



CODEN [USA]: IAJPBB

ISSN : 2349-7750

## INDO AMERICAN JOURNAL OF PHARMACEUTICAL SCIENCES

SJIF Impact Factor: 7.187

<http://doi.org/10.5281/zenodo.4311351>
Available online at: <http://www.iajps.com>

Research Article

### SYMPTOMS OF POSTPARTUM DEPRESSION ARE RELATED TO AN INCREASE IN DIARRHEA IN CHILDREN OF HIV- POSITIVE PAKISTANI WOMEN

<sup>1</sup>Dr Rais Ud Din Ahmad, <sup>2</sup>Dr Muhammad Ahmed Taj, <sup>3</sup>Dr Asia

<sup>1</sup>Fatima Memorial Hospital Lahore

<sup>2</sup>Services Hospital Lahore

<sup>3</sup>DHQ Teaching Hospital Sahiwal

Article Received: October 2020

Accepted: November 2020

Published: December 2020

**Abstract:**

*HIV disease is linked to the trivialization of poverty, which can influence the care practices of mothers and put young newborns at risk. We analyzed the rate and days of sickness with bowel relaxation in babies of HIV-positive (HIV-P), HIV-negative (HIV-N), and obscure HIV status (HIV-U) women, and decided whether indications of postpartum maternal morbidity (PND) adjusted for the danger of running. Pregnant women (n=499) were enrolled in three antenatal centers; mothers and newborns were followed for 13 months. The diarrhea rate was 0.7 scenes/100 days at risk. Our current research was conducted at Mayo Hospital, Lahore from March 2019 to February 2020. More HIV-positive women than non-HIV-positive women and more HIV-positive women than non-HIV-positive women generally reported signs of nervous breakdown (P=0.08). PND indications raised the danger of juvenile racing only for HIV-P and HIV-U women, but not for HIV-N women (connection term, P=0.03). Health care providers should be aware of the increased danger of puerile bowel loosening when maternal indications for HIV and PMS are both available, and should take preventive measures to reduce sluggishness.*

**Keywords:** *Diarrhea in children of HIV-positive Pakistani women, Symptoms of postpartum depression.*

**Corresponding author:****Dr. Rais Ud Din Ahmad,**

Fatima Memorial Hospital Lahore

QR code



Please cite this article in press Rais Ud Din Ahmad *et al*, *Symptoms Of Postpartum Depression Are Related To An Increase In Diarrhea In Children Of HIV-Positive Pakistani Women.*, *Indo Am. J. P. Sci*, 2020; 07(12).

**INTRODUCTION:**

Sagging intestines remain a major source of moroseness in children and add to 19% of passages in young people under 7 years old of sufficient age. Numerous studies have also described the study of disease transmission as the danger factors associated with diarrheal fouling. Improving the flexibility of water in the family unit and treatment, as well as repeated disinfection and cleanliness, have reduced diarrhoea-related morbidity and mortality. Ongoing surveys have recognized the psychological well-being of mothers as another important determinant of infant welfare outcomes. Rahman and associates reported that postpartum misery (PND) was associated with an increased risk of diarrheal morbidity among Pakistani newborns. The HIV/AIDS pandemic has heightened concern about young people's lack of stamina, as HIV disease can compromise a family's ability to think satisfactorily about a young child. In addition, HIV disease has been found to be linked to increased danger for adults, major and burdensome problems that could contribute to the rising horror of babies and mortality from irresistible diseases. The combination of HIV infection and maternal discouragement can have a synergistic impact on newborn morbidity outcomes by counting loose intestines. This survey analyzed the frequency and number of sick days with intestinal disorders in Ghanaian newborns living in HIV-infected networks and analyzed the communication between the mother's HIV status and the side effects of PND on the danger of having intestinal disorders in the newborn.

**METHODOLOGY:**

Pregnant women were registered in the prenatal centers of three clinics. Pregnant women were selected and enrolled after VCT. In 2003, as part of the public VCT program, all pregnant women received counseling on the danger of HIV transmission and were informed about accessible administration, after which they could be tested for HIV ("pick in" setting). Our current research was conducted at Mayo Hospital, Lahore from March 2019 to February 2020. In 2005, the public program was changed to a "pick in" setting in which all women were tested after being counseled, unless they indicated that they were not. Women were

considered qualified for the survey if 1) they were 19 years old anyway, 2) they were pregnant at the time of enrollment, 3) they had completed pre- and post-VCT, or just pre-VCT if they had refused the test, and 4) they had consented to have their HIV test results given to the project coordinator (for those who had completed VCT). The Abbott Determine HIV-1/2 rapid test was used at the emergency clinic to test for HIV. Tests with uncertain results were shipped from the Noguchi Memorial Institute for Medical Examination for confirmation by a polymerase chain reaction (PCR) study. Members were delegated to be HIV-positive (HIV-P, tested positive for HIV), HIV-negative (HIV-N, tested negative for HIV), or with obscure HIV status (HIV-U, would not be tested for HIV). A member was considered qualified for longitudinal observation of the baby blues if (1) she gave birth to a live baby, (2) her newborn was free of any birth defects that might prevent her from caring for her baby, and (3) she was free of any condition that might restrict her ability to care for her baby. It was the field administrator who addressed the issue of women's HIV status. The mother-baby sets were monitored from birth to one year. Twice a week, mothers were visited to collect data on the newborn's well-being, including the absolute number of stools and their quality (e.g., fluid). For each indication, the mother was approached to review the occasions of the day of the visit and each previous day since her last visit by the fieldworker, up to a limit of seven days of review. Baby management data were collected using the same strategy. The mother was asked whether she had breastfed the infant and whether the infant had received any liquids other than breast milk (water, baby formula, other non-human milk) or semi-strong or strong foods. Symptoms of maternal depression were estimated shortly after birth (5 middays, 0-52 days) using the Edinburgh Postnatal Depression Scale (EPDS), a 10-item scale that asks about side effects in the last few days (7). There was no great difference between the three HIV groups in terms of when the scale was regulated ( $P=0.32$ ). Everything on the EPDS was scored on a 4-point scale that corresponds to the level of the event. Cronbach's alpha for the EPDS was 0.84.

**Table 1:****Table 1** Demographic and socioeconomic characteristics of Ghanaian study population at baseline, by maternal HIV status

	HIV-P N = 152	HIV-N N = 176	HIV-U N = 164	$\chi^2$	P value <sup>a</sup>
Maternal age (y)	28.3 ± 0.5	29.0 ± 0.4	28.1 ± 0.4	2.3689	0.3059
Parity (#)	1.5 ± 0.1	1.6 ± 0.1	1.4 ± 0.1	2.3085	0.3153
Maternal education				21.93	0.0002
None	25 (16.4)	13 (7.4)	14 (8.5)		
Primary	47 (30.9)	30 (17.0)	33 (20.1)		
Secondary and higher	80 (52.6)	133 (75.6)	117 (71.3)		
Ethnicity <sup>b</sup>				20.86	<0.0001
Non-local	26 (17.1)	62 (35.2)	65 (39.6)		
Local	126 (82.9)	114 (64.8)	99 (60.4)		
Marital status				29.87	<0.0001
Not married	128 (84.2)	99 (56.2)	113 (68.9)		
Married	24 (15.8)	77 (43.7)	51 (31.1)		
Cooking fuel				4.62	0.09
Wood	22 (14.6)	14 (7.9)	14 (8.5)		
Other <sup>c</sup>	129 (85.4)	162 (92.0)	150 (91.4)		
Main water source				13.82	0.0010
No tap in home	126 (83.4)	124 (70.4)	107 (65.2)		
Tap in home	25 (16.6)	52 (29.5)	57 (34.7)		
Toilet facility <sup>d</sup>				14.41	0.0061
KVIP	86 (56.9)	80 (45.4)	95 (57.9)		
Other	52 (34.4)	62 (35.2)	39 (23.8)		
Flush toilet	13 (8.6)	34 (19.3)	30 (18.3)		

Results are presented as mean ± standard error or N (%)

HIV-P, HIV positive; HIV-N, HIV negative; HIV-U, unknown HIV status

<sup>a</sup> Kruskal-Wallis tests for continuous data; Chi-square test for categorical data

<sup>b</sup> Non-local = Ewe, Akan, northerner, any other ethnicity; Local = Ga-Adangme

<sup>c</sup> Other = charcoal, gas cooker, electric stove

<sup>d</sup> KVIP = Kumasi Ventilated Improved Pit latrine; Other = bucket, latrine, pit latrine, bush

## RESULTS:

600 and 92 pregnant women were sensitized to the survey, from which 556 women were selected. Of the 505 registered live births, information on morbidity was available for 496 infants. Maternal age increased from 18 to 48 years, with an average of  $28.5 \pm 0.3$  years. Study subjects had 0 to 8 live births earlier, with an average of 1. Most women (69%, n=339) were of Ga-Dangme ethnicity. More than 67% of the women were unmarried and lived with an accomplice (n=246) or had no accomplice (n=96). Most of the women (n=448) had received formal education, while 35% (n=167) had not attended an auxiliary school. The public tap filled up as the basic water source for most families (68%, n=329). Less than one-fifth (18%) of women had a flush latrine. More than 73% of families used charcoal or wood as the basic fuel for cooking. Overall, HIV-positive women were less likely than other women to have access to a flush latrine, an internal tap, and a gas or electric stove, as shown by the fact that they had less optional or advanced education, were less likely to be married, and had less access to a flush latrine, an internal tap, and a gas or electric stove (TABLE I). The total number of days of absence due to bowel problems was 3.3 per 100 days

observed (8.0 sick days/year). There was a normal of 0.6 new running scenes per 100 days at risk (4.6 scenes/year). Over one year, despite the fact that the rate of diarrhea was comparable among the three newborn gatherings, babies of HIV-positive mothers would generally have fewer sick days (TABLE II). Apparently, this is the main test to show a synergistic relationship between the mother's HIV status and postnatal discouragement about the baby's risk of leakage. HIV-positive mothers suffering from PND side effects may have invested less energy in child care, thereby addressing the issue of the baby's well-being. On the other hand, HIV-positive women with PNS may have been clinically sicker and unable to think satisfactorily about their newborn. Antelman and associates reported an increased risk of disease displacement (HR=1.63, 96% CI: 1.29 to 2.04) and all-cause mortality (HR=2.66; 96% CI: 1.87 to 4.72) among Tanzanian women with HIV who were discouraged. The main other survey that examined the relationship between maternal discouragement and loosening of the baby's intestines was conducted among a non-HIV-positive population in Pakistan. Analysts reported an increase of three overlaps (OR=4.2; 95% CI: 1.9 to 6.7) in the risk of regular

diarrheal disease (characterized by  $\geq 6$  diarrheal scenes/year) in newborns of discouraged women. In both the Pakistan survey and our own, low birth weight did not remain an important indicator of diarrheal disease once other financial variables were incorporated. In any case, wastage ( $<2$  weight for length) at one semester in Pakistan was associated with increased danger. We decided to exclude a comparable anthropometric indicator at mid-term in

our model for different reasons. First, only indicators that occurred before the outcome of interest were incorporated to explain transient connections. Second, the contrasts in the anthropometric estimates were articulated at birth and maintained from then on (the information did not appear). Finally, birth weight is exceptionally related to weight in the main year of life and, as such, an indicator of extra weight may be excessive.

**Table 2:**

depression reported by mothers shortly after birth

	Symptoms of PND <sup>a</sup>	No symptom of PND	$\chi^2$	P value <sup>b</sup>
Days ill (d/100 d observed)				
0–3 months	4.4 $\pm$ 1.0 [49]	2.0 $\pm$ 0.3 [419]	13.81	0.0002
3–6 months	3.3 $\pm$ 0.8 [46]	3.4 $\pm$ 0.3 [400]	1.94	0.1636
6–9 months	3.3 $\pm$ 0.9 [43]	2.7 $\pm$ 0.2 [381]	0.75	0.3842
9–12 months	2.7 $\pm$ 0.5 [38]	2.6 $\pm$ 0.2 [362]	1.13	0.2868
0–12 months	2.8 $\pm$ 0.5 [49]	2.1 $\pm$ 0.2 [419]	2.70	0.1000
Incidence (episodes/100 d at risk)				
0–3 months	1.1 $\pm$ 0.2 [49]	0.6 $\pm$ 0.1 [419]	12.24	0.0005
3–6 months	1.2 $\pm$ 0.2 [46]	1.0 $\pm$ 0.1 [400]	3.53	0.0603
6–9 months	1.1 $\pm$ 0.2 [43]	1.0 $\pm$ 0.1 [381]	0.89	0.3440
9–12 months	1.1 $\pm$ 0.2 [38]	1.0 $\pm$ 0.1 [362]	1.62	0.2024
0–12 months	0.8 $\pm$ 0.1 [49]	0.6 $\pm$ 0.1 [419]	4.18	0.0409

Results represented as mean  $\pm$  standard error [N]

<sup>a</sup> PND, Postnatal depression; symptoms of PND were measured shortly after birth. Participants were classified as showing symptoms of PND if they scored 13 or more on the Edinburgh Postnatal Depression Scale (EPDS) [10]. Participants with EPDS scores  $<13$  were classified as not showing symptoms of PND

<sup>b</sup> Kruskal–Wallis tests

**Table 3:**

Table 3 Infant diarrheal days ill (per 100 days of observation) and incidence of diarrhea (episodes per 100 days at risk), by maternal HIV status

	HIV-P	HIV-N	HIV-U	$\chi^2$	P value <sup>a</sup>
Days ill (d/100 d observed)					
0–3 months	1.6 $\pm$ 0.4 [151]	2.3 $\pm$ 0.6 [175]	2.7 $\pm$ 0.5 [163]	5.13	0.0767
3–6 months	2.2 $\pm$ 0.4 [135]	3.9 $\pm$ 0.6 [167]	4.1 $\pm$ 0.6 [160]	5.48	0.0646
6–9 months	2.4 $\pm$ 0.4 [123]	3.0 $\pm$ 0.4 [164]	3.1 $\pm$ 0.4 [152]	2.52	0.2837
9–12 months	1.8 $\pm$ 0.3 [107]	2.9 $\pm$ 0.4 [161]	2.9 $\pm$ 0.4 [146]	5.71	0.0576
0–12 months	1.6 $\pm$ 0.2 [152]	2.3 $\pm$ 0.3 [176]	2.6 $\pm$ 0.3 [164]	5.77	0.0557
Incidence (episodes/100 d at risk)					
0–3 months	0.6 $\pm$ 0.1 [151]	0.5 $\pm$ 0.1 [175]	0.8 $\pm$ 0.1 [163]	4.37	0.1123
3–6 months	0.7 $\pm$ 0.1 [135]	1.1 $\pm$ 0.1 [167]	1.1 $\pm$ 0.2 [160]	4.29	0.1172
6–9 months	1.0 $\pm$ 0.2 [123]	1.1 $\pm$ 0.1 [164]	0.9 $\pm$ 0.1 [152]	1.65	0.4370
9–12 months	0.8 $\pm$ 0.1 [107]	1.1 $\pm$ 0.1 [161]	1.1 $\pm$ 0.1 [146]	5.47	0.0649
0–12 months	0.6 $\pm$ 0.1 [152]	0.6 $\pm$ 0.1 [176]	0.7 $\pm$ 0.1 [164]	3.25	0.1968

Results represented as mean  $\pm$  standard error [N]

HIV-P, HIV positive; HIV-N, HIV negative; HIV-U, unknown HIV status

<sup>a</sup> Kruskal–Wallis tests

**DISCUSSION:**

As far as we know, this is the main test to show a synergistic relationship between maternal sero positivity and postnatal melancholia on the danger of liquid bowel in the newborn. HIV-positive mothers with signs of NPD may have invested less energy in early child care, contributing to the newborn's well-being [6]. On the other hand, HIV-positive women with side effects may have been clinically sicker and unable to think sufficiently about their newborns [7]. Antelman and her partners found an increased risk of disease displacement (HR=1.63, 97% CI: 1.29 to 3.04) and all-cause mortality (HR=2.67; 96% CI: 1.88 to 3.73) in discouraged HIV-positive Pakistani women [8]. The main other survey that examined the relationship between maternal discouragement and loosening of the baby's intestines was conducted in a non-HIV-positive population in Pakistan. Scientists reported a three-overlap rise (OR=3.1; 97% CI: 1.9 to 5.7) in the risk of recurrent diarrheal disease (characterized by  $\geq 5$  diarrheal scenes/year) in newborns of discouraged women [9]. In both the Pakistan survey and our own, low birth weight did not remain a critical indicator of diarrheal disease once other financial elements were incorporated. Nevertheless, wastage (<2 weight for length) at one semester in Pakistan was associated with increased danger. We decided to exclude a comparable anthropometric indicator at mid-term in our model for different reasons. First, only indicators prior to the outcome of interest were incorporated to explain transient connections. Second, the contrasts in the anthropometric estimates were articulated at birth and maintained from that point on (the information did not appear). Finally, birth weight is exceptionally related to weight during the main year of life and hence an indicator of extra weight can be repetitive [10].

### CONCLUSION:

For babies of HIV-positive and non-HIV-positive mothers who had signs of nervous breakdown, the risk of diarrhea increased in the first three months of life. Medical care programs in HIV-affected networks need to prepare their staff to deal with the difficulties that the mother's lack of mental and physical well-being can bring to the newborn's well-being; programs need to work on avoidance and intercession projects to reduce newborn morbidity and mortality.

### REFERENCES:

1. Maartens G, Celum C, Lewin SR. HIV infection: epidemiology, pathogenesis, treatment, and prevention. *Lancet*. 2014;384(9939):258–71.
2. Niu L, Luo D, Liu Y, Silenzio VM, Xiao S. The mental health of people living with HIV in China,

- 1998-2014: a systematic review. *PLoS One*. 2016;11(4):e0153489.
3. Ciesla JA, Roberts JE. Meta-analysis of the relationship between HIV infection and risk for depressive disorders. *Am J Psychiatry*. 2001;158(5):725–30.
4. Ickovics JR, Hamburger ME, Vlahov D, Schoenbaum EE, Schuman P, Boland RJ, et al. HIV epidemiology research study group. Mortality, CD4 cell count decline, and depressive symptoms among HIV-seropositive women: longitudinal analysis from the HIV epidemiology research study. *JAMA*. 2001;285(11):1466–74.
5. Uthman OA, Magidson JF, Safren SA, Nachega JB. Depression and adherence to antiretroviral therapy in low-, middle- and high-income countries: a systematic review and meta-analysis. *Curr HIV/AIDS Rep*. 2014;11(3):291–307.
6. Reis RK, Haas VJ, Santos CB, Teles SA, Galvao MT, Gir E. Symptoms of depression and quality of life of people living with HIV/AIDS. *Rev Lat Am Enfermagem*. 2011;19(4):874–81.
7. Ramos de Souza M, do Amaral WN, Alves Guimarães R, Rezza G, Brunini SM. Reproductive desire among women living with HIV/AIDS in Central Brazil: Prevalence and associated factors. *PLoS One*. 2017;12(10):e0186267.
8. Sowa NA, Cholera R, Pence BW, Gaynes BN. Perinatal depression in HIV-infected African women: a systematic review. *J Clin Psychiatry*. 2015;76(10):1385–96.
9. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 5 ed. American Psychiatric Publishing, Arlington, 2013.
10. Woody CA, Ferrari AJ, Siskind DJ, Whiteford HA, Harris MG. A systematic review and meta-regression of the prevalence and incidence of perinatal depression. *J Affect Disord*. 2017;219:86–92.