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<b>Título</b>	PERINATAL ENRICHMENT ENVIRONMENTAL ATTENUATES ANTIDEPRESSANT-LIKE EFFECT OF BUPROPION AND PROVOKES ANXIETY IN ADULTHOOD CF1 MICE
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# PERINATAL ENRICHMENT ENVIRONMENTAL ATTENUATES ANTIDEPRESSANT-LIKE EFFECT OF BUPROPION AND PROVOKES ANXIETY IN ADULTHOOD CF1 MICE

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**Introduction:** The influence of environmental enrichment (EE) on pharmacological and behavioral responses in animal models of psychiatric diseases has not fully established yet. The aim of this study was to evaluate the effect of EE in different life periods on behavioral and pharmacological responses in open field (OFT) and forced swimming test (TST).

**Methods:** Dams (CF1 mice) were exposed or not to EE from mating until offspring weaning. Pups were located to receive or not the EE, comprising four groups: NE -housed under standard condition; PE - housed under enriched conditions during perinatal period (from mating to PND21); LE - housed under enriched condition all their life (from mating to PND 58); PWE - housed under enriched conditions from weaning until PND 58. At PND58 mice were treated with vehicle (10mL/kg), bupropion (30mg/kg p.o.) or fluoxetine (30mg/kg p.o.) and evaluated in the OF and FST. Hippocampal BDNF was measured through PCR-RT.

**Results:** PE group spent more time in OF peripheral zone, presented higher crossing and lower grooming than NE group. PWE and LE increased grooming behavior, and bupropion (LE) and fluoxetine (PWE) blocked this effect. All EE enrichment regimen abolished the anti-immobility effect of bupropion in the TST. None of the EE regimen affected mice hippocampal BDNF RNAm. **Conclusion:** Environmental enrichment affected behavioral and pharmacological responses in the open field and forced swimming tests in a different manner depending of life period. Perinatal enrichment provokes anxiety in adulthood. The monoaminergic neurotransmission seems to play a role in these alterations.

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