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Julie M. Tabroff
University of Massachusetts Medical School

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Demographic Characteristics Associated with the Presence of Recalled and Measured Prepregnancy Weights

Julie M. Tabroff MSIV[1], Jessica V. Masiero MSIV[1], Elizabeth Scannell, MD[3a], Katherine Leung MS[1a], Molly E. Waring PhD[1b], Tiffany A. Moore Simas, MD MPH MEd[1ac, 2a]

[1]University of Massachusetts Medical School, [2] UMass Memorial Health Care, Worcester, MA [3]Mount Sinai Beth Israel, NY, NY, [a] Obstetrics & Gynecology,[b] Quantitative Health Sciences, [c] Pediatrics

Background and Objective

Gestational weight gain, outside a pre-pregnancy BMI-specific recommended range, is associated with poor obstetric outcomes.

Our study examined demographic characteristics associated with the presence of recalled and measured prepregnancy weights in the prenatal medical record – weights needed by providers to make accurate recommendations and counsel.

Methods

Medical record review of 1,998 randomly selected pregnancies with deliveries between Jan 2007 and Dec 2012 who received prenatal care in faculty and resident clinic sites at UMMHC.

Subjects' paper prenatal chart and electronic record (AllScripts and QS prenatal EMR) were reviewed.

Demographic data was abstracted for all available charts

Logistic regression models estimated odds ratio (OR) and 95% confidence intervals (CI's). Adjusted models adjusted for age, BMI, race, marital status, gravidity, education and site of care.

Pregnancies included in analytic sample
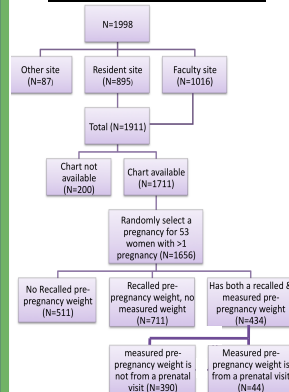
Results

Overweight women had decreased odds of having a recalled weight compared to normal BMI women

Women with ≥4 years of college compared to those with ≤ high school diploma, and those receiving care in the faculty compared to the resident clinics had decreased odds of having a recalled weight available in the chart.

Among women with available recalled prepregnancy weight (n=1101), 390 (35.4%) also had a documented measured weight within one year of conception and 711 (64.6%) did not.

Women who were not married had decreased odds of having a measured weight, whereas those receiving care in the faculty compared to resident clinics had greater odds of having a measured weight within one year of conception available in their charts.

Characteristics of women with and without **recalled** pre-pregnancy weight

N= 1612	Available (N=1101) N (%)	Not available (N=511) N (%)	Adjusted OR (95% CI)
Age			
≤ 19 years	90 (8.2)	25 (4.9)	0.94 (0.52-1.71)
20 – 24 years	243 (22.1)	91 (17.8)	0.86 (0.59-1.25)
25 – 29 years	280 (25.5)	118 (23.1)	(Reference)
30 – 34 years	292 (26.6)	153 (29.9)	0.86 (0.62-1.20)
≥ 35 years	194 (17.7)	124 (24.3)	0.76 (0.53-1.09)
Prepregnancy BMI			
Underweight	46 (4.6)	9 (2.0)	1.68 (0.79-3.58)
Normal weight	419 (42.2)	177 (40.0)	(Reference)
Overweight	257 (25.9)	136 (30.7)	**0.75 (0.56-1.00)**
Obese	270 (27.2)	121 (27.3)	0.81 (0.60-1.09)
Race			
White	590 (55.2)	277 (56.1)	(Reference)
Non-White	479 (44.8)	217 (43.9)	0.88 (0.68-1.15)
Marital status			
Married	560 (51.0)	305 (59.8)	(Reference)
Not Married	537 (49.0)	205 (40.2)	0.82 (0.61-1.10)
Primary language			
English	836 (79.1)	381 (77.9)	-
Non-English	221 (20.9)	108 (22.1)	-
Gravity			
1	335 (30.5)	133 (26.0)	(Reference)
2	313 (28.5)	164 (32.1)	0.89 (0.65-1.22)
3+	450 (41.0)	214 (41.9)	0.86 (0.63-1.17)
Parity			
Nuliparous	457 (42.5)	177 (35.5)	-
Primiparous	365 (33.9)	190 (38.2)	-
2	157 (14.6)	80 (16.1)	-
3+	99 (9.2)	51 (10.2)	-
Education			
≤ High school	374 (34.0)	106 (20.9)	(Reference)
Some college	128 (11.6)	38 (7.5)	1.14 (0.71-1.83)
≥ 4 yrs college	597 (54.3)	364 (71.7)	**0.54 (0.40-0.73)**
Prenatal care site			
Faculty	509 (46.2)	323 (63.2)	**0.48 (0.35-0.65)**
Resident	592 (53.8)	188 (36.8)	(Reference)

Characteristics of women with and without **measured** pre-pregnancy weight

N=1101	Available (N=390) N (%)	Not available (N=711) N (%)	Adjusted OR (95% CI)
Age			
≤ 19 years	23 (5.9)	67 (9.4)	1.24 (0.65-2.34)
20 – 24 years	63 (16.2)	180 (25.4)	1.04 (0.67-1.61)
25 – 29 years	93 (23.8)	187 (26.4)	(Reference)
30 – 34 years	129 (33.1)	163 (23.0)	1.43 (0.98-2.09)
≥ 35 years	82 (21.0)	112 (15.8)	1.30 (0.84-1.99)
Prepregnancy BMI			
Underweight	12 (3.4)	34 (5.3)	0.76 (0.37-1.57)
Normal weight	155 (43.7)	264 (41.4)	(Reference)
Overweight	103 (29.0)	154 (24.2)	1.15 (0.82-1.62)
Obese	85 (23.9)	185 (29.0)	0.83 (0.59-1.18)
Race			
White	590 (55.2)	277 (56.1)	(Reference)
Non-White	479 (44.8)	217 (43.9)	0.88 (0.68-1.15)
Marital status			
Married	560 (51.0)	305 (43.1)	(Reference)
Not Married	537 (49.0)	403 (56.9)	**0.54 (0.39-0.76)**
Primary language			
English	836 (79.1)	520 (76.0)	-
Non-English	221 (20.9)	164 (24.0)	-
Gravity			
1	121 (31.2)	214 (30.1)	(Reference)
2	114 (29.4)	199 (28.0)	0.84 (0.58-1.21)
3+	153 (39.4)	297 (41.8)	0.92 (0.64-1.32)
Parity			
Nuliparous	161 (41.9)	296 (42.7)	-
Primiparous	139 (36.2)	226 (32.6)	-
2	56 (14.6)	101 (14.6)	-
3+	28 (7.3)	71 (10.2)	-
Education			
≤ High school	104 (26.7)	270 (38.0)	(Reference)
Some college	45 (11.6)	83 (11.7)	1.02 (0.63-1.65)
≥ 4 yrs college	240 (61.7)	357 (50.3)	1.01 (0.71-1.43)
Prenatal care site			
Faculty	244 (62.6)	265 (37.3)	**1.79 (1.26-2.53)**
Resident	146 (37.4)	466 (62.7)	(Reference)

Conclusions

~25% had both recall weight and at least one weight measured within one year of conception in their medical records. Demographic parameters were associated with presence of recalled weight (prepregnancy BMI, education and site of care). Amongst those with recalled weight, demographics were also associated with presence of measured weight within one year of conception (marital status and site of care).

This information can be used to help practitioners target women for which greater efforts are needed to provide accurate IOM-recommended BMI-specific gestational weight gain guidelines.

This data may be utilized to discern patterns of health care access in this patient population.