

**Supplement for “Designing warnings for sugary drinks: A randomized experiment with Latino parents and non-Latino parents”**

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**eTable 1.** Measures used in study

<b>Construct</b>	<b>Question - English</b>	<b>Response Options - English</b>	<b>Question - Spanish</b>	<b>Response Options – Spanish</b>
Perceived message effectiveness, Item 1	This message makes me concerned about the health effects of drinking beverages with added sugar.	1=Strongly disagree 2=Somewhat disagree 3=Neither agree nor disagree 4=Somewhat agree 5=Strongly agree	Este mensaje hace que me preocupe sobre los efectos de salud que causan las bebidas azucaradas.	1=Completamente en desacuerdo 2=Algo en desacuerdo 3=Ni de acuerdo ni en desacuerdo 4=Algo de acuerdo 5=Completamente de acuerdo
Perceived message effectiveness, Item 2	This message makes drinking beverages with added sugar seem unpleasant to me.	1=Strongly disagree 2=Somewhat disagree 3=Neither agree nor disagree 4=Somewhat agree 5=Strongly agree	Este mensaje hace que tomar bebidas azucaradas no me parezca apetecible.	1=Completamente en desacuerdo 2=Algo en desacuerdo 3=Ni de acuerdo ni en desacuerdo 4=Algo de acuerdo 5=Completamente de acuerdo
Perceived message effectiveness, Item 3	This message discourages me from wanting to drink beverages with added sugar.	1=Strongly disagree 2=Somewhat disagree 3=Neither agree nor disagree 4=Somewhat agree 5=Strongly agree	Este mensaje hace que no quiera tomar bebidas azucaradas.	1=Completamente en desacuerdo 2=Algo en desacuerdo 3=Ni de acuerdo ni en desacuerdo 4=Algo de acuerdo 5=Completamente de acuerdo
Harms of sugary drink consumption	How much does this message make you think about the health problems caused by drinking beverages with added sugar?	1=Not at all 2=A little bit 3=Somewhat 4=Quite a bit 5=Very much	¿Cuánto le hace pensar este mensaje en los problemas de salud que causan las bebidas azucaradas?	1=Nada 2=Un poco 3=Algo 4=Bastante 5=Mucho
Perceived healthfulness of sugary drinks for child	How healthy or unhealthy would it be for [child] to drink this	1=Very unhealthy 2=Somewhat unhealthy	¿Qué tan saludable piensa que es que [child] tome esta	1=Muy poco saludable 2=Poco saludable

	beverage every day?	3=Neither healthy nor unhealthy 4=Somewhat healthy 5=Very healthy	bebida todos los días?	3=Ni saludable ni poco saludable 4=Saludable 5=Muy saludable
Intentions to purchase sugary drinks for child	How likely would you be to buy this beverage for [child], if it were available?	1=Not at all likely 2=A little likely 3=Fairly likely 4=Very likely 5=Extremely likely	¿Compraría esta bebida para [child] si estuviera disponible?	1=Muy improbable 2= Improbable 3=Ni probable ni improbable 4= Probable 5=Muy probable
Which warning most discouraged sugary drink consumption	Which of these messages would discourage you <u>most</u> from wanting to drink beverages with added sugar?	[Show all warning designs for the person's assigned warning topic]	¿Cuál de estos mensajes le influiría más para no querer tomar bebidas azucaradas?	[Show all warning designs for the person's assigned warning topic]

**eTable 2.** Raw means and standard deviations of each outcome by warning topic and design

	Perceived message effectiveness		Thinking about harms		Perceived healthfulness		Purchase Intentions	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
<b>Added sugar</b>								
Text	3.9	1.0	3.6	1.2	1.9	1.2	2.3	1.2
Graphic	4.2	1.0	4.1	1.1	1.7	1.1	2.2	1.2
Icon	4.2	1.0	3.9	1.2	1.8	1.1	2.1	1.2
<b>Weight gain</b>								
Text	3.9	0.9	3.6	1.1	2.1	1.3	2.3	1.2
Graphic	4.3	0.9	4.1	1.2	1.9	1.3	2.1	1.2
Icon	4.1	0.9	3.8	1.1	2.0	1.4	2.3	1.2
<b>Type-2 diabetes</b>								
Text	3.8	1.0	3.6	1.2	2.1	1.3	2.3	1.1
Graphic	4.4	0.9	4.1	1.1	1.8	1.3	2.0	1.1
Icon	3.9	1.0	3.7	1.2	1.9	1.2	2.2	1.2
<b>Heart damage</b>								
Text	3.8	1.0	3.6	1.2	2.1	1.3	2.4	1.2
Graphic	4.2	0.9	3.9	1.2	1.9	1.3	2.2	1.3
Icon	4.1	1.0	3.8	1.2	2.0	1.3	2.2	1.2
<b>Littering (control)</b>								
Text	2.3	1.4	2.5	1.5	2.1	1.3	2.7	1.2
Graphic	2.2	1.4	2.4	1.5	2.1	1.3	2.6	1.2
Icon	2.4	1.4	2.5	1.5	2.1	1.3	2.6	1.3

**eTable 3.** Effects of warning topic and warning design on study outcomes,  $n=1,078$ .

	Perceived message effectiveness			Thinking about the harms of sugary drinks for child			Perceived healthfulness of sugary drinks for child			Intentions to purchase sugary drinks for child		
	<i>d</i>	Lower bound CI	Upper bound CI	<i>d</i>	Lower bound CI	Upper bound CI	<i>d</i>	Lower bound CI	Upper bound CI	<i>d</i>	Lower bound CI	Upper bound CI
<b>Warning topic</b>												
Littering (reference)												
Added sugar	1.51	1.39	1.64	1.05	0.93	1.16	-0.27	-0.38	-0.16	-0.35	-0.46	-0.24
Heart damage	1.47	1.35	1.59	0.95	0.84	1.07	-0.11	-0.22	0.00	-0.29	-0.39	-0.18
Type 2 diabetes	1.46	1.33	1.58	0.98	0.86	1.09	-0.16	-0.27	-0.05	-0.40	-0.51	-0.29
Weight gain	1.53	1.40	1.65	1.03	0.92	1.15	-0.10	-0.21	0.01	-0.29	-0.40	-0.18
<b>Warning design</b>												
Text (reference)												
Icon	0.14	0.06	0.23	0.12	0.03	0.20	-0.08	-0.17	0.00	-0.09	-0.17	0.00
Graphic	0.23	0.14	0.31	0.26	0.17	0.34	-0.14	-0.23	-0.06	-0.13	-0.21	-0.04

*Note.* *d*=Cohen's *d*. CI=confidence interval. No account taken of repeated nature of responses within warning topic (across warning designs).







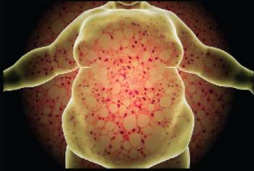



**eTable 4.** Effects of warning type, warning design, and English language use and their interactions on perceived message effectiveness,  $n=1,078$ .

	$\beta$	SE	$p$
<b>Warning topic</b>			
Added sugar	1.68	0.11	<0.001
Heart damage	1.62	0.11	<0.001
Type 2 diabetes	1.57	0.11	<0.001
Weight gain	1.59	0.11	<0.001
<b>Warning design</b>			
Icon	0.03	0.06	0.017
Graphic	-0.15	0.06	0.622
<b>Topic X design</b>			
Added sugar X icon	0.22	0.09	0.014
Added sugar X graphic	0.46	0.09	<0.001
Heart damage X icon	0.19	0.09	0.038
Heart damage X graphic	0.53	0.09	<0.001
Type 2 diabetes X icon	0.07	0.09	0.478
Type 2 diabetes X graphic	0.66	0.09	<0.001
Weight gain X icon	0.15	0.09	0.103
Weight gain X graphic	0.51	0.09	<0.001
<b>Low English Use (LEU)</b>	0.27	0.23	0.208
<b>Topic X LEU</b>			
Added sugar X LEU	0.14	0.31	0.659
Heart damage X LEU	-0.22	0.30	0.471
Type 2 diabetes X LEU	-0.25	0.29	0.391
Weight gain X LEU	-0.05	0.30	0.856
<b>Design X LEU</b>			
Icon X LEU	0.55	0.18	0.002
Graphic X LEU	0.52	0.18	0.005
<b>Topic X Design X LEU</b>			
Added sugar X icon X LEU	-0.91	0.26	<0.001
Added sugar X graphic X LEU	-1.07	0.26	<0.001
Heart damage X icon X LEU	-0.29	0.26	0.266
Heart damage X graphic X LEU	-0.54	0.26	0.036
Type 2 diabetes X icon X LEU	-0.36	0.25	0.141
Type 2 diabetes X graphic X LEU	-0.16	0.25	0.524
Weight gain X icon X LEU	-0.26	0.25	0.299

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Weight gain X graphic X LEU	-0.32	0.26	0.216
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eFigure 1. Stimuli used in experiment

	Added Sugar	Weight Gain	Warning Topic Type 2 Diabetes	Heart Damage	Control
Text	WARNING: High in added sugar.	WARNING: Excess consumption of drinks with added sugar contributes to weight gain.	WARNING: Excess consumption of drinks with added sugar contributes to type 2 diabetes.	WARNING: Excess consumption of drinks with added sugar contributes to heart damage.	Please refrain from littering.
Icon	 WARNING: High in added sugar.	 WARNING: Excess consumption of drinks with added sugar contributes to weight gain.	 WARNING: Excess consumption of drinks with added sugar contributes to type 2 diabetes.	 WARNING: Excess consumption of drinks with added sugar contributes to heart damage.	 Please refrain from littering.
Graphic	 WARNING: High in added sugar.	 WARNING: Excess consumption of drinks with added sugar contributes to weight gain.	 WARNING: Excess consumption of drinks with added sugar contributes to type 2 diabetes.	 WARNING: Excess consumption of drinks with added sugar contributes to heart damage.	 Please refrain from littering.
Octagon	WARNING: High in added sugar.	WARNING: Excess consumption of drinks with added sugar contributes to weight gain.	WARNING: Excess consumption of drinks with added sugar contributes to type 2 diabetes.	WARNING: Excess consumption of drinks with added sugar contributes to heart damage.	



**eFigure 2.** Proportion of participants choosing each warning design as most discouraging from wanting to consume sugary drinks, by warning topic. \*\* $p < .001$ , \* $p < .05$ , NS= $p > .05$  for each bar compared to the next.

