## CHAPTER VI

## **CONCLUSIONS**

Artificial saliva contamination had the effect of a significant decrease in the mean shear bond strength values of a conventional adhesive system (Transbond<sup>TM</sup> XT), but did not affect the mean shear bond strength values of moisture-resistant adhesive systems (Transbond<sup>TM</sup> Plus Color Change, Beauty Ortho Bond<sup>®</sup>, and Assure<sup>®</sup>). The mean shear bond strength of Transbond<sup>TM</sup> XT under non-contaminated conditions (11.70 $\pm$ 3.14 MPa) was significantly superior to that of the other systems under non-contaminated or artificial saliva-contaminated conditions (p < 0.05), whereas the mean shear bond strength of Transbond<sup>TM</sup> XT under artificial saliva-contaminated conditions (7.24 $\pm$ 1.86 MPa), Transbond<sup>TM</sup> PLUS Color Change under non-contaminated and artificial saliva-contaminated conditions (7.37 $\pm$ 1.59 and 6.44 $\pm$ 1.40 MPa, respectively), Beauty Ortho Bond<sup>®</sup> under non-contaminated and artificial saliva-contaminated conditions (6.28 $\pm$ 2.05 and 6.66 $\pm$ 2.01 MPa, respectively) and Assure<sup>®</sup> under non-contaminated and artificial saliva-contaminated conditions (6.74 $\pm$ 1.61 and 7.28 $\pm$ 1.06 MPa, respectively) were not significantly different.

## **Suggestions for further studies**

1. For more practical and reliable information, clinical trials should be conducted.

2. Some other moisture-resistant adhesives, e.g. cyanoacrylate, should be included in studies comparing the bond strength.

3. Contamination during various stages of the bonding process should be considered in detail.

