



# Clinical Faculty Attitudes and Perception of Magnification in Dental Hygiene Education

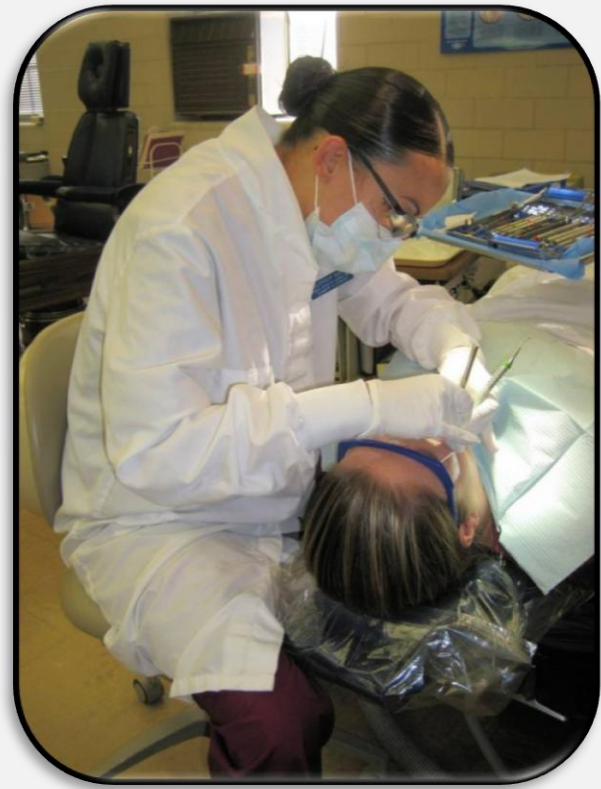


Sandra Stramoski, RDH, MSDH  
 Fones School of Dental Hygiene  
 University of Bridgeport, Bridgeport, CT



## Introduction

**Work related musculoskeletal disorders** are a recognized occupational hazard in the dental hygiene curriculum. **Magnification loupes** may offer one method by which dental hygiene educators practice and model neutral patient positioning techniques to student. **Faculty endorsement** of magnification loupes may play a key role in the adoption of loupes by the program, and their use by students.



Clinicians often compromise posture in an effort to view and access the oral cavity.

### Problem

Although advantages of effective and ergonomically correct positioning in clinical practice have been reported, the universal use of loupes has not yet been adopted in many dental hygiene programs.

## Methodology

### >40-Question Electronic Survey

- Population - Clinical dental hygiene faculty from 307 U.S. programs
- Sampling frame - 394 clinical faculty members sent the survey link
- Responding sample - 249 completed the online survey
- 63% response rate from sampling frame

### >Data Analysis

- IBM SPSS (PASW) Software
- Clinical work outside education/Use of loupes ( $H_{01}$ )
  - Spearman's rho
- Perceived advantages and disadvantages
  - Percentages
- Compared "Users" to "Non-users"
  - Pearson's Chi-square ( $H_{02}$  &  $H_{03}$ )
- Attitudes regarding use of loupes in DH education
  - Mean

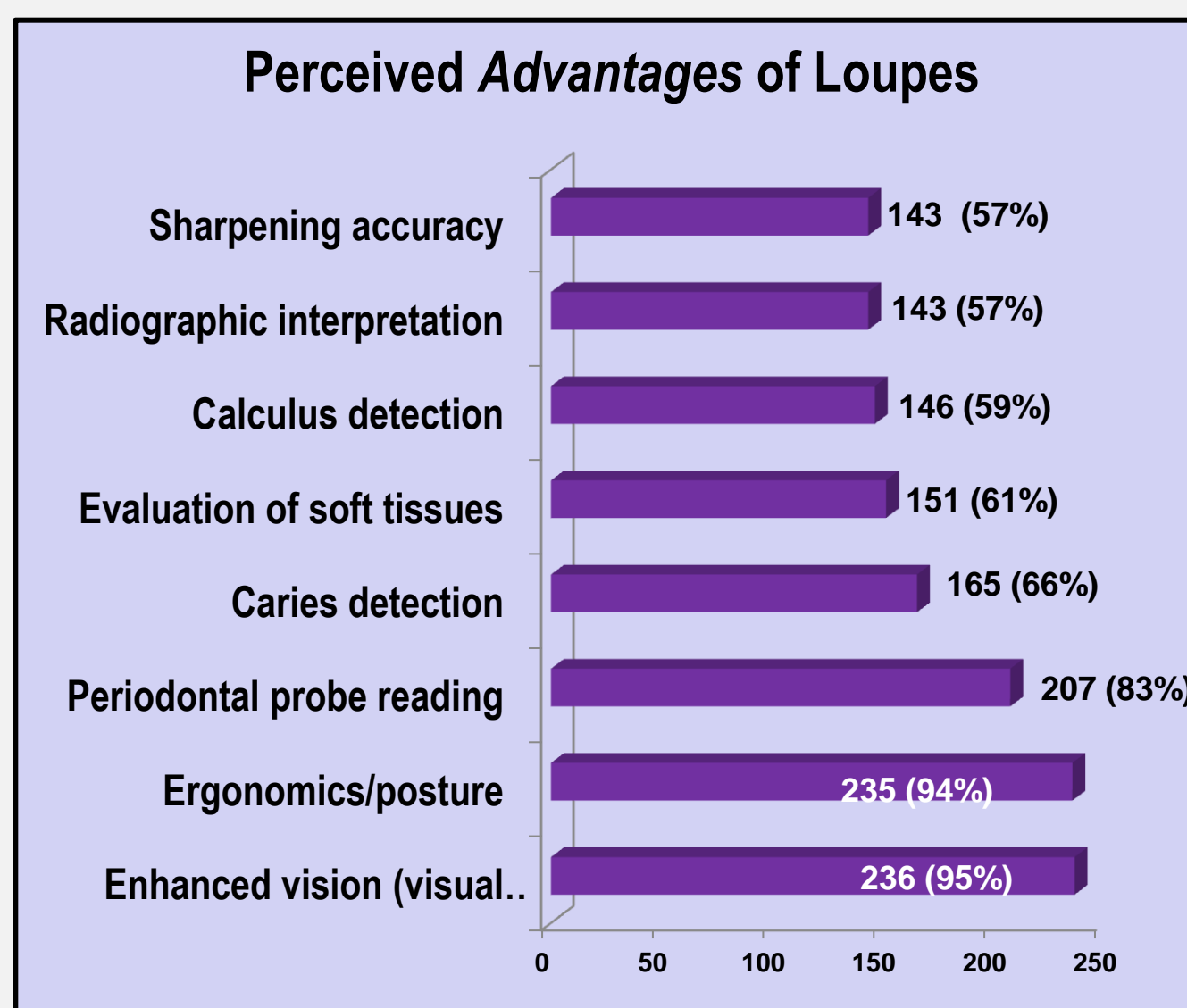
## Purpose

The purpose of this study was to appraise the perceived benefits of magnification loupes by clinical dental hygiene faculty, to assess the degree to which loupes were being utilized in educational settings, which factors were a deterrent to using magnification loupes in teaching and clinical practice and whether faculty were willing to endorse magnification loupes for dental hygiene students.

## Results

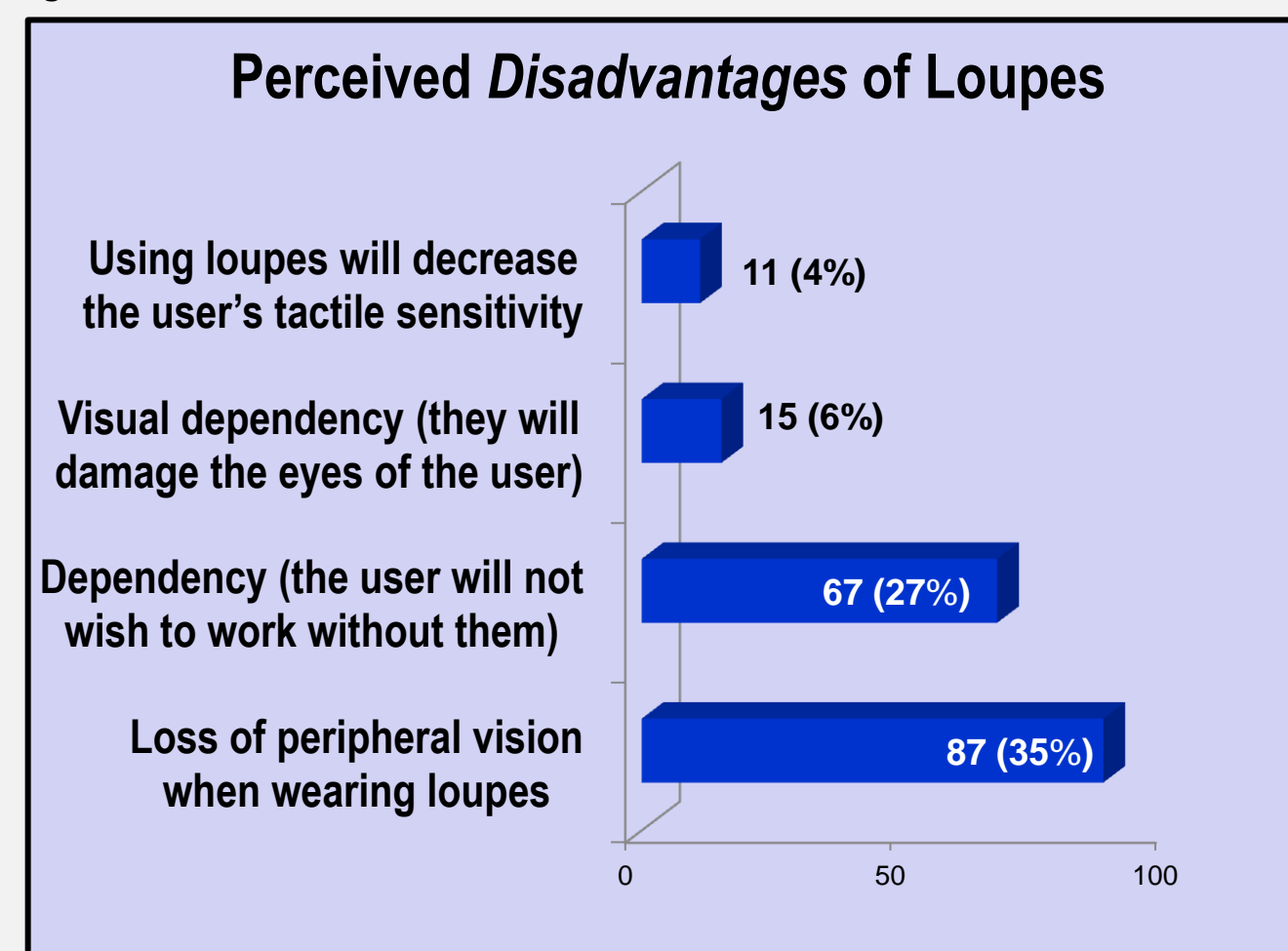
Total Respondents  $n = 249$   
 Loupes Users  $n = 158$   
 Non-users  $n = 91$

Figure 1.



Clinical Faculty identified advantages and disadvantages they associated with the personal use of loupes (Figures 1 and 2), regardless of whether they used loupes or not.

Figure 2.



## Results

95% CI,  $p < 0.05$

### Advantages/Disadvantages Comparing Users to Non-users

Chi-square  $X^2$

Significant differences ( $p < 0.05$ ) for Visual acuity, ergonomics, caries detection, soft tissue evaluation, radiographic interpretation – **Users rated more highly**

Significant differences ( $p < 0.05$ ) for Dependency (the user will not wish to work without them) **only – non-users perceived greater disadvantage**

## Results

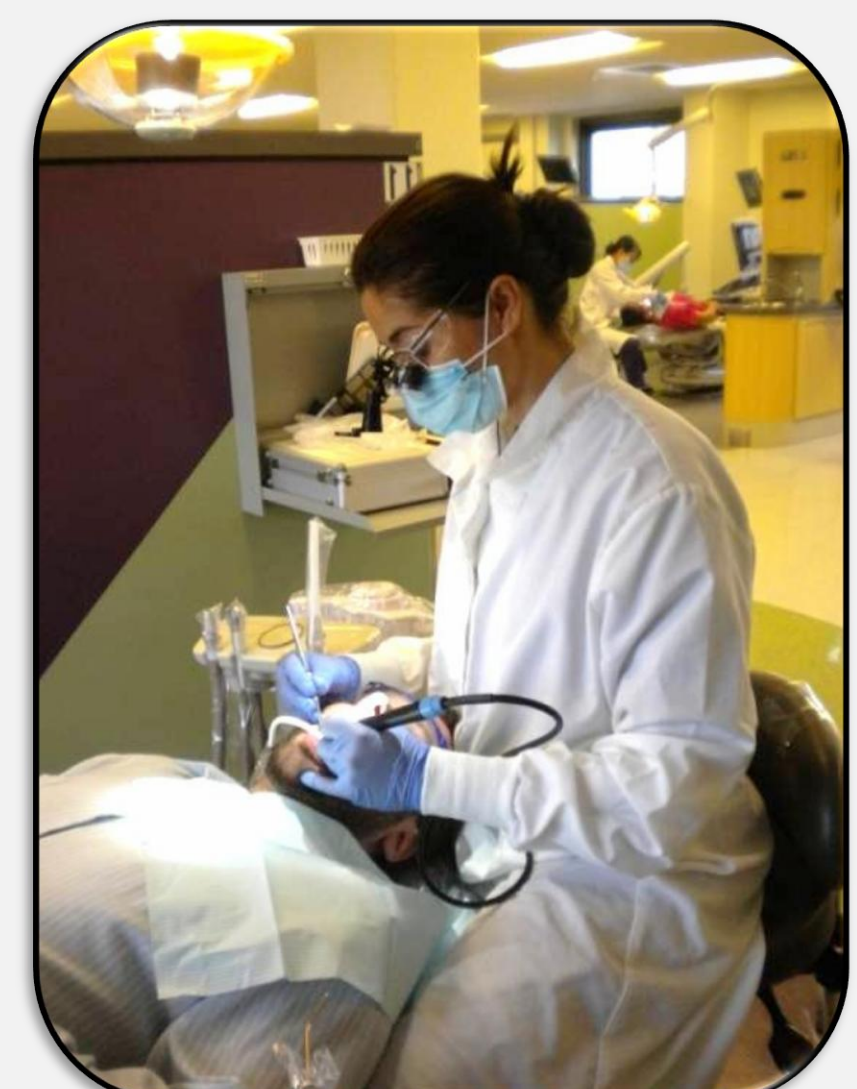


- ✓ Loupes were *optional* for 78% of respondents' programs
- ✓ Loupes were *mandatory* for 21% of respondents' programs
- ✓ Loupes were *not utilized* in 1% of respondents' programs
- ✓ Users of loupes perceived greater advantages
- ✓ Non-users also rated advantages highly, and discounted any perceived disadvantages

## Conclusions

This study showed *clinical dental hygiene faculty supported the use magnification loupes*, at least as an option in the dental hygiene curriculum. Although more than one-third of respondents did not personally use loupes, most appreciated that magnification offers significant benefits to dental hygiene clinicians.

Magnification *users perceived greater advantages in using loupes, but non-users did not perceive greater disadvantages*. Both users and non-users supported the use of loupes in the dental hygiene educational process.



Clinical educators favored the use of magnification loupes by students during their dental hygiene education.