

Implementing an After-Clinic Knowledge Dive (ACKnowledgeD) to Turn Continuity Clinic into an Environment of Scholarly Inquiry

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Background:

Common characteristics of resident continuity clinic:

- High patient volume, electronic medical record fatigue, and understaffing¹
- Rushing through busy panel, often losing sight of educational benefit from each patient².
- Lack of a coordinated educational curriculum.
- Informal and unpredictable educational experience.
- **Needs Assessment (Pre survey, N=40):** residents expressed that there was an unmet need for more education over service in continuity clinic.
- Curricula targeting formalized outpatient education have focused on self or group learning, but few have integrated structured learning exercises into the fabric and within the time frame of clinic³.

Educational theorists have postulated the following ideas:

1. Students who actively participating in own learning explaining concepts to peers, engage in collaborative learning, effectively clarifying ideas(Mazur,'90)⁴.
2. When subject matter connects directly with personal experiences, residents care more about material they are learning, more likely remember it, and be able to refer to the case it was framed around in the future(Kolb,'84)⁵.

Objective:

To integrate an innovative educational curriculum into resident continuity clinic, improving perceptions about clinic, and addressing knowledge gaps.

Intervention:

A Problem-based Learning and Improvement initiative, held in small groups precepted by faculty, with peer-to-peer teaching, addressed CREOG learning objectives during each continuity clinic session. The pre survey (N=40, 85% trainees) was compared with a 11-months post intervention survey (N=34, 70% trainees) . P-values based on Fisher's exact test and the chi square test.

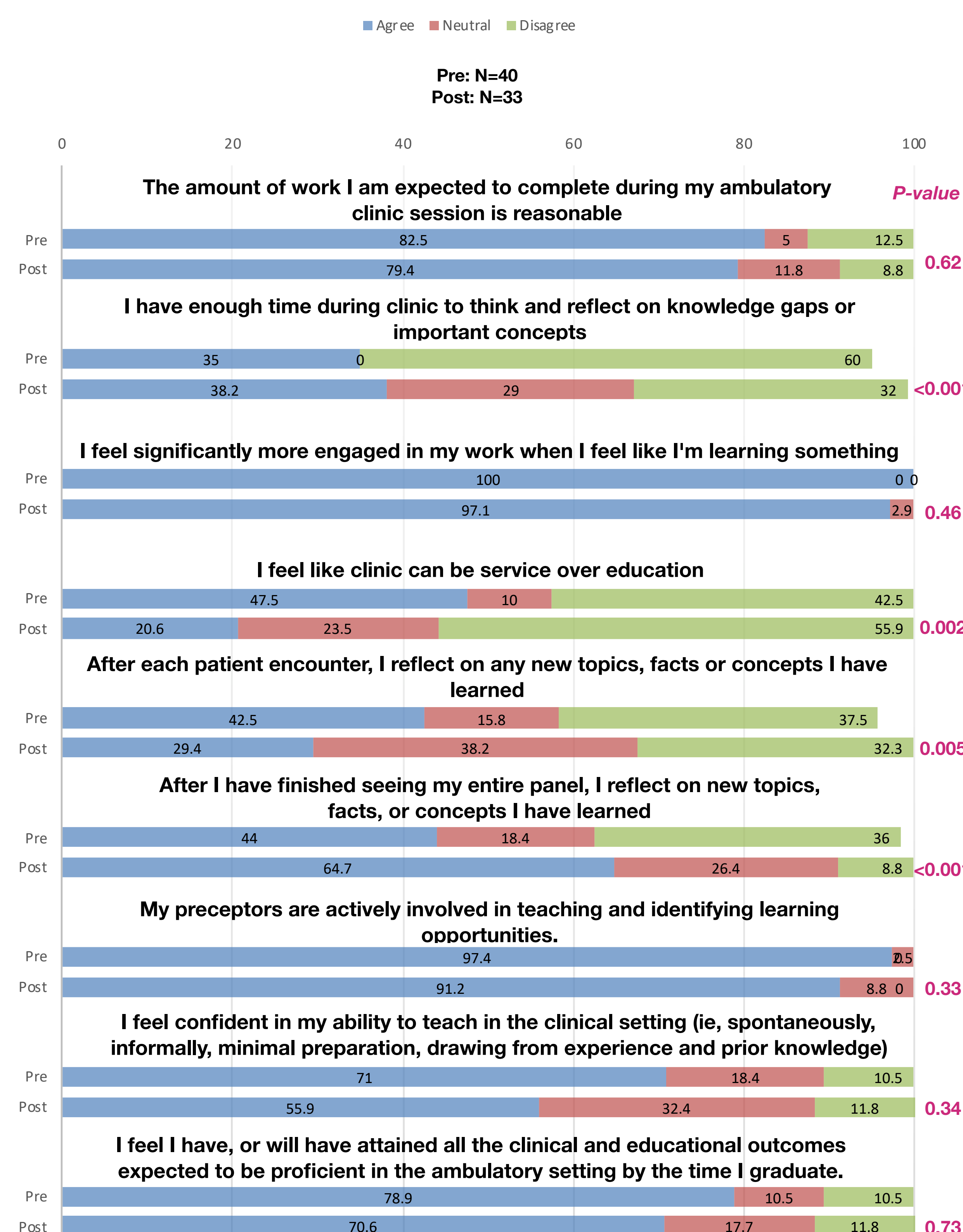
“The thing(s) I want to change about clinic:” (Resident comments on Pre Survey)

“More structured learning- Structured way of going over our plans to identify knowledge gaps, share primary research and foundational studies that inform clinical decisions.”

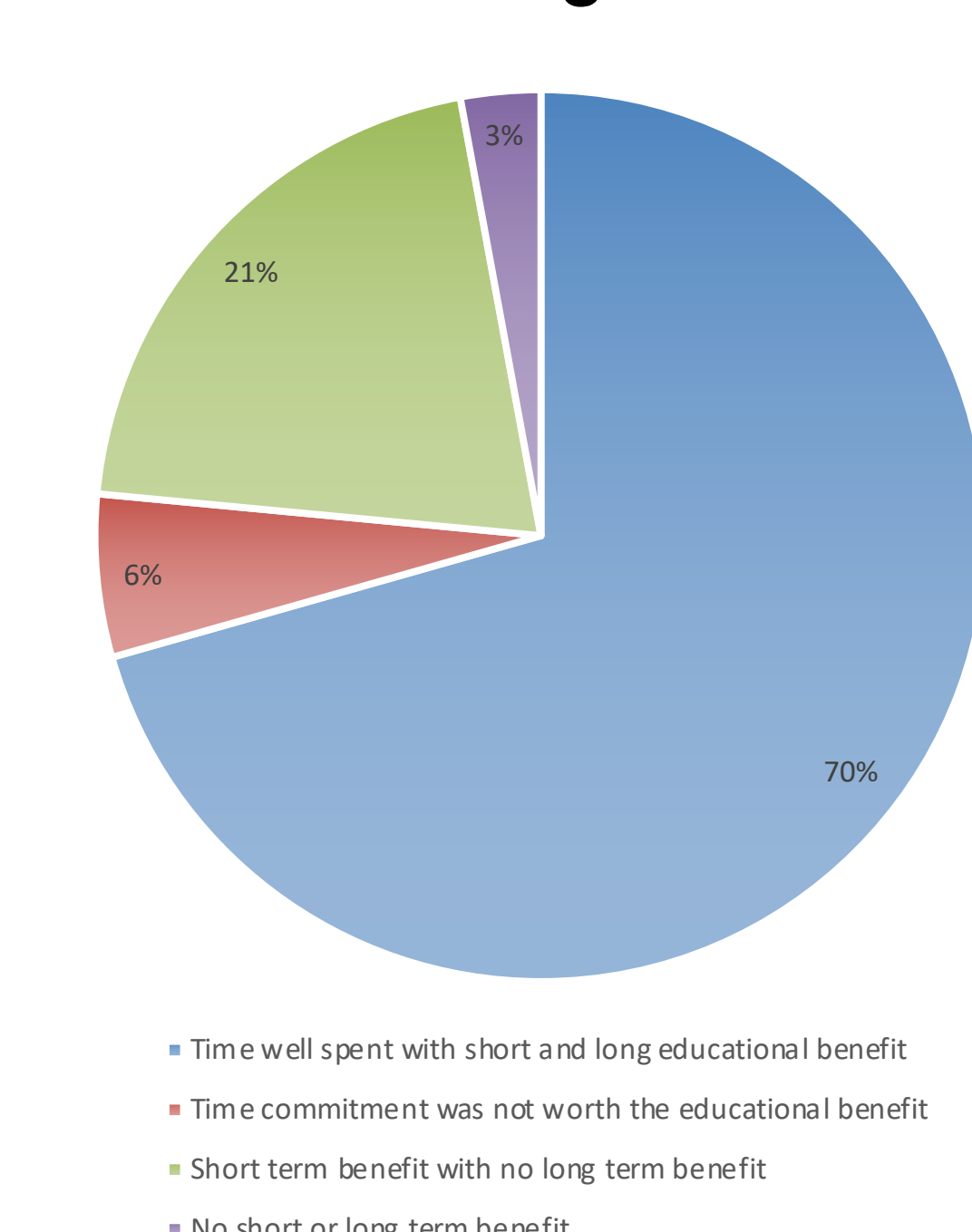
“Structured learning opportunities - Patients ready to be seen at start of clinic so we are not delayed - More nurses!”

“Most of my problems with clinic are systemic... I wish we had more focused learning about how to counsel, shared decision making, etc”

Resident Perspectives on Continuity Clinic: Report of Pre & Post Survey Results



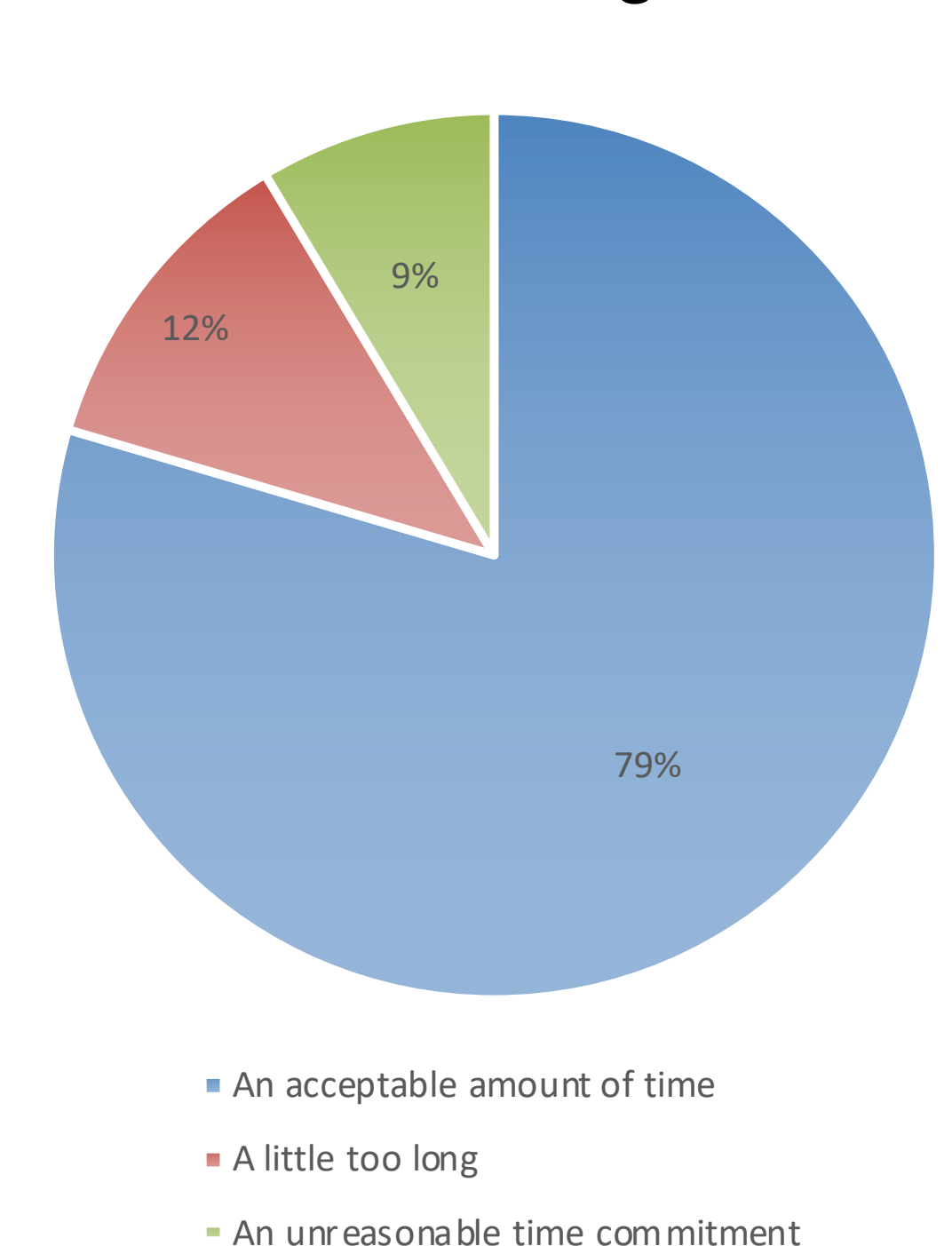
My opinion of the After Clinic Knowledge Dive:



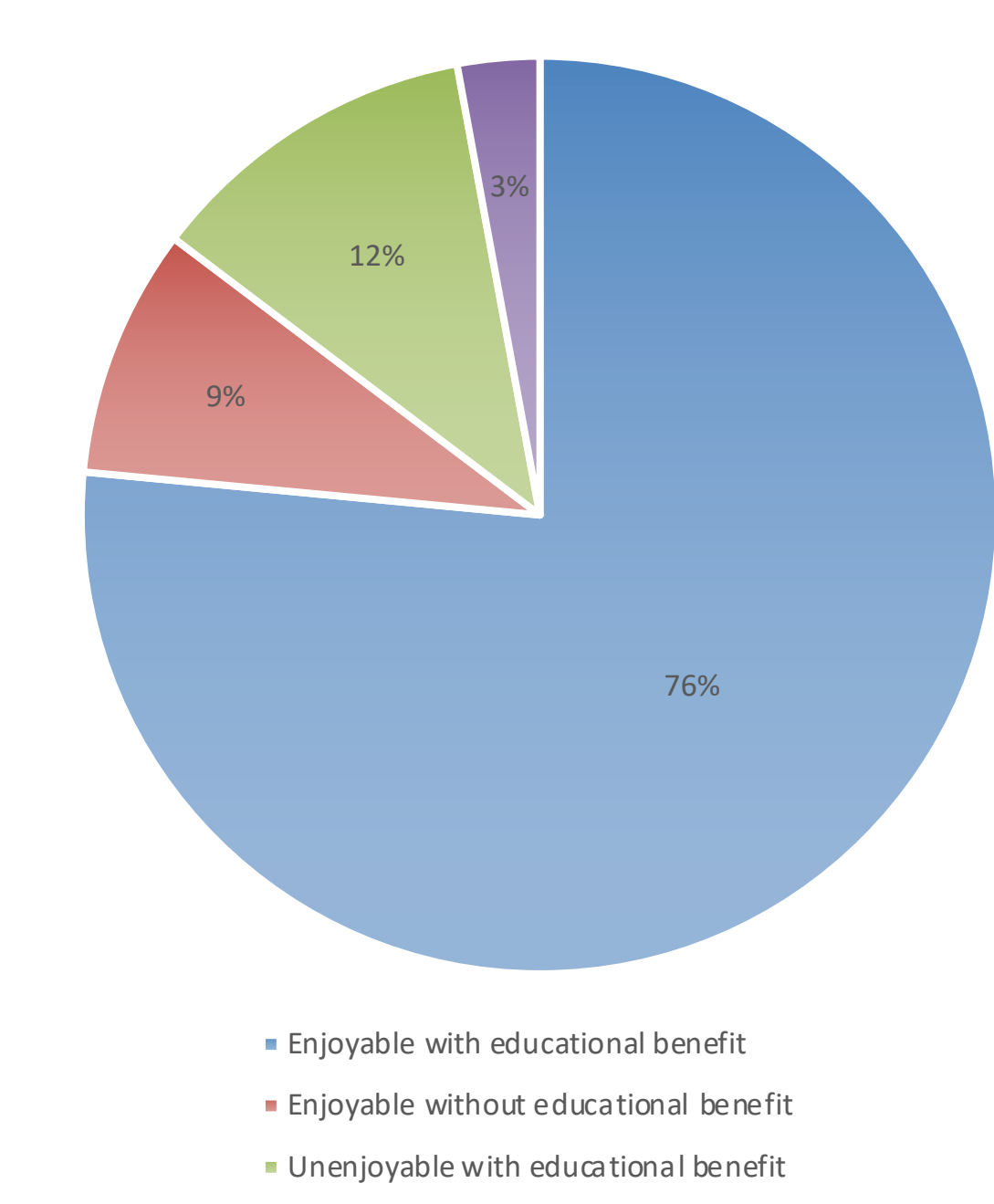
Generally, I leave clinic feeling...

| Answer Choice | Pre (%) | Post (%) | P-Value |
|--|---------|----------|---------|
| Like I learned something | 56.4 | 79.4 | 0.05 |
| Like I saw patients but did not learn much | 38.5 | 20.6 | 0.13 |
| Like I wasted 4 hrs | 2.5 | 0 | 1 |
| Like I was missing out on inpatient activity | 5.1 | 5.9 | 1 |
| Like I helped my patients | 79.5 | 91.2 | 0.2 |
| Like I furthered my education | 43.6 | 58.8 | 0.24 |
| Like I had engaged in productive conversations with peers and preceptors | 69.2 | 73.6 | 0.8 |
| Like I planned to read further | 20.5 | 17.7 | 1 |

The time allotted for the After Clinic Knowledge Dive is:



My impression of the ambulatory environment is that it is:



Context:

When: End of weekly clinic sessions

Where: Einstein OBGYN resident continuity clinic

Who:

- All residents in attendance, all classes
- Faculty preceptors

What:

- Residents
 - reflect on antecedent clinical experience
 - identify/address a knowledge gap
 - teach the topic to peers
- Faculty preceptor- guides conversation using evidence based medicine and clinical experience
- Topics map CREOG learning objectives to ACGME medical knowledge requirements
- Discussion summary & recommendations for future learning objectives concludes the dive

Outcome/Lessons Learned:

- ACKnowledge'D was effectively integrated into clinic and widely accepted
- Post survey results indicated a change in a perception of service over education, with a majority conveying time well spent, with both short and long term benefits.
- ACKnowledge'D is an informal but effective educational exercise incorporating participant self-reflection and experiential learning, practice-based learning and improvement and evidence-based practices, while directly addressing knowledge deficits.

References:

1. Irby, D. M. "Teaching and Learning in Ambulatory Care Settings: A Thematic Review of the Literature." *Academic Medicine: Journal of the Association of American Medical Colleges* 70, no. 10 (October 1995): 898–931
2. Mangum, Ross, John Lazar, Melissa J. Rose, John D. Mahan, and Suzanne Reed. "Exploring the Value of Just-in-Time Teaching as a Supplemental Tool to Traditional Resident Education on a Busy Inpatient Pediatrics Rotation." *Academic Pediatrics* 17, no. 6 (August 2017): 589–92
3. Mahan, John D., and Daniel Clinchot. "Why Medical Education Is Being (Inexorably) Re-Imagined and Re-Designed." *Current Problems in Pediatric and Adolescent Health Care* 44, no. 6 (2014): 137–40
4. Lambert, Craig. "Twilights of the Lecture." *Harvard Magazine*, April 2012
5. Kolb, David. *Experiential Learning: Experience As The Source Of Learning And Development*. Vol. 1, 1984

“The thing(s) I like most about clinic are:” (Resident comments on Post Survey)

“Structured learning, the opportunity to build meaningful relationships with patients, opportunity for continuity, time with co-interns, the preceptors are fantastic! I appreciate when preceptors help identify learning topics for both personal and group deeper dive study and reflection.”

“Spending time with co-residents and both catching up with them on a personal level and learning from/with them on a professional level.”

“Going over concepts over and over helps the most with retention”.