

Supplementary Table S1 Characteristics of 778 pregnant women and univariate analysis

Characteristics	Total (n = 778)	No depression 321 (41.26)	Depression 457 (58.74)	p-Value	No anxiety 520 (66.84)	Anxiety 258 (33.16)	p-Value	No insomnia 472 (60.67)	Insomnia 306 (39.33)	p-Value
Maternal age (y)	30.26 ± 3.98	30.79 ± 3.92	29.90 ± 3.98	0.0019	30.54 ± 3.99	29.72 ± 3.90	0.0067	30.34 ± 3.98	30.15 ± 3.98	0.5066
Maternal age (y)				0.0006			0.0401			0.5674
≤30	430 (55.27)	154 (47.98)	276 (60.39)		274 (52.69)	156 (60.47)		257 (54.45)	173 (56.54)	
>30	348 (44.73)	167 (52.02)	181 (39.61)		246 (47.31)	102 (39.53)		215 (45.55)	133 (43.46)	
BMI	21.28 ± 2.96	21.46 ± 2.96	21.15 ± 2.96	0.1567	21.31 ± 2.95	21.21 ± 3.00	0.6512	21.25 ± 2.94	21.32 ± 3.01	0.7370
Gestation				0.3368			0.0032			<0.0001
First trimester	132 (16.97)	56 (17.45)	76 (16.63)		98 (18.85)	34 (13.18)		93 (19.70)	39 (12.75)	
Second trimester	352 (45.24)	151 (47.04)	201 (43.98)		243 (46.73)	109 (42.25)		228 (48.31)	124 (40.52)	
Third trimester	294 (37.79)	114 (35.51)	180 (39.39)		179 (34.42)	115 (44.57)		151 (31.99)	143 (46.73)	
Maternal education				0.3870			0.2536			0.2183
<College	94 (12.08)	40 (12.46)	54 (11.82)		59 (11.35)	35 (13.57)		55 (11.65)	39 (12.75)	
Undergraduate/college	592 (76.09)	236 (73.52)	356 (77.90)		396 (76.15)	196 (75.97)		355 (75.21)	237 (77.45)	
>Postgraduate or higher	92 (11.83)	45 (14.02)	47 (10.28)		65 (12.50)	27 (10.47)		62 (13.14)	30 (9.80)	
Maternal occupation				0.0007			0.0010			0.0259
Employed	573 (73.65)	257 (80.06)	316 (69.15)		402 (77.31)	171 (66.28)		361 (76.48)	212 (69.28)	
Unemployed	205 (26.35)	64 (19.94)	141 (30.85)		118 (22.69)	87 (33.72)		111 (23.52)	94 (30.72)	
Family annual income (Yuan)				0.0042			0.1339			0.0417
<50,000	68 (8.74)	24 (7.48)	44 (9.63)		44 (8.46)	24 (9.30)		38 (8.05)	30 (9.80)	
50,000-200,000	448 (57.58)	170 (52.96)	278 (60.83)		291 (55.96)	157 (60.85)		262 (55.51)	186 (60.78)	
> 200,000	262 (33.68)	127 (39.56)	135 (29.54)		185 (35.58)	77 (29.84)		172 (36.44)	90 (29.41)	
First pregnancy				0.8311			0.5134			0.4139
Yes	474 (60.93)	197 (61.37)	277 (60.61)		321 (61.73)	153 (59.3)		293 (62.08)	181 (59.15)	
No	304 (39.07)	124 (38.63)	180 (39.39)		199 (38.27)	105 (40.7)		179 (37.92)	125 (40.85)	
Fertilization way				0.1380			0.4363			0.5908
Natural pregnancy	725 (93.19)	294 (91.59)	431 (94.31)		482 (92.69)	243 (94.19)		438 (92.80)	287 (93.79)	
IVF	53 (6.81)	27 (8.41)	26 (5.69)		38 (7.31)	15 (5.81)		34 (7.20)	19 (6.21)	
Menstrual regularity				0.3691			0.5795			0.5773
Yes	618 (79.43)	250 (77.88)	368 (80.53)		416 (80.00)	202 (78.29)		378 (80.08)	240 (78.43)	
No	160 (20.57)	71 (22.12)	89 (19.47)		104 (20.00)	56 (21.71)		94 (19.92)	66 (21.57)	
Diseases before pregnancy				0.0220			0.0510			0.5871
Yes	98 (12.60)	30 (9.35)	68 (14.88)		57 (10.96)	41 (15.89)		57 (12.08)	265 (86.60)	
No	680 (87.40)	291 (90.65)	389 (85.12)		463 (89.04)	217 (84.11)		415 (87.92)	41 (13.40)	

(Continued)

Supplementary Table S1 (Continued)

Characteristics	Total (n = 778)	No depression 321 (41.26)	Depression 457 (58.74)	p-Value	No anxiety 520 (66.84)	Anxiety 258 (33.16)	p-Value	No insomnia 472 (60.67)	Insomnia 306 (39.33)	p-Value
Paternal smoking				0.0234			0.1531			0.0442
Yes	213 (27.38)	74 (23.05)	139 (30.42)		134 (25.77)	79 (30.62)		117 (24.79)	96 (31.37)	
No	565 (72.62)	247 (76.95)	318 (69.58)		386 (74.23)	179 (69.38)		355 (75.21)	210 (68.63)	
Paternal alcohol drinking				0.0320			0.3264			0.1845
Yes	206 (26.48)	72 (22.43)	134 (29.32)		132 (25.38)	74 (28.68)		117 (24.79)	89 (29.08)	
No	572 (73.52)	249 (77.57)	323 (70.68)		388 (74.62)	184 (71.32)		355 (75.21)	217 (70.92)	
Family support during prenatal examination				0.9644			0.8280			0.5934
Husband	551 (70.82)	226 (70.40)	325 (71.12)		370 (71.15)	181 (70.16)		340 (72.03)	211 (68.95)	
Other relatives	97 (12.47)	40 (12.46)	57 (12.47)		66 (12.69)	31 (12.02)		58 (12.29)	39 (12.75)	
No accompany	130 (16.71)	55 (17.13)	75 (16.41)		84(16.15)	46(17.83)		74(15.68)	56 (18.30)	
Severity of worry about COVID-19				0.0001			<0.0001			0.0012
Very worried	65 (8.35)	16 (4.98)	49 (10.72)		20 (3.85)	45 (17.44)		28 (5.93)	37 (12.09)	
Worried	79 (10.15)	29 (9.03)	50 (10.94)		45 (8.65)	34 (13.18)		42 (8.90)	37 (12.09)	
A little worried	274 (35.22)	103 (32.09)	171 (37.42)		182 (35.00)	92 (35.66)		164 (34.75)	110 (35.95)	
Not worried	150 (19.28)	71 (22.12)	79 (17.29)		110 (21.15)	40 (15.50)		102 (21.61)	48 (15.69)	
Not worried at all	210 (26.99)	102 (31.78)	108 (23.63)		163 (31.35)	47 (18.22)		136 (28.81)	74 (24.18)	
Delayed prenatal examinations				0.6169			0.9830			0.9940
Yes	33 (4.24)	15 (4.67)	18 (3.94)		22 (4.23)	11 (4.26)		20 (4.24)	13 (4.25)	
No	745 (95.76)	306 (95.33)	439 (96.06)		498 (95.77)	247 (95.74)		452 (95.76)	293 (95.75)	
Flu-like symptoms ^a				0.0003			<0.0001			0.0269
Yes	174 (22.37)	51 (15.89)	123 (26.91)		94 (18.08)	80 (31.01)		93 (19.70)	81 (26.47)	
No	604 (77.63)	270 (84.11)	334 (73.09)		426 (81.92)	178 (68.99)		379 (80.30)	225 (73.53)	
The need of psychological counseling				<0.0001			<0.0001			<0.0001
Yes	333 (42.80)	94 (29.28)	239 (52.30)		184 (35.38)	149 (57.75)		173 (36.65)	160 (52.29)	
No	445 (57.20)	227 (70.72)	218 (47.70)		336 (64.62)	109 (42.25)		299 (63.35)	146 (47.71)	

Abbreviations: BMI, body mass index; COVID-19, coronavirus disease 2019; IVF, in vitro fertilization.

Note: Bold values are statistically significant with $p < 0.05$.

^aIncluding cold, cough, fever ($> 37.3^\circ$), chest tightness.

Supplementary Table S2 Characteristics of 468 postpartum women and univariate analysis

Variables	Total (n = 468)	No depression (n = 138)	Depression (n = 330)	p-Value	No anxiety (n = 204)	Anxiety (n = 264)	p-Value	No insomnia (n = 221)	Insomnia (n = 247)	p-Value
Maternal age, years	31.31 ± 4.22	31.72 ± 4.27	31.14 ± 4.19	0.1744	31.41 ± 4.33	31.23 ± 4.13	0.6552	31.63 ± 4.24	31.02 ± 4.18	0.1191
Maternal age, years				0.2841			0.9150			0.2916
≤30	194 (41.45)	52 (37.68)	142 (43.03)		84 (41.18)	110 (41.67)		86 (38.91)	108 (43.72)	
>30	274 (58.55)	86 (62.32)	188 (56.97)		120 (58.82)	154 (58.33)		135 (61.09)	139 (56.28)	
BMI	21.71 ± 3.42	21.78 ± 3.48	21.69 ± 3.40	0.7909	21.64 ± 3.26	21.77 ± 3.54	0.6715	21.72 ± 3.35	21.71 ± 3.49	0.9806
Maternal education				0.4986			0.5728			0.6770
< College	66 (14.10)	17 (12.32)	49 (14.85)		29 (14.22)	37 (14.02)		31 (14.03)	35 (14.17)	
Undergraduate/college	341 (72.86)	102 (73.91)	239 (72.42)		145 (71.08)	196 (74.24)		159 (71.95)	182 (73.68)	
> Postgraduate or higher	61 (13.03)	19 (13.77)	42 (12.73)		30 (14.71)	31 (11.74)		31 (14.03)	30 (12.15)	
Maternal occupation				0.0305			0.0408			0.2907
Employed	367 (78.42)	117 (84.78)	250 (75.76)		169 (82.84)	198 (75.00)		178 (80.54)	189 (76.52)	
Unemployed	101 (21.58)	21 (15.22)	80 (24.24)		35 (17.16)	66 (25.00)		43 (19.46)	58 (23.48)	
Family annually income (Yuan)				0.8629			0.3114			0.7464
< 50,000	36 (7.69)	10 (7.25)	26 (7.88)		12 (5.88)	24 (9.09)		14 (6.33)	22 (8.91)	
50,000-200,000	281 (60.04)	83 (60.14)	198 (60.00)		123 (60.29)	158 (59.85)		136 (61.54)	145 (58.70)	
> 200,000	151 (32.26)	45 (32.61)	106 (32.12)		69 (33.82)	82 (31.06)		71 (32.13)	80 (32.39)	
First pregnancy				0.5352			0.1406			0.6324
Yes	268 (57.26)	76 (55.07)	192 (58.18)		109 (53.43)	159 (60.23)		124 (56.11)	144 (58.30)	
No	200 (42.74)	62 (44.93)	138 (41.82)		95 (46.57)	105 (39.77)		97 (43.89)	103 (41.70)	
Fertilization way				1.0000			0.7053			0.1577
Natural pregnancy	455 (97.22)	134 (97.10)	321 (97.27)		199 (97.55)	256 (96.97)		212 (95.93)	243 (98.38)	
IVF	13 (2.78)	4 (2.90)	9 (2.73)		5 (2.45)	8 (3.03)		9 (4.07)	4 (1.62)	
Menstrual regularity				0.2660			0.1985			0.7040
Yes	397	121 (87.68)	276 (83.64)		178 (87.25)	219 (82.95)		186 (84.16)	211 (85.43)	
No	71	17 (12.32)	54 (16.36)		26 (12.75)	45 (17.05)		35 (15.84)	36 (14.57)	
Diseases before pregnancy				0.6608			0.9759			0.9935
Yes	53	17 (12.32)	36 (10.91)		23 (11.27)	30 (11.36)		25 (11.31)	28 (11.34)	
No	415	121 (87.68)	294 (89.09)		181 (88.73)	234 (88.64)		196 (88.69)	219 (88.66)	
Paternal smoking				0.3094			0.6993			0.7775
Yes	147	48 (34.78)	99 (30.00)		66 (32.35)	81 (30.68)		68 (30.77)	79 (31.98)	
No	321	90 (65.22)	231 (70.00)		138 (67.65)	183 (69.32)		153 (69.23)	168 (68.02)	

(Continued)

Supplementary Table S2 (Continued)

Variables	Total (n = 468)	No depression (n = 138)	Depression (n = 330)	p-Value	No anxiety (n = 204)	Anxiety (n = 264)	p-Value	No insomnia (n = 221)	Insomnia (n = 247)	p-Value
Paternal alcohol drinking				0.7257			0.5483			0.1250
Yes	165	47 (34.06)	118 (35.76)		75 (36.76)	90 (34.09)		70 (31.67)	95 (38.46)	
No	303	91 (65.94)	212 (64.24)		129 (63.24)	174 (65.91)		151 (68.33)	152 (61.54)	
Family support during childbirth				0.2923			0.0092			0.9175
Yes	376 (80.34)	115 (83.33)	261 (79.09)		175 (85.78)	201 (76.14)		178 (80.55)	198 (80.16)	
No	92 (19.66)	23 (16.67)	69 (20.91)		29 (14.22)	63 (23.86)		43 (19.46)	49 (19.84)	
Severity of worry about COVID-19				0.0001			<0.0001			0.0017
Very worried	71 (15.17)	12 (8.70)	59 (17.88)		17 (8.33)	54 (20.45)		25 (11.31)	46 (18.62)	
Worried	46 (9.83)	7 (5.07)	39 (11.82)		9 (4.41)	37 (14.02)		17 (7.69)	29 (11.74)	
A little worried	150 (32.05)	44 (31.88)	106 (32.12)		65 (31.86)	85 (32.20)		72 (32.58)	78 (31.58)	
Not worried	68 (14.53)	24 (17.39)	44 (13.33)		35 (17.16)	33 (12.50)		31 (14.03)	37 (14.98)	
Not worried at all	133 (28.42)	51 (36.96)	82 (24.85)		78 (38.24)	55 (20.83)		76 (34.39)	57 (23.08)	
Delayed prenatal examinations				0.3486			0.0716			0.8234
Yes	76 (16.24)	19 (13.77)	57 (17.27)		26 (12.75)	50 (18.94)		35 (15.84)	41 (16.60)	
No	392 (83.76)	119 (86.23)	273 (82.73)		178 (87.25)	214 (81.06)		186 (84.16)	206 (83.4)	
Delayed infants' vaccination				0.2535			0.0529			0.3425
Yes	49 (10.47)	11 (7.97)	38 (11.52)		15 (7.35)	34 (12.88)		20 (9.05)	29 (11.74)	
No	419 (89.53)	127 (92.03)	292 (88.48)		189 (92.65)	230 (87.12)		201 (90.95)	218 (88.26)	
Flu-like symptoms ^a				0.0014			0.0210			0.1162
Yes	148 (31.62)	29 (21.01)	119 (36.06)		53 (25.98)	95 (35.98)		62 (28.05)	86 (34.82)	
No	320 (68.38)	109 (78.99)	211 (63.94)		151 (74.02)	169 (64.02)		159 (71.95)	161 (65.18)	
The need of psychological counseling				<0.0001			<0.0001			<0.0001
Yes	285 (60.90)	52 (37.68)	233 (70.61)		91 (44.61)	194 (73.48)		110 (49.77)	175 (70.85)	
No	183 (39.10)	86 (62.32)	97 (29.39)		113 (55.39)	70 (26.52)		111 (50.23)	72 (29.15)	
Delivery modes				0.9282			0.0888			0.2005
Vaginal delivery	280 (59.83)	83 (60.14)	197 (59.70)		131 (64.22)	149 (56.44)		139 (62.90)	141 (57.09)	
Cesarean delivery	188 (40.17)	55 (39.86)	133 (40.30)		73 (35.78)	115 (43.56)		82 (37.10)	106 (42.91)	
Duration after delivery				0.1906			0.1358			0.5907
< 6 wk	73 (15.60)	27 (19.57)	46 (13.94)		34 (16.67)	39 (14.77)		30 (13.57)	43 (17.41)	
6 wk to 6 mo	222 (47.44)	64 (46.38)	158 (47.88)		103 (50.49)	119 (45.08)		109 (49.32)	113 (45.75)	
> 6 mo	173 (36.97)	47 (34.06)	126 (38.18)		67 (32.84)	106 (40.15)		82 (37.10)	91 (36.84)	

Supplementary Table S2 (Continued)

Variables	Total (n = 468)	No depression (n = 138)	Depression (n = 330)	p-Value	No anxiety (n = 204)	Anxiety (n = 264)	p-Value	No insomnia (n = 221)	Insomnia (n = 247)	p-Value
Neonatal birthweight				0.0677			0.6338			0.5926
< 2,500 g	18 (3.85)	8 (5.80)	10 (3.03)		9 (4.41)	9 (3.41)		8 (3.62)	10 (4.05)	
2,500–4,000g	419 (89.53)	124 (89.86)	295 (89.39)		182 (89.22)	237 (89.77)		197 (89.14)	222 (89.88)	
≥4,000 g	31 (6.62)	6 (4.35)	25 (7.58)		13 (6.37)	18 (6.82)		16 (7.24)	15 (6.07)	
10-min Apgar's score, median (range)	10 (8–10)	10 (9–10)	10 (8–10)	0.8589	10 (8–10)	10 (8–10)	0.5835	10 (8–10)	10 (8–10)	0.8204
Premature infant	20 (4.27)	4 (2.90)	16 (4.85)	0.3416	8 (3.92)	12 (4.55)	0.7407	10 (4.52)	10 (4.05)	0.7992
Fetal Gender				0.9234			0.3687			0.8733
Male	239 (51.07)	70 (50.72)	169 (51.21)		109 (53.43)	130 (49.24)		112 (50.68)	127 (51.42)	
Female	229 (48.93)	68 (49.28)	161 (48.79)		95 (46.57)	134 (50.76)		109 (49.32)	120 (48.58)	
Feeding patterns				0.2208			0.0351			0.5191
Breastfeeding	268 (57.26)	85 (61.59)	183 (55.45)		128 (62.75)	140 (53.03)		130 (58.82)	138 (55.87)	
Nonbreastfeeding	200 (42.74)	53 (38.41)	147 (44.55)		76 (37.25)	124 (46.97)		91 (41.18)	109 (44.13)	

Abbreviations: BMI, body mass index; coronavirus disease 2019; IVF, in vitro fertilization.

Note: Bold values are statistically significant with $p < 0.05$.^aIncluding cold, cough, fever ($> 37.3^{\circ}\text{C}$), chest tightness.