Abstract

This study examines the relationship between self-reported depression and the perception of affective speech within the young Indian population. Using established psychological health assessment tools such as positive and negative affect schedule (PANAS) and patient health questionnaire (PHQ-9), we assessed current mood and depressive symptoms among young adults in a post-pandemic context. Participants were recruited through snowball sampling and they were asked to listen to the presented affective speech representing a range of emotions, including happy, sad, angry, and neutral, and rate it for valence and arousal on a 5-point Likert scale.

The results reveal that individuals with depression displayed significantly higher negative PANAS scores, indicating a strong impact of depressive states on current mood. Interestingly, while emotional reactivity to sad and angry stimuli remained consistent across both depression and no-depression groups, a notable alteration was observed in the perception of neutral emotion stimuli by the depression group. This suggests the need for more nuanced evaluations of emotional responses among individuals with depressive symptoms, particularly in light of cultural differences in speech perception.

These findings highlight the importance of culturally relevant digital health diagnostics, particularly in underserved populations where access to traditional mental health services is limited. The potential for digital tools, especially speech related observations in depression, to offer personalized interventions and early detection of depressive symptoms is especially crucial in the Global South, where healthcare disparities are significant. By focusing on the intersection of cultural context and digital health, we argue that such tools can play a vital role in equitable mental health care, addressing the digital divide and providing more inclusive mental health diagnostics.

Keywords : Depression, Affective Speech Perception, Positive and Negative Affect Schedule (PANAS), Patient Health Questionnaire (PHQ-9), Emotional Reactivity

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Further correlation analysis revealed a significant negative relationship between depression and the perception of neutral stimuli, with higher depression scores associated with lower valence ratings for neutral emotions. This suggests a negativity bias, where individuals with depression perceive neutral stimuli more negatively. Additionally, strong correlations between reaction times for sad, angry, and neutral stimuli indicate a similar cognitive processing load for these emotions, further emphasizing the influence of depressive states on emotional perception.