

A RATING INSTRUMENT TO ASSESS AMBULATORY WOMEN'S HEALTH PROCEDURAL SKILLS

Parisa Rezaiefar¹, Douglas Archibald^{1,2}, Nisha Waqas¹, Susan Humphrey-Murto²
1: uOttawa DFM, 2: DIME



Département de
médecine familiale
Department of
Family Medicine

INTRODUCTION

Background:

- Ambulatory Women's Health Procedures (AWHPs) are essential primary care services few family physicians provide.
- CCFP licensing exam does not examine the candidates' procedural skills competence.
- Family Medicine (FM) teaching lacks validated tools to provide feedback to learners or to measure learner's progression towards competence of procedural skills.
- The two most commonly used rating instruments of technical skills are Procedure Specific Checklist (PSC) focused on content knowledge & Global Rating Scale (GRS) focused on psychomotor skills.

Objectives: To develop checklists and rating scales for four AWHPs & provide validity evidence for their use in FM as tools for formative & summative purposes.

METHODS

Content Development

- Procedures Selected: Intrauterine Device (IUD) insertion, endometrial biopsy, punch biopsy of vulva & routine pessary case as per CCFP2021 mandatory procedures list.
- A validated GRS designed for technical skills for hysterectomy was modified to accommodate AWHPs.
- We developed the original PSCs based on empirical standards of practice & literature review.
- A modified Delphi method was used to reach consensus on items for the final PSCs.
- 16 Academic family physicians (AFP) & OB-GYNs from 9 universities & 6 provinces participated using an 8-point scale to rank the importance of each item.
- We established a priori to include or exclude items (Table 1).
- Consensus was reached after 2 rounds.

Response Process Relationship to other Variables

- The 2 rating instruments were piloted by 19 AFPs raters using videos of 2 FM trainees from PGY1 & PGY2.
- Raters were asked to consider for both formative & summative purposes.
- Percentage PSC and GRS average scores was calculated for each procedure & correlated with the year of resident's training (Figures 1 & 2).
- Raters evaluated the 2 instruments on 6 anchors using a 6-point Likert scale (Figure 3).

Table 1. Results of Modified Delphi Consensus for PSC item Selection

	IUD Insertion	Endometrial Biopsy	Vulva Biopsy	Routine Pessary Care
Number of items to be rated	29	27	21	15
First Round				
Items included	21	17	17	12
Items excluded	None	None	None	None
Items neither included nor excluded	8	10	4	3
Incorporation of participants comments	combined 2 of the included items into 1, replaced 2 items with 2 new items		combined 2 items into 1	N/A
Items included after recommended changes	20	16	16	N/A
Second Round				
Items included	3	4	2	1
Items excluded	None	None	None	None
Items neither included nor excluded	5	5	2	2
Number of items after two rounds	28 (20 +3+ 5)	25 (16 +4 +5)	20	15

Items included: >70% ranked 7-8 & <20% ranked 1-2, Items excluded: >70% rated 1-2 & <20% rated 7-8

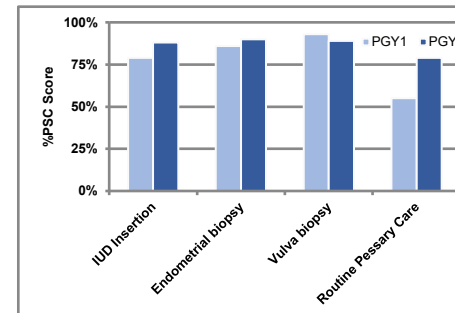


Figure 1. PSCs average score correlation with year of training

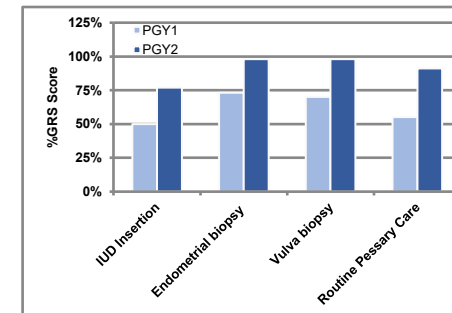


Figure 2. GRS average score correlation with year of training

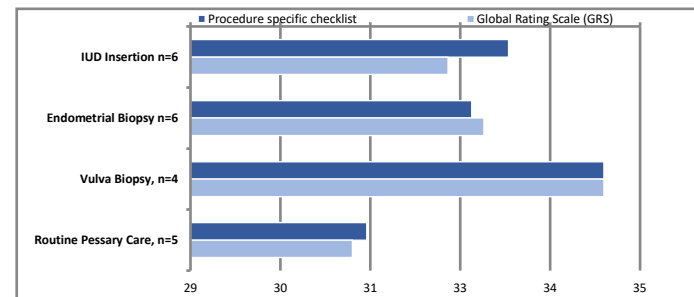


Figure 3. Raters' evaluation of the two rating instruments by

RESULTS

- PSC items were well received & consensus reached on most items after 2 rounds (Table 1).
- No item was viewed unimportant enough to be excluded from PSCs.
- PSC scores did not correlate with the trainees' level of training (Figure 1).
- GRS scores correlated with the trainees' level of training (Figure 2).
- The small sample size precluded us from correlating PSC & GRS scores.
- Both instruments received high average overall scores of $\geq 31/36$ for all 4 procedures.

DISCUSSION & CONCLUSION

- We developed Canadian consensus on PSCs to provide formative feedback to FM trainees for 4 AWHPs.
- Preliminary validation results are consistent with the literature: PSCs' detailed content knowledge structure is more suitable as a formative feedback tool whereas GRS psychomotor skill structure is more amenable to summative feedback.
- The overwhelming approval of the tool by faculty raters indicates acceptability & feasibility for our next study.
- Further validity evidence for internal construct, relationship to other variables & consequence of our tools is underway.

REFERENCES

- Fowler N, Wyman R, eds. Residency Training Profile for Family Medicine and Enhanced Skills Programs Leading to Certificates of Added Competence. Mississauga, ON: College of Family Physicians of Canada; 2021. Access date January 10, 2022
- National Physician Survey, 2004. College of Family Physicians of Canada (CFPC), Canadian Medical Association (CMA), Royal College of Physicians and Surgeons of Canada (RCPS) <http://nationalphysiciansurvey.ca/surveys/2014-survey/survey-results-2/>
- Downing "Validity: On the Meaningful Interpretation of Assessment Data." Medical Education., vol. 37, no. 9, Blackwell Scientific Publications., 2003.
- Health, C.B, Salik, H.S. (2010). Primary Care Procedures in Women's Health. An international guide for the primary care setting (2nd ed). Springer.
- Reznick R, Regehr G, MacRae H, Martin J, McCulloch W. Testing technical skill via an innovative "bench station" examination. The American Journal of Surgery 1997 173:3, 226-230
- Malacarne, D.R. MD*, Escobar, C.M. MD*, Lam, C.J. BA*, Ferrante, K.L. MD*, Szold, D. MD, EdM†; Lerner, Veronica T. MD* Teaching Vaginal Hysterectomy via Simulation, Female Pelvic Medicine & Reconstructive Surgery: July/August 2019 - Volume 25 - Issue 4 - p 298-304

- Funded by Medical Council of Canada
- OHSN, uOttawa, and Bruyere Research Institute boards of ethics exempted this study from full review.