

OP20 EXAMINATION OF THE ORTHODONTIC PATIENTS' EXPERIENCE WITH BRACES VERSUS CLEAR ALIGNERS VIA TWITTER ANALYSIS

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AIMS: To examine the orthodontic patient experience with braces compared to the patient experience with Invisalign by means of a large-scale Twitter sentiment analysis.

MATERIALS AND METHOD: Twitter users share their thoughts and feelings in real-time, creating a unique data source to investigate their experiences. A custom data collection programme was created and utilized to collect 492,171 tweets containing the words 'braces' or 'Invisalign' from April until September, 2015. A hierarchical Naïve Bayes sentiment classifier was developed to analyze these Twitter posts. Tweets were sorted into one of five categories: positive, negative, neutral, advertisement, or not applicable. Chi-squared tests were employed to compare the results between braces and Invisalign.

RESULTS: Twitter users posted significantly more positive tweets (61%) than negative tweets (39%) about their orthodontic experience ($P = < 0.0001$). There was no significant difference in the distribution of positive and negative sentiment between tweets about braces and those about Invisalign ($P = 0.4189$), with 38.1 per cent of Invisalign tweets being classified as negative and 38.5% of braces tweets negative. There was a significant difference in the proportion of advertisements between Invisalign and braces tweets ($P < 0.001$), with 33 per cent of Invisalign tweets being classified as advertisements and only 7 per cent of braces tweets.

CONCLUSION: Twitter users express more positive than negative sentiment about orthodontic treatment with no significant difference between the patient experience with braces versus Invisalign.