Validation of patient's ability to 'self-frailty score' using a modified Rockwood clinical frailty score

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BACKGROUND

Frailty scoring is important for the identification of frailty [1]. Frailty assessment can aid clinicians in targeting comprehensive geriatric assessment to improve patient experience and outcomes. We explored the feasibility of self-assessment for frailty, comparing patient-reported scores with specialist clinician assessments, evaluating its potential as a tool for improving frailty identification and intervention.

OBJECTIVE

To explore if a modified version of the Dr Rockwood clinical frailty score [2] in either electronic or paper form can be used by patients to assess their frailty score accurately.

METHODS

Between August 2024 and January 2025, a modified Rockwood frailty score questionnaire was given to patients in the Older Person's Assessment Service (OPAS), Outpatient clinic and Emergency Department at Morriston Hospital. The scores were completed by the patient either in paper form or electronically. The scores of the questionnaire were compared with the corresponding clinician frailty score.

RESULTS

In total, 173 paired questionnaires were completed. Twelve participants (6.9%) were excluded due to errors in completing the paper questionnaire: 11 patients selected multiple options incorrectly, and one patient was unable to complete the form independently. No electronically completed questionnaires were excluded.
Of the remaining 161 paired questionnaires, the highest agreement between patient and clinician was in the categories "living with mild" and "living with moderate frailty", and the greatest discrepancy was in the "managing well" category (Figure 1). The mean self-assessed frailty score was 4.12 (with a standard deviation of 1.818), and the mean clinician-assessed frailty score was 4.29 (with a standard deviation of 1.637) (Table 1). The correlation coefficient between self-assessed and clinician-assessed frailty scores of 0.852 was statistically significant ($p<0.001$)(Table 2).

	Mean	Number	Std. Deviation
Self-frailty score	4.12	161	1.818
Clinician frailty score	4.29	161	1.637

Table 1: Mean and standard deviation of patient and clinician scores

			Significance	
	Number	Correlation	One-Sided p	Two-Sided p
Self-frailty score & Clinician frailty score	161	0.852	< 0.001	< 0.001

Table 2: Paired samples correlations between patient and clinician scores

ANALYSIS

Electronic completion of patient questionnaires prevents and minimises the likelihood of errors, such as the selection of multiple answers, indicating this method may offer greater efficiency compared to paper-based questionnaires. The strong and statistically significant correlation ($r = 0.852$, $p < 0.01$) suggests a strong agreement between patient and clinician frailty scores. The data shows that though the scores are not identical (clinicians overall tend to assess higher frailty levels than patients self-report – particularly in categories that reflect less frailty), the overall alignment between the two scores is robust.

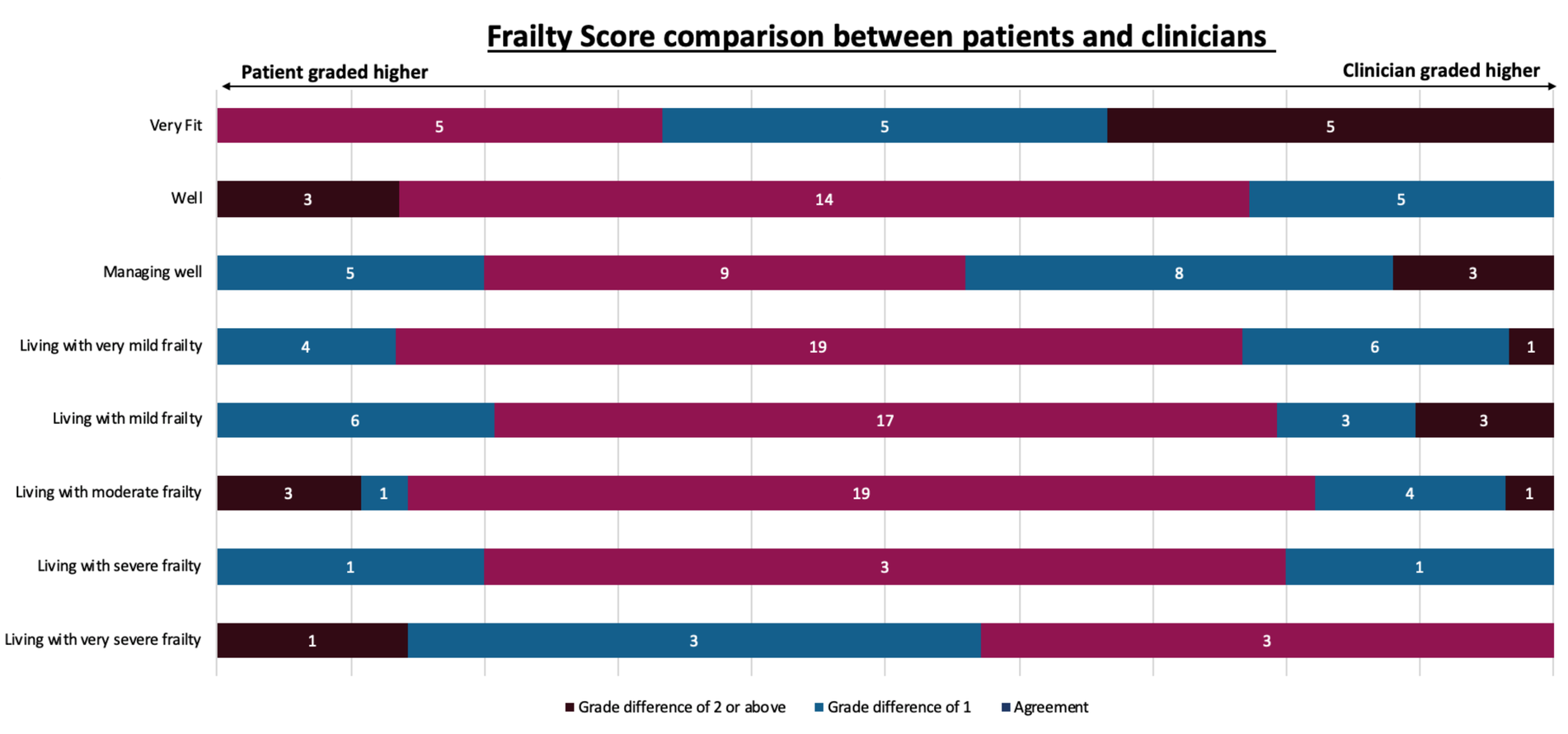

Figure 1: Agreement and disagreement between patient and clinicians

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CONCLUSION

The strong correlation between patient self-reported and clinician-assessed frailty scores highlights a general agreement between the two perspectives. However, clinicians tend to assign slightly higher frailty levels, particularly in less severe cases. These findings underscore the potential value of integrating electronic self-screening tools to assess patients for frailty in various settings, thereby enhancing the quality of care provided.

REFERENCES

1. Cappe M, Laterre PF, Dechamps M. Preoperative frailty screening, assessment and management. Curr Opin Anaesthesiol. 2023;36(1):83-8.
2. Modified Dr Rockwood clinical frailty score proforma - see QR code