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## Didactic Physician Assistant Students' Perceptions of Evidence-Based Medicine Resources

Brittany Heer

Chris Gillette

Chis Roman

M. Jane McDaniel

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BRITTANY R. HEER, MLIS (1);  
 CHRIS GILLETTE, PHD (2);  
 CHRIS ROMAN, DMS, PA-C (3);  
 M. JANE MCDANIEL, MS,  
 MLS(ASCP)SC (4)

# DIDACTIC PHYSICIAN ASSISTANT STUDENTS' PERCEPTIONS OF EVIDENCE-BASED MEDICINE RESOURCES: A CROSS-SECTIONAL EXAMINATION

(1) BUTLER UNIVERSITY LIBRARIES  
 (2) WAKE FOREST SCHOOL OF MEDICINE  
 DEPARTMENT OF PA STUDIES  
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 PA STUDIES  
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 ASSISTANT ONLINE PROGRAM

## INTRODUCTION

Evidence-based medicine (EBM) instruction is required for physician assistant students. This study seeks to understand which EBM resources PA students find most and least useful and their self-efficacy in searching and appraising medical literature.

## OBJECTIVE

The objectives of this study were to:

- (1) identify which EBM resources didactic PA students find most and least useful,
- (2) examine PA student preferences regarding choosing an EBM resource, and
- (3) evaluate PA student self-efficacy and outcomes expectations of EBM in patient care.

## SELECTED REFERENCES

1. White DM, Stephens P. State of Evidence-Based Practice in Physician Assistant Education. *J Physician Assist Educ.* 2018;29(1):12-18. doi: 10.1097/JPA.000000000000183
2. Accreditation Review Commission on Education for the Physician Assistant (ARC-PA). Accreditation Standards for Physician Assistant Education. 5th ed. Johns Creek, GA: ARC-PA; 2020.
3. Stack MA, DeLellis NO, Boeve W, Satonik R. Effects of Teaching Evidence-Based Medicine on Physician Assistant Students' Critical Appraisal, Self-Efficacy, and Clinical Application: A Randomized Controlled Trial. *J Physician Assist Educ.* 2020;31(3):159-165. doi:10.1097/JPA.0000000000000313

## METHODOLOGY

This study was approved by the Butler University Institutional Review Board (IRB) and the Yale University IRB. A cross-sectional, observational design was used to accomplish the objectives. We used the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement to guide the reporting of this project. A convenience sample of students at three geographically diverse PA programs completed an online survey, hosted by Qualtrics, at the conclusion of their didactic EBM training. The survey examined preferences for commonly used databases, (e.g., PubMed, Dynamed+, UpToDate), and self-efficacy in searching/appraising the literature using 5-point Likert scales. Students also ranked their preferred databases. Thematic analysis identified the most important student-reported attributes of a resource.

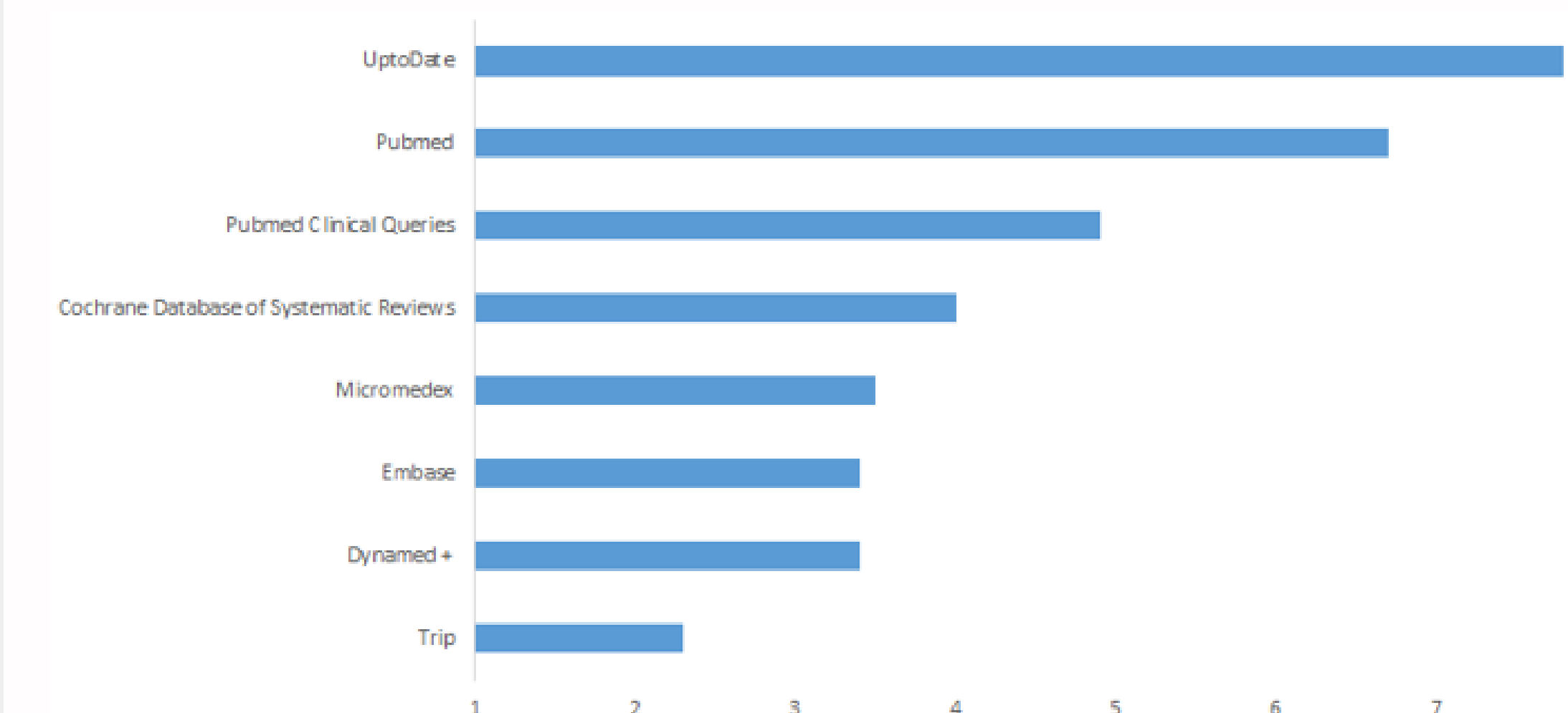
## RESULTS

Eighty-seven students completed the questionnaire (39.5% response rate). Students ranked UpToDate as their most preferred tool and ranked TRIP as their least preferred tool, shown in Figure 1. For all of the identified resources, students positively rated each resource they had used, with the mean for each item for each source rated between neutral-good on a 5-point Likert scale. The most important attributes reported were ease of use/search, information presentation, and reliability/quality of sources, shown in Figure 2. After one EBM course, on average, students rated their self-efficacy searching the literature (M=3.2, SD=0.6) and appraising the literature (M=3.1, SD=0.8) as 'moderately confident', shown in Figure 3 and Figure 4, respectively.

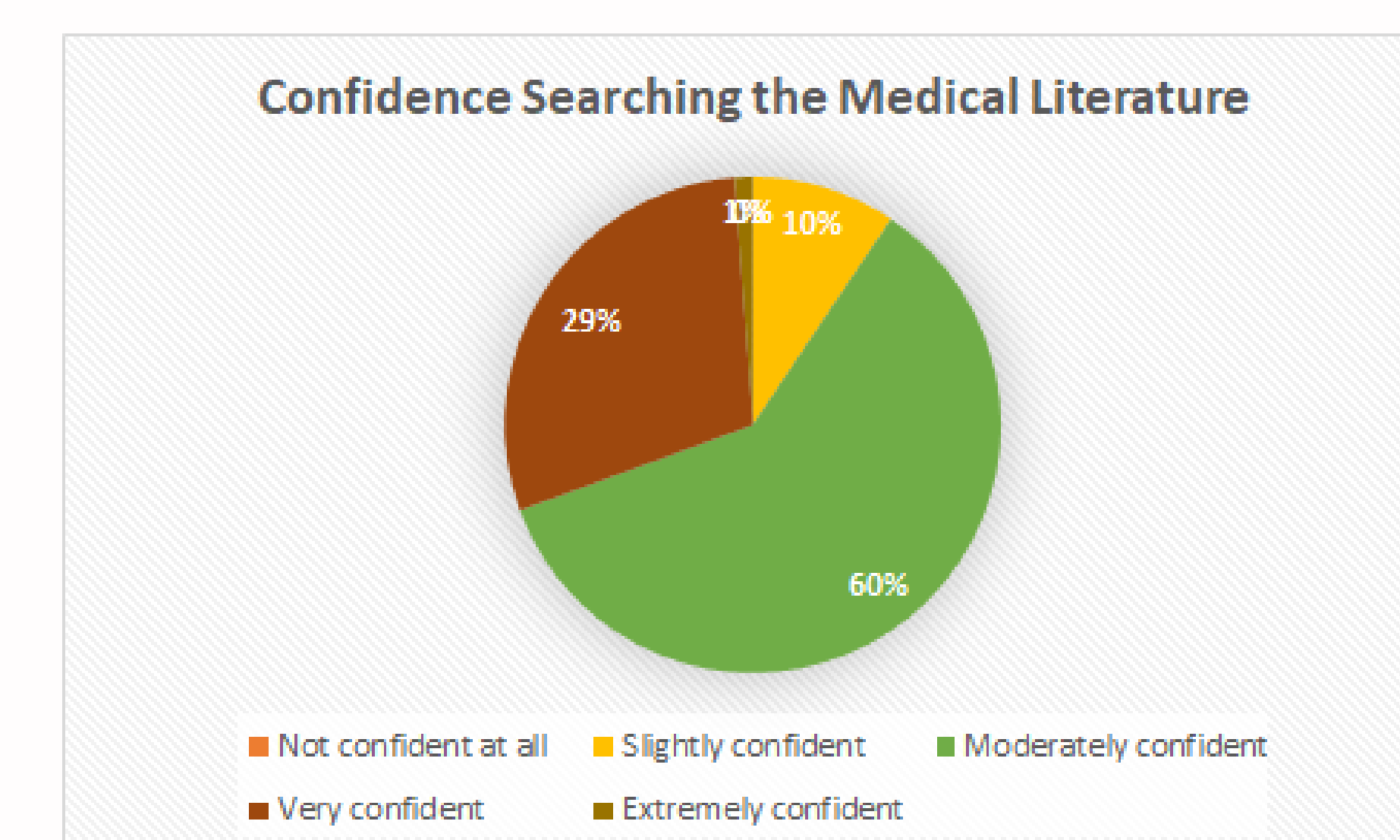
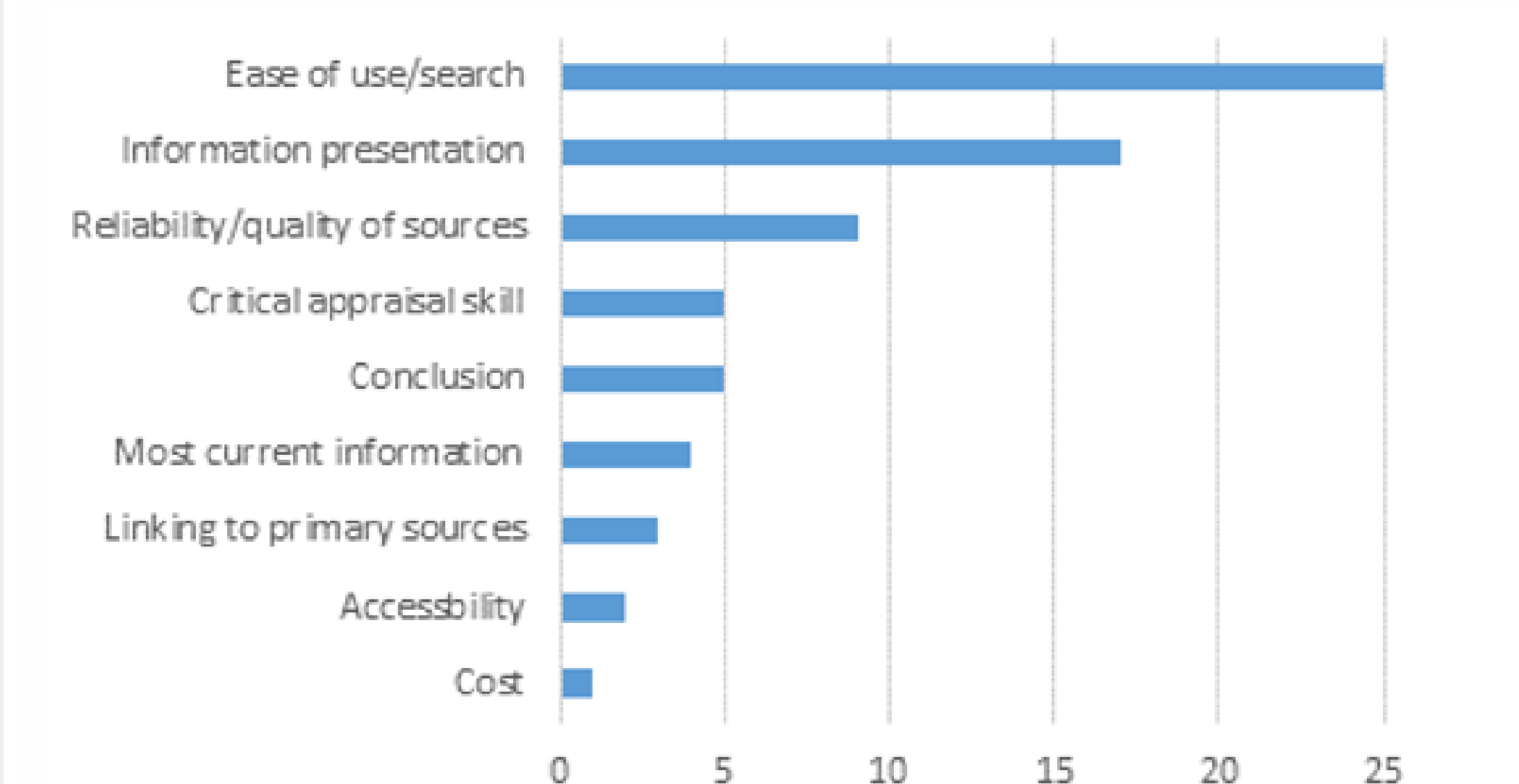
## ANALYSIS

While there are many EBM tools and resources available across the participating institutions, didactic PA students gravitated toward a few particular resources, specifically UpToDate and PubMed, regardless of institutional location. When analyzing the most important attributes of an EBM tool, the results indicated that didactic PA students overwhelmingly valued ease of use/search, how the information was presented, and reliability/quality of the sources. Lastly, the majority of students rated their self-efficacy in both searching and appraising the literature as "moderately confident."

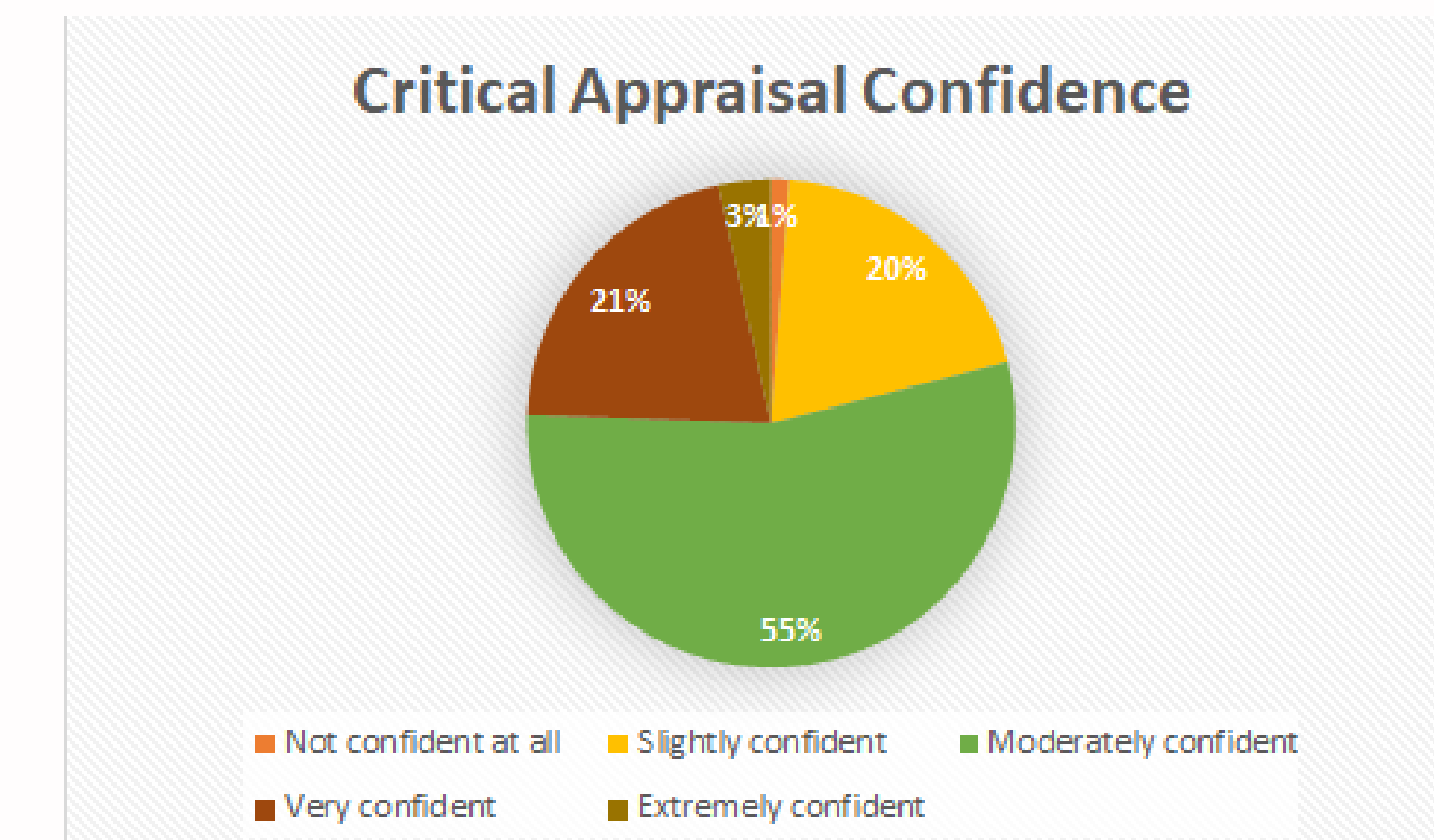
**Figure 1: Student-Reported Ranking of Most Preferred EBM Resources (n=87)** **Figure 3: Confidence Searching the Medical Literature (n=87)**



**Figure 2: Most Important Attributes of EBM Resources (n=87)**



**Figure 4: Critical Appraisal Confidence (n=87)**



## CONCLUSION

PA students in this sample preferred UpToDate and PubMed as their top EBM tools. However, each tool included in this study received positive feedback, despite a low usage rate across institutions. This suggests that instructors and librarians have an opportunity to expose students to more tools as well as encourage "the right tool for the right job." Survey results indicate that PA students value ease of use above all else, which can inform both educators and designers of EBM tools.