

# Validity in Current Forensic Odontology Research

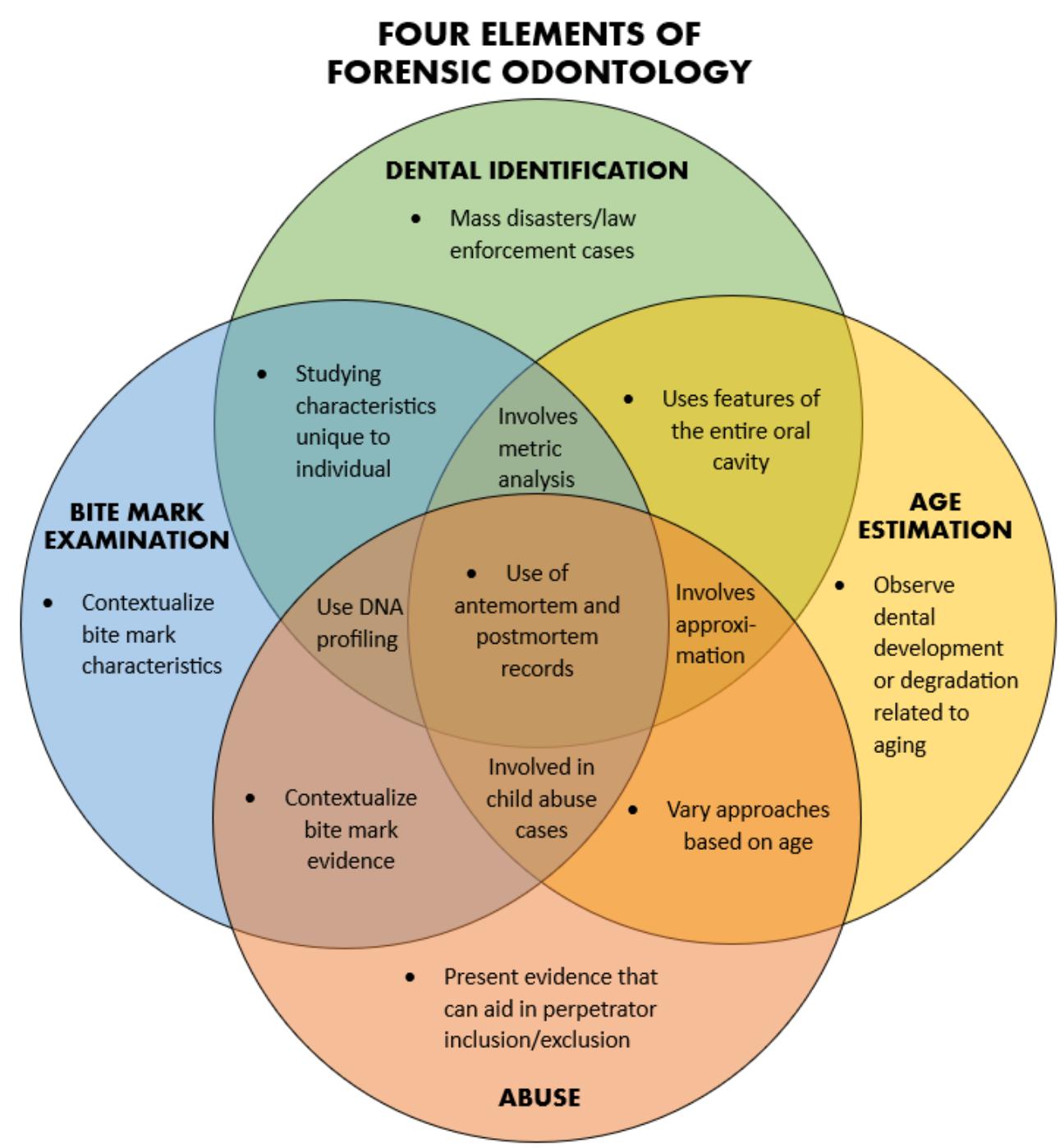
Christy Chang, B.A.,  
Shirley Lewis, BDS, CAGS, MSD  
Texas A&M School of Dentistry, Dallas, TX



## BACKGROUND

Forensic odontology is a field of dentistry that encompasses 4 major areas of study:

- A. Human identification
- B. Age estimation
- C. Abuse
- D. Bite mark examination

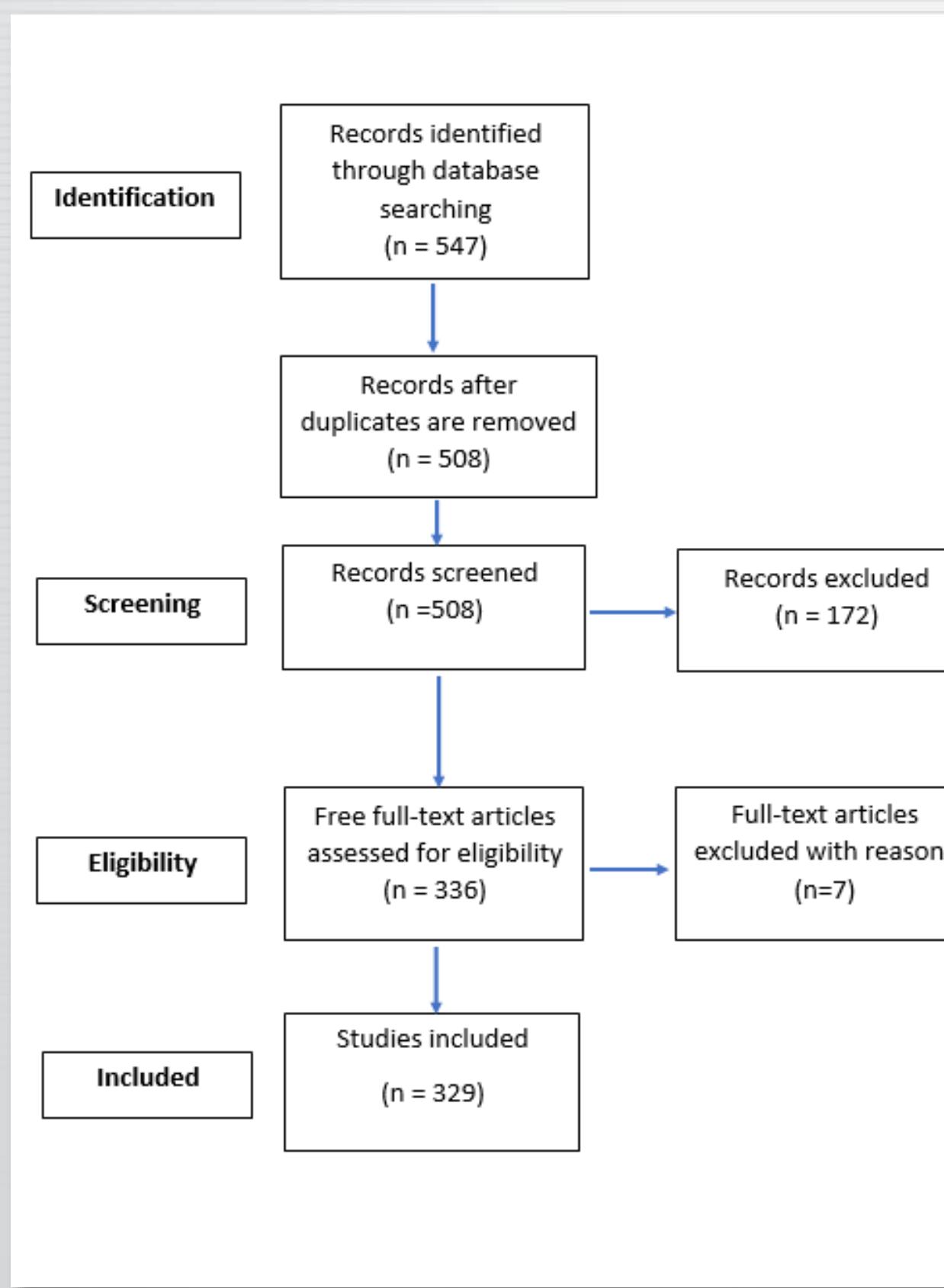


## OBJECTIVES

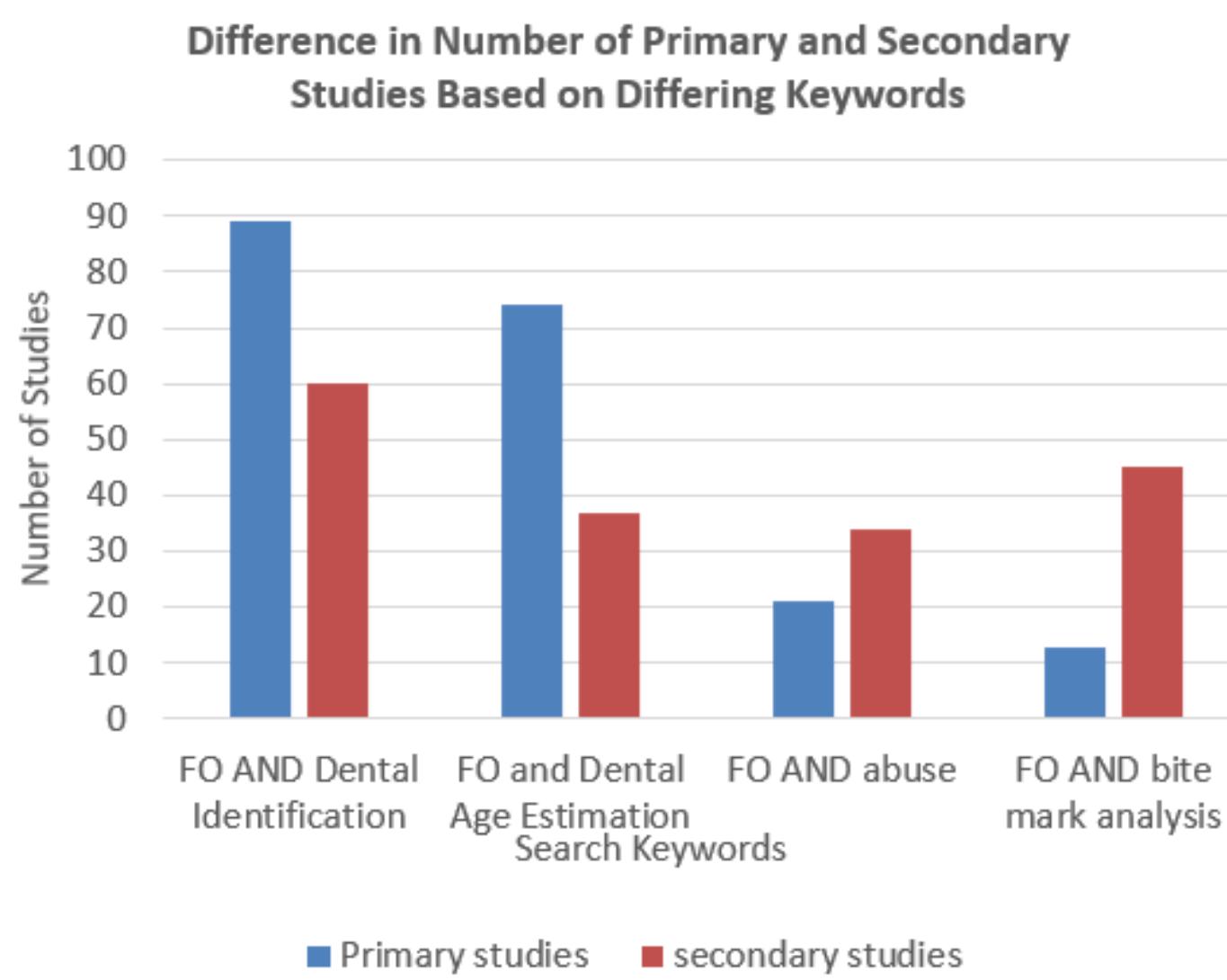
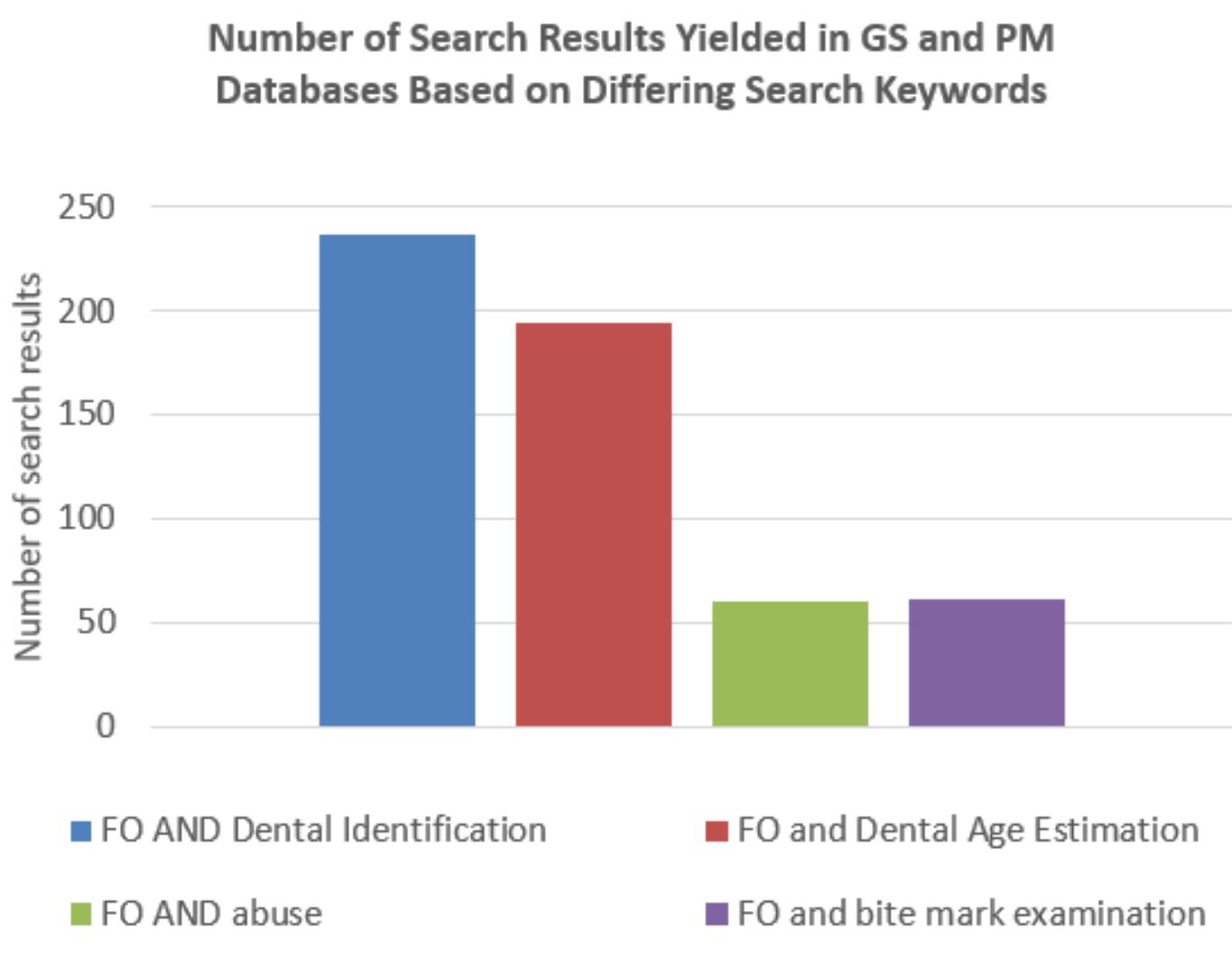
- A. Evaluate validity of current research in forensic odontology
- B. Discern areas that may require further research

## MATERIALS AND METHODS

- Literature search using PubMed and Google Scholar databases
- Reviewed articles published since 2017
- Full text, free-access, and in English
- Final sample size was  $n = 329$
- Search keywords:
  - “Forensic Odontology”
  - “Dental Identification”
  - “Dental Age Estimation”
  - “Abuse”
  - “Bite mark”



## RESULTS



## RESULTS

- Dental identification ( $n = 237$ ) and age estimation ( $n = 194$ ) categories had the most results
- Non-DNA-based identification methods were the primary focus
- Bite mark abuse categories have greatest ratio of secondary research (review articles) to primary research (RCTs, experimental trials, etc.)

## DISCUSSION/CONCLUSION

- Validity of research in forensic odontology should be an ongoing pursuit
- Aim to develop methods that can be continuously applied, regulated, consistently repeated, and updated in the legal system
- Experimental studies in bite mark and abuse cases are a potential area to pursue, especially regarding limitations of evidence collection methods

## ACKNOWLEDGEMENTS

- Funding provided by the Baylor Oral Health Foundation
- Dr. Shirley Lewis, BDS, CAGS, MSD

## CONFLICT OF INTEREST

There are no conflicts of interest for this project.