

**TITLE: DEPRESSION AMONG
MOTHERS IN MZUZU:
PREVALENCE AND ITS
ASSOCIATED FACTORS**

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Postnatal depression among mother in Mzuzu: Prevalence and its associated psychosocial factors.

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Abstract:

Background:

Postnatal depression is a very common problem among mothers soon after childbirth, but is rarely diagnosed. The Edinburgh Postnatal Depression Scale (EPDS) has been known to be a valid screening instrument for postnatal depression.

Objective:

To determine the prevalence of postnatal depression and its associated psychosocial factors using a locally validated EPDS among mothers in Mzuzu Malawi.

Study design:

Cross-sectional survey

Setting:

under five clinics, child spacing clinics and postnatal check-ups clinics in Mzuzu Municipality

Participants:

Postnatal mothers, 6-8 weeks after childbirth.

Method:

EPDS was translated into Tumbuka. Mothers of childbearing age were consecutively recruited from clinics indicated above. Informed consent was obtained. Socio-demographic data was collected from each mother and EPDS was verbally administered.

Results:

Two hundred and fifty women were interviewed women who scored 13 and above on EPDS were considered to be depressed. Of the 250 women 78 (31.2%) scored 13 and above

Conclusion:

There is high but unrecognized burden of depression among mothers in Northern Malawi

Recommendation:

There is need for the public and health workers to become aware of the magnitude of postnatal depression.

Introduction

Postnatal depression affects 10-15% of mothers (Lane et al, 1997, Kumar, 1994, Cooper and Murray 1997, O'Hara and Swain 1996, Kumar, 1994). Untreated postnatal depression is associated with impairment of the mother's ability to care for her infant, marital instability, impairment in the cognitive and emotional development of the child and increased utilization of health care services. Yet most of these mothers are unrecognized, undiagnosed and therefore not treated. There has been suggestion that the use of rating scales, for example, Edinburgh Postnatal Depression Rating Scale (EPDS) to screen mothers at risk have shown to improve recognition, diagnosis and treatment of postnatal depression (Evis et al 2000).

The Edinburgh Postnatal Depression Scale (EPDS) has been widely used in Western cultures and has shown to be simple, cheap, acceptable, reliable and valid instrument for use in different cultures (O'Hara 1994, Cox et al 1987, Murray and Carothers 1990, Boyce et al 1991, Wickberg and Hwang 1996, Lee et al 1998). Lawrie et al (1997) has recently confirmed its validity on a South African sample.

Very little is known about the prevalence of postnatal depression and its associate psychosocial factors in Malawi. The invalidated version of EPDS was used recently and the estimated prevalence at a recommended cut-off point of 13 (Cox et al 1987) was found to be 30-40% at 6-8 weeks post-partum (Chilale and colleagues, 2000 (unpublished), which were 3-4 times the rates found in western countries. This seems to be the only report on the prevalence of postnatal depression in Malawi. However, the instrument used was not validated.

Estimates of postnatal depression, varies widely, partly due to cultural differences, methodological differences or differences in measurement criteria used.

This paper gives a report on the prevalence of postnatal depression in Mzuzu, Malawi, using a locally validated Edinburgh Postnatal Depression Scale.

Methodology

A cross-sectional survey in a form of two -stage design was conducted in two primary health care facilities in Mzuzu city, with a population of 95,000 people in the Northern region of Malawi. Mzuzu has experienced rapid urbanization process since the multi-party system of government was introduced in 1994. The depreciation in the Malawi Kwacha against a Dollar and the rapid urbanization has resulted into many people living in very poor and overcrowded conditions in townships.

The study took place at St. Johns Hospital and Mapale Health center. These are the main primary health care facilities providing under-five immunization services, child spacing and first postnatal check-ups in the city. The target population included postnatal mothers at 6-8 weeks after childbirth

Sample selection

After the approval by the ethical research committee, a systematic method of sampling was used. The mothers were consecutively and individually selected after they completed their registration as they came to the clinic in these two health facilities mentioned above. The selected mothers were taken to a private office where the purpose and procedure of the research was explained and both written and verbal consents were obtained. Eligible mothers included those who had given birth 6-8 weeks at the time of the survey and were fluent in Tumbuka. Mothers who were severely ill, or suffered from an acute or chronic psychotic disorder and those with severe cognitive impairment were excluded

The Tumbuka version of EPDS, which has reasonably good validity at cut-off point 13, was read to each mother. Interviewers recorded their responses. Mothers scoring above 13 were considered probable cases and below 13 as non-cases of postnatal depression.

Results

Over a period of three-four months a total number of two hundred and seventy three mothers were approached. Eleven of them refused to participate in the research and twelve had the interview terminated because it was discovered that they could not understand Tumbuka well even though they initially had indicated to be fluent Tumbuka speakers. The characteristics of mothers who refused to participate in the research were not very different from those who participated.

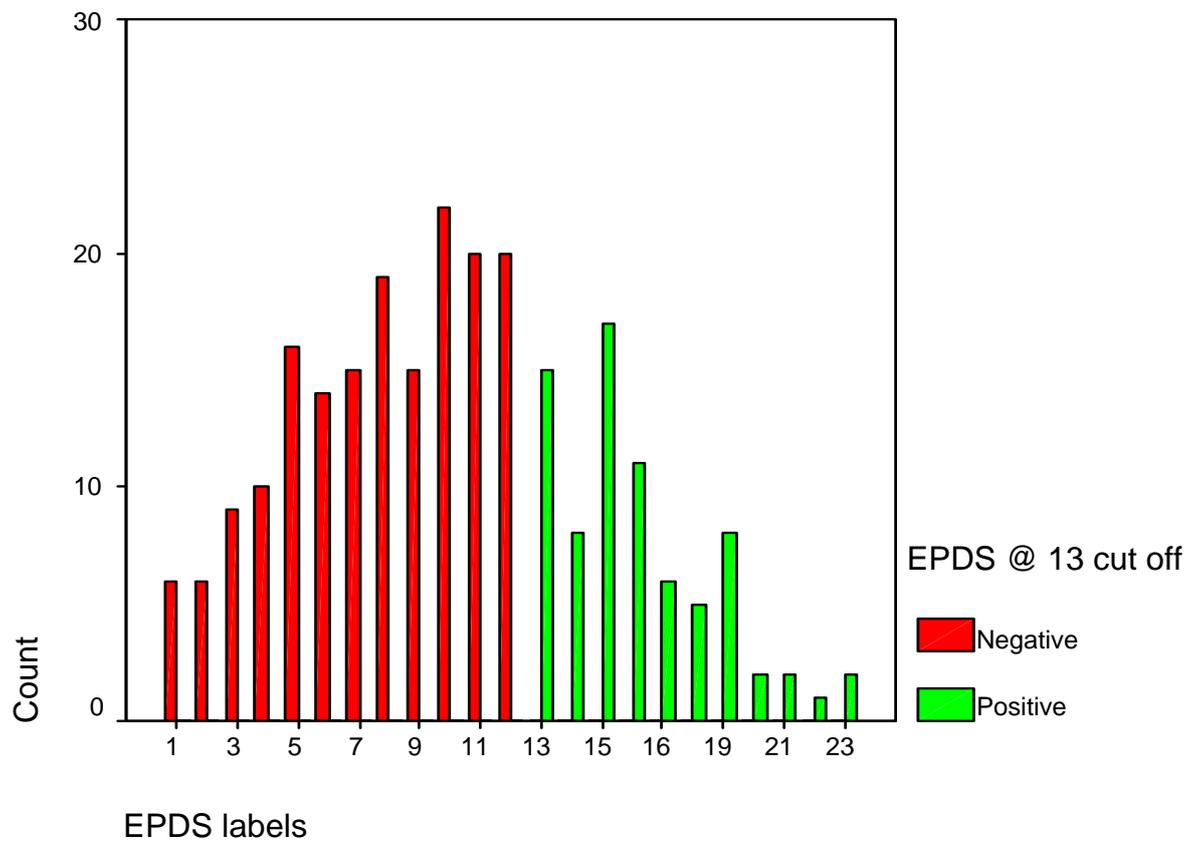
Sample characteristics

Two hundred and fifty mothers finally participated in the research. Three (1.2%) were aged 15years; while 44 (17.7%), 175 (70.3), 25 (10%), and only 1 (.4%) were between 16-19years, 20-30 years, 30-40 years and above 40 years of age respectively. Over 90% were married, and about 216 had good support from their husbands. 133 mothers against 102 reported no violence from their husbands. 29% of these mothers had their first baby and 71% had more than one child. 89.6% delivered in the hospital; while only 79 and 5 had spontaneous delivery and reported that their children were unhealthy at the time of interview respectively. 200 and 149 participants reported good relationships with their brothers-in-law and mother in law respectively.

EPDS scores distribution and prevalence of depression

Seventy-seven (77) which represents 30.8% of the women who participated in this research scored 13 and above on EPDS and therefore were taken to be probable cases of depression, while 173 (69.2%) scored 12 and below (non-cases) Refer fig.1 below.

Fig. 1 Showing EPDS scores distribution



Using the positive predictive value of 40, this means 31 women were most likely to be depressed. Determining percentage of the thirty-one women out of two hundred and fifty, gives us 12.4% as the prevalence of postnatal depression for this sample.

Associated factors

Marital status, relationship with next of kin (for example, in-laws, cousins, mother-in-law), support from husband and source of social support were predictive of postnatal depression. Parity and place where the baby was born were just close to level of significance Domestic violence; income, education and history of mental illness and the remaining were not associated with the development of postnatal depression at $\alpha = 0.05$ (See table 1 below for results)

Table 1. Showing Cross-correlation of independent variables as predictors for depression (at cut off 13 and above-EPDS) and $\alpha = 0.05$ significance level.

Variable	Df	χ^2	Level of sig. (2 sided)
Age of the Mother	4	0.835	0.93
Religious Affiliation	4	3.625	0.515all
Marital Status	4	15.261	0.004
Occupation	4	4.316	0.365
Parity	4	7.849	0.097
Out come Of pregnancy	4	6.182	0.186
Place of Delivery	3	6.928	0.074
Complication Of delivery	4	3.206	0.524
Pregnancy Acceptance	1	0.159	0.690
Health of The baby	2	4.067	0.131
Relationship With next of kin (Cousins, mother in-laws bothers/sistersin-laws etc)	3	17.829	0.000
Support from Husband	3	21.272	0.000
History of Mental illness	1	2.274	0.132
Educational Level	3	3.282	0.350
Husbands Occupation	3	5.174	0.159
Death in the Family	4	2.035	0.729
Long illness in Family	1	0.187	0.66
Domestic violence	1	0.233	0.63
Source of social Support (husband, mother-in-law, bothers/sisters-in-laws or biological parents)	4	21.490	0.000

However after collapsing the variable categories, the baby's health, outcome of the pregnancy, number of people living in the same house and mother's occupation became significant in predicting depression (See the table 2 below)

Table 2 showing some significant variables {collapsed categories} & corresponding mean EPDS scores

Variable	Category	No	Mean EPDS score	SD	χ^2	Df	P value
Relationship With cousins Brother-in Law	Good	200	9.51	4.64	19.63	1	0.000
	Poor	49	13.31	4.64			
Relation-Ship with Mother In-law	Good	149	9.06	4.87	2.88	1	0.08
	Poor	100	11.13	4.76			
Marital Status	Married	224	9.90	4.72	10.99	1	0.001
	Unmarried	25	13.40	5.13			
Age	Below 18	201	10.28	5.02	0.76	2	0.683
	Above 18	47	10.19	4.24			
Out come Of pregnancy	Spontaneous Delivery	79	11.11	5.01	6.37	1	0.01
	Assisted Delivery	170	9.85	4.76			
Mothers' Occupation	House wife	213	10	4.73	3.6	1	0.058
	Other occupa.	36	11.72	5.44			
Baby's health Status	Healthy	224	10.15	4.85	5.75	1	0.016
	Unhealthy	5	15.40	2.61			
No of People Living in The house	1-5	164	9.95	4.54	3.77	1	0.052
	6 and above	83	10.85	5.43			
Domestic Violence	No	133	10.02	4.62	0.70	2	0.704
	Yes	102	9.84	4.95			
Past Psych Illness	No	213	10.08	4.83	2.27	1	0.13
	Yes	36	11.31	5.41			

Discussion

EPDS scores distribution and prevalence of depression

The findings of this study, which shows seventy-seven (30.8%) of the women scoring 13 and above on EPDS and a postnatal depression prevalence of 12.4% endorse the concerns that have been expressed recently about high prevalence of postnatal depression in developing countries and need to develop cost effective interventions to address the problem (Blue & Harpham, 1998}. This higher prevalence would be as a result of much social-economic diversity in the northern part of Malawi, a paternal society.

The results in this study shows that the prevalence of postnatal depression at 6-8 weeks postpartum falls within the average range of 10-15% found in Britain by Cox et al (1987), but much less than 34.7% in Khayelisya findings in Republic of South Africa (Cooper et al 1999). The variation could also be as a result of social cultural differences of the three countries

Social Demographic factors

Marital status; relation with next of kin (sisters and brothers in-law mother in-law); and support from husband were predictive of post-natal depression. This correlates with findings by recent studies by Cooper et al, (1999) and Chadron et al (2002). There is evidence for strong relationship between these factors and post natal depression because of differences in interpersonal relationships between the woman's own mother, her spouse, the new family friends, inadequate emotional and material support from spouse (O'Hara et al 1995 O'Hara 1996). Further to that, this sample comes from a culture predominantly paternal where a woman follows the husband she marries. This implies that she has to drop her biological family to go and settle with a family of creation. She

will need to create new ties with the new family members. The quality of relationship she gets from mother-in-law and brother and sister-in-law is very important. This is coupled with the fact that most women are housewives and not employed as a result, husband is also the only hope for a woman in as far as material and emotional support is concerned. On the other hand, there is no relationship between maternal age, occupation and postnatal depression. Age may not be related to occurrence of depression in this sample because there was too few women in the under age {3 cases} and last over forty {1case} categories which had an expected count of 5. Further to this there were no differences on average mean EPDS scores in the collapsed categories of age {10.28 and 10.19}Refer Table 2.

Gender imbalances in employment opportunities, as is the case in many African countries, coupled with higher illiteracy rates among the women may have contributed to the insignificance of occupation and educational history in predicting postnatal depression.

There was no evidence, however to suggest any association between violence, towards women and postnatal depression. The mean EPDS score for the women who indicated violence from their husbands was smaller {mean=9.84 & s.d.=4.95} than those who did not {mean=10.02 & s.d.=4.62}. This may be due to the fact that violence in this society is rarely perceived as abnormal. It is believed that when a man beats a wife, then that man cares for his wife and is a sign of love. Further more women in this society will be hesitant to disclose domestic problem because they are expected to respect secretes of their homes. It is likely that violence was underreported. In a similar observation, Chandra et al (2002) also reports of the defensiveness of Indian women about reporting anything bad about their husbands.

Social support factors

The support from the husband and other source of support were significant in this study. This also endorses the fact that the social economic support from the husbands is crucial since the women leave their families of and only rely on the husband for support. To add on that, the association between relationship with next of kin and support from husband

in a culture where a woman follows the husband after marriage may suggest the difficulty a mother may have in adjusting to the new family. This may however, pick up if they get other sources of support. This significance may also be comparable with what other studies in India have also suggested that poor relationship with in-laws and lack of physical support is predictive of postnatal depression (Chandran et al 2002). Cooper et al (1999) also report of the significance of social support and support from husband as a predicting factor for postnatal depression. The similarity in these findings may be due to similarities in the culture.

Obstetric factors

All obstetric factors like pregnancy acceptance, parity, place of delivery, complication of delivery, past psychiatric history and outcome of pregnancy were all not associated with occurrence of depression.

Past psychiatric history was not suggestive of postnatal depression. This agrees with what Chandran et al 2002 state that history may only increase the risk of depression in general but that is not necessary for postnatal depression to occur. They further found that none of the women with depression had a history of mental illness and that only birth weight of the baby was the only suggestive factor for depression. Looking at delivery place and complication, the disassociation with depression may be due to the fact that women in this society are cautioned to be resolute during delivery no matter what pains may be there and the fact that our maternity services are yet to develop to the fullest.

Parity had no significant effect, as this culture believes the more children one has the richer he or she is and that the society has extended type of families.

However after collapsing the variable categories, the baby's health, outcome of the pregnancy, number of people living in the same house and mother's occupation became significant in predicting depression. This could be as a result of increments of number of cases in each cell of the cross tabulations. (See the table 2).

The other observation is that the mean for categories in maternal occupation was lower for housewives {mean=10 & s.d.=4.73}, either because they had sufficient time to take care of their children, unlike the others with other occupations {mean=11.72 & s.d.=5.44}. The reason could be that, since women in this culture are the main carer of the home, house wives have more time to look after the home only. While women with other occupation have double responsibility of looking after their job and their homes, therefore may have more stress

Finally, this study's reliability and validity could be ascertained by the fact that the assessment tool {EPDS} has been validated as an appropriate instrument to be used for screening in Malawi Chilale and Tugumisirize (2003). However, lack of randomization and the size of the sample may limit the generalization of the findings to the whole Malawian population.

Conclusion

There is high but unrecognized burden of postnatal depression among mothers in the Northern Malawi. Marital status, relationship with next of kin and support from the husband are predictive of postnatal depression. However, violence and economic status were found to be non predictive of postnatal depression. This may mean that women underreported domestic problems they encounter.

Recommendation

It is important for the public to be aware of the magnitude of postnatal depression. This would create awareness among people about depression and alert health workers to take their time to recognize depression when dealing with postnatal mothers. Chandran et. al (2002) also suggests that legislative and education efforts and some cultural beliefs need to be supplemented by improvement in the perceived worth in women, such as higher literacy, equal employment opportunities and economic reforms favoring women, if

significant changes in gender-related biases are to occur. Therefore, our politicians and social-economic draftsmen need to consider women in developmental efforts

It is also important to replicate this study in others areas in Malawi to ensure generalization of the findings to the whole Malawian population.

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