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Risk factors for antenatal depression: A review

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Abstract

Depression is the most prevalent mental disorder in pregnancy, and yet it is less studied than postpartum depression despite the consequences it may have on both the pregnant woman and her offspring. Therefore, it would be important to know which risk factors may favour the appearance of antenatal depression in order to carry out appropriate prevention interventions. The aim of the present review was to identify the main risk factors of antenatal depression. We searched in databases PubMed and PsycINFO for articles published about the factors associated with antenatal depression from January 2010 through December 2020. The literature review identified three main groups of antenatal depression risk factors: sociodemographic, obstetric, and psychological. First, among the sociodemographic variables, the low level of studies and the economic income clearly stood out from the rest. Then, not having planned the pregnancy was the main obstetric variable, and finally, the main psychological risk factors were having a history of psychological disorders and/or depression as well as presenting anxiety, stress, and/or low social support during pregnancy. This review shows that the antenatal depression is affected by multiple factors. Most can be identified at the beginning of the pregnancy, and some are risk factors potentially modifiable through appropriate interventions, such as psychological factors. For this reason, it is important to carry out a good screening for depression during pregnancy and consequently, be able to prevent its appearance or treat it if necessary.

Key Words: Depression; Antenatal; Antenatal depression; Pregnancy; Risk factors; Review

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Core Tip: Depression is the most prevalent mental disorder in pregnancy and is caused by multiple factors. This review article shows that sociodemographic, obstetric, and

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psychological factors are associated with the presence of antenatal depression. Most of them can be identified in early pregnancy. Therefore, a complete medical history along with the routine use of screening instruments to detect the risk profile of these women would allow the prevention and early detection of antenatal depression.

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INTRODUCTION

Traditionally, it was thought that pregnancy protected women against the onset or relapse of a depressive disorder. However, it has been shown that pregnancy does not protect them, and together with postpartum are two periods of great vulnerability for women[1]. Some studies have found that antenatal depression is as frequent, or even more frequent than postpartum depression[2-4]. Still, it is often underdiagnosed and, as a consequence, undertreated[5]. Furthermore, antenatal depression constitutes a major public health problem[6] due to the reasons discussed below.

Despite the fact that many women remain undiagnosed[7], the prevalence of depression during pregnancy is high[8,9] and varies in the different trimesters across studies[8,10,11]. Therefore, diagnosing antenatal depression can be difficult if women are only screened once throughout pregnancy.

Depression during pregnancy has received much less attention than postpartum depression, although in the last decade the study of antenatal depression is becoming more and more prominent. This may be due to either an increase in diagnosed cases of depression in pregnant women or to the acquisition of greater awareness of the consequences of antenatal depression[12] among professionals.

During pregnancy, depression has a negative impact on both the course of pregnancy and on the foetal and neonatal outcome[13-15], with growing research in the field of "foetal programming," triggering interest in the study of depression during pregnancy. According to this theory, the perinatal period is a critical stage where mental health protection efforts should be focused, and prevention models be developed[16]. It is now known that the psychological state of a mother during pregnancy has an important impact on the subsequent development and health of her child[15]. In this regard, the association between maternal stress, depression, or anxiety in pregnancy and an adverse neurodevelopmental outcome of the child is evident[17]. In addition, studies focusing on the perinatal period found that depression during pregnancy is the most important risk factor for postpartum depression[18,19].

Reviews identifying risk factors associated with prenatal depression are scarce and focus on a few risk factors, analyze them separately[20-22], or in a particular country/culture[23]. In light of the foregoing, it would be important to identify the risk factors associated with the presence of antenatal depression from the beginning of pregnancy, as this would allow us to offer more efficient help in accordance with the needs of future mothers, improving their self-perception of well-being. This would also prevent this depressive state from extending to the postpartum period, with the consequences that this would entail for both mothers and their children.

Therefore, the objective of this review is to describe and group the main risk factors found in the studies published in the last 10 years that simultaneously may be associated with the presence of antenatal depression.

LITERATURE REVIEW

A literature search was performed in PsycINFO and PubMed databases, using the search string: "antenatal depression" OR "depression during pregnancy" AND "risk factors" OR "variables associated." The literature search was restricted to studies written in the English language and published from January 2010 to December 2020. Reference lists from retrieved articles were also examined.

INCLUSION AND EXCLUSION CRITERIA

The variables/risk factors associated with antenatal depression were the epidemiological parameters of interest. Studies were included as long as they made use of population-based surveys representative of communities, regions, or countries under study. Non-representative samples (*e.g.*, inpatient groups, minority populations, victims of gender-based violence, immigrants, with presence of concomitant medical conditions, at risk of social exclusion) were excluded as they would probably provide biased estimates of risk factors associated with antenatal depression in the general population. Finally, studies using screening instruments (*e.g.*, Edinburgh Postnatal Depression Scale, Patient Health Questionnaire, Beck Depression Inventory) and structured interviews (*e.g.*, Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders) for diagnosis were included.

RESULTS AND DISCUSSION

Details of results are presented in [Table 1](#). Out of the 466 titles identified on risk factors of antenatal depression, 29 studies met inclusion criteria. The analysis of the literature showed that the factors associated with antenatal depression can be classified into three domains of risk factors: sociodemographic, obstetric, and psychological risk factors. Although some variables are related to lifestyle, such as weight and substance use, they are also mentioned in several studies. In the studies, when information was available, the level of significance of the association (*P* value) and the odds ratio of the predictor variables are shown with the objective of showing the strength of the association between variables.

The variability of risk factors associated with antenatal depression found across studies can be attributed to several reasons. First, different instruments are used for assessing antenatal depression. More specifically, 27 studies assessed antenatal depression with self-reported questionnaires, with the Edinburgh Postnatal Depression Scale being the most commonly used (*n* = 16). However, with different cut-off points across countries, even in studies carried out in the same country[24-26]. Only 2 studies used clinical interviews for diagnosis. In this regard, women may overestimate or underestimate their responses to a self-report questionnaire based on their beliefs, perceptions, culture, and stigmatisation of mental health in their communities[27]. It is also important to consider cultural differences, as they may explain part of the variability of some of the risk factors [for example, the type of public and/or private health care, prenatal health care and the ease of access, the professionals who monitor the pregnancy (*e.g.*, gynaecologists, midwives, nurses), the quality of care available, religious customs, attitudes towards pregnancy and motherhood, gender roles, and/or the role of women in making decisions about her pregnancy][27].

Of the 29 studies included in this review, Arab countries contributed with the largest number of articles (*n* = 8), followed by Europe (*n* = 6), Asia (*n* = 5), Brazil (*n* = 4), Africa (*n* = 3), Australia (*n* = 3), and India (*n* = 1). The samples of these studies were obtained from women who attended their follow-up pregnancy check-ups at their health centres of reference.

Particularly, there are 15 cross-sectional/cohort studies and, hence, evaluated women at any time regardless of their gestational age; 10 studies included women in their third trimester of pregnancy, and 4 studies evaluated women in their first trimester. No studies were found that analyzed risk factors associated with antenatal depression by trimester. The absence of studies that separately identify the risk factors associated with antenatal depression by trimester may offer a biased information on these variables. This is because each trimester of pregnancy has specific characteristics because both the physical changes, the medical tests, and the concerns that pregnant women face vary throughout the gestation. Therefore, variables that in a given trimester could be significantly related to antenatal depression (*e.g.*, being in the first trimester and having had previous abortions) are perhaps not if women are evaluated in another trimester.

Sociodemographic variables

Different sociodemographic variables have been evaluated in the scientific literature (*e.g.*, age, marital and employment status, educational level, *etc.*). In this section, we will present those most studied in relation to the presence of depression during pregnancy.

Table 1 Risk factors for antenatal depression

Ref.	Sociodemographic variables	Obstetric variables	Psychological variables
Benute <i>et al</i> [41], 2010, Brazil	Low Socioeconomic S. (0.04)	U. pregnancy (0.04)	
Kheirabadi and Maracy[12], 2010, Iran	Being a housewife ¹ 2.28	U. pregnancy ¹ 1.62	Previous depression ¹ 1.83
	Age < 25-yr-old ¹ 1.53	Multiparity ¹ 2.35	
Banti <i>et al</i> [10], 2011, Italy	Low Socioeconomic S. ¹ 2.48	Multiparity ¹ 1.95	Anxiety (pregnancy) ¹ 4.10
Husain <i>et al</i> [38], 2011, Pakistan	Low Socioeconomic S. ¹ 1.40	Complications in a previous delivery ¹ 0.98	
	Low Educational L. ¹ 1.28		
	Unemployed husband ¹ 1.73		
	Nuclear family ¹ 1.18		
Mohammad <i>et al</i> [46], 2011, Jordan	Marital dissatisfaction (0.002)	U. pregnancy ¹ 0.08	Anxiety ¹ 0.13
	Concern about the economic situation ¹ 0.08	Lack of knowledge about parenting ¹ 0.16	Stress ¹ 0.41
		Lack of maternal ability ¹ 0.27	Low social support (0.001)
Giardinelli <i>et al</i> [47], 2012, Italy	Foreign nationality ¹ 3.34	U. pregnancy ¹ 3.83	Previous psychiatric disorders ¹ 3.11
	Unemployment ¹ 2.17		
	Marital dissatisfaction ¹ 4.20		
Goecke <i>et al</i> [37], 2012, Germany	Low Educational L. (0.001)	Miscarriages (0.016)	
Melo <i>et al</i> [25], 2012, Brazil	Low Socioeconomic S. ¹ 1.75	Multiparity ¹ 1.32	
	No partner ¹ 1.93		
	Non-White race ¹ 1.48		
Ajinkya <i>et al</i> [6], 2013, India		U. pregnancy (0.019)	
		Previous obstetric complications (< 0.001)	
		Obstetric complications (< 0.001)	
		Miscarriages (< 0.001)	
		Multiparity (< 0.01)	
Bödecs <i>et al</i> [23], 2013, Hungary	Low Socioeconomic S. (< 0.05)		
	Low Educational L. (< 0.05)		
	Unemployment (< 0.01)		
	Age < 20-yr-old (< 0.05)		
Fadzil <i>et al</i> [56], 2013, Malaysia		Previous cesarean section (0.042)	Anxiety (pregnancy) (0.006)
Yanikkerem <i>et al</i> [39], 2013, Turkey	Low Educational L. ¹ 1.49	U. pregnancy ¹ 1.41	Low social support ¹ 2.42
		Physical symptoms during pregnancy ¹ 0.68	
Weobong <i>et al</i> [34], 2014, Australia	Age > 30-yr-old ¹ 1.16	U. pregnancy ¹ 1.55	
	No partner ¹ 1.34	Miscarriages ¹ 1.30	
Brittain <i>et al</i> [42], 2015, South Africa	Low Socioeconomic S. ¹ 1.03	U. pregnancy ¹ 2.0	Previous history of gender violence ¹ 1.9
	No partner ¹ 1.7		Stressful life events ¹ 1.9
Waldie <i>et al</i> [15], 2015, Australia	Non-European race ¹ 1.90-2.35	U. pregnancy ¹ 1.30	Perceived stress (pregnancy) ¹ 1.34
			Anxiety before and during pregnancy ¹ 3.08
Al-Azri <i>et al</i> [48], 2016, Oman	Marital dissatisfaction ¹ 13.83	U. pregnancy ¹ 1.37	Family depression (0.019)
Castro e Couto <i>et al</i> [26], 2016,		Multiparity (0.02)	Previous depression ¹ 11.32

Brazil	Low Educational L. (0.022)		Gender violence ¹ 2.66
Thompson and Ajayi[33], 2016, Nigeria	Maternal age 15-20-yr-old (0.012)	U. pregnancy (0.014)	Gender violence ¹ 3.90
		Obstetric complications (0.034)	
	No partner (0.010)	Previous cesarean (0.032)	
	Increased number of family members (0.029)		
	Drinking alcohol (pregnancy) ¹ 3.98		
Weng <i>et al</i> [11], 2016, China	Low Socioeconomic S.	U. pregnancy	Previous depression
	Passive smoking		Poor sleep quality
	No partner		
Coll <i>et al</i> [24], 2017, Brazil	Low Educational L. ¹ 5.47	Multiparity ¹ 2.56	Previous depression ¹ 2.93
	Age < 35-yr-old ¹ 1.36		
	No partner ¹ 1.36		
Redinger <i>et al</i> [50], 2018, South Africa	Marital dissatisfaction (< 0.05)	Nulliparity (< 0.05)	Current psychiatric disorders (< 0.05)
			Stressful family events ¹ 2.41
			Anxiety (< 0.05)
Yu <i>et al</i> [72], 2017, China			Poor sleep quality 1.54
González-Mesa <i>et al</i> [52], 2018, Spain	Unemployment ¹ 1.34	U. pregnancy ¹ 2.78	
		Miscarriages ¹ 1.67	
Turkey	Unemployment ¹ 1.34	Multiparity ¹ 0.81	
Ogbo <i>et al</i> [43], 2018, Australia	Low Socioeconomic S. ¹ 0.3-0.6		Low partner support ¹ 8.5
	Living in a multiethnic population ¹ 1.8		Gender violence ¹ 6.0
Pampaka <i>et al</i> [44], 2018, Kuwait	Low Socioeconomic S. ¹ 1.69		Previous depression ¹ 4.35
Al-Hejji <i>et al</i> [73], 2019, Saudi Arabia	Husband smoker ¹ 1.43	Multiparity ¹ 1.87	Poor sleep quality ¹ 1.88
			Post-miscarriage psychological complications ¹ 1.28
Chen <i>et al</i> [74], 2019, China	Low Socioeconomic S. ¹ 0.31	Reproduction techniques ¹ 5.63	
	Unemployment ¹ 2.24	Lack of knowledge about prenatal health ¹ 1.43	
	Marital dissatisfaction ¹ 4.46		
	Living with extended family ¹ 2.52		
	Live in a rural area ¹ 1.71		
Hu <i>et al</i> [75], 2019, China	Younger age ¹ 0.93		
	Low Educational L. ¹ 1.29		
	Unemployment ¹ 1.075		
	Marital dissatisfaction ¹ 4.77		
Marcos-Nájera <i>et al</i> [49], 2020, Spain	Marital dissatisfaction		Lack of self-esteem
			Low social support

¹Odds ratio of predictor variables; (*P* value). Low Educational L.: Low Educational Level; Low Socioeconomic S.: Low Socioeconomic Status; U. pregnancy: Unplanned pregnancy.

Although the age of a woman is a variable considered in all the studies, it is not always analyzed in relation to the presence of depression in pregnancy. In this regard, the results provided by the studies are inconsistent. Several studies have indicated that younger maternal age increases the likelihood of depression during pregnancy[28-32]. Thus, age younger than 25[12], younger than 20[23], or between 15-20-years-old[33]

have been associated with increased risk of antenatal depression. This may be because younger women tend to have a more unfavorable and unstable economic position. Likewise, younger age may be associated with lower educational attainment and income level, lower paying jobs, or unemployment[33]. On the contrary, other studies have found that older maternal age has been associated with higher risk of antenatal depression. Specifically, it was found that age older than 35[24] and older than 30-years-old[34] were associated with increased risk of depression. Accordingly, rather than age *per se*, the explanation behind these inconsistencies may be more related to cultural issues, such as the fact that in some societies being a young mother is the norm and expected, while in others the opposite is true. Also, the personal baggage that older women bring to motherhood with regard to potential difficulties in conceiving along with anxiety about obstetric and pregnancy complications associated with advanced maternal age[35,36] could be a possible explanation for their higher prevalence of depression.

Regarding educational level, there seems to be a consensus among researchers as when an association has been found, it has always been between lower educational level and antenatal depression[24,33,37-39]. It should be noted, though, that a low level of education is often related to other socioeconomic disadvantages, such as low income[24]. Thus, it can also be explained by the fact that these women present low self-esteem and self-efficacy[40,41], as they may feel inferior both socially and because of their inability to access better paid jobs.

Another factor that has been studied in relation to depression during pregnancy is socioeconomic status. In this case, different studies also agree that being in an unfavorable socioeconomic situation is associated with the presence of antenatal depression[11,34,42-44]. It has been proposed that during the perinatal period women with low socioeconomic status may fear being unable to care for their children[45]. Similarly, low socioeconomic status is often followed by increased stress related to economic hardship, which in turn is a risk factor for antenatal depression[46].

One factor related to socioeconomic status is the employment status of both the woman and her partner. In this regard of not having a paid job, the woman[12,23,47] and/or the partner[38], has been associated with the presence of antenatal depression. In the same vein, being a homemaker has also been associated with antenatal depression[12]. A possible explanation could be the fact that not working and/or being a homemaker implies having a smaller social support network and a certain isolation[47]. Likewise, being a homemaker may be an indicator of low educational level and lower economic resources[12]. It is worth noting that studies such as that of Husain *et al*[38] in Iran did not find such a relationship, but they did find a connection with the fact that it is the partner who is unemployed. Cultural issues related to the role of women in the world of work may be the background of this association. Another aspect that could explain this association could be women's frustrations at the fact that pregnancy did not allow them equal access to the labor market.

Another factor associated with depression in pregnancy is related to marital status. Being single, not cohabiting with a partner, not having a stable partner or with a certain level of commitment[11,25,33,34,42], and/or cohabiting as a domestic partner [23] has been associated with increased risk of antenatal depression. The absence of a partner may mean less social support[15,24] or lead to a worse economic situation, and it is sometimes associated with unintended pregnancy[33].

On the other hand, maintaining an unsatisfactory relationship with a partner has been associated with increased risk of depression during pregnancy[46-50]. One possible explanation for this relationship is based on the fact that physiological and psychological changes that occur during pregnancy often influence women's moods, and they seek support from their partner. Consequently, the lack of such support may increase the likelihood of prenatal depression. Indeed, difficult or strained couple relationships marked by disharmony increase rates of prenatal depression[21,51]. Similarly, partners of women who have a depressive episode report greater marital distress. Likewise, these couples tend to resort to less constructive tactics to resolve their conflicts[51]. In the same way, being a victim of gender-based violence has also been associated with increased risk of antenatal depression[26,33,43].

The context of belonging of the pregnant woman as well as the social environment in which she lives and socializes are also factors that may be related to the risk of suffering depression. Thus, not being of the same race as the country in which one lives and/or being a foreigner[15,25,47] along with social isolation[23] have been described as variables associated with depression in pregnancy. The explanation behind all these situations is the lack of social support.

Obstetric variables

It is increasingly common for researchers to consider obstetric and/or pregnancy-related factors when looking for variables associated with antenatal depression. Pregnancy planning is one of the most studied variables, having been found by several studies that the situation of unplanned pregnancy is a risk factor for antenatal depression[11,34,46-48,52]. An unplanned or unwanted pregnancy carries an enormous emotional burden. Moreover, these women may not be financially, psychologically, or socially prepared to cope with the demands of pregnancy[53]. That is, they may have difficulty reconciling maternal needs and other responsibilities at home or at work. Another explanation may be the fact that these women tend to have more unstable psychosocial environments and feel a lack of security and attachment with their partner[54]. In addition, couples with unplanned pregnancies tend to have more marital conflicts[55], which in turn increases the risk of antenatal depression.

Regarding parity, there are contradictory results. While one study has found nulliparity was associated with increased risk of antenatal depression[50], most studies have found that being multiparous has been associated with increased risk of antenatal depression[6,10,12,24-26,52]. One possible explanation is that the caregiving and parenting-related stress experienced by these women (*e.g.*, expectations of coping with the new child) may make them more vulnerable to depression[24].

Variables related to the woman's previous and current obstetric history have also been studied in relation to antenatal depression. Thus, the existence of previous abortions[6,34,37,52], complications in previous delivery and/or pregnancy as well as those that may exist in the course of the current gestation[6,33,38], and a history of caesarean section[33,56] have been associated with increased risk of depression during pregnancy. These events are very stressful during pregnancy[21]. As a matter of fact, women who have had a previous surgical delivery are more likely to experience feelings of loss, personal failure, and low self-esteem[33].

Additionally, the presence of physical symptoms, such as nausea, vomiting, and fatigue, have been associated with increased risk of antenatal depression because they can have negative effects on women's daily lives[39]. With respect to caesarean section, this sort of delivery is highly influenced by cultural issues too. In some countries, having a caesarean birth would be an adverse event, while in others the adverse event is having a normal delivery. In fact, in recent decades, caesarean deliveries have become normalized in many countries, up to the point that organizations such as the World Health Organization have warned of the risks that these entail. It is worth highlighting the aspect of "perception" here because in many cases what the woman considers a complication is not so from the clinical point of view. For instance, some women perceive that having low back pain or nausea are complications, while for a health professional both entities would be considered physiological or within normality. Therefore, what is relevant at a psychological level is not what is reflected in the medical history or what the professional thinks, but the perception that the woman has of her own process.

Psychological variables

The psychological variables that have been most closely related to antenatal depression will be discussed below. Notable among these variables are a history of depression, anxiety, stress, and low perception of social support.

History of depression: Family and personal history of psychological disorder, specifically, personal history of depression[10-12,24,26,44], or psychological disorders in general[47] as well as family history of depression[48] have been associated with an increased risk of antenatal depression. Specifically, it was found that women with a previous history of depression had a tenfold increased risk of antenatal depression [26]. Patton *et al*[57] followed a sample of women for more than 30 years and found that 85.0% of those who had depressive symptoms during pregnancy also had mental health problems during adolescence or adulthood. This association may be due to the existence of a vulnerability to depression that may be intensified by lifestyle changes (sleep and eating patterns) as well as physical changes (symptoms and limitations) that take place in pregnancy[24]. Another possible reason that could explain this fact is the interruption of depression pharmacological treatment by the mother at the beginning of pregnancy for fear of possible teratogenic effects for the foetus[5].

Anxiety and stress: Regarding anxiety, its presence before and/or during pregnancy has been found to be associated with antenatal depression[10,15,46,50,56]. This may be due to the frequent comorbidity of both disorders[56]. In addition, both anxiety and antenatal depression share risk factors[58]. Ross *et al*[59] concluded that more than

50.0% of pregnant women with depression had also been diagnosed with anxiety. Therefore, depressive and anxiety disorders during pregnancy are probably not independent clinical entities[60]. It is worth noting that the Edinburgh Postnatal Depression Scale, designed specifically to detect depressive symptomatology, includes three items that assess anxiety, so it is not surprising that women who score high on this scale score high on depression and on anxiety.

Likewise, different studies have found that high levels of perceived stress during pregnancy and adverse life events play an important role in the onset of antenatal depression[15,42,46,50,61-63]. This may be because the time of pregnancy is especially considered as stressful for many women because of the changes this period causes in their lives[64]. They may experience fear for the baby's health and well-being, fear of impending childbirth, hospitals, postpartum, and maternal role coping[65]. In fact, maternal stress, also called pregnancy-specific distress or pregnancy-related stress[66], is considered a negative emotional state different from depression and anxiety[67].

Social support: Regarding social support, research agrees that the absence or low perception of social support[39,46,49] and specifically the lack of partner support[43, 52] increases the risk of antenatal depression. Social support has been found to be crucial for psychological well-being during pregnancy[39]. In this regard, family contexts are important, although they differ substantially across cultures[52]. On the one hand, nuclear family settings are common in Western countries, whereas extended family structures are more frequent elsewhere such as Asia and/or Arab countries [18]. Some authors[38,68] found that women living in a nuclear family environment were at higher risk of developing antenatal depression *vs* those in the context of a multigenerational household. This may be due to women feeling isolated and less socially supported than they would in a larger family setting. In contrast, living in an extended family has been identified as a protective factor for antenatal depression[69]. However, González-Mesa *et al*[52] found the opposite scenery, as women living in larger families, with a larger number of children and more relatives living in the same household, were at higher risk for antenatal depression. Despite beliefs about the strength of traditional family relationships, 40.0% of these women claimed to have had insufficient family support. Perhaps in the case of social support it is not so much the number of people you live with, but rather the support they give you.

In this respect, the possible explanations provided in the studies, for the connection between lower perception of social support and depression, are more based on the protective effect of social support on depression than on low social support as a risk factor for depression. Moreover, social support during times of stress can be a protective factor against the onset of depression, as it moderates the stress of pregnancy and childbirth and increases maternal self-efficacy[70], that is, the belief in one's own capacity as a mother. Therefore, continuous social support can facilitate the process of adaptation to motherhood[71]. However, it should be noted that the important thing is that the woman perceives that she is indeed receiving this support.

Limitations

This review has met some limitations that ought to be mentioned. First, the review is confined to studies published in English, and thus generalizability of the findings is limited. Second, we did not conduct a meta-analysis of the findings, which may have added additional information about the differential impact of each risk factor. Nevertheless, most of the risk factors described in this review have been independently replicated by a number of studies. This review has excluded research prior to 2010 and based on high-risk populations (*e.g.*, studies conducted in women with pre-existing diseases, residents of war zones, poverty conditions, victims of gender-based violence). Therefore, the generalizability of the findings to these populations may be limited.

CONCLUSION

In view of the results found in this review, there seems to be evidence that sociodemographic, obstetric, and psychological factors can influence the mental health of pregnant women. Many of these factors cannot be modified, such as age and obstetric and psychological history, but others, such as anxiety, stress, or lack of social support, can be influenced through appropriate interventions. Therefore, it is important to identify these risk factors from the first pregnancy follow-up visits in order to be able to carry out preventive and/or therapeutic interventions if necessary. For this purpose,

we consider it necessary to implement routine and protocolized screening tools to identify women at risk of depression in regular pregnancy check-ups. Likewise, better use could be made of health resources already available as is the case of maternal education classes. The mere fact of attending, of being in contact with other women in the same situation and with the same needs, and of having a professional of reference who listens empathetically and resolves doubts can minimize the impact of the possible fears and worries that most women have during pregnancy. Both strategies would prevent and/or reduce the psychological distress of pregnant women, limit its continuation in the postpartum period, and, therefore, reduce the costs of care for the depression. By intervening at the right time, future problems can be prevented.

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