

Title: The Evolutionary Origin of Postpartum Depression as a Strategy to both Directly and Indirectly Improve Maternal Reproductive Fitness and Increase Offspring Viability

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Parental contact and care of infants is crucial for proper child development, yet postpartum depression (PD) can cause mothers to withdraw and refrain from interactions that promote healthy infant growth and stimulation. PD begins either during pregnancy or within four weeks after delivery and can exhibit a wide range of symptoms. The rate of PD in mothers ranges from 15%-25%. Today, we may ask questions such as: What are the benefits to the mother? Will this not ultimately decrease the fitness of the child? Is it possible to prevent or shorten the duration of PD? I will evaluate the research regarding the neurochemical and hormonal causes of PD and discuss the possibility that the evolutionary adaptiveness of PD may be a mechanism to enhance maternal fitness. These hypotheses assembled from literature will address the reasoning behind the existence and prevalence of PD today as a means of increasing maternal competence through two methods. First, through strengthening offspring survival and reproductive rate by using PD to prime offspring for an unstable environment that could potentially threaten their fitness. Second, the hormonal imbalance correlated with PD can allow mothers with offspring that have a high mortality rate to engage in reproductive opportunities sooner, which increases her chances of producing living offspring. Identifying the possible ancestral roots of PD in humans can guide our understanding of contemporary maternal reproductive fitness, leading to research to eventually prevent or alter the duration and effect of this disorder to appropriately maximize maternal and offspring competence.

References

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