Regional distribution of postpartum depressive symptoms in Italy

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INTRODUCTION

Motherhood is one of the most critical period in women life; during the postpartum period, up to 85% of women experience some type of mood disturbance. For most women, symptoms are transient and relatively mild (ie, Baby Blues – BB); however, some women experience a more disabling and persistent form of depression. BB may begin during the first week after birth, last a few days and disappears without any medical treatment. Post partum depression (PPD) occurs in 10-15% of women of the general population. PPD is more persistent and debilitating than BB; it often interferes with the mother's ability to care for herself or her child. Depressive disorders in the perinatal period occur in women of all cultural and ethnic backgrounds and represent a considerable public health problem. Risk factors include: past personal or family history of depression, single marital status, poor health functioning, parity, social isolation, low income and low level of education, geographical area of residence.

OBJECTIVES

The aim of our study is to analyze the prevalence of post-partum disorders in Italy according to the regional distribution.

Regional distribution of Postnatal depression in a sample of 5,812 Italian women

Regions	%*	OR**	P	IC (95%)
Piemonte (n=81)	**24,92**	**1.45**	**0.052**	**0.99 – 2.11**
Val d'Aosta (n=20)	24,1	1.57	0.125	0.88 – 2.82
Lombardia (n=133)	22,28	1.27	0.165	0.90 – 1.78
Bolzano (n=28)	21,37	1.33	0.268	0.80 – 2.21
Trento (n=30)	23,69	1.38	0.202	0.83 – 2.29
Veneto (n=136)	**30,22**	**1.81**	**0.001**	**1.28 – 2.56**
Friuli Venezia Giulia (n=25)	17,86	0.89	0.690	0.53 – 1.51
Liguria (n=31)	23,66	1,44	0.142	0.88 – 2.37
Emilia Romagna (n=109)	**28,68**	**1.83**	**0.001**	**1.28 - 2.62**
Toscana (n=94)	**31,23**	**1.94**	**<0.001**	**1.34 – 2.82**
Umbria (n=49)	**40,16**	**3.22**	**<0.001**	**2.03 – 5.11**
Marche (n=84)	**40,58**	**3.12**	**<0.001**	**2.10 – 4.62**
Lazio (n=95)	**26,39**	**1.54**	**0.020**	**1.07 – 2.21**
Abruzzo (n=37)	19,17	1.11	0.627	0.71 – 1.76
Molise(n=27)	24,77	1.53	0.107	0.91 – 2.57
Campania (n=116)	18,99	1.14	0.439	0.81 – 1.60
Puglia (n=80)	17,06	0.98	0.943	0.68 – 1.42
Basilicata (n=29)	17,9	1.00	0.972	0.61 – 1.64
Calabria (n=56)	19,24	1.12	0.557	0.75 – 1.68
Sicilia (n=64)	16,28	1	-	-
Sardegna (n=41)	17,83	1.01	0.963	0.65 – 1.56

* Crude regional rates
**The ORs in the table are adjusted for following variables: type of delivery, housing conditions, post-partum health related problems, having attended pre-partum training.

Logistic Regression model for estimate of predictors of post partum depressive disorders in a sample of 5,812 Italian women

		OR[A]	IC (95% CI)	p
Age of delivery [B]	20 – 34 years	1[C]		
	>19 years	0.53	(0.28 – 0.97)	0.04
	35 years >	1.15	(0.98 – 1.35)	0.07
Having attended pre-partum training	Yes	1.30	(1.12 – 1.51)	<0.001
Postpartum health-related problems	Yes	1.97	(1.73 – 2.24)	<0.001
Geographical area	South	1[C]		
	North	1.35	(1.16 – 1.57)	<0.001
	Central	1.89	(1.58 – 2.26)	<0.001
Education [D]	High	1[C]		
	Low	0.89	(0.78 – 1.02)	0.118
Housing conditions	High costs	1.23	(1.08 – 1.40)	0.001
	Mould presence	1.47	(1.24 – 1.74)	<0.001
Smoking before pregnancy	Yes	1.28	(1.11 – 1.48)	0.001

OR = Odds Ratio; CI = Confidence Interval. A Odd ratios refer to the risk of teenage pregnancy according to each variable. B Odds ratios for age refers to the effect of an additional year of age. C Reference category. D Educational level was categorized as follows: Low (no title, elementary degree, intermediate degree) High (high school, bachelor of higher).

METHODOLOGY

We analysed cross-sectional data from the survey "Health and use of health care in Italy". The survey, carried out on a 5-year basis by the Italian National Institute of Statistics (Istat) aims at investigating on a variety of aspects concerning the health of the population. The last edition of this survey, carried out between December 2004 and September 2005, gathered data on 50474 families and 128040 individuals. This study focused on 5812 women who have been pregnant during the 5 years before the survey. Socio-demographic characteristics were available for each participant: age; area of residence, self-reported household wealth, level of education and housing tenure. In addition, the survey investigated also on the exposition on unhealthy lifestyles, such as smoking.

RESULTS

23.49% of the interviewed women had post partum depressive disorders, in particular, 20.65% had a BB and 2.84% a PPD. The logistic regression analysis highlights as risk factors: having attended a pre-partum training (OR = 1.30; p<0.001), postpartum health-related problems (OR=1.97; p<0.001), housing problems such as mould presence (OR=1.47; p<0.001), smoking before pregnancy (OR=1.28; p=0.001) and living in North (OR=1.35; p<0.001) or Central Italy (OR=1.89; p<0.001). When analyzing the incidence of postpartum depressive disorders region by region, the most affected ones were: Piemonte (OR = 1.45; p = 0.052), Veneto (OR = 1.81; p = 0.001), Emilia Romagna (OR = 1.83; p = 0.001) and all regions of Central Italy: Marche (OR = 3.12; p <0.001), Tuscany (OR = 1.94; p <0.001), Umbria (OR = 3.22; p <0.001) , Lazio (OR = 1.54; p = 0.02). Compared to these regions the South and the Islands have recorded lower values.

CONCLUSIONS

The postpartum depressive disorders can be related to a wide range of different risk factors. Our study points out how this syndrome is more important in Northern and Central Italy; these areas are characterized by higher income levels and a more efficient supply of health care than the Southern regions and the Islands. The data suggest the need to carry out more specific studies to better understand the role of health services development, and economic or social deprivation in determining post partum depressive disorders.

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