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LPS EXPOSURE DURING EARLY PREGNANCY RESULTS IN REDUCED BASELINE ANXIETY AND INCREASED GAD67 EXPRESSION IN ADULT MALE OFFSPRING

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Background. Animal experiments have convincingly demonstrated that prenatal maternal stress affects pregnancy outcome and results in early programming of brain functions with permanent changes in neuroendocrine regulation and behavior in offspring. Current study aimed to evaluate the effects of prenatal exposure to the bacterial lipopolysaccharide (LPS) and maternal immune challenge on Anxiety-related behaviors and brain's GABAergic activity of male offspring.

Materials and methods. Pregnant NMRI mice were treated with intra-dermal injection of LPS (30, 60, 120, 240 and 480 µg/kg) at the 10th gestational day. Induction of the pro-inflammatory cytokines, TNF-α, IL-1β and IL-6 and corticosterone level were measured in maternal serum 1.5 h following LPS injection. Baseline anxiety level of male offspring (at postnatal day 60) were investigated using elevated plus mazes (EPM), glutamate decarboxylases level in the brain were measured through western blot technique. Anxiety level of stressed offspring measured after 2 hours restraint stress or TNF-α (10 µg/kg) administration.

Results. Our results show that LPS administration induces a significant increase in cytokines and corticosterone levels in maternal serum. However, in offspring prenatal LPS administration has no significant effects on serum cytokines and corticosterone levels and decrease baseline anxiety level while, pretreatment with restraint stress or TNF-α abolishes this anxiolytic effect. Prenatally LPS exposed offspring have an increased GAD67 expression, while no significant alteration in GAD65 level is observed.

Conclusion. Taken together, these results suggest that prenatal exposure to LPS during early pregnancy may result in, reduced baseline anxiety and increased GABA expression in adult male offspring.

Keywords: anxiety, lipopolysaccharide, cytokine, GABA.

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THE EXPERIENCE OF PSYCHOSOCIAL ONLINE COUNSELLING PROJECT IN UKRAINE ON IPSO-CARE PLATFORM

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Background. In the last two years the problem of internally displaced persons has not lost its topicality and for Ukraine it has become a new severe challenge. Among the countries with the highest numbers of IDP Ukraine is on the 8th place in the world (2,45 % of IDPs out of a total number of population). Since October 2017 the project of Psychosocial Care for IDPs and the war affected population in Ukraine has been in place (short name «Let's talk»).

Objective. The aim of the project is to provide professional, accessible, free for the users and fully anonymous psychosocial online care. The project has been supported by the German non-for-profit public organization IPSO under the joint initiative of the Head of IPSO Inge Missmahl and Ukrainian specialists in psychosocial care, and funded by the grant from the Rotary International.

Materials and methods. Analysis of protocols of online counseling sessions and supervisions. The online counseling may be used by any person, but the target audience includes the people who in any way have been affected by the armed conflict: veterans, their families, internally displaced people etc. The counsellors are professional psychologists who were trained within the scope of the project. Sessions may be held in Russian or Ukrainian, according to the user's choice.

Results. The key and most frequent issues mentioned by the clients are loneliness, the loss of the sense of life, fear, uncertainty, anxiety, difficulties in family relations, in particular, with children, job insecurity, addictions, psychosomatic disorders and so others.

At the start of the operations the no-show cases were a significant problem: a client would register, select a counsellor, appoint the date and time of the session and would not show afterwards.