

**Appendix**  
**Prenatal Drinking in the Northern Plains:**  
**Differences Between American Indian and Caucasian Mothers**  
**Ye et al.**

**Appendix Table 1.** Variables Included in Logistic Regression Models

Variables	Values assigned
<b>Demographics</b>	
Race	
Caucasian	0
American Indian	1
Ethnicity	
Not Hispanic or Latina	no
Hispanic or Latina	yes
Age, years	
<20	1
20–34	2
≥35	3
Marital status	
Single	no
Married or partnered	yes
Education	
Any primary school	1
Some high school	2
Completed high school	3
Beyond high school	4
Partner education	
Any primary school	1
Some high school	2
Completed high school	3
Beyond high school	4
Reproductive history	
Gravidity	
1	1
2	2
3	3
>3	4
Parity	
0	0
1	1
2	2
>2	3
Fertility treatment	
No	no
Yes	yes
Prenatal care	
Prenatal care in all trimesters	
No	no
Yes	yes
Mental health	
Anxiety	

**Appendix**  
**Prenatal Drinking in the Northern Plains:**  
**Differences Between American Indian and Caucasian Mothers**  
**Ye et al.**

No	no
Yes	yes
Depression	
No	no
Yes	yes
SES	
Health coverage	
Commercial insurance	1
Self-pay	2
Public assistance	3
Government support	
None	0
Prenatal only	1
Postnatal only	2
Both	3
Household monthly income, dollars	
250	1
750	2
1,500	3
>2,500	4
Relocation within a year	
None	0
Once	1
More than once	2

**Appendix**  
**Prenatal Drinking in the Northern Plains:**  
**Differences Between American Indian and Caucasian Mothers**  
**Ye et al.**

**Appendix Table 2.** The Sample Size of Women by Race Drinking Before, During, and After Pregnancy

<b>Time frame</b>	<b>American Indian, n (%)</b> <b>2,124 (44)</b>	<b>Caucasian, n (%)</b> <b>2,753 (56)</b>
<b>Entire pregnancy</b>		
No	927 (48)	987 (37)
Yes	1,023 (52)	1,692 (63)
<b>1 year prior to pregnancy</b>		
No	42 (3)	30 (1)
Yes	1,610 (97)	2,463 (99)
<b>LMP</b>		
No	1,252 (60)	1,114 (41)
Yes	852 (40)	1,633 (59)
<b>First trimester</b>		
No	1,127 (53)	1,113 (40)
Yes	996 (47)	1,638 (60)
<b>Second trimester</b>		
No	1,873 (96)	2,514 (93)
Yes	71 (4)	193 (7)
<b>Third trimester</b>		
No	1,696 (99)	2,376 (94)
Yes	11 (1)	147 (6)
<b>1 month post-delivery</b>		
No	1,034 (85)	1,404 (61)
Yes	179 (15)	892 (39)

LMP, last menstrual period.

**Appendix**  
**Prenatal Drinking in the Northern Plains:**  
**Differences Between American Indian and Caucasian Mothers**  
**Ye et al.**

**Appendix Table 3.** The Sample Size of Women by Race Binge Drinking During and After Pregnancy

<b>Time frame</b>	<b>American Indian, n (%)</b> <b>2,124 (44)</b>	<b>Caucasian, n (%)</b> <b>2,753 (56)</b>
<b>Entire pregnancy</b>		
No	1,112 (59)	1,886 (72)
Yes	786 (41)	717 (28)
<b>LMP</b>		
No	1,443 (69)	2,088 (76)
Yes	661 (31)	659 (24)
<b>First trimester</b>		
No	1,359 (64)	2,036 (74)
Yes	764 (36)	715 (26)
<b>Second trimester</b>		
No	1,904 (98)	2,706 (100)
Yes	40 (2)	1 (0)
<b>Third trimester</b>		
No	1,702 (100)	2,521 (100)
Yes	5 (0)	2 (0)
<b>1 month post-delivery</b>		
No	1,123 (93)	2,174 (95)
Yes	90 (7)	122 (5)

LMP, last menstrual period.

**Appendix**  
**Prenatal Drinking in the Northern Plains:**  
**Differences Between American Indian and Caucasian Mothers**  
**Ye et al.**

**Appendix Table 4.** Total Drinking Days During and After Pregnancy by Race for Those Who Consumed Alcoholic Beverages

<b>Time frame</b>	<b>American Indian</b>	<b>Caucasian</b>
<b>LMP</b>		
Median	1	2
Mean	3	3
Range	1–31	1–31
<b>First trimester</b>		
Median	1	2
Mean	3	3
Range	1–38	1–42
<b>Second trimester</b>		
Median	1	2
Mean	3	3
Range	1–38	1–42
<b>Third trimester</b>		
Median	1	2
Mean	3	3
Range	1–38	1–42
<b>1 month post-delivery</b>		
Median	1	1
Mean	1	2
Range	1–15	1–31

*Note:* Wilcoxon rank-sum test to test race differences in drinking days:  $p < 0.05$  at all time frames.

LMP, last menstrual period.

**Appendix**  
**Prenatal Drinking in the Northern Plains:**  
**Differences Between American Indian and Caucasian Mothers**  
**Ye et al.**

**Appendix Table 5.** Association of Drinking During and After Pregnancy With Race and Other Maternal Characteristics

Variables <sup>a</sup>	LMP		First trimester		Second trimester		Third trimester		1 month post-delivery	
	OR (95% CI)	AOR (95% CI)	OR (95% CI)	AOR (95% CI)	OR (95% CI)	AOR (95% CI)	OR (95% CI)	AOR (95% CI)	OR (95% CI)	AOR (95% CI)
American Indian, ref=Caucasian	<b>0.46</b> <b>(0.41, 0.52)</b>	0.81 (0.63, 1.05)	<b>0.60</b> <b>(0.54, 0.67)</b>	0.85 (0.66, 1.10)	<b>0.49</b> <b>(0.37, 0.65)</b>	<b>0.52</b> <b>(0.28, 0.93)</b>	<b>0.10</b> <b>(0.05, 0.18)</b>	<b>0.10</b> <b>(0.02, 0.30)</b>	<b>0.27</b> <b>(0.23, 0.33)</b>	<b>0.30</b> <b>(0.22, 0.41)</b>
Hispanic, ref=no	0.81 (0.61, 1.08)	1.35 (0.85, 2.13)	0.94 (0.71, 1.24)	1.11 (0.70, 1.75)	1.26 (0.67, 2.16)	2.26 (0.91, 4.85)	0.32 (0.05, 1.01)	1.24 (0.19, 4.36)	0.99 (0.65, 1.48)	<b>2.01</b> <b>(1.21, 3.29)</b>
Age	<b>1.23</b> <b>(1.08, 1.41)</b>	1.18 (0.95, 1.46)	<b>1.25</b> <b>(1.10, 1.43)</b>	<b>1.44</b> <b>(1.16, 1.79)</b>	<b>1.83</b> <b>(1.37, 2.45)</b>	<b>2.02</b> <b>(1.33, 3.04)</b>	<b>2.82</b> <b>(1.96, 4.01)</b>	<b>2.44</b> <b>(1.50, 3.89)</b>	<b>1.34</b> <b>(1.12, 1.60)</b>	1.18 (0.93, 1.50)
Married or partnered, ref=single	<b>1.30</b> <b>(1.12, 1.52)</b>	0.97 (0.72, 1.32)	0.99 (0.84, 1.15)	0.98 (0.73, 1.33)	1.43 (0.99, 2.16)	1.05 (0.53, 2.31)	<b>5.49</b> <b>(2.50, 15.53)</b>	4.26 (0.88, 76.86)	<b>1.70</b> <b>(1.35, 2.16)</b>	0.99 (0.69, 1.44)
Education	<b>1.47</b> <b>(1.37, 1.58)</b>	1.11 (0.97, 1.26)	<b>1.28</b> <b>(1.19, 1.37)</b>	1.02 (0.89, 1.16)	<b>1.45</b> <b>(1.23, 1.74)</b>	1.35 (0.97, 1.93)	<b>2.60</b> <b>(1.91, 3.68)</b>	<b>2.36</b> <b>(1.23, 5.28)</b>	<b>1.65</b> <b>(1.48, 1.83)</b>	0.92 (0.78, 1.09)
Partner education	<b>1.45</b> <b>(1.33, 1.57)</b>	1.03 (0.90, 1.18)	<b>1.32</b> <b>(1.21, 1.43)</b>	0.93 (0.82, 1.07)	<b>1.39</b> <b>(1.14, 1.71)</b>	0.97 (0.72, 1.31)	<b>2.26</b> <b>(1.67, 3.16)</b>	1.17 (0.78, 1.83)	<b>1.52</b> <b>(1.35, 1.70)</b>	0.99 (0.85, 1.15)
Gravidity	<b>0.80</b> <b>(0.76, 0.85)</b>	0.96 (0.84, 1.10)	<b>0.81</b> <b>(0.77, 0.85)</b>	0.97 (0.85, 1.11)	1.08 (0.97, 1.20)	1.05 (0.79, 1.36)	1.05 (0.92, 1.21)	1.05 (0.77, 1.41)	<b>0.87</b> <b>(0.82, 0.93)</b>	1.06 (0.92, 1.22)
Parity	<b>0.77</b> <b>(0.73, 0.81)</b>	<b>0.84</b> <b>(0.72, 0.97)</b>	<b>0.78</b> <b>(0.74, 0.83)</b>	<b>0.77</b> <b>(0.67, 0.90)</b>	1.02 (0.91, 1.14)	0.97 (0.72, 1.31)	1.00 (0.86, 1.15)	1.01 (0.73, 1.43)	<b>0.81</b> <b>(0.76, 0.87)</b>	<b>0.82</b> <b>(0.70, 0.97)</b>
Fertility treatment, ref=no	0.89 (0.65, 1.22)	<b>0.56</b> <b>(0.40, 0.81)</b>	<b>0.64</b> <b>(0.47, 0.88)</b>	<b>0.43</b> <b>(0.30, 0.61)</b>	0.65 (0.25, 1.36)	0.55 (0.21, 1.18)	0.53 (0.13, 1.41)	<b>0.31</b> <b>(0.07, 0.85)</b>	1.07 (0.74, 1.53)	0.73 (0.50, 1.05)
Prenatal care, ref=no	<b>1.82</b> <b>(1.58, 2.11)</b>	1.04 (0.82, 1.31)	<b>1.36</b> <b>(1.18, 1.57)</b>	0.82 (0.65, 1.05)	0.85 (0.63, 1.17)	<b>0.49</b> <b>(0.31, 0.80)</b>	<b>3.34</b> <b>(1.85, 6.81)</b>	1.01 (0.48, 2.49)	<b>1.84</b> <b>(1.48, 2.30)</b>	0.93 (0.70, 1.24)
Anxiety, ref=no	<b>0.83</b> <b>(0.71, 0.96)</b>	1.07 (0.85, 1.35)	0.90 (0.78, 1.05)	0.97 (0.77, 1.23)	1.29 (0.95, 1.74)	0.94 (0.56, 1.52)	0.80 (0.51, 1.21)	1.07 (0.56, 1.92)	0.90 (0.74, 1.10)	1.27 (0.98, 1.64)
Depression, ref=no	<b>0.80</b> <b>(0.66, 0.96)</b>	0.87 (0.64, 1.17)	0.88 (0.73, 1.07)	1.00 (0.74, 1.33)	<b>1.77</b> <b>(1.24, 2.47)</b>	1.68 (0.91, 2.99)	1.00 (0.58, 1.63)	1.54 (0.68, 3.20)	0.79 (0.61, 1.02)	0.84 (0.59, 1.19)
Health coverage	<b>0.69</b> <b>(0.65, 0.74)</b>	0.91 (0.78, 1.05)	<b>0.78</b> <b>(0.73, 0.83)</b>	1.03 (0.89, 1.20)	<b>0.77</b> <b>(0.68, 0.88)</b>	1.05 (0.78, 1.39)	<b>0.56</b> <b>(0.47, 0.67)</b>	0.99 (0.70, 1.37)	<b>0.67</b> <b>(0.62, 0.72)</b>	1.06 (0.91, 1.23)
Government support	<b>0.77</b> <b>(0.73, 0.81)</b>	0.94 (0.84, 1.04)	<b>0.80</b> <b>(0.76, 0.84)</b>	<b>0.83</b> <b>(0.75, 0.92)</b>	<b>0.81</b> <b>(0.73, 0.90)</b>	0.83 (0.67, 1.03)	<b>0.67</b> <b>(0.58, 0.76)</b>	1.01 (0.78, 1.29)	<b>0.74</b> <b>(0.71, 0.78)</b>	0.94 (0.84, 1.05)
Household income	<b>1.35</b> <b>(1.27, 1.44)</b>	<b>1.16</b> <b>(1.03, 1.31)</b>	<b>1.23</b> <b>(1.15, 1.30)</b>	<b>1.13</b> <b>(1.00, 1.26)</b>	<b>1.19</b> <b>(1.04, 1.38)</b>	0.90 (0.68, 1.19)	<b>1.77</b> <b>(1.42, 2.28)</b>	0.90 (0.57, 1.46)	<b>1.66</b> <b>(1.51, 1.83)</b>	<b>1.23</b> <b>(1.06, 1.43)</b>
Relocation	0.98 (0.90, 1.06)	1.10 (0.98, 1.23)	1.04 (0.96, 1.13)	<b>1.13</b> <b>(1.01, 1.27)</b>	1.00 (0.84, 1.18)	1.22 (0.95, 1.54)	<b>0.75</b> <b>(0.58, 0.94)</b>	0.98 (0.70, 1.34)	0.93 (0.84, 1.03)	1.08 (0.95, 1.23)

Note: Boldface indicates statistical significance (95% CI not including 1).

<sup>a</sup>Values assigned to each variable are in Appendix Table 1.

LMP, last menstrual period.

**Appendix**  
**Prenatal Drinking in the Northern Plains:**  
**Differences Between American Indian and Caucasian Mothers**  
**Ye et al.**

**Appendix Table 6.** Associations of Binge Drinking During and After Pregnancy With Race and Other Maternal Characteristics

Variables <sup>a</sup>	LMP		First trimester		1 month post-delivery	
	OR (95% CI)	AOR (95% CI)	OR (95% CI)	AOR (95% CI)	OR (95% CI)	AOR (95% CI)
American Indian, ref=Caucasian	<b>1.45 (1.28, 1.65)</b>	<b>1.40 (1.05, 1.86)</b>	<b>1.60 (1.42, 1.81)</b>	<b>1.35 (1.03, 1.79)</b>	<b>1.43 (1.08, 1.89)</b>	0.85 (0.53, 1.37)
Hispanic, ref=no	1.14 (0.84, 1.55)	0.84 (0.49, 1.37)	1.29 (0.95, 1.72)	0.85 (0.51, 1.38)	<b>2.11 (1.11, 3.69)</b>	2.01 (0.97, 3.82)
Age	0.90 (0.77, 1.04)	<b>1.28 (1.01, 1.63)</b>	<b>0.85 (0.73, 0.98)</b>	1.21 (0.96, 1.53)	0.82 (0.59, 1.15)	<b>1.62 (1.06, 2.47)</b>
Married or partnered, ref=single	<b>0.61 (0.52, 0.72)</b>	0.76 (0.55, 1.04)	<b>0.55 (0.47, 0.66)</b>	0.80 (0.59, 1.09)	<b>0.62 (0.44, 0.90)</b>	0.70 (0.43, 1.17)
Education	<b>0.89 (0.83, 0.96)</b>	0.96 (0.83, 1.11)	<b>0.83 (0.77, 0.89)</b>	0.96 (0.83, 1.11)	<b>0.73 (0.63, 0.85)</b>	<b>0.71 (0.55, 0.92)</b>
Partner education	<b>0.86 (0.78, 0.94)</b>	0.96 (0.83, 1.11)	<b>0.85 (0.78, 0.93)</b>	0.92 (0.80, 1.06)	<b>0.66 (0.55, 0.79)</b>	0.81 (0.63, 1.04)
Gravidity	<b>0.92 (0.87, 0.97)</b>	1.10 (0.95, 1.27)	<b>0.92 (0.87, 0.97)</b>	1.00 (0.86, 1.16)	0.93 (0.82, 1.05)	1.07 (0.80, 1.40)
Parity	<b>0.91 (0.86, 0.96)</b>	<b>0.76 (0.64, 0.89)</b>	<b>0.92 (0.87, 0.97)</b>	<b>0.83 (0.70, 0.98)</b>	0.91 (0.80, 1.04)	0.73 (0.54, 1.00)
Fertility treatment, ref=no	<b>0.42 (0.26, 0.65)</b>	<b>0.52 (0.31, 0.82)</b>	<b>0.27 (0.16, 0.43)</b>	<b>0.34 (0.19, 0.56)</b>	<b>0.21 (0.03, 0.67)</b>	0.31 (0.05, 1.02)
Prenatal care, ref=no	1.00 (0.85, 1.17)	1.12 (0.86, 1.46)	0.86 (0.74, 1.00)	0.96 (0.75, 1.24)	0.89 (0.62, 1.31)	1.15 (0.73, 1.88)
Anxiety, ref=no	<b>1.34 (1.14, 1.58)</b>	1.27 (0.99, 1.62)	<b>1.41 (1.20, 1.65)</b>	1.12 (0.87, 1.43)	<b>1.76 (1.26, 2.44)</b>	1.39 (0.90, 2.10)
Depression, ref=no	<b>1.32 (1.07, 1.61)</b>	0.94 (0.68, 1.29)	<b>1.30 (1.07, 1.59)</b>	1.02 (0.75, 1.39)	<b>1.58 (1.02, 2.36)</b>	0.88 (0.49, 1.51)
Health coverage	<b>1.19 (1.11, 1.27)</b>	1.06 (0.90, 1.25)	<b>1.24 (1.16, 1.33)</b>	1.11 (0.94, 1.30)	<b>1.47 (1.27, 1.71)</b>	<b>1.45 (1.07, 1.93)</b>
Government support	<b>1.11 (1.06, 1.17)</b>	0.98 (0.87, 1.10)	<b>1.12 (1.07, 1.18)</b>	0.93 (0.83, 1.05)	<b>1.23 (1.12, 1.36)</b>	0.93 (0.75, 1.16)
Household income	<b>0.86 (0.81, 0.92)</b>	1.08 (0.95, 1.23)	<b>0.84 (0.79, 0.89)</b>	1.08 (0.95, 1.22)	0.87 (0.76, 1.01)	1.22 (0.98, 1.52)
Relocation	<b>1.29 (1.18, 1.41)</b>	1.10 (0.97, 1.24)	<b>1.32 (1.21, 1.43)</b>	1.11 (0.98, 1.25)	<b>1.50 (1.25, 1.79)</b>	1.17 (0.94, 1.46)

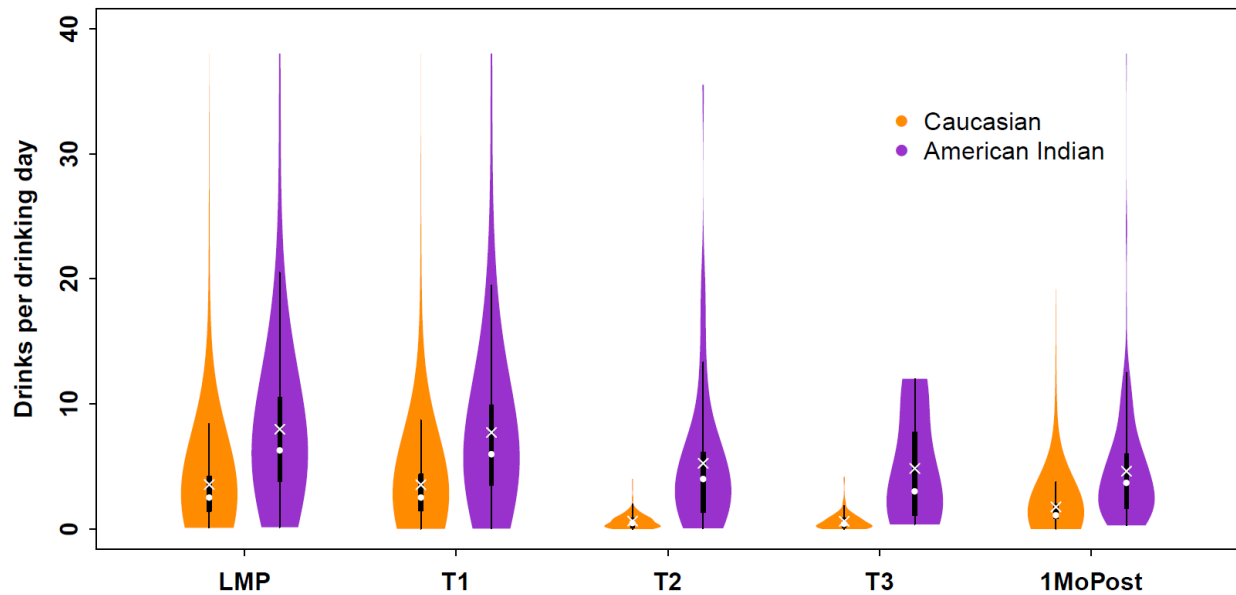
Note: Boldface indicates statistical significance (95% CI not including 1).

<sup>a</sup>Values assigned to each variable are in Appendix Table 1.

LMP, last menstrual period.

**Appendix**  
**Prenatal Drinking in the Northern Plains:**  
**Differences Between American Indian and Caucasian Mothers**  
**Ye et al.**

**Appendix Figure 1.** The number of drinks per drinking day during and after pregnancy by race.



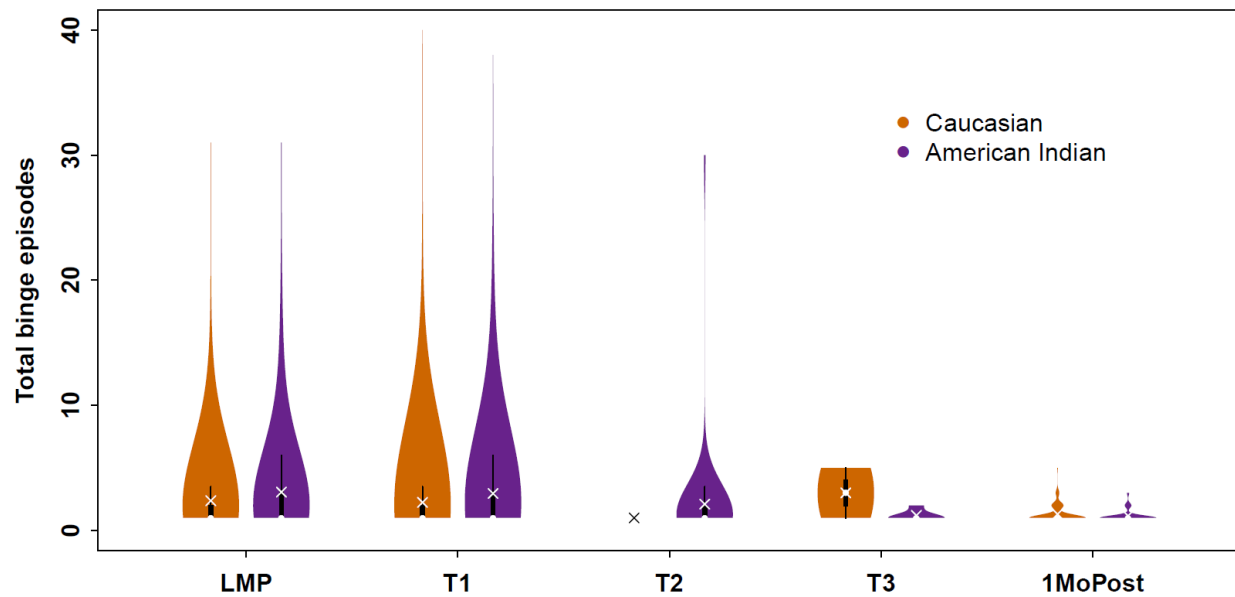
*Notes:* The number of drinks per drinking day was calculated for those who consumed alcoholic beverages at each time frame. The value was truncated at 38. Significant differences in the amount of alcohol were found between American Indian and Caucasian mothers at all time frames ( $p < 0.05$ , Wilcoxon rank-sum test). Median: white dot; mean: white cross sign; IQR: thick black bar; 95% CI: thin black bar.

LMP, last menstrual period; T1, first trimester; T2, second trimester; T3, third trimester, 1MoPost, 1 month post-delivery.



**Appendix**  
**Prenatal Drinking in the Northern Plains:**  
**Differences Between American Indian and Caucasian Mothers**  
**Ye et al.**

**Appendix Figure 2.** Frequency of binge drinking during and after pregnancy by race.



*Notes:* The number of total binge episodes was calculated for those who were binge drinkers at each time frame. Significant differences in the number of episodes were found between American Indian and Caucasian mothers 15 days before and after LMP and in the first trimester ( $p < 0.05$ , Wilcoxon rank-sum test). Median: white dot; mean: white cross sign; IQR: thick black bar; 95% CI: thin black bar. Only one Caucasian mother binged in the second trimester, represented by a black cross sign.

LMP, last menstrual period; T1, first trimester; T2, second trimester; T3, third trimester, 1MoPost, 1 month post-delivery.