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Mini Review

A Critical Review on Postpartum Depression and Physical Activity

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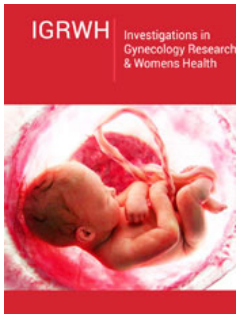

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Introduction

One of the serious complications that are being experienced by women over many eras has been the issue of postpartum syndrome and the ways of coping with it. It is clear that many women can lose attention to their lives, their babies and their husbands. Actually, they become less happy and more stressful. Yet, this is not bound to the physicality of their beings, it is because of hormones. As is it is known that after childbirth, a dramatic drop in hormones (estrogen and progesterone) in women's body may contribute to postpartum depression. Other hormones produced by mothers' thyroid gland also may drop sharply-which can leave mother feeling tired, sluggish and depressed. Frankly, women need to feel emotionally supported in those hard times. Yet how can it be possible when they are fully confronted with the degenerated body image, inconvenient hormone rates and stressed mind after birth? Possibly they can be backed up by their husbands or other family members and they can get proper motherhood education and so on. To feel relaxed and healthy in these hard times and in order recover from this syndrome, one of the best and most important ways is defined as getting enough exercise and involving in a physical activity. Previous research indicates that mothers who are physically active during leisure times experience lower levels of postpartum depressive symptoms than do inactive mothers.

Methods

Unfortunately, postpartum depression affects approximately 15% of mothers. Indeed, treatment options for postpartum depression are limited. The medical world has almost no answer to treat this depression and they cannot achieve %80 success on the patients. A cure like pharmacological antidepressants such as Fluoxetine (FLX) can be controversial due to inconclusive evidence of efficacy during the postpartum and concerns of neonatal exposure to antidepressants [1,2].

Alternatively, non-pharmacological antidepressants such as exercise may be less controversial but its efficacy in postpartum depression is unclear. To investigate this, rat dams were treated daily with high levels of corticosterone (CORT; 40mg/kg), to induce a depressive-like phenotype, or oil (vehicle for CORT) during the postpartum period. Within the oil and CORT conditions, four additional antidepressant conditions were created: 1. FLX (10mg/kg) +exercise (voluntary access to running wheel); 2. FLX+no exercise; 3. Saline (vehicle for FLX) + exercise; 4. Saline + No exercise.

Maternal care, depressive-like and anxiety-like behavior, stress reactivity was examined, and hippocampal neurogenesis and dams were categorized as "high running" or "low running." FLX treatment, alone or with high running, prevented CORT-induced disruptions in maternal care.

Results

As expected, CORT increased depressive-like behavior but exercise, regardless of running amount, reduced depressive-like behavior. Surprisingly, FLX, but not CORT, increased anxiety-like behavior, which was not mitigated by concurrent exercise. FLX treatment slightly but significantly facilitated serum CORT recovery after forced swim stress. CORT and FLX alone

reduced neurogenesis, while exercise coupled with FLX increased density of doublecortin-expressing cells.

High running increased density of doublecortin-expressing cells (immature neurons) in comparison to controls. Collectively, these findings indicate that FLX and exercise reverse different endophenotypes of depression in dams, which has translational implications for surveying treatment options of postpartum depression.

Discussion

The postpartum depression comes as an emotional shock to mothers. It is seen that their hormones react differently to their bodies. They experience stressful facts and situations, they can hate their bodies, and they may lose interest in everyday life and their families. They may contradict with some painful situations.

In case of the fact that doctors put some pressure on patients to use antidepressant drugs and pills rather than organic and natural solutions, there are other ways than to use pills such as doing exercise in regular basis. As it is shown in the research, exercise seems like a pure, a painless and a safe choice compared with the drugs. Then, rather than having daily doses of drugs, mothers should spend their time and energy on finding a stable exercise type, a trustworthy coach and a clean, refreshing sports center.

References

1. Demissie Z, Riz AMS, Evenson KR, Herring AH, Dole N, et al. (2011) Associations between physical activity and postpartum depressive symptoms. J Womens Health (Larchmt) 20(7): 1025-1034.
2. Aarthi GR, Richardsonb RJ, ChowbJoanna C, Workmanb JL, Lieblich SE, et al. (2018) Voluntary running influences the efficacy of fluoxetine in a model of postpartum depression. Neuropharmacology 128: 106-118.