that involved 856 persons (aged>35) living with HIV recruited since 2014 from five clinics across Canada and followed over four annual visits. We used the data from the first visit.
- Frailty was operationalized using Fried's 5 criteria (exhaustion, low physical activity, slow gait speed, hand weakness, and low BMI) but was approximated with self-report items.
- People presenting with 3 or more of the 5 criteria were classified frail.
- SRH, measured on a 0 to 100 visual analog scale.
- SRH was the outcome, and it was regressed on the 5 frailty indicators and on a binary classification frail or not.
- All models included age and sex..

Results

There were 721 men (mean age:53, SD:8) and 133 women (mean age:50.5, SD:7.6) who had usable data in the BHN study.

Overall, 14.7% of the sample were classified as frail and their SRH was, on average, 59.2 (SD: 18.3), lower than those classified as not frail (mean: 78.5; SD: 13.8).

The relationship between continuous SHR and frailty classification was inverse. In comparison to people without frailty, people with frailty showed -18.7 lower SHR on average (SE:1.4).

The strength of the relationship between SRH and frailty indicators were exhaustion and proxy grip strength (β : -8.1); proxy slow gait speed (β : -6.5); low physical activity (β : -4.9); and low body mass (β : -3.0; $p=0.06$) respectively.

As shown in Table 1, SRH used as a single-item showed a Positive Predictive Value of 46.3% and a Negative Predictive Value of 9.3%.

Table 1: Cross-classification of older people with HIV by frailty and SRH Status

	Frail	Not frail	All	
Fair/Poor Health	57	66	123	PPV: 46.3%
Good or better Health	67	646	713	NPV: 9.3%
All	124	712	854	

Discussion

While the global concept of "frailty" predicted SRH, no one criteria predominated.

However, among those reporting fair or poor health (n=123), 46.3% were classified as frail, and among those reporting good or better health (n=713), only 9% were classified as frail.

Thus, using a single item for SRH could prioritize people for in-depth frailty testing.