Dental Hygiene Student Posture with Magnification Loupes

Purpose: Due to the limited number of studies that have examined magnification loupes and student posture, the purpose of this study is to examine the effect of magnification loupes on student posture.

Methods: Senior students, who used magnification loupes for approximately one year, were evaluated by faculty members using posture assessment criteria (PAC). Their associated pain level (retrospective before using loupes and current) was also assessed.

Results: Twenty-four students participated in the study; 21 indicated that loupes were an advantage in maintaining good posture during dental hygiene treatment. However, results of the PAC showed that students using magnification loupes engaged in “compromised or harmful” positions about 81% of the time and used “acceptable” positions only 19% of the time. Survey feedback also revealed that the most frequently cited area of pain among dental hygiene students was the shoulder, followed by the head and neck region. The region with the least cited pain was the upper arm.

Conclusion: While this study involved a small sample size, it is a typical number of students in a Dental Hygiene Program. Results showed that although students indicate loupes as an advantage in maintaining good posture, many still engaged in “compromised or harmful” positions the majority of the time. It may be that additional ergonomic education is warranted in education programs. To better evaluate student posture and the impact of loupe use over time, collecting baseline posture assessment data using the PAC may be warranted.

Keywords: MSDs, magnification loupes, pain, dental hygiene students.