Perinatal mental health care in the Italian Mental Health Departments: a national survey

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Abstract

Background Evidence on the negative outcomes of untreated mental disorders during pregnancy and in the first year after childbirth on women and children's health has stimulated interest in how to develop and sustain high-quality mental health care during the perinatal period. In Italy, there is a lack of knowledge about how mental health services support women with perinatal mental disorders (PMDs). This study aims to describe the adoption of good practices for the prevention and care of PMDs by the Italian Mental Health Departments (MHDs).

Methods This is a nationwide cross-sectional survey conducted online using LimeSurvey. Starting from the Ministry of Health Registry 127 MHDs were invited to participate between February and March 2023. Characteristics of the participating MHDs were reported as descriptive statistics.

Results One hundred and nineteen MHDs participated, with a response rate of 93.7%. Regarding the prevention of PMDs, 69 (58.0%) MHDs offer preconception counselling, whereas only 6 (5.0%) have information material for this purpose. Written integrated care pathways for PMDs are not available in 94 (79.7%) MHDs. A reference professional for psychopharmacological treatment during pregnancy or breastfeeding is available in 55 (46.2%) MHDs while a specific treatment plan for women with PMDs is adopted by 27 (22.7%) MHDs. Thirty-four (28.6%) MHDs have established an outpatient clinic for PMDs, whereas there are no inpatient psychiatric facilities designed for mothers and infants (Mother-baby Units).

Conclusions There is a need to improve the care of women with PMDs in Italy. The provision of pre-conception counselling, integrated care pathways and specialist skills and facilities for PMDs should be prioritised.

Keywords: Pregnancy, postnatal care, perinatal mental disorders, mental health services, health care surveys

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Introduction

Increasing evidence on the adverse outcomes of untreated mental disorders during pregnancy and in the first year after childbirth on the health of the woman, the child and their associated lifetime costs has fostered a growing interest in how to develop and sustain high-quality mental health care for women during the perinatal period [1,2].

Evidence-based perinatal mental health care

The World Health Organization recommends a stepped care model for integrated perinatal mental health (PMH) care, which focuses on maternal and child health (MCH) services as a unique opportunity to offer mental health support to all women during the perinatal period [3]. According to this model, MCH services play a key role in the promotion of women's mental health, the early recognition of risk factors or symptoms of mental health conditions and the treatment of mild to moderate perinatal mental disorders (PMDs). Mental health services, on the other hand, are responsible for the treatment of PMDs with moderate to severe symptoms.

Some countries have introduced PMH services that provide care for women with severe mental disorders and complex needs during pregnancy and in the first postnatal year [1,4]. In the UK, PMH services follow the recommendations and quality standards on the clinical management and service provision for antenatal and postnatal mental health published by the National Institute for Health and Care Excellence's (NICE) [5,6], which take into account the specificities of both the disorders and the life stage of the woman (BOX 1). These include the risks associated with psychopharmacological treatment during pregnancy or breastfeeding, the need for providing timely recognition of PMH problems, prompt access to treatment and coordinated management, the increased risk for severe episodes with abrupt onset after childbirth, and the provision of inpatients psychiatric facilities specifically designed for mothers and babies (Mother-baby Units, MBUs). The regional availability of community PMH teams has recently been shown to reduce the risk of a psychiatric hospital admission in the first year after giving birth in the UK [19].

Maternal mental health care in Italy

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Italy has approximately 59 million inhabitants and registered 393,000 live births in 2022 [20]. Since 1978, the Italian National Health Service (Servizio Sanitario Nazionale, SSN) ensures universal access to healthcare. The central government establishes the national core benefits package and allocates funding for regional health systems. The 19 Italian Regions and 2 Autonomous Provinces manage financing, planning and service delivery at the local level, operating through a network of approximately 100 Local Health Authorities [21]. There are considerable regional differences in the provision of health services within the country [22].

The mental health service is based on a nationwide network of Mental Health Departments (MHDs) delivering outpatient and inpatient psychiatric care, running semi-residential and residential facilities, and having small acute psychiatric units in general hospitals [23]. Italy does not have a specialist PMH service, therefore the responsibility for providing psychiatric care for women of childbearing age falls on the MHDs [24]. The Family Care Centres (FCCs), which are part of the SSN's community services, offer free assistance to women during pregnancy and in the postnatal period, and are responsible for early recognition of perinatal psychological distress (24). A national guideline on PMH care is not available. According to current findings, the prevalence of PMDs in Italy is comparable to that in other European countries [25,26,27]. Therefore, drawing on international evidence [28,29,30,31,32], it is expected that 2 out of 1,000 women giving birth in Italy will require psychiatric hospitalisation and specialist community follow-up for postpartum psychosis or other severe mental disorders, 3% will experience major depressive illness requiring secondary psychiatric services, and 10-15% will suffer from mild or moderate postnatal depression, mostly managed in primary care.

While the activities of the Italian maternal health community services (i.e, FCCs) in promoting PMH have previously been explored at the national level [33], most studies focusing on the psychiatric management of PMDs have been carried out at the local level [24]. Therefore, knowledge of how the national mental health service support women during the perinatal period is currently lacking. The present study aims to provide the first comprehensive description of the management of PMDs by the national MHDs to identify key areas for improving the quality of PMH care in Italy.

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Methods

Design

A nationwide cross-sectional survey on good practices for the prevention and care of PMDs, as defined by NICE recommendations and quality standards on organisational quality of care for PMH [5,6], was coordinated by the Italian National Institute of Health (Istituto Superiore di Sanità, ISS).

To this purpose, in November-December 2022, the authors (covering expertise in mental health, public health, epidemiology, statistics and obstetrics), with additional input from a multidisciplinary group of experts, developed an ad hoc questionnaire to be addressed to the Directors of MHDs, identified as key figures to provide comprehensive information on the clinical practices and protocols implemented in their Departments.

The questionnaire investigates the following issues:

- the provision of pre-conception counselling to women of childbearing potential with a mental health problem;
- the provision of assessment for treatment within 2 weeks of referral to women in the perinatal period;
- the availability of specialist expertise in and of settings dedicated to PMH;
- the provision of tools supporting coordinated care, such as specific integrated care plans for women with mental health problems in pregnancy and the postnatal period setting out the care and treatment for the mental health problem and the roles of all healthcare professionals involved. The availability of written integrated care pathways (*PDTA, in Italian*) for the management of PMDs, training provided on PMH and participation in research projects in the field were also explored.

Participants

Starting from the Registry of MHDs published by the Ministry of Health for the Annual Mental Health Report [34], a total of 127 MHDs were identified across the 19 Italian Regions and the 2 Autonomous Provinces,

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belonging respectively to North-West (Piedmont, Liguria, Lombardy and Valle d'Aosta;) North-East (Emilia-Romagna, Friuli Venezia Giulia, Autonomous Provinces of Bolzano and Trento), Centre (Lazio, Marche, Tuscany and Umbria), South and Insular (Abruzzi, Molise, Campania, Puglia, Basilicata, and Calabria and an insular subregion composed of Sicily and Sardinia) Italy.

Procedure

The Directors of the MHDs were informed about the study contents and aims in January 2023. Moreover, with the support of the Ministry of Health, the regional officers for the Annual Mental Health Report were made aware of the initiative and invited to promote the participation of local MHDs.

The survey was conducted online with LimeSurvey [35] and included three main sections (preconception period; pregnancy and postnatal period; training and research activities on PMH). It consisted of 39 sub-questions in total, partly only conditionally displayed based on previous responses with single-, multiple-choice and open-ended question formats. A pre-test of the survey was conducted in a MHD, which resulted in minor revision only.

The link to the questionnaire was sent by e-mail to the contact person (MHD Director or other MHD health professional appointed by the latter) together with a unique and anonymous access code to log-in.

Weekly reminders via phone and e-mail were implemented to increase participation.

The survey took place in February-March 2023.

Analysis

Categorical variables were described as number and percentage, and continuous variable as mean and standard deviation (SD) and median and Interquartile Range (IQR).

MHDs's characteristics were compared by geographic area (North-West, North-East, Center, South and Insular) using Pearson χ^2 or Fisher's exact test, for categorical data and Kruskal Wallis test for continuous data.

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Statistical analyses were performed using Stata software, release 17 (StataCorp LLC, College Station, TX, USA)

Ethical approval

A formal approval of the study by the Institutional Review Board was not requested, being it not compulsory for descriptive, non-experimental research. However, being the ethics a tenet for the research group, study procedures were designed to fully comply with the international guidelines for the ethical conduct of research with human beings (Helsinki Declaration) [36] and with the legal norms for personal data protection (Reg EU 2016/679; Italian Legislative decree 196/2003). Only contact information publicly available were used to send information, aims and objectives of the online survey. Informed consent was provided by participants as they opt to respond to the questionnaire and send the form back via the online system.

Financial Support

The Italian Ministry of Health funded this study under the 2019 programme of the National Centre for Disease Prevention and Control (CCM), (grant number Fasc. 4S59). The funder had no role in study design, data collection, data analysis, data interpretation, or writing of the report.

Results

All 127 Italian MHDs were invited to join the survey and 119 participated. The questionnaire was answered by the Director in 63.9% and by an appointed health professional in 36.1% of the MHDs, respectively. The overall response rate to the survey was 93.7%, ranging from 97.8% in the North-West to 86.5% in the South and Insular Italian Regions (Table 1).

Pre-conception counselling

Pre-conception counselling to women with a diagnosed mental disorder is offered by 69 MHDs (58.0%) while information material to this purpose is available in 6 (5.0%) MHDs (including one among those not providing preconception counselling). Overall, 15 (12.6%) MHDs have identified a shared reference document to guide

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the prescription of psychotropic drugs to women of reproductive age (none of the South and Insular MHDs) (Table 2a).

Care pathways

As shown in Table 2b, the large majority of the MHDs (N=102; 85.7%, with higher percentages in the North and Center) provide a dedicated referral pathway for women with mental disorders in pregnancy and the postnatal period. In 46.6% of them (N=48 out of 103) the referral pathway is based exclusively on an informal communication network among health professionals. Consistently, 79.7% (N=94) of the Italian MHDs do not rely on written integrated care pathways (*PDTA*) for the management of PMDs (from 63.6% in the North-East to 100% in the South and Insular MHDs). Overall, in 74 (62.2%) MHDs, a woman referred with a known or suspected PMH problem is assessed within 2 weeks. In 44 (37.0%) MHDs, the timing of access depends on the clinical condition, with the perinatal period itself not being a reason for priority assessment.
In about one quarter of national MHDs (N=31; 26.1%) psychiatrists provide on-site PMH assessment at FCCs level upon request, with lower percentage in the North-West.

Dedicated setting, tools and expertise

An outpatient clinic for women with mental health needs during pregnancy or in the first postnatal year is available in 34 (28.6%) MHDs. These facilities, equipped only with a psychiatrist and/or psychologist in 18 of the 34 (52.9%) MHDs, are most often located in hospitals (N=18) and are most frequently provided by North-Western MHDs. Only one MHD placed this service in a FCC.

Almost all MHDs (N=113; 95.0%) officially include postpartum psychosis among the most severe mental disorders requiring urgent integrated care between primary care and mental health service, and an individual treatment plan. However, only 6.7% (N=8) of the national MHDs are able to provide admission for psychiatric causes of a woman with her baby up to 12 months of age, with none having an active MBU for acute hospitalisation at the time of the survey.

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A specific and integrated treatment plan for women with PMDs is adopted by less than a quarter of the national MHDs (N=27;22.7%), with the percentage decreasing to 10.5% in the Centre and to zero in the South and Insular MHDs. Where adopted, the majority (18 out of the 27;66.7%) of the treatment plans reports the care and treatment of the mental health problem, roughly half (13 out of the 27;48.2%) details the professionals responsible for coordinating care, providing interventions and agreeing on outcomes with the woman, while about one third (9 out of the 27;33.3%) indicate the professional responsible for the monitoring schedule.

A reference team or professional for psychopharmacological prescription during pregnancy or breastfeeding is available in 55 (46.2%) MHDs, either as an internal resource or through a written protocol with specialist reference centres, with geographical differences.

The results described above are detailed in Table 2b.

Training and research projects on PMH

Each MHD offered in average 1.6 multidisciplinary continuing medical education courses on PMH in the last five years, with decreasing value moving from northern to southern Italian Regions (Table 2c). At the same time interval, 24 MHDs (20.5%) participated to at least one research project on PMH with a written protocol. Most of these projects were conducted in collaboration with local Universities (25.0%), the ISS (20.0%), as part of regional projects (35.0%), with the Ministry of Health (10%), the Italian Medicines Agency (5.0%) and by the MHD itself (10.0%). The projects focused mostly on recognition (36.8%), treatment (15.8%), implementation of integrated care pathways (31.6%) for PMDs, and on the impact of stressful experiences on PMH (21.1%).

Discussion

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This is the first study providing insights into the availability of evidence-based good practice for PMH care within the Italian mental health service. Overall, the survey highlighted the need to improve the care provided by Italian MHDs to women with mental disorders in the reproductive age, during pregnancy and in the postnatal period, by adapting the organization and clinical practices to the specific needs of this population.

Firstly, while information on the effects of pregnancy on the mental disorder and on how PMDs may affect child health and parenting should be actively provided to all women of childbearing age with a severe mental disorder [5,6], less than 60% of Italian MHDs offer this opportunity, and very few are equipped with information material for this purpose. Differently, a PMH pathway on preconception counselling has been implemented in the UK [37], where targeted and updated information material for professionals, women, and their families are widely available [38]. Additionally, the survey showed that resources for women at risk or with PMDs, such as dedicated referral pathways or timely specialist assessments, are mainly provided on an informal basis. Almost 80% of MHDs lacks a written integrated care pathways *(PDTA)* for the management of PMDs. Likewise, specific integrated care plans for the individual clinical needs of women with PMDs are poorly implemented.

These findings should make clinicians and policy makers in Italy aware of the urgent need to adopt policies that clearly define responsibilities and roles, thus aligning with international recommendations for continuity of care and effective communication between mental health and maternity services [5,6]. The Italian Obstetric Surveillance System estimated a maternal suicide ratio of 2.30 per 100,000 live births in 2006-2012, similar to the maternal mortality ratio due to obstetric haemorrhage, the leading cause of maternal death in Italy. Among women who died by maternal suicide, more than half (34/57) did not have access to a mental health service before taking their own lives, despite being at high risk of self-harm [26]. Similar findings were found in the UK [39] and Sweden [40] in the first decade of the 2000s, suggesting that frequent contact with health professionals might not be sufficient to identify PMDs and engage women in appropriate mental health interventions if an integrated care pathway is not in place.

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The UK has been a leader in developing evidence on the huge burden of maternal mental disorders across generations, resulting in a commitment to increase access to specialist care for women with PMDs in the last 15 years [41,42]. This required targeted funding for training mental health, maternity, and primary care staff to improve skills in PMH, achievement of a comprehensive geographic coverage of community-based specialist community PMH service, and expansion of MBUs [42,43]. Concerning inpatient treatment, the Italian mental health service lacks MBUs and is therefore unable to provide inpatient treatment to women requiring psychiatric acute admission in the first postnatal year without forcing them to be separated from their child. Notably, despite not achieving national coverage, other European countries have established MBUs, including France, Belgium, the Netherlands, Luxembourg, Germany, and recently Spain [44,4,45]. As for community treatment, we found that less than half of the Italian MHDs make available specialist expertise on psychopharmacological prescription during pregnancy or breastfeeding. Moreover, only 30% of national MHDs have established a PMH outpatient clinic, and only one in four provides on-site psychiatric assessment for FCCs users during pregnancy or in the postnatal period. Within the country, the study highlighted an alarming geographical disparity in the availability of community options for PMH, disadvantaging MHDs in the southern and island Italian Regions.

It has been authoritatively pointed out that when a mother experiences a PMD the whole family is affected, thus requiring services trained to “think family” [1]. Specialised services aiming to support recovery must therefore considering the patient as a mother in connection with her child as well as other family members [37]. Adhering to these principles calls for a multidisciplinary team. Accordingly, specialist community PMH service in the UK include consultant perinatal psychiatrists, nurses, psychologists, psychological therapists, nursery nurses and social workers [37]. The personnel resources gap in Italian PMH clinics, which, as emerged from our survey, are usually staffed by no more than one psychiatrist and/or one psychologist, is substantial.

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The Italian delay in addressing PMH is in contrast with the Italian pioneering role in deinstitutionalizing mental health and placing persons with mental disorders at the heart of the care and rehabilitation process, supporting them in asserting their rights, engaging in social contracts, and attaining empowerment in multiple forms [46]. Some factors may explain this scenario. First, the interest in PMH is relatively new in Italy [24], as suggested by the limited participation of MHDs in research projects in the field, involving only one out of five MHDs, according to our findings. A second element is the progressive shortening of resources burdening Italian MDHs over the last 20 years, as documented by studies and public debate [46,47], which has probably prevented the development of specialist skills and settings for PMH. More broadly, the emphasis on improving maternal health, a key concern of the Sustainable Development Goals and Global Strategy for Women's, Children's and Adolescents' Health, has focused internationally on physical health neglecting PMH [41].

By concerting the efforts of clinicians, the campaigning of charities and the non-profit sector as well as the firm political will to fund women's and children's health in the first 1,000 days of life, the UK has achieved the national coverage of a specialist PMH service. This successful experience should guide future Italian steps and those of other European countries. The implementation of such services requires collaborative and integrated care models, specific to each country's system strengths and capacities, while addressing barriers and weaknesses to ensure inclusive access to services. In Italy, this entails involving the FCCs and relying on their cultural and expertise developed over more than 50 years of activity in protecting the emotional and relational health of women and families, as well as funding and supporting MHDs in developing skills, pathways and facilities dedicated to PMDs.

This study has some strengths and limitations. The high response rate to the survey, in addition to providing a representative picture of the national context, suggest an interest in the topic among MHD health professionals. These are valuable elements to begin to take action in the key areas of improvement identified. However, our findings focused on the organisation and PMH care practice within national MHDs from the perspective of healthcare professionals, without involving users. Therefore, our survey does not provide information on the characteristics, treatments and outcomes of women leaving in Italy with a PMD. The

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Italian network on PMH recently established at the ISS will aim to bridge this gap in the forthcoming years (48). Secondly, good practices were defined with reference to a NICE guideline [5]. Although evidence supporting these recommendations holds universal value, an evidence-based guideline on PMDs adapted to the Italian context, once available, would allow a more appropriate assessment. Lastly, our survey took only into account care provided by the MHDs of the Italian NHS. For that reason, our results do not cover perinatal resources available at FCCs or within private or university health facilities, unless these are linked to the public mental health service through care pathways or written protocols.

In conclusion, our study highlights the need to improve mental health care for women suffering from mental disorders during pregnancy and in the postnatal period in Italy. Key actions include strengthening of specialist skills in PMH, developing care model and pathways specific to the Italian health service, and prioritizing pre-conception mental health counselling for women of reproductive age. In the Basaglia's centenary year, mental health professionals are called upon to recognise pregnancy planning and the right to a family as part of recovery. At the same time, policymakers should recognise the pivotal need of funding mental health services to deliver appropriate PMH care. This not only addresses the individual well-being of women with PMDs but also contributes significantly to shaping their trajectories as potential future parents, thus promoting the health of at least two generations. Mothers with PMDs, their children, their families should not be left behind any longer.

Competing interest

Authors have no competing interest to disclose for the present study.

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Table 1. Survey response rate

	Number of MHDs			
	Eligible	Contacted	Participants	Response Rate
	N.	N.	N.	%
Italy	**127**	**127**	**119**	**93.7**
North-West[a]	46	46	45	97.8
North-East[b]	24	24	23	95.8
Centre[c]	20	20	19	95.0
South and Insular[d]	37	37	32	86.5

a: North-West: Piedmont, Liguria, Lombardy and Valle d'Aosta;
b: North-East: Emilia-Romagna, Friuli Venezia Giulia, Autonomous Provinces of Bolzano and Trento
c: Centre: Lazio, Marche, Tuscany and Umbria
d: South and Insular: Abruzzo, Molise, Campania, Apulia, Basilicata, and Calabria and an insular subregion of Sicily and Sardinia

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Table 2a. Characteristics of MHDs participating in the study according to the management of mental disorders in women planning their pregnancy or in the reproductive age

	All	by geographic area				
	Italy	North-West	North-East	Center	South and Insular	
Characteristics, N. (%)	(N=119)	(N=45)	(N=23)	(N=19)	(N=32)	*P*value[a]
pre-conception counselling						
No	48 (40.3)	20 (44.4)	7 (30.4)	7 (36.8)	14 (43.8)	
Yes	69 (58.0)	24 (53.3)	16 (69.6)	12 (63.2)	17 (53.1)	
Other[b]	2 (1.7)	1 (2.2)	0 (-)	0 (-)	1 (3.1)	0.845
availability of information material on pre-conception counselling						
No	113 (95.0)	42 (93.3)	22 (95.7)	17 (89.5)	32 (100)	
Yes	6 (5.0)	3 (6.7)	1 (4.4)	2 (10.5)	0 (-)	0.269
availability of a reference document for psychopharmacological prescription to women of reproductive age						
No	104 (87.4)	38 (84.4)	19 (82.6)	15 (79.0)	32 (100)	
Yes	15 (12.6)	7 (15.6)	4 (17.4)	4 (21.1)	0 (-)	0.029

a: Fisher's exact test

b: only for minors (N=1); if necessary, the woman is referred to the local Family Care Centres (N=1)

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Table 2b. Characteristics of MHDs participating in the study according to the management of mental disorders in women in the perinatal period

Characteristics, N. (%)	All Italy (N=119)	by geographic area North-West (N=45)	North-East (N=23)	Center (N=19)	South and Insular (N=32)	*P*value[a]
		Care pathways				
availability of a referral pathway for women with PMDs						
No	17 (14.3)	2 (4.4)	2 (8.7)	1 (5.3)	12 (37.5)	
Yes, based on protocols with maternities and/or FCCs	48 (40.3)	22 (48.9)	12 (52.2)	12 (63.2)	2 (6.3)	
Yes, through a phone line dedicated to GPs	6 (5.0)	0 (-)	3 (13.0)	1 (5.3)	2 (6.3)	
Yes, only through informal communication network	48 (40.3)	21 (46.7)	6 (26.1)	5 (26.3)	16 (50.0)	<0.0001
availability of written integrated care pathways (*PDTA*) for PMDs						
No	94 (79.7)	33 (73.3)	14 (63.6)	15 (79.0)	32 (100)	
Yes	21 (17.8)	12 (26.7)	5 (22.7)	4 (21.1)	0 (-)	
Other[b]	3 (2.5)	0 (-)	3 (13.6)	0 (-)	0 (-)	<0.0001
timing for assessment of known or suspected PMD						
Within two weeks	74 (62.2)	31 (68.9)	16 (69.6)	12 (63.2)	15 (46.9)	
Within one month	1 (0.8)	0 (-)	0 (-)	1 (5.3)	0 (-)	
Depending of the clinical conditions	44 (37.0)	14 (31.1)	7 (30.4)	6 (31.6)	17 (53.1)	0.140
on-site psychiatric assessment at FCCs level upon request						
No	88 (74.0)	39 (86.7)	12 (52.2)	12 (63.2)	25 (78.1)	
Yes	31 (26.1)	6 (13.3)	11 (47.8)	7 (36.8)	7 (21.9)	0.012
		Dedicated setting, tools and expertise				
availability of an outpatient clinic dedicated to perinatal mental health						
No	85 (71.4)	23 (51.1)	16 (69.6)	15 (79.0)	31 (96.9)	
Yes	34 (28.6)	22 (48.9)	7 (30.4)	4 (21.1)	1 (3.1)	<0.0001
inclusion of postpartum psychosis among severe mental disorders requiring urgent integrated care						
No	6 (5.0)	1 (2.2)	1 (4.4)	1 (5.3)	3 (9.4)	
Yes	113 (95.0)	44 (97.8)	22 (95.7)	18 (94.7)	29 (90.6)	0.552
psychiatric admission with the baby up to 12 months for women requiring inpatient treatment						
No	109 (91.6)	41 (91.1)	20 (87.0)	18 (94.7)	30 (93.8)	
Yes, togheter	1 (0.8)	0 (-)	0 (-)	0 (-)	1 (3.1)	
Yes, in different ward	7 (5.9)	4 (8.9)	2 (8.7)	0 (-)	1 (3.1)	
Other[c]	2 (1.7)	0 (-)	1 (4.4)	1 (5.3)	0 (-)	0.341
adoption of specific and integrated treatment plan for women with PMDs						
No	88 (73.9)	27 (60.0)	15 (65.2)	16 (84.2)	30 (93.8)	
Yes	27 (22.7)	17 (37.8)	8 (34.8)	2 (10.5)	0 (-)	
Other[d]	4 (3.4)	1 (2.2)	0 (-)	1 (5.3)	2 (6.3)	<0.0001
availability of reference professionals for psychopharmacotherapy in the perinatal period						
No	64 (53.8)	16 (35.6)	13 (56.5)	7 (36.8)	28 (87.5)	
Yes	55 (46.2)	29 (64.4)	10 (43.5)	12 (63.2)	4 (12.5)	<0.0001

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Abbreviation: PMDs, perinatal mental disorders; FCCs, Family Care Centres; PDTA: Italian abbreviation for written integrated care pathways; GPs, General Practitioners

a: Fisher's exact test

b: other type of protocols

c: in non-acute cases only (N=1); within a clinical project aimed to setting up a MBU (N=1)

d: personalized therapeutic rehabilitation project (N=3); as part of the territory's clinical activity (N=1)

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Table 2c. Characteristics of MHDs participating in the study according to staff training courses and research projects on perinatal mental health in the last five years

	All	by geographic area				
Characteristics, N. (%)	Italy (N=119)	North-West (N=45)	North-East (N=23)	Centre (N=19)	South and Insular (N=32)	*P*value[a]
Number of multidisciplinary continuing medical education courses involving health professionals						
Mean (SD)	1.6 (2.6)	2.4 (3.5)	1.8 (1.8)	1.4 (2.1)	0.3 (0.8)	
Median (IQR)	1 (0-2)	1 (0-3)	1 (1-2)	1 (0-2)	0 (0-0)	<0.001
Participation in research projects with a written protocol						
No	93 (79.5)	33 (73.3)	14 (60.9)	17 (89.5)	29 (96.7)	
Yes	24 (20.5)	12 (26.7)	9 (39.1)	2 (10.5)	1 (3.3)	0.004

Abbreviation: SD, Standard Deviation; IQR, Interquartile Range

a: Mann-Whitney U test

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BOX 1 Distinctive features of mental disorders in the perinatal period and their clinical management

Mental disorders are among the most common morbidities of pregnancy and the postnatal period. One in five women will experience non-psychotic mental disorders during this time [1,7]. Perinatal mental disorders have a direct and immediate impact on the health of the foetus/infant (i.e. increased risk of pre-term birth, hospitalization and infant mortality) [8,9], which makes early identification and treatment of maternal mental disorder necessary.

Women in the perinatal period are less likely to seek help due to the stigma, shame and guilt associated with being mentally unwell, or the fear of losing custody of their children [10,11].

The risk for new and recurrent episodes of mental disorders is high following childbirth, acting as a trigger for severe episodes [1]. The risk is specifically high in women with pre-existing bipolar disorder, about 20% of whom experience a severe postnatal mental illness [12].

Suicide is a leading cause of maternal death in high-income countries [13].

Postpartum psychosis (PP) is a psychiatric emergency characterized by a sudden onset, which in most cases occurs within two weeks of delivery [14,15]. Women with a previous PP are at very high risk for recurrence in a second pregnancy [16]. The risk for PP is very high also among women with bipolar disorder with a family history of bipolar disorder or PP in a first-degree relative [17,18].

Women of childbearing age with a severe mental health problem should receive information periodically about how their mental health problem and its treatment might affect them or their baby if they become pregnant (NICE QS115, QS 2 https://www.nice.org.uk/guidance/qs115/chapter/Quality-statement-2-Preconception-information; last accessed on January 2024).

Pregnant women with a previous severe mental disorder or any current mental health problem should receive information at their booking appointment about how their mental health disorder and its treatment might affect them or their baby (NICE QS115, QS 3 https://www.nice.org.uk/guidance/qs115/chapter/Quality-statement-3-Information-for-pregnant-women; last accessed on January 2024).

A woman with a known or suspected mental health problem referred in pregnancy or the postnatal period should be assessed for treatment within 2 weeks of referral and start psychological intervention within 1 month of initial assessment (NICE CG192, Recommendation 1.7.3; NICEQS115, QS 6 https://www.nice.org.uk/guidance/qs115/chapter/Quality-statement-6-Psychological-interventions; last accessed on January 2024)

Every woman with a mental health disorder in pregnancy and the postnatal period should receive an integrated care plan that sets out the care and treatment for the mental health problem and the roles of all healthcare professionals, including who is responsible for coordinating the plan (NICE CG192, Recommendation 1.3.5)

Perinatal mental health services should provide:
- access to specialist expert advice on the risks and benefits of psychotropic medication during pregnancy and breastfeeding;
- clear referral and management protocols across services to ensure continuity of care;
- care pathways of care for service users.

(NICE CG192, Recommendation 1.10.3)

To enable the psychiatric care of women and promoting parent-infant interactions and child development, women who need inpatient psychiatric care within 12 months of childbirth should be admitted to a facility designed specifically for mothers and babies (Mother-baby Units, MBUs) [4].

The cost of maternal mental disorders is substantial. In the UK, almost three-quarter of this cost related to the long-term impact on children, including special educational needs, depression, anxiety and conduct problems [2].

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