

Maternal Factors Associated with Early Childhood Caries in Urban Latino Children

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Appendix

Sample Size Justification

Since the study was descriptive; a sample size was chosen that would be sufficiently large to achieve acceptably narrow 95% confidence intervals for the estimates of mean values. Standard deviations for the psychosocial measures from the BRFQ in a southwestern tribe clinical trial was used to estimate the expected width of the 95% confidence intervals (Table 1). The sample size of 100 yielded an acceptable width of these confidence intervals.

Appendix Table 1. Expected 95% Confidence Intervals for Psychosocial Measures with Sample Size of 100

<u>Psychosocial Measure</u>	<u>Range of Values</u>	<u>SD</u>	<u>Expected Width of 95% CI</u>
Locus of Control	1-5	1.0	±0.2
Health Beliefs	1-5	0.8	±0.16
Self-Efficacy	1-5	0.6	±0.12
Importance	1-5	0.4	±0.08
Oral Health Behavior	0-100	22	±4.4
Oral Health Knowledge	0-100	12	±2.4

Appendix Table 2. All regression coefficients from negative binomial models adjusted for age, gender, language, and education (\geq HS). Estimates are interpreted as the multiplicative change in dmfs for a one unit change in the predictor, e.g. for every one year change in age, dmfs increases by 1.637 times. For categorical predictors, this change is the difference between the reference level and the category listed as the primary predictor (e.g. females have 0.97 times the number of DMFS for males). Knowledge and Behavior predictors have units of number of questions answered correctly; remaining scales have units of the average Likert response (1-5).

Primary covariate	Coefficient name	Estimate	2.5 %	97.5 %	p-value (Z)	p-value (LRT)
Oral health behavior	(Intercept)	2.842	0.576	15.354	$P = 0.1994$	
	behavior	0.838	0.703	0.999	$P = 0.0429$	$P = 0.0490$
	age	1.599	1.201	2.127	$P = 0.0011$	$P = 0.0015$
	Female	0.912	0.463	1.789	$P = 0.7723$	$P = 0.7875$
	Spanish	1.994	1.054	3.860	$P = 0.0384$	$P = 0.0338$
	education_hs_or_moreHS or more	0.898	0.440	1.800	$P = 0.7462$	$P = 0.7627$
Oral health knowledge	(Intercept)	4.772	0.221	137.523	$P = 0.3580$	
	knowledge	0.913	0.759	1.082	$P = 0.3282$	$P = 0.3018$
	age	1.636	1.227	2.181	$P = 0.0008$	$P = 0.0009$
	Female	0.960	0.494	1.868	$P = 0.9034$	$P = 0.9048$
	Spanish	1.907	0.974	3.808	$P = 0.0527$	$P = 0.0596$
	education_hs_or_moreHS or more	0.869	0.421	1.753	$P = 0.6764$	$P = 0.6964$
Self-efficacy	(Intercept)	0.994	0.069	20.044	$P = 0.9962$	
	self_efficacy	1.017	0.548	1.775	$P = 0.9487$	$P = 0.9546$
	age	1.632	1.219	2.182	$P = 0.0009$	$P = 0.0012$
	Female	0.970	0.491	1.915	$P = 0.9262$	$P = 0.9302$
	Spanish	2.013	1.014	4.041	$P = 0.0444$	$P = 0.0456$
	education_hs_or_moreHS	0.855	0.408	1.756	$P =$	$P = 0.6717$

	or more				0.6466	
Knowledge on dental utilization	(Intercept)	0.353	0.039	3.740	$P = 0.3160$	
	knowledge_on_util	1.417	0.763	2.529	$P = 0.1379$	$P = 0.2624$
	age	1.616	1.214	2.148	$P = 0.0011$	$P = 0.0011$
	Female	0.950	0.488	1.850	$P = 0.8735$	$P = 0.8789$
	Spanish	1.916	0.985	3.808	$P = 0.0599$	$P = 0.0554$
	education_hs_or_moreHS or more	0.788	0.377	1.616	$P = 0.4909$	$P = 0.5176$
Oral health locus of control (3 sub scales)						
Internal OHLOC	(Intercept)	0.408	0.035	6.611	$P = 0.3933$	
	loc_internal	1.253	0.708	2.091	$P = 0.2368$	$P = 0.4226$
	age	1.623	1.212	2.168	$P = 0.0010$	$P = 0.0013$
	Female	1.045	0.519	2.114	$P = 0.8927$	$P = 0.9019$
	Spanish	2.004	1.020	4.018	$P = 0.0382$	$P = 0.0435$
	education_hs_or_moreHS or more	0.808	0.378	1.674	$P = 0.5366$	$P = 0.5704$
External Powerful other OHLOC	(Intercept)	0.866	0.209	3.918	$P = 0.8508$	
	loc_external_others	1.117	0.773	1.658	$P = 0.5102$	$P = 0.5627$
	age	1.622	1.213	2.166	$P = 0.0010$	$P = 0.0012$
	Female	0.926	0.460	1.849	$P = 0.8150$	$P = 0.8276$
	Spanish	2.050	1.043	4.122	$P = 0.0318$	$P = 0.0374$
	education_hs_or_moreHS or more	0.848	0.406	1.728	$P = 0.6252$	$P = 0.6520$
External chance OHLOC	(Intercept)	1.125	0.286	4.567	$P = 0.8748$	
	loc_external_chance	0.959	0.689	1.363	$P = 0.7838$	$P = 0.8119$
	age	1.648	1.226	2.213	$P =$	$P = 0.0011$

					0.0008	
	Female	0.966	0.475	1.962	$P = 0.9169$	$P = 0.9229$
	Spanish	1.911	0.967	3.862	$P = 0.0588$	$P = 0.0624$
	education_hs_or_moreHS or more	0.881	0.395	1.907	$P = 0.7159$	$P = 0.7502$
HBM Perceived severity	(Intercept)	4.058	0.563	32.528	$P = 0.1716$	
	hbm_severity	0.745	0.522	1.040	$P = 0.0983$	$P = 0.0850$
	age	1.583	1.186	2.109	$P = 0.0016$	$P = 0.0020$
	Female	0.846	0.438	1.649	$P = 0.6038$	$P = 0.6208$
	Spanish	1.970	1.014	3.900	$P = 0.0409$	$P = 0.0454$
	education_hs_or_moreHS or more	0.923	0.452	1.842	$P = 0.8127$	$P = 0.8225$
HBM Perceived barriers	(Intercept)	0.718	0.125	4.300	$P = 0.7061$	
	hbm_barriers	1.180	0.708	1.941	$P = 0.5486$	$P = 0.5175$
	age	1.646	1.227	2.204	$P = 0.0007$	$P = 0.0010$
	Female	0.994	0.506	1.945	$P = 0.9863$	$P = 0.9868$
	Spanish	1.865	0.924	3.852	$P = 0.0811$	$P = 0.0822$
	education_hs_or_moreHS or more	0.903	0.428	1.855	$P = 0.7697$	$P = 0.7844$
HBM Perceived susceptibility	(Intercept)	0.499	0.077	3.398	$P = 0.4511$	
	hbm_susceptibility	1.281	0.813	2.015	$P = 0.1935$	$P = 0.2861$
	age	1.634	1.223	2.179	$P = 0.0008$	$P = 0.0010$
	Female	0.959	0.488	1.882	$P = 0.8966$	$P = 0.9020$
	Spanish	2.100	1.069	4.215	$P = 0.0298$	$P = 0.0312$
	education_hs_or_moreHS or more	0.794	0.375	1.638	$P = 0.4981$	$P = 0.5357$
hbm_benefits	(Intercept)	0.459	0.045	6.636	$P = 0.4453$	

hbm_benefits	1.218	0.710	1.950	$P = 0.2893$	$P = 0.4543$
age	1.635	1.223	2.182	$P = 0.0008$	$P = 0.0010$
Female	1.013	0.511	2.013	$P = 0.9678$	$P = 0.9699$
Spanish	1.902	0.963	3.842	$P = 0.0554$	$P = 0.0643$
education_hs_or_moreHS or more	0.848	0.407	1.725	$P = 0.6299$	$P = 0.6509$
