Association between Relationship Status and Emotional Distress during Pregnancy

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Introduction

Symptoms of emotional distress are experienced by a substantial number of women during pregnancy. According to international data, depression affects approximately 12-22% of pregnant women in the third trimester, while anxiety affects approximately 29-36% of them (Bennett, Einarson, Taddio, Koren, & Einarson, 2004; Lee et al., 2007; Madhavanprabhakaran, D'Souza, & Nairy, 2015). Depression, anxiety and stress during pregnancy have adverse implications for the mother's health, as well as for the development and health of the fetus (Dunkel Schetter & Tanner, 2012). Not being married, along with lower educational level, proved to be one of the potential risk factors of both prenatal depression and anxiety (Faisal-Cury & Rossi Menezes, 2007). Among Hungarian women, higher level of prenatal depression was associated with single marital status, unplanned pregnancy, younger (≤25 years) and older (≥35 years) age and multiparity (Hompoth, Töreki, Baloghné Fűrész, & Németh, 2017). Furthermore, scores for depression and anxiety were both significantly higher among pregnant women who were unemployed, less than 20 years of age, having low educational and/or socio-economic status, and displaying a higher level of social mistrust, while living in a cohabiting relationship was only associated to higher levels of depression (Bödecs et al., 2013).

Aims

The aim of the present analysis is to assess the association between relationship status and prenatal emotional distress, while considering the subjective evaluation of the relationship and the relevant sociodemographic characteristics of the pregnant women. Furthermore, the differences between the sociodemographic correlates of prenatal depression and prenatal anxiety will be addressed.

Methods

This preliminary analysis includes data from a socioeconomically diverse sample of 7,400 women in the third trimester of their pregnancy, who participated at the first wave of Cohort '18 Growing Up in Hungary, which is a longitudinal birth cohort study, that launched at the beginning of 2018 and will track the lives of 9,000 children from pre-birth to adulthood in Hungary. Participants' age ranged from 12 to 52, with a mean age of 29.94 (SD = 5.87). Mean gestational age was 30.27 (SD = 2.04). Sociodemographic variables were measured by face-to-face interviews, while relationship satisfaction, commitment and interactions, and emotional distress were assessed by self-completed questionnaires. To identify women with prenatal depression and prenatal anxiety, the short version of the Epidemiological Studies Depression Scale; CES-D-8 (Bracke, Levecque, & Van de Velde, 2008) and the Generalized Anxiety Disorder [GAD]-2 scale (Kroenke, Spitzer, Williams, Monahan, & Löwe, 2007) were applied.

Chi-square analyses were used to determine the associations between depression or anxiety status and selected sociodemographic variables, including relationship status. The associations with continuous variables of relationship evaluation were investigated by t-tests.

The independent effect of relationship status on prenatal depression and anxiety will be investigated in the next step by multivariate statistical analyses, on the finalized and weighted database of Cohort '18 wave 1.

In the long run, the adverse effects of maternal prenatal depression and anxiety on child health and development will be analysed, using data from the second – 6 months – research wave.

Results

Of 7,400 pregnant women, 1,659 (22.4%) had CES-D-8 scores of 7 or above and were thus considered to have depression, while 1,073 (14.5%) had GAD-2 scores of 3 or above and were thus considered to have anxiety. The chi-square test results indicating associations between sociodemographic variables and depression and anxiety are presented in Table 1 and Table 3. All investigated sociodemographic variables (relationship status, age, parity, education, wealth, employment) were significantly associated with prenatal anxiety and depression. Furthermore, t-tests revealed that mothers with depression or anxiety had significantly lower relationship satisfaction and commitment scores, along with more conflicts and fewer positive interactions reported, than those without depression or anxiety (Table 2 and 4).

Table 1. Frequency distributions of prenatal depression status and chi-square test results for sociodemographic variables

Variable	Not depressed n (%)	Depressed[a] n (%)	Pearson X^2
Relationship status (n=7400)			133.93**
Single	65 (53.7)	56 (46.3)	
Living apart together	84 (55.3)	68 (44.7)	
Cohabiting	2,269 (74.5)	776 (25.5)	
Married	3,323 (81.4)	759 (18.6)	
Age (n=7400)			52.93**
$\leq$25	1,180 (71.1)	480 (28.9)	
26-34	3,223 (79.8)	815 (20.2)	
$\geq$35	1,338 (78.6)	364 (21.4)	
Parity (n=7400)			73.90**
Primipara	2,989 (81.8)	665 (18.2)	
Multipara	2,752 (73.5)	994 (26.5)	
Education (n=7398)			218.66**
ISCED 0-2	1,331 (65.9)	689 (34.1)	
ISCED 3+	4,409 (82)	969 (18)	
Wealth (subj.) (n=7316)			301.55**
Financial difficulties	1,495 (65.1)	801 (34.9)	
No financial difficulties	4,184 (83.3)	836 (16.7)	
Employment status (n=7400)			176.65**
Unemployed	1,158 (66)	596 (34)	
Employed	4,583 (81.2)	1,063 (18.8)	

[a]As defined by a CES-D-8 score of 7 or more. ** p<.001 *p < .05

Table 2. Comparison of relationship evaluation and perceived social support for pregnant women with and without depression[a]

Variable	Not depressed M (SD)	Depressed[b] M (SD)	t	df
Relationship satisfaction (n=6982)	13.72 (1.89)	12.23 (2.77)	19.85**	1952.22
Relationship commitment (n=7040)	14.39 (1.31)	13.41 (2.44)	15.20**	1785.34
Relationship conflict (n=6859)	9.22 (2.50)	11.53 (3.69)	-22.84**	1898
Positive relationship interactions (n=6950)	21.70 (2.82)	19.43 (4.09)	20.23**	1924.49

[a]Excluding participants with single relationship status. [b]As defined by a CES-D-8 score of 7 or more. ** p<.001 *p < .05

Table 3. Frequency distributions of prenatal anxiety status and chi-square test results for sociodemographic variables

Variable	Not anxious n (%)	Anxious[a] n (%)	Pearson X^2
Relationship status (n=7400)			84.57**
Single	89 (73.6)	32 (26.4)	
Living apart together	108 (71.1)	44 (28.9)	
Cohabiting	2,522 (82.8)	523 (17.2)	
Married	3,608 (88.4)	474 (11.6)	
Age (n=7400)			103.60**
≤25	1,293 (77.9)	367 (22.1)	
26-34	3,518 (87.1)	520 (12.9)	
≥35	1,516 (89.1)	186 (10.9)	
Parity (n=7400)			60.54**
Primipara	3,242 (88.7)	412 (11.3)	
Multipara	3,085 (82.4)	661 (17.6)	
Education (n=7398)			245.84**
ISCED 0-2	1,709 (75.3)	560 (24.7)	
ISCED 3+	5,054 (89.2)	615 (10.8)	
Wealth (subj.) (n=7316)			170.62**
Financial difficulties	1,782 (77.6)	514 (22.4)	
No financial difficulties	4,477 (89.2)	543 (10.8)	
Employment status (n=7400)			205.55**
Unemployed	1,315 (75)	439 (25)	
Employed	5,012 (88.8)	634 (11.2)	

[a]As defined by a GAD-2 score of 3 or more. ** p<.001 *p < .05

Table 4. Comparison of relationship evaluation and perceived social support for pregnant women with and without anxiety[a]

Variable	Not anxious M (SD)	Anxious[b] M (SD)	t	df
Relationship satisfaction (n=6982)	13.56 (2.03)	12.39 (2.87)	12.31**	1153.25
Relationship commitment (n=7040)	14.29 (1.48)	13.53 (2.44)	9.43**	1113.35
Relationship conflict (n=6859)	9.40 (2.58)	11.72 (4.16)	-16.78**	1080.64
Positive relationship interactions (n=6950)	21.41 (3.02)	19.98 (4.34)	9.91**	1135.95

[a]Excluding participants with single relationship status. [b]As defined by a GAD-2 score of 3 or more. ** p<.001 *p < .05

Conclusions

Prenatal depression and anxiety are prevalent among Hungarian women pregnant in the period 2018-2019, and are associated with several sociodemographic variables – including relationship status – and the subjective evaluation of the relationship.

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