EVALUATION OF A PORTUGUESE VERSION OF THE FUNCIONAL INDEPENDENCE SCORE FOR HEMOPLILIA (FISH) IN THE BRAZILIAN POPULATION

Topic:
MSK – Physiotherapy and Rehabilitation

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Introduction

Joint damage is a frequent complication of hemophilia and may lead to deformities and limitations in functional activities. In order to measure the functional impairments generated by hemophilic arthropathy (figure 1), the Functional Independence Score for Hemophilia (FISH) was developed by the group from Velore, India. This study aimed to translate the FISH into Brazilian-Portuguese, and to evaluate its applicability and reliability among Brazilian patients with hemophilia.

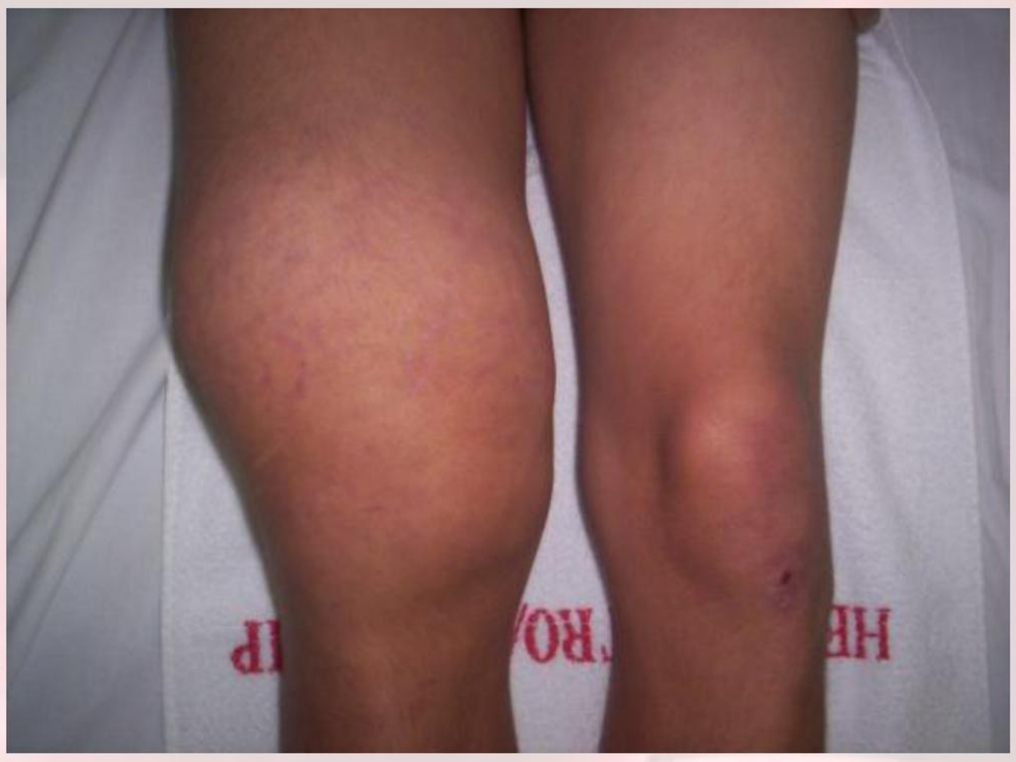

Figure 1. Hemophilic knee arthropathy

Patients and Methods

The FISH form and its manual were translated from English into Portuguese. The translation was validated after the translation of the Portuguese version into the original language. The final and approved Portuguese version was applied by two trained physiotherapists, and the inter-rater reliability was evaluated. The weighted Kappa (Kp) was used to assess the FISH inter-rater reliability, and intra-class correlation coefficient (ICC) was used for comparison with the literature data.

Results

A total of thirteen patients with hemophilia, aged from 8 to 54 years were included in this study (table 1). According to the ICC, only the task "bathing" index showed moderate reliability (ICC >0.4 and <0.75). All other activities, as well as the total score, showed high reliability considered good (ICC >0.75). According to the Kappa, tasks "eating and grooming" and "bathing", also showed moderate reliability index (Kp >0.41 and <0.60). The tasks "dressing" and "running" showed excellent results (Kp >0.80). For other tasks, and for the total score, reliability indices were considered good (Kp >0.61 and <0.80), as demonstrated on table 2.

Table 1. Patients clinical characteristics

TOTAL	N = 13	
Mean age	27.15 yrs (8 to 54 yrs)	
Diagnosis	severe HA	9 (29%)
	moderate HA	1 (7%)
	severe HB	2 (15%)
	mild HB	1 (7%)
Secondary prophylaxis	8 (61.5%)	

Table 2. Reliability inter Scale FISH

Tasks	ICC (CI 95%)	Kappa (CI 95%)
Eating and Grooming	0.82 (0.40 – 0.94)	0.55 (0.10 – 1.00)
Bathing	0.47 (0.75 – 0.84)	0.47 (0.09 – 1.00)
Dressing	1.00 (1.00 – 1.00)	1.00 (1.00 – 1.00)
Chair transfer	0.87 (0.57 – 0.96)	0.63 (0.23 – 1.00)
Squatting	0.89 (0.63 – 0.96)	0.69 (0.43 – 0.96)
Walking pattern	0.84 (0.40 – 0.95)	0.70 (0.33 – 1.00)
Stair climbing (12-14 steps)	0.83 (0.46 – 0.95)	0.65 (0.38 – 0.92)
Running	0.96 (0.88 – 0.99)	0.85 (0.71- 0.98)
Total	0.95 (0.84 – 0.98)	0.68 (0.53 – 0.83)

ICC, intra-class correlation coefficient; CI, confidence interval

Figure 2. Squatting

Figure 3. Chair transfer

Conclusion

The results showed that the FISH instrument has a good reliability index, considering the total score and each task individually. However, for the Portuguese spoken in Brazil version, it was observed that some activities need to be reviewed to avoid discrepancies in the assessments between observers.

References

1. Poonnose et al. Functional Independence Score in Haemophilia: a new performance-based instrument to measure disability Haemophilia. 2005;11:598-602.
2. Poonnose PM et al. Psychometric analysis of the Functional Independence Score in Haemophilia (FISH). Haemophilia. 2007; 13:620-626.

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