

## **Abstract**

**Objectives:** Composite resins have been widely used as a popular restorative materials nowadays. Color change in dental composites after the consumption of colored drink is among the problems commonly encountered in restorative dentistry. The aim of this study were investigated the effects of liquid drink on the discoloration of bulk-fill resin composites.

**Materials and Methods:** Twelve disk shaped specimens (6 mm in diameter and 4 mm thick) were fabricated from each composite resin. (Tetric Evo Ceram bulk-fill, Filtek Bulk Fill, Filtek Z550). The specimens of each restorative material were randomly divided into four groups according to the storage media distilled water, chocolate milk, orange juice and cola. The colors of all specimens before and after immersed in staining solutions for 120 hours were measured by a colorimeter based on CIE Lab system. For statistical analyses, the color differences were analyzed using two-way ANOVA and Sidak post hoc test ( $P < 0.05$ ).

**Result:** All the materials tested revealed unacceptable clinically staining after exposure to four tested children's drinks ( $\Delta E > 3.3$ ). Flowable bulk-fill composite showed higher color change value compared with two composite resin. ( $P < .001$ ) There were no significant difference between the color changes in Tetric EvoCeram and Filtek Bulk Fill composite resin. ( $P > 0.05$ ).

**Conclusion:** Color change values of resin composite materials is related to structure of the composite materials, and type of staining agent. color change of composite resins with low filler content was higher than of composite resins with higher filler content. filtek bulkfill composite had the highest  $\Delta E$  changes.

**Keywords:** Composite Resins; Bulkfill composite; Color satability