Depression in pregnancy. Prevalence and associated factors

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Objective. To evaluate the occurrence of depression during pregnancy and its associated factors. **Methods.** Epidemiological, quantitative, descriptive and cross-sectional study, conducted from January to May 2013 with 209 pregnant women in the city of Alfenas, State of South Minas Gerais, Brazil. The Hospital Anxiety and Depression Scale (HASD) of Zigmond y Snaith and a form for characterization of participants were used for data collection. **Results.** Depression was present in 14.8% of the pregnant women and was more frequent during the second trimester of pregnancy. Depression during pregnancy was significantly associated with number of births, number of children, ranking as the number of pregnancies, family support, amount of cigarettes smoked per day, consumption of alcohol, use of daily medications, history of mental disorder, presence of striking events in the last 12 months and history of domestic violence. **Conclusion.** The evaluation of depression showed that this disorder is common during pregnancy, and the risk is higher among primigravidae women, women who use alcohol, use daily medications, have history of mental disorder, have experienced a striking event in the last 12 months and who have suffered domestic violence. Knowledge of the factors associated with occurrence of depression allows early adoption of interventions to monitor the mental health of women throughout pregnancy, preventing this and other disorders.

Key words: alcoholic beverages, cross-sectional studies, depression; domestic violence; nursing; pregnancy; smoke.

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Depresión en el embarazo. Prevalencia y factores asociados

Objetivo. Evaluar la incidencia de la depresión en el embarazo y cuáles con los factores asociados. **Métodos.** Estudio epidemiológico, cuantitativo, descriptivo, transversal, correlacional, realizado de enero a mayo de 2013, con 209 mujeres embarazadas en la ciudad de Alfenas, Minas Gerais, Brasil. La recolección de datos utilizó la subescala de depresión del instrumento a Escala Hospitalaria de Ansiedad y Depresión (HADS) creado por Zigmond y Snaith, y una forma de caracterización de los participantes. **Resultados.** La depresión estaba presente en el 14.8% de las mujeres embarazadas, siendo más frecuente en el segundo trimestre. La depresión en el embarazo se asoció significativamente con el número de nacimientos, así como con el número de niños. A su vez, la depresión también se relacionó con otros factores como el apoyo familiar, la cantidad de cigarrillos fumados por día, el consumo de alcohol, el uso de medicamentos diarios, antecedentes de trastorno mental, la presencia de eventos marcantes en los últimos 12 meses y la historia de la violencia doméstica. **Conclusión.** La evaluación de la depresión mostró que este trastorno es común en el embarazo y el riesgo es mayor entre las mujeres embarazadas por primera vez, que consumen alcohol, usan diariamente medicamentos, tienen una historial de trastorno mental, y han experimentado eventos marcantes en los últimos 12 meses y han sufrido violencia doméstica. El conocimiento de los factores asociados a su aparición permite la adopción temprana de intervenciones para controlar la salud mental de las mujeres durante el embarazo al impedir que éste y otros trastornos puedan afectar su desarrollo normal y el posterior parto.

Palabras clave: bebidas alcohólicas; estudios transversales; depresión; violencia doméstica; enfermería; embarazo; tabaquismo.

Depressão na gravidez. Prevalência e fatores associados

Objetivo. Avaliar a ocorrência da depressão na gravidez e seus fatores associados. **Métodos.** Estudo epidemiológico, quantitativo, descritivo, de corte transversal, I, realizado de janeiro a maio de 2013 com 209 gestantes no município de Alfenas, Estado de do Sul de Minas Gerais, Brasil. A coleta de dados utilizou a Subescala de Depressão que compõe a Escala Hospitalar de Ansiedade e Depressão (HADS) criado por Zigmond e Snaith, e um formulário de caracterização das participantes. **Resultados.** A depressão esteve presente em 14.8% das gestantes, sendo mais frequente no segundo trimestre. A depressão na gravidez esteve estatisticamente associada ao número de partos, ao número de filhos, classificação quanto ao número de gestações, ao apoio familiar, à quantidade de cigarros consumidos por dia, ao consumo de bebida alcoólica, ao uso de medicamentos diários, ao histórico de transtorno mental, à presença de eventos marcantes nos últimos 12 meses e ao histórico de violência doméstica. **Conclusão.** A avaliação da depressão mostrou que esse transtorno é comum na gestação, sendo seu risco de ocorrência maior entre primigestas, que consomem bebida alcoólica, usam medicamentos diários, possuem histórico de transtorno mental, vivenciaram algum evento marcante nos últimos 12 meses e sofreram violência doméstica. O conhecimento dos fatores associados a sua ocorrência permite a adoção precoce de intervenções para o monitoramento da saúde mental da mulher durante toda a gravidez, prevenindo este e outros transtornos.

Palavras chave: bebidas alcoólicas; estudos transversais; depressão; violência doméstica; enfermagem; gravidez; tabagismo.

Introduction

The experience of many changes inherent to pregnancy makes pregnant woman vulnerable to the occurrence of mental disorders during the prenatal period,[1] including depression. In this sense, the investigation of this construct during such unique stage of a woman's life rises as paramount. Depression is a common disorder that affects people of all genders, ages and experiences, affecting 154 million people around the world.[2] Women are twice more likely to develop depression than men. One in five women will have at least one depressive episode throughout life, with the greatest risk during the reproductive

period, once that pregnancy is considered a trigger for depression.[2,3] Depression can occur during pregnancy (antenatal depression), after birth (postpartum depression) or even affect the woman throughout the pregnancy and childbirth.

Depression is the most prevalent psychiatric disorder that occurs during pregnancy[2,4] and its deleterious effects bring severe consequences for maternal and fetal health. These effects include low birth weight, decreased Apgar score, prematurity,[5] decreased head circumference, poor development in the first year of life and suicidal ideation by the mother with attempts to self-extermination.[2,4,6] Despite of this, the occurrence of depression during prenatal care is not well known, since most research on maternal depression focus on the post-partum period. For this reason, the aim of this study was to evaluate the occurrence of depression during pregnancy and its associated factors.

Methods

Epidemiological, descriptive, cross-sectional and correlational study with quantitative approach, held in the period from January to May 2013 in five Units of Primary Health Care that provide prenatal care under the Unified Health System (SUS) in the city of Alfenas, State of Minas Gerais, Brazil. A random sample of 209 pregnant women who underwent prenatal care in these health units, which was calculated from an estimated population of 450 pregnant women who did prenatal in the health network of the city during the previous year was done. A prevalence of 50%, margin of error of 5%, confidence level of 95%, as well as inclusion and exclusion criteria were taken into account. As inclusion criteria, we established: age equal or superior to 18 years. As exclusion criteria: current diagnosis of depression disorders and/or other mental disorder; current use of medication for depression and/or other psychotropic; have participated in the earlier sample during pregnancy. For selecting a sample, a raffle was done with the numbers of records of women who would be assisted at the health unit on the day of collection and women who met the established criteria for eligibility. A random selection of half of these numbers was done.

A form to characterize the participants and the Hospital Depression Subscale (HADS-D) were used for data collection.[7] The form addressed variables of socioeconomic, demographic and obstetric characterization, as well as pre-existing diseases, living habits, interpersonal relations and striking life events. The form was subjected to a refining process by appearance and content validation with the participation of five judges, in order to achieve a better delineation of the characteristics expressed in it, according to the topic under study. It was subsequently submitted to a pilot test and afterwards applied by the researcher, paying attention to the intelligibility of the information according to respondents, as well as to the environment by facilitating the availability of information.

HADS-D, which assesses depression, is a subscale part of the Hospital Anxiety and Depression Scale (HADS). This is an instrument created by Zigmond and Snaith in 1983 consisting of 14 multiple-choice items divided into two subscales of seven items each one, one subscale corresponding to anxiety (HADS-A) and the other to depression (HADS-D). In order to fill the scale, the participant is invited to say how he/she has felt in the past week. Answers are based on the relative frequency of symptoms during the past week, using a Likert scale of four points, ranging from 0 (none) to 3 (very much). The total score is the sum of the scores of individual items related to anxiety and depression separately, ranging from zero to 21 points for each subscale.[7] According to Brazilian adaptation, a score of zero to nine reveals absence of depression, and the presence of the disorder is identified in the case of total score equal to or above nine.[7] Whereas the HADS-D is an instrument of self-report and, therefore, can be self-applied, this was filled by participants themselves, after previous orientation. For statistical analysis, we used the *software* Statistical Package for Social Sciences (SPSS) version 17.0. Chi-square and Fisher exact tests for categorical variables were

performed in order to explore the relationship between independent variables with depression, as well as non-parametric statistics for continuous variables using the *Shapiro-Wilk* and *Mann-Whitney* tests and calculating the average of the ranks. Significance level of 5% was adopted for all tests. Odds ratio were estimated for all variables with respective 95% confidence interval. The variables associated with depression in the univariate analysis were selected for the logistic regression model.

The study was submitted to the Research Ethics Committee in Human Beings of the Federal University of Alfenas, in compliance with the Guidelines and Norms Regulating Research with Human Beings of the National Health Council, Resolution 466/2012,[8] and approved under Opinion 113.129. Before data collection, each patient was informed about the study and invited to participate and to sign an Informed Consent.

Results

Among the 209 study participants, there was predominance of women with an average age of 29.51 years (SD = 5.74 years), married or living with a partner (82.8%), with monthly family income between one and two minimum wages (29.2%), exercising labor activity (49.3%), living in their own property (65.6%), professing to be Catholic (56.9%) and as for educational level, women who had completed high school (37.3%).

With respect to gestational age, 21.1% participants were in the first trimester, 39.2% were in the second trimester and 39.7% were in the third trimester. Among the participants, 9.1% had difficulty while trying to get pregnant and 4.8% underwent treatment for this purpose; 67% had had previous pregnancies, and the number of previous pregnancies ranged between one and nine, with an average of 2.22 pregnancies (standard deviation = 1.23 pregnancies). The number of previous births ranged between one and six, averaging 1.55 births (standard deviation = 0.9 births); 62.1% had children alive. A difference between the number of primigravidae women (33%) and the number of women who did not have living children (37.9%) was observed in this study, and this is due to abortions in previous pregnancies and/or death after birth.

Among the women, 47% reported complications in previous pregnancies, and abortion/risk of premature birth were the more frequent, and 35% reported a history of abortion/risk of premature birth. It is noteworthy that 74.2% of the women had no complications during the pregnancy. Maternal desire regarding pregnancy was reported by 98.6% of pregnant women. It is noteworthy that this desire was also shared by the partner (99%) and that most participants had supportive families (99%) and partners (99%). A minority of participants had health problems (12%) and made use of daily medications (9.3%). When it comes to interpersonal relationships, most of the women said they did not experience marital conflicts (87.3%), have a good relationship with family, friends and close people (89.5%) and receive some kind of social support (60.8%). Among participants, 14.8% had depression during pregnancy. Among these pregnant women with depression during pregnancy, most were in the second trimester of pregnancy (48.4%), but statistically significant difference of risk of depression was not found among trimesters of gestation, as shown in Table 1.

Table 1. Depression during pregnancy according to gestational age. Alfenas, 2013

Gestational age	Total	Without depression	With depression
1st trimester	44 (21.1%)	39 (22%)	5 (16.1%)
2nd trimester	82 (39.2%)	67 (37.6%)	15 (48.4%)
3rd trimester	83 (39.7%)	72 (40.4%)	11 (35.5%)
Total	209 (100.0%)	178 (100.0%)	31 (100.0%)

The occurrence of depression during pregnancy was significantly associated with the number of pregnancies, showing that primigravidae participants were more likely to experience depression during pregnancy than multigravidae, what can be observed in Table 2. The use of medications in daily basis also showed a statistically significant association with depression, so that pregnant women who used drugs in daily basis were more likely to develop depression during pregnancy than those who did not use medications daily.

Although mentioned by the minority of participants (20.1%), history of mental disorder demonstrated significant association with depression, showing that pregnant women who have a history of mental disorder are 5.24 times more likely to experience depression during pregnancy than those without previous experience of such condition, as noted in Table 2. It is noteworthy that depression was the most frequently reported disorder among women who experienced a psychiatric disorder in the past (76.2%).

Table 2. Factors associated with depression during pregnancy. Alfenas, 2013

Variable	Depression		p	OR	$CI_{95\%}$ OR
	Yes (n = 31)	No (n = 178)			
Classification according to the number of pregnancies					
Multigravidae	27 (19.3%)	113 (80.7%)	<0.001 *	0.25	0.08 - 0.76
primigravidae	4 (5.8%)	65 (94.2%)		1.00	
Family support					
Yes	29 (15.3%)	178 (84.7%)	<0.001*	-	
No	2 (100%)	0 (0%)			
Alcohol consumption					
Yes	7 (46.7%)	8 (53.3%)	<0.001†	6.19	2.06 – 18.63
No	24 (12.4%)	170 (87.6%)		1.00	
Use of daily medication					
Yes	6 (42.9%)	8 (57.1%)	<0.001†	5,10	1.63 – 15.92
No	25 (12.8%)	170 (87.2%)		1.00	
History of mental disorder					
Yes	15 (35.7%)	27 (64.3%)	<0.001†	5.24	2.32 – 11.84
No	16 (9.6%)	151 (90.4%)		1.00	
Occurrence of a striking event in life					
Yes	17 (24.3%)	53 (75.7%)	<0.001†	2.86	1.31 to 6.22
No	14 (10.1%)	125 (89.9%)		1.00	
History of domestic violence					
Yes	8 (38.1%)	13 (61.9%)	<0.001†	4.41	1.65 - 11.79
No	23 (12.2%)	165 (87.8%)		1.00	

(*) Fisher's exact test; (†) Chi-square test.

Most participants did not experience a striking event of life in the last twelve months (33.5%). However, its occurrence demonstrated significant association with depression during pregnancy (p = 0.006), showing that pregnant women who had experienced a striking event in the last 12 months are more likely to experience depression during pregnancy than those who have not experienced a such an event in the course of the previous year. Only one pregnant woman reported suffering domestic violence at present and 10% of participants reported having it suffered in the past, and the history of domestic violence was significantly associated with depression during pregnancy (p = 0.005). The odds ratio revealed that pregnant women who have suffered domestic violence in the past are 4.41 times more likely to experience depression during pregnancy than those without this history.

As shown in Table 3, the number of births and number of living children also were significantly associated with depression, showing that pregnant women with the highest number of births and living children had depression during pregnancy.

Table 3. Factors associated with depression in pregnancy, according to the average of ranks. Alfenas, 2013

Variable	Average of Ranks		
	Without depression	With depression	
Number of births	60.66	84.56	<0.001 *
Number of children	99.01	139.99	<0.001

The variables that are statistically associated with depression during pregnancy when analyzed individually (number of births, number of children, ranking as the number of pregnancies, family support, consumption of alcohol, use of daily medications, history of mental disorder, presence of striking events in the last 12 months and history of domestic violence) were included in the logistic regression model. However, none remained significantly associated with gestational depression at the level of 5% in the final model.

Discussion

The findings of this study with respect to socioeconomic and demographic characteristics are similar to those found by other researchers who found the occurrence of depression during pregnancy to be independent of age, educational level, marital status,[2,9] economic status and occupation.[2] Presence of depression during pregnancy in South Africa has indexes that vary and are superior to those seen in the present study, higher than 39%.[10] This may partly be the result of the nature of the selected sample and the methodology used.

Although gestational age did not show significant association with depression during pregnancy, it was observed that this was more frequent in the second trimester of pregnancy. This result is different from that found in a study conducted in Italy.[6] It is during the second trimester that the pregnant woman sees more tangible changes in her body. Thus, higher levels of depression in this period may be related to concerns and fear of not returning to the previous physical form and insecurity about the future of the relationship in marriage.[11] It was also shown that the number of pregnancies, births and children, and family support were associated with the occurrence of depression during pregnancy.

The risk of depression during pregnancy in this study was higher among primigravidae women. This relationship may be associated

with inexperience of mothers combined with fear of childbirth, which could contribute to the occurrence of psychological maladjustment, including depression. Literature confirms that fear of childbirth is more common among primigravidae.[12] Furthermore, these pregnant women because they have not experienced a previous pregnancy, may feel insecure during pregnancy,[13] which is also an aggravating factor for maintenance of welfare and could contribute to the occurrence of depression.

This study found that women who had a higher number of births and children had depression. This was also corroborated by the South African study[14] where pregnant women with depression or anxiety had also more children. This raises a reflection if these pregnant women tend to have increased psychopathologies really, or if they use health services more adequately so that they are most frequently diagnosed. These associations may be occur due to negative experiences in previous pregnancies and births, as well as concerns about other children. These factors could contribute to the occurrence of prenatal depression if in fact these pregnant women were exposed to a greater number of adverse events and consequent stress.[14] However, a study conducted in Vietnam to establish the prevalence of perinatal mental disorders and their determinants among pregnant women noted that parity was not significantly associated with the development of mental disorders, including depression.[15] With regard to family support during pregnancy, the findings of the present study allow us to infer that this is a protective factor against depression during pregnancy. This could be linked to the fact that this support functions as a moderator of feelings arising from pregnancy,[16] representing an asset to face possible adversities of this period that possibly makes women less vulnerable to psychiatric disorders.

The consumption of alcohol by pregnant women is related to a higher incidence of depression during prenatal care in this study, as already evidenced in the literature.[17] The presence of mental disorders may contribute to the use of psychoactive substances and vice versa. Thus, the association shown in this study allows us to infer that pregnant women who use alcohol tend to have more depressive symptoms, although the reverse path is also possible, that depression precedes the use of alcohol, that is to say, pregnant women make use alcohol to alleviate the symptoms of depression.[18,19]

Considering the negative impact of alcohol consumption during pregnancy, great importance should be given to prevention of problems related to the use of alcohol for both the fetus and the woman, including psychiatric disorders that may be triggered. Contrary to another study,[13] it was also found in the present research that pregnant women who use medications in daily basis are more likely to experience depression during pregnancy, which could be combined with fear of childbirth, since women who manifest this feeling may experience psychic maladjustments and use more medication for this reason.[16] Studies that show that women with anxiety or depression are more likely to fear childbirth than those without mental illness support this hypothesis. But on the other hand, women that fear childbirth may be more concerned about the risks related to the use of drugs during pregnancy and avoid them.[12] In accordance to other studies,[2,6] the present research shows that pregnant women who have history of mental disorder are more likely to experience depression during pregnancy. A study conducted in South Africa[10] showed that the previous history of depression was a significant risk factor for the development of depression during pregnancy. In this study, 35.7% of pregnant women who had at least one mental disorder prior to pregnancy had depression during pregnancy, suggesting that pregnant women who have experienced a mental disorder before pregnancy are at high risk of relapse in prenatal care. One of the reasons that can explain this fact is the interruption of psychiatric treatment by pregnant women in early pregnancy fearing possible teratogenic risk to the fetus,[17] which emphasizes the importance of screening for depressive symptoms during pregnancy that have been pointed by other researchers.

It was also found that pregnant women who had a striking event in life in the last 12 months and those who have a history of domestic violence are more likely to go through gestational depression. The association between these variables could be explained by the accumulation of stress triggered by key events over the last twelve months, which could lead to negative outcomes in the mental health of pregnant women due to physical and mental wear involved.[20] With regard to the history of domestic violence, the results of this study are consistent with a research that identified that the history of violence was an important factor associated with depressive symptoms in pregnant teenagers.[21] Domestic violence is inherently humiliating, especially during the reproductive life when the escape routes are often reduced. This humiliation can result in the onset of depression, considering the social theory of origin of this disorder proposed by Brown and Harris in 1978,[15] which argues that depression is a consequence of the experience of humiliation and imprisonment by an individual. In this context, the findings of the present study may find justification on the assumption that the history of violence is a generator of sadness and distress for pregnant women, when they recall the humiliation suffered.

In conclusion, the present study showed that although pregnancy is expected to be a period of full wellness, not all women go through this period without suffering from diseases, since depression proved to be a common mental disorder during pregnancy associated with many factors. The knowledge on factors associated with the development of depression during pregnancy allows early adoption of interventions for monitoring actions of mental health throughout the prenatal, preventing this and other mental disorders that may be triggered at this stage of a woman's life and contributing to an adequate and highly qualified prenatal care. This would be part of the promotion of maternal and child health, and may reflect favorably on maternal outcomes and better conditions of newborns. A limitation of this study is the cross-sectional design that does not allow a proper establishment of the cause-effect relationship of the surveyed data nor the temporal relationship of events.

References

1. Apter G, Devouche E, Gratier M. Perinatal mental health. J. Nerv. Ment. Dis. 2011; 199(8):575–7.
2. Pereira PK, Lovisi GM, Lima LA, Legay LF. Complicações obstétricas, eventos estressantes, violência e depressão durante a gravidez em adolescentes atendidas em unidade básica de saúde. Rev. Psiquiatr. Clín. 2010; 37(5):216-22.
3. World Health Organization. Mental Health Aspects of Women's Reproductive Health: A Global Review of the Literature. Geneva: WHO; 2009.
4. Pereira PK, Lovisi GM, Pilowsky DL, Lima LA, Legay LF. Depression during pregnancy: prevalence and risk factors among women attending public health in Rio de Janeiro, Brasil. Cad. Saúde Pública. 2009; 25(12):2725-36.
5. Grote N, Bridge JA, Gavin AR, Melville JL, Iyengar S, Katon WJ. A meta-analysis of depression during pregnancy and the risk of preterm birth, low birth weight, and intrauterine growth restriction. Arch. Gen. Psychiatry.2010; 67(10):1012–24.
6. Giardinelli L, Innocenti A, Benni L, Stefanini MC, Lino G, Lunardi C, et al. Depression and anxiety in perinatal period: prevalence and factors in an Italian sample. Arch. Womens Ment. Health. 2012; 15(1):21–30.
7. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. Acta Psychiatr. Scand. 1983; 67:361-70.
8. Resolução Nº 196/96 do Conselho Nacional de Saúde, de 10 de outubro de1996 (BR). Aprova as diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. Diário Oficial da União. 10 out. 1996.
9. Gourounti K, Anagnostopoulos F, Lykeridou K. Coping strategies as psychological risk factor for antenatal anxiety, worries, and depression among Greek women. Arch. Womens Ment. Health. 2013; 16(1):353–61.
10. Manikkam L, Burns J. Antenatal depression and its risk factors: an urban prevalence study in KwaZulu-Natal. S. Afr. Med. J. 2012; 102:940–4.
11. Piccinini CA Gomes AG, De Nardi T, Lope RS. Gestação e a constituição da maternidade. Psicol. Est. 2008;13(1):63-72.

12. Spice K, Jones S, Hadjistavropoulos HD, Kowalyk C, Stewart SH. Prenatal fear of childbirth and anxiety sensitivity. J. Psychosom Obstet. Gynecol. 2009;30(1):168–74.

13. Nordeng H, Hansen C, Garthus-Niegel S, Eberhard-Gran M. Fear of childbirth, mental health, and medication use during pregnancy. Arch. Womens Ment. Health. 2012; 15(1):203–9.

14. Vythilingum B, et al. Screening and pathways to maternal mental health care in a South African antenatal setting. Arch. Womens Ment. Health. 2013;16(1):371– 9.

15. Fisher J, Tran T, La BT, Kriitmaa K, Rosenthal D, Tran T. Common perinatal mental disorders in northern Viet Nam: community prevalence and health care use. Bull. World. Health Organ. 2010; 88(1):737–45.

16. Moreira MC, Sarriera JC. Satisfação e composição da rede de apoio social a gestantes adolescentes. Psicol. Estud. 2008; 13(4):781-9.

17. Thiengo DL, Pereira PK, Santos JFC, Calvacanti MT, Lovisi GM. Depressão durante a gestação e os desfechos na saúde do recém-nascido: coorte de mães atendidas em unidade básica de saúde. J. Bras. Psiquiatr. 2012; 61(4):214-20.

18. Marcus SM. Depression during pregnancy: rates, risks and consequences. Can. J. Clin. Pharmacol. 2009; 16(1):15–22.

19. Pinheiro SN, Laprega MR, Furtado EF. Morbidade psiquiátrica e uso de álcool em gestantes usuárias do Sistema Único de Saúde. Rev. Saúde Pública. 2005; 39(4):593-8.

20. Esper LH, Furtado EF. Associação de eventos estressores e morbidade psiquiátrica em gestantes. SMAD - Rev. Eletrônica Saúde Mental Álcool Drog. 2010; 6(n esp):368-86..

21. Tzilos GK. Psychosocial factors associated with depression severity in pregnant adolescents. Arch. Womens Ment. Health. 2012; 15(1):397–401.