

# THE INFLUENCE OF ORTHOSCOPE MEDIA EDUCATION ON KNOWLEDGE OF MALOCCLUSION AND INTEREST IN ORTHODONTIC TREATMENT ADOLESCENTS

Hanna Gian Shawana\*, Eldarita, Dwi Suyatmi  
Department of Dental Health, Poltekkes Kemenkes Yogyakarta  
Jl. Kyai Mojo No.56 Pingit, Yogyakarta 55243, Indonesia, +62 274-514306

\*Email : [gianshawana29@gmail.com](mailto:gianshawana29@gmail.com)

## ABSTRACT

**Background:** Malocclusion is the third most common dental health problem according to the World Health Organization (WHO), with a high prevalence in Indonesia reaching 80%. The lack of education results in low levels of knowledge and interest among adolescents regarding orthodontic treatment, especially in Sleman. Education using the OrthoScope media can be an innovative solution.

**Objective:** To determine the effect of OrthoScope educational media on knowledge of malocclusion and interest in orthodontic treatment among adolescents.

**Methods:** This quasi-experimental study used a non-equivalent control group design. The population consisted of 80 eleventh-grade students at SMA IT Bina Umat. Total sampling was employed, dividing the sample into an experimental group and a control group. Instruments included knowledge questionnaires with validity values of  $0.396 > r\text{-table}$  and interest questionnaires with validity values of  $0.362 > r\text{-table}$ . Data were analyzed using Wilcoxon, Mann-Whitney, and Paired T-tests.

**Results:** In the experimental group, knowledge before education was categorized as good (62%), sufficient (35%), and poor (2.5%), and after education improved to good (83.5%) and sufficient (17.5%). Initial interest levels were very interested (15%), interested (80%), and not interested (5%), increasing after education to very interested (82.5%) and interested (17.5%). The control group showed minor changes: knowledge before education was good (40%), sufficient (55%), and poor (5%), changing to good (45%), sufficient (50%), and poor (5%) after education. Initial interest was very interested (15%) and interested (85%), increasing to very interested (32.5%) and interested (67.5%) after education. Wilcoxon, Paired T-Test, and Mann-Whitney tests showed significant results ( $p < 0.05$ ).

**Conclusion:** Education using OrthoScope media significantly influences adolescents' knowledge of malocclusion and their interest in orthodontic treatment.

**Keywords:** OrthoScope, knowledge, malocclusion, interest, orthodontics, adolescents

# **PENGARUH EDUKASI MEDIA ORTHOSCOPE TERHADAP PENGETAHUAN MALOKLUSI DAN MINAT PERAWATAN ORTHODONTI PADA REMAJA**

Hanna Gian Shawana\*, Eldarita, Dwi Suyatmi  
Jurusan Kesehatan Gigi Poltekkes Kemenkes Yogyakarta  
Jl. Kyai Mojo No.56 Pingit, Yogyakarta 55243, 0274-514306

\*Email : [gianshawana29@gmail.com](mailto:gianshawana29@gmail.com)

## **ABSTRAK**

**Latar Belakang** : Maloklusi merupakan masalah kesehatan gigi peringkat ketiga menurut World Health Organization (WHO), dengan prevalensi di Indonesia sebesar 80%. Rendahnya edukasi menyebabkan kurangnya pengetahuan dan minat remaja terhadap perawatan ortodonti, terutama di Sleman. Edukasi melalui media OrthoScope dapat menjadi solusi inovatif.

**Tujuan** : Diketuainya pengaruh edukasi media OrthoScope terhadap pengetahuan maloklusi dan minat perawatan orthodonti pada remaja.

**Metode** : Penelitian *quasi experimental* dengan desain *non equivalent control group*. Populasi seluruh siswa kelas 11 SMA IT Bina Umat berjumlah 80 siswa. Pengambilan sampel menggunakan *total sampling*, sampel dibagi menjadi kelompok eksperimen dan kontrol. Instrumen menggunakan kuesioner pengetahuan dengan hasil uji validitas  $0.396 > r$  tabel dan kuesioner minat uji validitas  $0.362 > r$  tabel. Analisis data menggunakan uji *Wilcoxon*, *Mann Whitney*, dan *Paired T-Test*.

**Hasil** : Pengetahuan kelompok eksperimen sebelum edukasi pada kategori baik (62%), cukup (35%), dan kurang (2,5%); setelah edukasi menjadi baik (83,5%) dan cukup (17,5%). Minat awal pada kategori sangat berminat (15%), berminat (80%), dan tidak berminat (5%); setelah edukasi menjadi sangat berminat (82,5%) dan berminat (17,5%). Kelompok kontrol menunjukkan perubahan kecil: pengetahuan awal pada kategori baik (40%), cukup (55%), kurang (5%); setelah edukasi menjadi baik (45%), cukup (50%), kurang (5%). Minat awal pada kategori sangat berminat (15%) dan berminat (85%); setelah edukasi menjadi sangat berminat (32,5%) dan berminat (67,5%). Uji *Wilcoxon*, *Paired T-Test*, dan *Mann-Whitney* menunjukkan hasil signifikan ( $p < 0,05$ ).

**Kesimpulan** : Edukasi menggunakan media OrthoScope berpengaruh terhadap pengetahuan maloklusi dan minat perawatan ortodonti pada remaja.

**Kata kunci** : OrthoScope, pengetahuan, maloklusi, minat, orthodonti, remaja.