Report on the Potential Effects of Spousal Military Deployment and Postpartum Depression
2007 Research Summary compiled by Jessica Banas, PSI Online Coordinator, Online PPD Support Group

This report will discuss the possible effects of spousal military deployment and postpartum depression among military wives and attempt to discover how large this population is for the year 2006. Different abstracts showing both positive and negative outcomes, statistics from the Pentagon, other reports, PSI’s website, and various programs extended to military servicemen and their families will be used in this discussion.

The first abstract was created by (1) Jeffrey H. Millegan, M.D. NMCSD Mental Health; Daniel Robrecht, M.D.; Lynn Leventis, M.D.; Crescitelli Jo, R.N.; and Robert McLay, M.D., Ph.D. “Associations of Post Partum Depression with Spousal Military Deployment and Isolation.”

This abstract presents 415 charts. Out of the 410 women who completed the Edinburgh Postnatal Depression Scale (EPDS), 10.94% screened positively for postpartum depression while their husbands were not deployed, and 25.27% screened positively for postpartum depression while their husbands were deployed. This information indicates that the risk factor for pregnant women with deployed spouses may be 2.31 times greater than for other pregnant women with spouses who are not deployed.

The abstract reports that there is no statistical significance to the time of deployment, in that the risk is the same whether or not the spouse returns for the birth and/or the postpartum visit.

The (6) Edinburgh Postnatal Depression Scale (EPDS), was used in the abstract. Question number 10 on the EPDS indicates the pervasiveness of suicidal thoughts, but there was no information available within the abstract that indicated what these women scored on question number 10 of the EPDS.

The abstract did look at each individual EPDS and specifically at question number 10. However, it did not contain a statistical analysis of a relationship to a positive response on that question. When asked, Dr. Millegan said that they may still do that in the near future.

PSI’s website indicates that, “Approximately 15%-20% of women will suffer from a postpartum mood disorder and that 80% go undiagnosed and untreated.”

This information may indicate that at 15-20% and at 2.3 times greater risk, the percentage of military spouses expected to get postpartum depression could jump to 35-46%.

A review written by (2) Lori Bonari, MSc; Natasha Pinto, MSc; Eric Ahn, MSc; Adrienne Einarson, RN; Meir Steiner, MD, FRCPC; Gideon Koren, MD, FRCPC. “Perinatal Risks of Untreated Depression During Pregnancy.” (Can J Psychiatry, Vol 49, No 11, November 2004) indicates that, “Approximately 15% of women who do not treat their depression during pregnancy attempt suicide.”

Could this 15% statistical risk also be increased by 2.3 times to 35%?


This report indicates that, “Despite the mood swings and stresses associated with pregnancy and impending childbirth, pregnant women have a significantly lower risk of suicide than women of childbearing age who are not pregnant.” The report goes on to say that, “If pregnant women are as likely to experience suicidal urges as non pregnant ones but are considerably less likely to act on them, then pregnancy may involve a behavioral inhibitory factor. Low central serotonin activity has been linked with a higher risk of suicide. Pregnant women have been reported to have higher levels of
urinary serotonin and its metabolite in late gestation than non pregnant comparison subjects. Blood levels of serotonin rise during pregnancy. Serotonin concentrations in rats increase in the hypothalamus, rhinencephalon, and mesencephalon during pregnancy. It is of interest that the fetus produces much of the serotonin observed in pregnancy; this perhaps suggests an evolutionary advantage to the inhibition of self-destructive behaviors by the mother.”

Other factors are also in the military mother’s favor. Operation Special Delivery program is a nationwide program to provide free doula support to military moms during and after birth, even if the husband is home from deployment.

Other programs, while not directly designed for the support of military mothers, offer a positive model for future services. For example, there is the Air Force Suicide Prevention Program (Air Force Pamphlet 44-160 describes the program).

This program has resulted in nearly a one third reduction in the suicide rate since the program began in 1996. This is the equivalent of about 10,000 lives saved per year if translated into numbers comparable to the American population.

There is also a website for military personnel and their families called Military One Source. This website contains information on parenting, substance abuse, and childcare services. It also has a 24/7 800 number that offers counseling.

However, a recent report written by (4) V. Lindahl, J. L. Pearson, and L. Colpe, “Prevalence of suicidality during pregnancy and the postpartum period.” (National Institute of Mental Health, Bethesda, MD, USA, May 2005) says that, “While suicide deaths and attempts are lower during pregnancy and the postpartum than in the general population of women, when deaths do occur, suicides account for up to 20% of postpartum deaths. Self-harm ideation is more common than attempts or deaths, with thoughts of self-harm during pregnancy and the postpartum ranging from 5 to 14%. The risk for suicidality is significantly elevated among depressed women during the perinatal period, and suicide has been found to be the second or leading cause of death in this depressed population.”

In order to get as accurate a number as possible of women at risk, the Public Affairs Officer, Janice Ramseur at the Pentagon’s Office of the Assistant Secretary of Defense - American Forces Information Services, was asked for the approximate number of military wives who became pregnant last year before their husbands were deployed. On September 28th, a (5) Microsoft Office Excel document was received that stated approximately 357,000 women became pregnant last year before their husbands were deployed.

After reading all of these statistics, one might consider that at 15-20% and at 2.3 times greater risk (35-46%), the number of military spouses expected to get postpartum depression might jump to numbers approximating 145,000. One might further hypothesize that approximately 51,000 (15% also at 2.3 times greater risk, or 35%) of those women could become so severely depressed that, without treatment, they attempt suicide. Even if we keep the suicide statistic at 15%, the number remains significant at approximately 22,000 military women attempting suicide.

We need to study this population more closely. Not only to verify the risks, but to clarify and touch on other risk factors (i.e. moving multiple times, lack of consistent support from friends and families, higher rates of alcoholism among military personnel), as possible reasons for the higher numbers. We also need to find more military counseling and suicide prevention programs that will support both military personnel and their families.

Credits/References:

Abstract presented Monday May 21, 9:00am - 10:30am
Associations of Post Partum Depression with Spousal Military Deployment and Isolation
Jeffrey H. Millegan, M.D. NMCSD, Mental Health
Daniel Robrecht, M.D.; Lynn Leventis, M.D.; Crescitelli Jo, R.N.; Robert McIay, M.D., Ph.D.
APA Poster.pdf(634 KB)
Lori Bonari, MSc; Natasha Pinto, MSc; Eric Ahn, MSc; Adrienne Einarson, RN; Meir Steiner, MD, FRCPC; Gideon Koren, MD, FRCPC., Perinatal Risks of Untreated Depression During Pregnancy. (Can J Psychiatry, Vol 49, No 11, November 2004)


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