

ABSTRACT

The health of pregnant women becomes an important issue that requires special attention, given the impact is not only felt by the mother, but also by the fetus. Data from basic health research in 2018 states that 12.6% of women experience CMD (common mental disorder) during pregnancy, where depression and anxiety become dominating cases. As a result, babies are likely to experience low weight, cognitive development, motor, and inhibited language, behavioral problems, stunting, to other health problems such as diarrhea and respiratory disorders. This study aims to analyze public sentiment regarding the mental health of pregnant women in Indonesia using the Vader Algorithm (Valence Aware Dictionary and Sentiment Reasoner). The data taken is data from the social media platform X (formerly Twitter) during the last five years using scraping techniques based on relevant keywords.

In analyzing informal text, this study adopted a deep preprocessing approach to increase the accuracy of the vader algorithm in analyzing text. The evaluation method uses an evaluation matrix, including accuracy, precision, F1-Score, and recall. Vaisualization using WordClouds and Topic Modeling will also be carried out to analyze what aspects and topics are the main discussion on the text data collected. From various test scenarios carried out on the machine learning model, this study succeeded in obtaining a model with the best accuracy reaching 85% and running stably when viewed from other accuracy metrics such as F1 Score reaching 84%, Recall 85%, and precision 83%, which shows that the model is reliable in sentiment classification. The results of this study are regulatory recommendations designed by researchers based on the results of the identification of perceptions and emotions on the mental health issues of pregnant women in Indonesia, and reveal the polarization of sentiment (positive, negative, neutral). Regulatory recommendations designed will be validated using previous research journals related to pregnant women in terms of psychology.

This study is expected to provide useful insights as a recommendation for intervention steps for the government in developing better mental health policies and services for pregnant women. In addition, the final result of this study is also expected to support the government in creating a friendly ecosystem and supports the mental health of pregnant women, both through education, mental health services, and regulations that are in favor of pregnant women. Thus through a data -based approach, this study contributes to improving the quality of mental health of the people in Indonesia.

Keywords: Sentiment Analysis, Mental Health, Pregnant Women, VADER, Social Media, Health Policy