

# Implementing Critical Appraisal Training to Promote Evidence-Based Practice in Clinical Decision-Making

Author: Zainita Meherally- Research Assistant, Medicines Information- East Kent Hospitals University NHS Foundation Trust (EKHUFT)

## Introduction

In the rapidly evolving field of healthcare, the integration of evidence-based practice (EBP) is critical for ensuring high-quality clinical decision-making. At East Kent Hospitals University NHS Foundation Trust (EKHUFT), the Medicines Information (MI) department hired a research assistant in 2022 to foster a research-driven culture and support the pharmacy team in enhancing their ability to critically appraise research and apply EBP to clinical decisions. The goal of the initiative was to empower healthcare professionals to evaluate evidence with confidence, improving patient outcomes through informed, evidence-based decisions. As part of the initiative, a critical appraisal training program was introduced to address a recognized gap in evidence-based research skills among healthcare staff, particularly pharmacists. Additionally, the research assistant plays a pivotal role in supporting the MI team by ensuring that queries are answered to a high standard including conducting literature reviews to gather robust evidence, enabling specialist pharmacists and consultants to review and implement changes in policy or practice where necessary.

## Methodology

### TRAINING



In-person sessions:  
Small groups  
(1-2 participants)



Virtual sessions:  
Via Microsoft  
Teams



Pre-recorded  
tutorials

**Critical  
Appraisal  
Training  
Content Focus:**

- ❑ Introduction to EBP.
- ❑ Tools for critical appraisal.
- ❑ Basic statistics (e.g., p-values, confidence intervals).
- ❑ Search strategies for high-quality evidence.
- ❑ Identifying biases in research.
- ❑ Integration of evidence into clinical decisions.

### Data collection/Evaluation method

Feedback was collected both quantitatively (ratings on relevance, quality, etc.) and qualitatively (written comments and suggestions for improvement). The feedback has been used to fine-tune the content and delivery methods.

## Results

### Participant Feedback on Training Sessions:

The feedback from participants was overwhelmingly positive, with many indicating a significant increase in confidence in applying critical appraisal skills to their work.

### Participant Feedback Overview



The bar chart illustrates the average participant ratings for three key metrics: relevance of the training to their roles, the overall quality of the training sessions, and their confidence in applying the knowledge gained. Ratings are based on a 1–10 scale, with higher scores indicating stronger positive feedback.

### Feedback on Delivery Formats:

Participants appreciated the flexibility of the delivery formats. In particular, the virtual sessions provided a convenient option for staff with busy schedules, while the in-person sessions allowed for richer discussions and greater interaction.

### Suggestions for Future Training:

Many participants requested more in-depth coverage of advanced statistical topics, such as the interpretation of p-values, confidence intervals, and relative risk. There was also interest in additional training on identifying and mitigating bias in research.

## Conclusion

The Critical Appraisal Training initiative has successfully enhanced staff's ability to engage with and apply evidence in clinical practice, fostering increased confidence, independence, and critical thinking among healthcare professionals. By equipping staff to identify biases and limitations in research articles and other relevant sources, the program ensures the use of authentic and reliable information.

This, in turn, reduces the MI team's workload, enabling them to focus on addressing more complex queries while better equipping healthcare workers to handle MI-related queries during out-of-office hours. The faster turnaround time for queries, both during and outside working hours, ensures more timely access to accurate information, ultimately improving patient outcomes through enhanced decision-making and efficient service delivery.

## Future Steps

Expand and refine the Critical Appraisal training program while launching Journal Clubs to further integrate evidence-based practice (EBP) into daily clinical decision-making and enhance accessibility for healthcare professionals.

## Key Takeaways

- ✓ **The program is an effective way to promote evidence-based decision-making among healthcare professionals.**
- ✓ **Flexible delivery formats and interactive sessions help staff engage with and apply evidence in their clinical roles.**
- ✓ **Ongoing feedback and adjustments ensure the program remains relevant and impactful.**

William Harvey Hospital  
Medicines Information Dept.