

## Relationship between acne vulgaris and cosmetic usage in Sri Lankan urban adolescent females

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### Abstract

**Background:** Acne vulgaris is one of the commonest skin disorders affecting up to 80% of the world population at least during adolescence. Significant psychosocial effects such as depression and poor personality development have been linked with acne, especially in female adolescents. Various causative factors, including cosmetic exposure, have been attributed toward acne.

**Objective:** To analyze the association between frequent exposure to cosmetics and severity of acne in adolescent females.

**Method:** A cross-sectional analytical study was performed on 140 girls from three schools in Colombo, Sri Lanka. A self-administered questionnaire was utilized to assess the patterns of cosmetic usage. Grading acne of the participants was performed by the researchers utilizing a standard acne grading scale.

**Results:** The overall prevalence of acne in our study population was 91.4% with a mean acne grade of 3.09. At least one cosmetic type was used by 126 (90%) of the population. A Pearson correlation coefficient (r) value of .452 ( $P < .001$ ) was obtained between cosmetic exposure and acne grade, which indicates a statistically significant correlation. A chi-square value of 22.875 was obtained at a degree of freedom of 2 ( $P < .001$ ), enabling us to reject the null hypothesis that there is no significant association between cosmetic usage and acne severity.

**Conclusion:** Our results convey a significant positive association between frequent exposure to cosmetics and severity of acne in adolescent females. Girls of this age group must be made aware that cosmetic usage may be a potential aggravating factor for their facial acne.

**Keywords:** acne grading; acne vulgaris; adolescent females; cosmetic exposure; risk factor.