



PELVIC FLOOR CONTRACTION SCALE (SP-PFCS): A STRUCTURED CLINICAL GRADING SYSTEM FOR FUNCTIONAL ASSESSMENT OF PELVIC FLOOR MUSCLE CONTRACTION

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ABSTRACT Pelvic floor muscle contraction assessment is a cornerstone of pelvic health physiotherapy, particularly in conditions such as urinary incontinence, pelvic organ prolapse, and postpartum weakness. Commonly used tools like the Modified Oxford Scale primarily quantify contraction strength but provide limited insight into coordination, reflexive activity, and functional integration. The purpose of this article is to introduce the Sunita Patel- Pelvic Floor Contraction Scale (SP-PFCS), a structured five-grade clinical assessment tool designed to evaluate pelvic floor muscle activation from minimal voluntary contraction to resilient, reflexive function. The scale incorporates circumferential closure, upward lift, inward pull, voluntary control, reflex activation, and resistance handling. The SP-PFCS provides a comprehensive and functional framework for grading pelvic floor contraction and guiding individualized rehabilitation programs. Future research is recommended to establish psychometric properties of the scale.

KEYWORDS : Pelvic Floor Contraction, Muscle Strength Grading, Physiotherapy Assessment, Urinary Incontinence, Women's Health

INTRODUCTION

Assessment of pelvic floor muscle contraction is fundamental in pelvic health practice. Weakness, delayed activation, and poor coordination of pelvic floor muscles contribute to urinary incontinence, pelvic organ prolapse, and postpartum dysfunction.

The Modified Oxford Scale and related grading systems assess contraction intensity through digital palpation. While widely accepted, these tools primarily focus on strength and do not adequately describe coordination, functional integration, or reflexive activation during daily activities.

The Sunita Patel- Pelvic Floor Contraction Scale (SP-PFCS) was developed to provide a more functionally oriented grading system that reflects real-life pelvic floor demands, including voluntary control, reflex activation, and resilience against increased intra-abdominal pressure.

Aim of the Study

To develop and describe a clinically applicable grading system for pelvic floor muscle contraction that integrates strength, coordination, reflexivity, and functional endurance.

MATERIALS AND METHODS

The SP-PFCS was developed through extensive clinical observation in women's health and pelvic rehabilitation practice. Patients presenting with urinary incontinence, postpartum pelvic floor weakness, pelvic organ prolapse, and core dysfunction were assessed repeatedly over time.

Key contraction parameters were identified, including circumferential closure, upward lift, inward pull, voluntary activation, reflex response during functional tasks, and resistance tolerance. The scale was refined through clinical application and professional discussion during pelvic health training programs.

Description of the Sunita Patel- Pelvic Floor Contraction Scale (SP-PFCS)

Important Clinical Note: Pelvic floor contraction assessment using the SP-PFCS should be performed only after complete pelvic floor relaxation has been achieved. If pelvic floor hypertonicity or pain is present, contraction grading is not recommended.

Grade	Clinical Description
1+ Inactive Pelvic Floor	Flicker contraction involving only 20–30% of the pelvic orifice muscles. Weak, incomplete closure with minimal awareness.
2+ Partially Active Pelvic Floor	Contraction present at the orifice or sphincter level, but one major component is missing: absent circumferential hold, absent upward lift, or absent inward pull.
3+ Voluntary Active Pelvic Floor	Contraction achieved from all regions of the pelvic orifice with upward and inward pull, but only with therapist instruction or verbal cueing.
4+ Functional Pelvic Floor	Contractions occur automatically and appropriately during functional activities such as coughing, laughing, or exertion, without conscious effort.

5+ Resilient Pelvic Floor	Strong, sustained contraction maintained even against increased intra-abdominal pressure, gravity, or external resistance (Valsalva).
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Clinical Application

The SP-PFCS allows clinicians to grade pelvic floor contraction capacity in a structured and reproducible manner.

- Grades 1+ to 2+ indicate weakness and poor integration, requiring activation and coordination training.
- Grade 3+ reflects voluntary control but limited functional transfer.
- Grades 4+ and 5+ represent functional and resilient pelvic floor performance, suitable for advanced activity and prevention strategies.

The scale supports documentation, treatment planning, and outcome monitoring in pelvic rehabilitation programs.

DISCUSSION

The SP-PFCS expands traditional contraction grading by emphasizing functional relevance. By incorporating reflexive and endurance-based criteria, the scale aligns pelvic floor assessment with real-life demands.

This functional orientation enhances clinical decision-making, patient education, and interdisciplinary communication. When used in conjunction with a relaxation-first assessment approach, the SP-PFCS ensures safe and physiologically appropriate progression of pelvic floor rehabilitation.

Limitations

The SP-PFCS is based on clinical observation and expert consensus and currently lacks formal validation. Future research is needed to establish reliability, validity, and responsiveness in diverse patient populations.

CONCLUSION

The Sunita Patel- Pelvic Floor Contraction Scale (SP-PFCS) provides a comprehensive and functionally oriented framework for grading pelvic floor muscle contraction. By extending beyond strength alone, the scale enhances assessment accuracy and supports individualized, evidence-informed pelvic floor rehabilitation. Further validation studies are recommended.

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