

# Training Satisfaction Among Urology Residents in the Philippines: Validation of a Structured Questionnaire and National Cross-Sectional Survey

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**Background and Objective:** Residency satisfaction is an important indicator of training quality and may influence physician well-being and performance. Surgical trainees are generally reported to have lower satisfaction compared to other specialties. This study assessed satisfaction among urology residents in the Philippines and evaluated a structured questionnaire for measuring training experience.

**Materials and Methods:** A cross-sectional survey was conducted among residents in accredited urology programs (2024–2025). A 12-domain Likert-scale questionnaire was developed and validated. Internal consistency and test–retest reliability were assessed. Satisfaction scores were analyzed overall and across subgroups.

**Results:** A total of 106 residents participated. The instrument demonstrated good internal consistency (Cronbach's  $\alpha = 0.879$ ) and strong test–retest reliability ( $r = 0.896$ ). Overall satisfaction was high ( $52.4 \pm 5.4/60$ ). Clinical exposure was the highest-rated domain, while work-life balance was the lowest. No significant differences were observed by gender, training year, or institution type. Key areas for improvement were case exposure and academic learning.

**Conclusion:** Urology residents in the Philippines report high overall satisfaction. The validated questionnaire is reliable and useful for assessing multidimensional aspects of residency training. Improvements in case exposure, academic support, and work-life balance may further enhance training quality.

**Key words:** Urology residency, training satisfaction, surgical education, questionnaire validation, cross-sectional study

## Introduction

Residency training plays a critical role in shaping the clinical competence and professional development of physicians. In addition to acquiring technical and cognitive skills, residents contribute substantially to healthcare delivery within training institutions. Satisfaction with residency training

has been associated with physician well-being, retention, and patient outcomes.<sup>1,2</sup>

Multiple factors influence satisfaction, including workload, mentorship, case exposure, academic support, and institutional resources.<sup>3,4</sup> Prior studies suggest that surgical residents may experience lower satisfaction compared to their non-surgical counterparts, largely due to higher

workload and training demands.<sup>5</sup> Within surgical specialties, variability in satisfaction has also been reported depending on subspecialty and training environment.<sup>6</sup>

Despite growing interest in residency satisfaction, there is limited data specific to urology training in the Philippines. Furthermore, existing studies often utilize general job satisfaction measures, which may not fully capture the multidimensional nature of surgical training.

This study aimed to (1) validate a standardized questionnaire for assessing residency satisfaction among urology trainees, (2) determine overall satisfaction levels, and (3) identify key factors contributing to satisfaction.

## **Methods**

### *Study Design and Participants*

A cross-sectional survey was conducted among residents enrolled in urology training programs accredited by the Philippine Urological Association from 2024 to 2025. Eligible participants were residents with at least 6 months of training. Those no longer actively training were excluded.

### *Questionnaire Development and Validation*

A 12-item questionnaire was developed by a panel of five urologists involved in residency training. Content and face validity were established through expert consensus and iterative revision. Items were scored on a 5-point Likert scale (1 = poor to 5 = excellent).

Construct validity was assessed using principal component analysis with varimax rotation. Internal consistency was evaluated using Cronbach's alpha, with values >0.80 considered acceptable. Test-retest reliability was assessed in a subset of residents using the Pearson correlation coefficient.

### *Measurement of Satisfaction*

The questionnaire assessed the following domains: teaching, clinical exposure, case volume, research support, mentorship, educational resources, organizational processes, facilities and equipment, training environment, work-life

balance, peer relations, and overall satisfaction. A composite score (range 12–60) was calculated.

### *Statistical Analysis*

Descriptive statistics were used for demographic data. Mean scores were calculated for each domain. Independent t-tests and one-way ANOVA were used to compare satisfaction across gender, institution type, and year of training. Qualitative responses were categorized into themes and analyzed descriptively.

## **Results**

### *Participant Characteristics*

A total of 106 residents participated. Most were male (80.2%) and from government institutions (82.1%). The majority were in later years of training.

### *Questionnaire Validity and Reliability*

Principal component analysis revealed a three-factor structure. The first factor (interpersonal and educational support) included teaching and mentorship, clinical exposure, communication, mentor relations, and peer relations. The second factor (workload and academic support) included work-life balance, research support, and educational resources. The third factor (structural and resource adequacy) included case volume and diversity and facility and equipment quality. Two items (training environment and overall satisfaction) did not load significantly on any factor but were retained as global indicators.

Internal consistency was good (Cronbach's  $\alpha = 0.879$ ). Test-retest reliability demonstrated strong correlation ( $r = 0.896$ ), indicating stability over time.

### *Satisfaction Scores*

Overall satisfaction was high, with a mean composite score of  $52.4 \pm 5.4$ . Most domains were rated between "good" and "excellent."

- Highest-rated: Clinical exposure ( $4.7 \pm 0.5$ )
- Lowest-rated: Work-life balance ( $3.5 \pm 1.0$ )
- Overall satisfaction:  $4.5 \pm 0.6$

### *Subgroup Analysis*

No statistically significant differences were observed:

- Gender:  $p = 0.063$
- Year of training:  $p = 0.45$
- Institution type:  $p = 0.89$

### *Qualitative Findings*

Commonly identified areas for improvement included:

- Case exposure
- Academic learning
- Equipment availability
- Consultant guidance
- Work-life balance

### **Discussion**

This study shows that urology residents in the Philippines generally have high satisfaction with their training. Overall, most trainees feel that their programs are doing well in providing the needed experience for their development as future urologists. This reflects that accredited training institutions are able to deliver the basic requirements of surgical residency, especially in terms of clinical exposure and mentorship.

Among all domains, clinical exposure and hands-on experience received the highest scores. This suggests that residents feel they are getting enough operative and clinical experience, which is very important in a surgical specialty like urology. Previous studies in surgical training also show that case exposure and actual operative experience are some of the strongest factors that affect how satisfied residents are with their training.<sup>6,10</sup>

On the other hand, work-life balance received the lowest score and also had the widest variation in answers. This is consistent with what is seen in other surgical training programs, where residents often have heavy workloads and long duty hours.<sup>5</sup> While satisfaction remains generally high, this finding is important because poor work-life balance has been linked to burnout, fatigue, and even medical errors in previous studies.<sup>16</sup> This means that even if residents are generally satisfied,

there is still a need to look into workload and rest conditions.

There were no significant differences in satisfaction when grouped according to gender, year level, or type of institution. Satisfaction was similar across training years, which suggests that the overall training experience is fairly consistent from junior to senior levels. The small variation seen may be due to changes in workload and increasing independence as residents advance in training.<sup>14</sup> The lack of difference between government and private institutions may mean that differences in resources and case volume balance each other out in actual training experience.

From the open-ended responses, residents commonly mentioned the need for better case exposure and more academic activities. This suggests that while residents are generally satisfied, they still want more structured learning such as conferences, lectures, and subspecialty exposure. Equipment availability was also mentioned, which is important because limitations in resources can affect both training and patient care.

Overall, the findings suggest that urology training programs in the Philippines are performing well, but there is still room for improvement in work-life balance, academic structure, and availability of equipment. Addressing these concerns may further improve both resident satisfaction and training quality.

The study has limitations. Being cross-sectional, it only captures satisfaction at one point in time. Self-reported answers may also be affected by personal bias. It also did not assess burnout or patient outcomes, which may be important related factors.

### **Conclusion**

Urology residents in the Philippines are generally satisfied with their training, with strengths seen in clinical exposure and mentorship. Key areas for improvement include work-life balance, academic learning, and training resources.

The standardized questionnaire developed and validated in this study was shown to be effective in assessing residency satisfaction, demonstrating good reliability and internal consistency. It was able to capture multiple relevant domains of training

experience and may be useful for future evaluation of urology residency programs in the country.

**Appendix 1.** Urology training institutions accredited by the Philippine Board of Urology, Inc. (2025)

1. Batangas Medical Center
2. Corazon Locsin Montelibano Memorial Regional Hospital
3. Dr. Paulino J. Garcia Memorial Research and Medical Center
4. East Avenue Medical Center
5. Jose Reyes Memorial Medical Center
6. National Kidney and Transplant Institute
7. Philippine General Hospital
8. Southern Philippines Medical Center
9. St. Luke’s Medical Center
10. UERM Memorial Medical Center

11. University of Santo Tomas Hospital
12. Veterans Memorial Medical Center
13. Vicente Sotto Memorial Medical Center
14. V.Luna Medical Center
15. Northern Mindanao Medical Center
16. Ilocos Training and Regional Medical Center
17. Western Visayas Medical Center

**Appendix 2:** Data collection form

Residency satisfaction reflects training quality and affects professional well-being, retention, and patient outcomes. This study aims to assess satisfaction levels and contributing factors among Urology residents in the Philippines.

If you wish to participate, please complete and submit this form. Submission implies informed consent. All data will be kept confidential in compliance with privacy regulations.

Name

Age

Year of Training

Training Institution

Category of Training Institution (Government or Private)

Encircle the rating most reflective of your experience for each item

1. Rate the quality of teaching and mentorship you have received\*

1-Poor	2- Below Average	3- Average	4- Good	5-Excellent
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2. How would you rate the clinical exposure and hands-on experience in the program?\*

1-Poor	2- Below Average	3- Average	4- Good	5-Excellent
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3. Evaluated the work-life balance provided by the program \*

1-Poor	2- Below Average	3- Average	4- Good	5-Excellent
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4. How effective is the program in providing research opportunities and support?\*

1-Poor	2- Below Average	3- Average	4- Good	5-Excellent
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5. Rate the quality of facilities and equipment available for training.\*

1-Poor	2- Below Average	3- Average	4- Good	5-Excellent
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6. Rate the volume and diversity of cases available for training\*

1-Poor	2- Below Average	3- Average	4- Good	5-Excellent
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7. How do you find the accessibility and usefulness of educational resources (library, online materials, etc.)?\*

1-Poor	2- Below Average	3- Average	4- Good	5-Excellent
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8. How effective is the communication within the program (feedback, announcements, Information cascading, transparency, approachability, etc.)?\*

1-Poor	2- Below Average	3- Average	4- Good	5-Excellent
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9. Rate your mentor/mentee relationship between you and your program's faculty, not in terms of teaching per se, but in approachability, mutual respect and professionalism?\*

1-Poor	2- Below Average	3- Average	4- Good	5-Excellent
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10. Rate your relationship with your peers and co-residents \*

1-Poor	2- Below Average	3- Average	4- Good	5-Excellent
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11. Rate your satisfaction with the environment within your hospital as a training institution.\*

1-Poor	2- Below Average	3- Average	4- Good	5-Excellent
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12. Overall how satisfied are you with your experience in the Residency Program?\*

1-Poor	2- Below Average	3- Average	4- Good	5-Excellent
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13. What aspects of the program do you think require improvement?

14. Additional comments and suggestions?

Signature over Printed Name

Date

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