

Using Lexical Analysis to Link Depression in Schizotypy

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Introduction: Previous research has suggested that depression is a major symptom of schizophrenia, and, moreover, schizotypy. Speech has also been heavily studied within the schizophrenia-spectrum. Compared to healthy populations, those with schizotypy tend to show greater depression and use negative affect (emotion) words more frequently. Speech containing negative affect words has also been shown to correlate with depression in both the healthy population and the schizophrenia-spectrum. This study aimed to examine any differences in depression level and negative affect words between a schizotypy and control sample, and also if depression level can be linked to speech within schizotypy.

Methods: 38 participants partook in an open-ended, semi-structured interview-25 making up the schizotypy group, and 13 in the non-schizotypy group. The interview was recorded, transcribed, and ran through Lexical Inquiry Word Count (LIWC), a computerized measure that evaluates speech content using a dictionary that contains over 4500 words/word stems across 68 categories. Participants were also administered two depression questionnaires.

Results: The schizotypy sample showed significantly greater depression than controls ($p < .01$, $d = 1.55$; $p < .01$, $d = -2.91$) comparing both questionnaires. There were no significant differences between the groups with relation to negative affect words, but a trend effect was shown, with the schizotypy group using these words with greater frequency ($p > .05$, $d = -.54$). Within schizotypy, a trend level relationship between depression and negative affect words was observed ($r = -.31$, $p > .05$).

Conclusion: These findings are consistent with previous studies reporting higher depression levels in the schizophrenia-spectrum compared to healthy populations. It is inconsistent, however, with regards to schizotypy and use of negative emotion words, which may be due in part to low power. Furthermore, this study shows that lexical analysis software has the potential to assist in the measurement of depression in schizotypy.