

sexual and bowel function into routine follow-up, and combine relevant dimensions of pelvic floor function questionnaires to quantify symptom-related distress and support referral decisions (De Amorim et al., 2025).

### **3 Classification and Characteristics of Common Nursing Assessment Tools**

#### **3.1 Key features of subjective scales related to pelvic floor dysfunction**

Subjective scales are among the most widely used tools in nursing assessment of postpartum PFD. Typically administered as standardized questionnaires, they systematically collect postpartum women's self-reported experiences of urinary incontinence, prolapse, bowel and sexual function problems, as well as the impact of these issues on quality of life. These tools feature clear structures, are relatively easy to administer, and are low cost. They are suitable for early screening, community follow-up, remote/online follow-up, and large-sample research. Importantly, by focusing on "bother" and "impact," they reflect a patient-centered nursing philosophy.

Within the broader landscape of instruments, subjective questionnaires can be further divided into two categories:

##### **1) Perinatal (pregnancy/postpartum)-specific, multidimensional comprehensive questionnaires**

These questionnaires typically adopt a subscale structure to assess bladder, bowel, pelvic organ prolapse, and sexual function domains separately, and often include symptom-related bother and risk factors; some also incorporate psychological items. Examples include the German Pelvic Floor Questionnaire for Pregnancy and the Postpartum Period and its derivative/cross-cultural versions (e.g., PFQ-PP and its multilingual versions), the APFDQ, and the Australian Pelvic Floor Questionnaire (APFQ). These instruments have undergone cross-cultural adaptation and psychometric validation across different languages and cultural contexts, demonstrating good content validity and internal consistency (Cronbach's  $\alpha$  often  $\geq 0.70$ ). They can discriminate between women with and without bothersome symptoms and support repeated administration during pregnancy and postpartum to track symptom trajectories (Titulaer et al., 2025; Zhu et al., 2025).

##### **2) Generic/core instruments focusing on symptom burden and life impact**

The PFDI-20 and PFIQ-7 are among the most widely used and most frequently cited instruments and are recommended by the International Consultation on Incontinence. Across diverse cultural contexts and administration modes (paper-based, telephone, online), they show strong internal consistency, test-retest reliability, and convergent validity, making them suitable for symptom screening, quantification of bother, and outcome evaluation. Brief tools targeting urinary incontinence, such as the ICIQ-UI SF, have also demonstrated acceptable construct validity and responsiveness in perinatal populations, supporting rapid screening and monitoring of intervention effects (Cattani et al., 2024). In addition, brief screening tools tailored to primary care or busy clinical settings have begun to emerge. For example, the Pelvic Floor Health Index (PFHI; 10 items) focuses on key pelvic floor symptoms, genital pain/sensation, and body image. It is suitable for rapid assessment in the immediate postpartum period and for longitudinal follow-up, with reported good test-retest reliability ( $ICC \approx 0.78$ ) and convergent validity.

#### **3.2 Objective assessment methods for pelvic floor muscle strength and function**

Objective assessment methods are used to quantify pelvic floor muscle (PFM) strength, endurance, coordination, and structural integrity, serving as an important basis for determining injury severity and rehabilitation outcomes, and complementing symptom questionnaires. Common methods include vaginal palpation grading, perineal/vaginal manometry, surface electromyography (EMG), dynamometry, and imaging techniques such as ultrasound (Frazão et al., 2025). In routine postpartum care, standardized digital palpation assessment (e.g., the modified Oxford grading system) is the most accessible and cost-effective approach. Evidence indicates that, when assessors are adequately trained and standardized procedures are followed, palpation-based assessment of maximal voluntary contraction strength and endurance demonstrates moderate to high reliability ( $\kappa \approx 0.49-0.69$ ), supporting its use as a core bedside indicator. However, agreement for non-voluntary contractions and voluntary relaxation is relatively low ( $\kappa \approx 0.10-0.51$ ), and these findings should therefore be interpreted cautiously or supplemented with other objective measures.