

VALIDATION OF CONTRACTURE ASSESSMENT SCREENING TOOL

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BACKGROUND

- Joint contractures can be defined as any degree of reduction in the active or passive range of motion due to muscle or connective tissue shortening, eventually leading to structural abnormalities and limited functional use¹.
- The most common risk factor for contractures appears to be immobility leading to structural changes within the muscles resulting in a vicious cycle (fig.1) that further exacerbates the condition².
- The prevalence of contractures in at least one joint ranges from 7% up to 81% in adults with neurological conditions, while in adults with non-neurological conditions, it varies from 7% up to 94.8%³.
- This inconsistency can be attributed to a lack of risk predictor or a standardized measure for assessment³.
- There is no standard assessment tool available to assess the risk of contracture development or progression. The Contracture Assessment Screening Tool (CAST) was developed by Dorset Health Care University NHS Foundation Trust to address this gap.
- This study aims to establish the validity and reliability of the tool prior to widespread use and implementation.

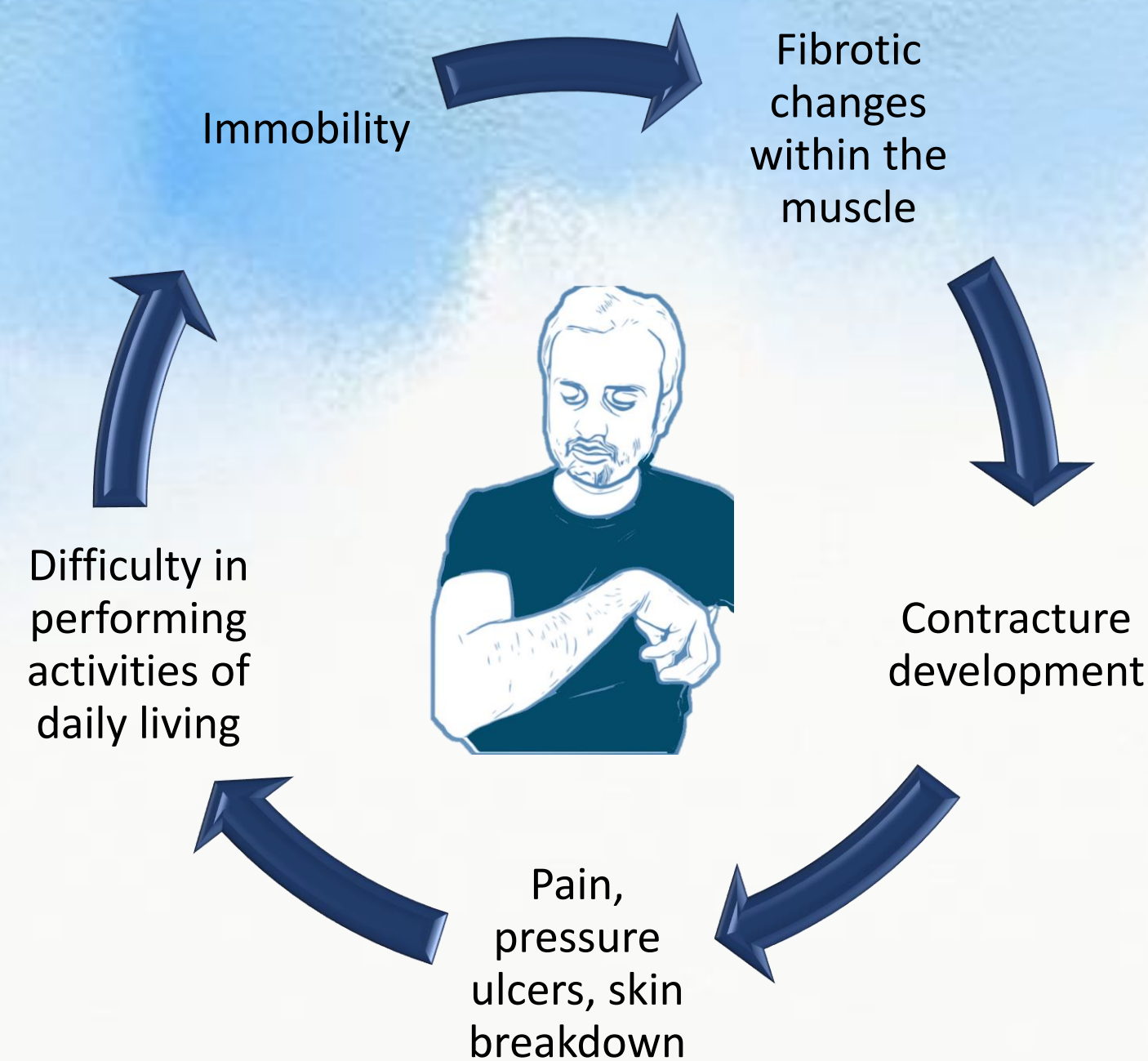


Figure 1. Vicious cycle of contractures

RESEARCH METHODS

This study will utilize a multi-stage mixed methods approach.

- **Stage I: Systematic review:** To evaluate the components of the CAST against the evidence-based factors that influence the development of contractures.
- **Stage II Realist review:** To establish theories about factors and contextual mechanisms which reduce or prevent the development or progression of contractures.
- **Stage III Delphi survey:** To assess the content validity of the CAST through expertise and knowledge held by field experts.

- **Stage IV: Validation study:** In this stage, the tool will be modified if required, based on the findings of stages 1-3. This version will be assessed in practice for psychometric properties and acceptability with adults residing in care homes and clinical staff, respectively.

The collective data provided by stages 1-4 will inform the researchers and tool designers to modify the tool accordingly.

CONCLUSION

- Timely identification of the severity of risk may trigger guidance for the health care staff to make appropriate referrals and may lead to prompt escalation of early intervention by the specialists aiming to reduce the risk of contracture development or progression of existing contractures.
- This may potentially prevent contracture-related negative sequelae and improve quality of life.

REFERENCES

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