

ABSTRACT

Dermatoglyphic Measures in Relation to Depressive Symptoms Among Non-Clinical Adolescents and Young Adults

by:

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Depressive disorders are highly prevalent and can be devastating. Increasingly, depressive symptomatology is understood from a dimensional perspective such that non- or sub-clinical presentations may share a similar etiology. Depression etiology is believed to include genetic and environmental factors that may contribute to underlying vulnerability (diathesis) by way of neurodevelopment. Birth cohort studies have provided empirical evidence of the relationship between prenatal insult and later experience of adverse outcomes, including increased risk for depressive disorders. Retrospective investigation of the possible influence of prenatal disturbance on later experience of depressive symptoms has methodological limitations. Dermatoglyphic measurements offer a more methodologically viable (albeit indirect) proxy for estimating prenatal insult. Digit dermatoglyphics refer to fingerprint symmetry and patterns. Fingerprints develop concurrently with brain structures implicated in risk for depression. Thus, dermatoglyphic abnormalities such as fluctuating asymmetry (FA), or deviations in dermatoglyphic symmetry, and low ridge counts may illuminate the potential contribution of prenatal insult to later expression of depressive symptoms. Prior research has demonstrated relationships among dermatoglyphic measures (FA and ridge counts) and psychological symptoms across a wide range of non-clinical, mixed, and clinical populations. The current

investigation primarily aimed to expand this body of literature by investigating the predictive relationships among dermatoglyphic measures and depressive symptom endorsement in a sample of non-clinical adolescents and young adults from the general population. The secondary aim was to examine sex as a potential moderator of the relationships among dermatoglyphic measures and depressive symptoms. Participants were a subsample of individuals recruited as part of a larger study assessing factors implicated in depression risk and included $n = 53$ (22 M / 31 F) adolescents and young adults ($M_{age} = 20.04$, $SD_{age} = 1.05$). For the current report, measures included fingerprints from which four indices of FA and two finger ridge count measures were derived, as well as the total score from the BDI-II, a self-report measure of depressive symptoms. In line with hypotheses, one index of FA significantly positively predicted depressive symptoms after correcting for multiple comparisons, suggesting that neurodevelopmental factors may contribute to depressive symptoms. Sex did not moderate any relationships among dermatoglyphic measures and depressive symptoms. This research has potential implications for understanding risk for depression. Future work may benefit from assessing additional dermatoglyphic measures corresponding to different gestational periods and using larger samples.