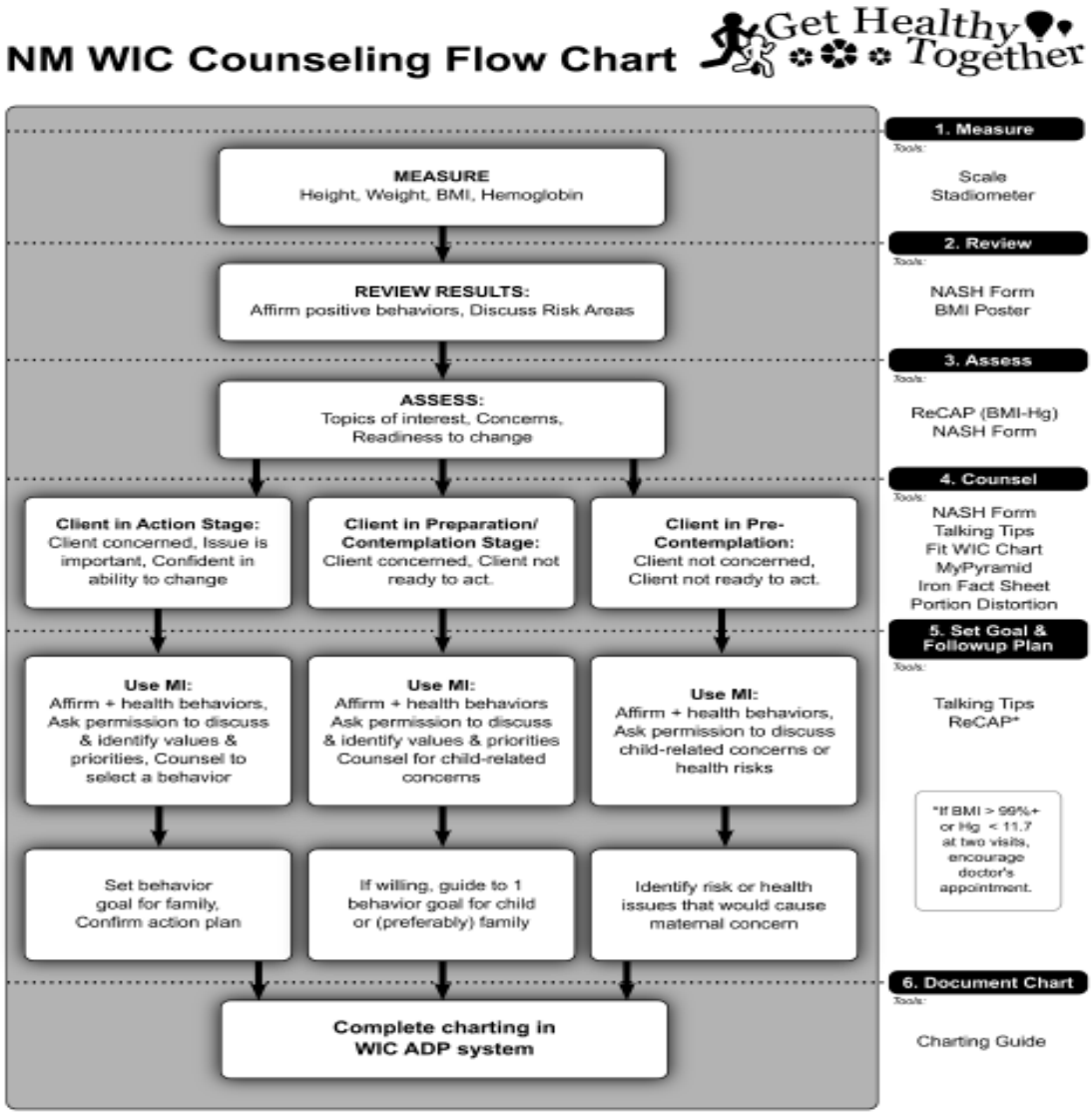
APPENDICES

NM WIC GET HEALTHY TOGETHER PROJECT

FINAL REPORT – DECEMBER 2010

Appendix A: GHT Skills Training Flowchart depicting nutrition counseling procedures.



Appendix B: Front page of GHT charting and documentation procedures tool

Charting Practices in WIC ADP

Charting Notes should document:

- **Health Status Indicators**
  - BMI %tile
  - Hemoglobin level
- **Concern of Mother / Readiness to Change**
  - Action (ready to make behavioral changes)
  - Concerned, but not yet ready to act
  - Not concerned about health risk identified by nutritionist
- **Behaviors** related to body weight:
  - Eat fruit and vegetable
  - Choose healthy beverages
  - Play together as a family
  - Watch less television
  - Enjoy family meals
  - Offer child size portions
  - Eat a healthy breakfast
- **Tools** useful in addressing behaviors:
  - NASH
  - BMI Poster
  - GHT Talking Tips
  - Report Card/Action Plan
  - MyPyramid
  - Iron Fact Sheet
  - Portion Distortion
  - WIC Fit Kids flip chart
- **Success or Barriers:** nutritionist's assessment of progress and/or barriers encountered in the interview.

See the above notes pertaining to the items in parenthesis

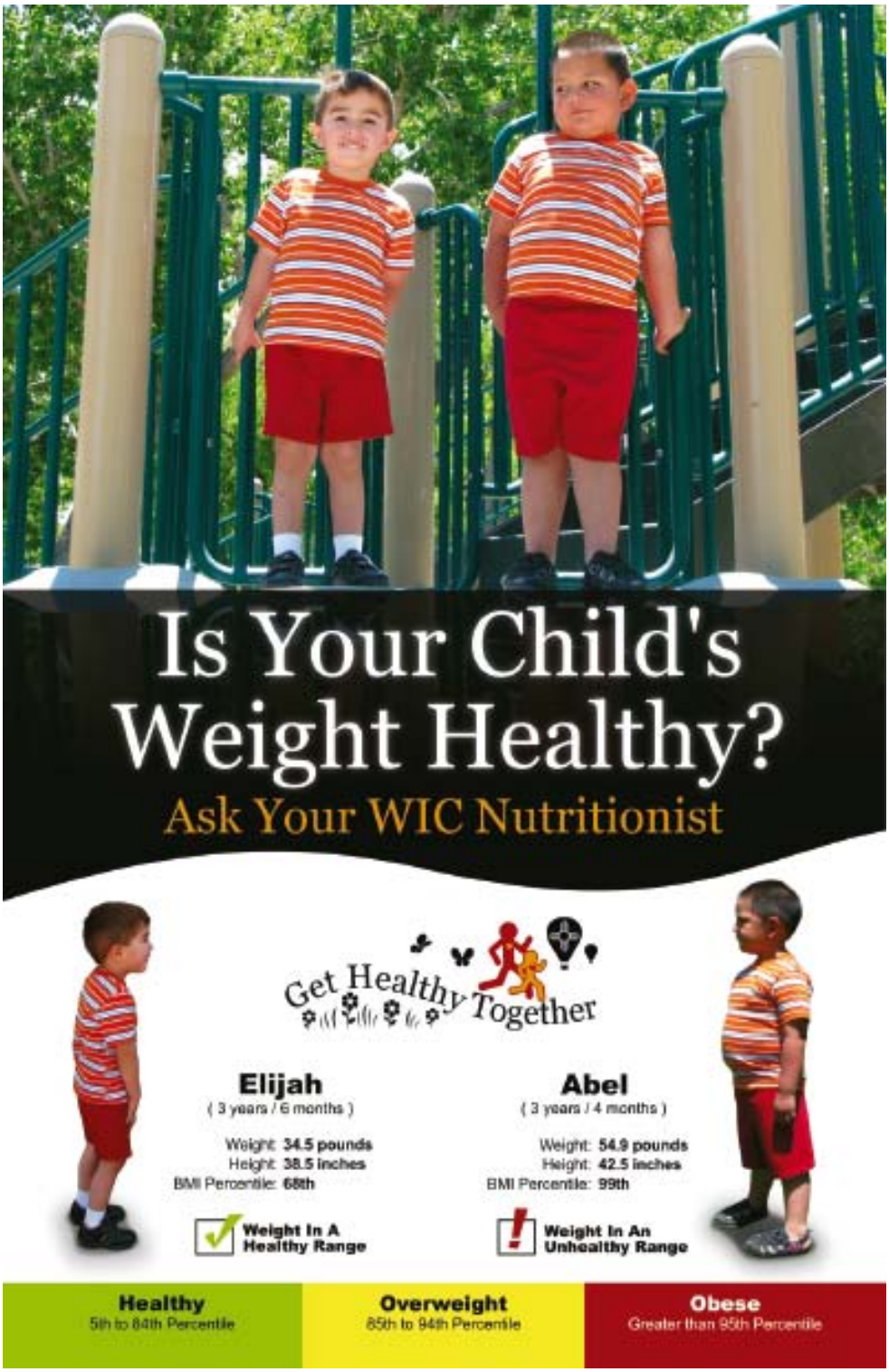
Issue	Documentation
BMI @ 85-95th%	Child is overweight, mother (in action, concerned, not concerned at this time. Discussed (behavior) and used (tool) with (success or barriers).
BMI >95th%	Child is obese, mother (in action, concerned, not concerned) at this time. Discussed (behavior) and used (tool) with (success or barriers). Referred to PCP for further follow up.
BMI >85th% c medical complication	Child is obese c asthma on nebulizer q pm (or other medical complication), mother (in action, concerned, not concerned) at this time. Discussed (behavior) and used (tool) with (success or barriers). Referred to PCP for further follow up.
Goal Setting	(Met/Did not meet) previous goal r/t (success or barriers).

Appendix B (page 2): Back page of charting and documentation procedures tool

Commonly Used Notations	Approved Abbreviation	Commonly Used Notations for Pediatric Overweight	Approved Abbreviation
Action	axn	Action	Axn
Beverages	bev	Beverages	Bev
Bowel Movement	BM	Breakfast	Bkft
Breakfast	Bkft	Eat less	Eat <
Breastfeed (ing/er)	BF	Eat more	Eat >
Calcium	ca	Concerned	Cnc
Client states	c/s	Family Meals	Fam Meals
Concerned	cnc	Fruit	Fru
Continue	cont	Fruit and Vegetable	f/v
Diagnosis	dx	Juice	jc
Discussed	dc	Low fat Milk	LF Milk
Due to	d/t	Motivational Interview	MI
Eat less	eat >	Nutrition	Nutr
Eat more	eat <	Not Concerned	No cnc
Encourage (d)	enc	Obese	Ob
Enfamil	Enf	Open-ended Question	OEQ
Enfamil with Iron	Enf c Fe	Overweight	OW
Every	q	Physical Activity	PA
Family Meals	fam meals		
Fruit	fru	**Commonly Used Tools for Pediatric Overweight**	**Approved Abbreviation**
Fruit and Vegetable	f/v		
Hemoglobin	hgb	NASH	NASH
History	hx	BMI Poster	BMI Poster
Infant	inf	GHT Talking Tips	TT
Instruction	instr	Report Card/Action Plan	ReCap
Introduce	intro	MyPyramid	MyPyr
Iron	Fe	Iron Fact Sheet	Fe Facts
Juice	jc	Portion Distortion	Port Dist
Low Fat Milk	LF Milk	WIC Fit Kids flip chart	Flip Ch
Month	mo		
Motivational Interview	MI		
Nutrition	nutr		
Not Concerned	no cnc		
Obese	Ob		
Open-ended Question	OEQ		
Ounce	oz		
Overweight	OW		
Per day	/d		
Physical Activity	PA		
Postpartum	PP		
Pound	lb		
Pregnancy	preg		
Prenatal Vitamin	pnv		
Prescription	Rx		
Reflection	rfl	Times per day	x/d
Related to	r/t	Vegetable	veg
Report Card/Action Plan	ReCap	Vitamin	vit
Rescheduled	r/s	Whole Milk	W Milk
Risk Factor	RF	With	c or w/
Television	TV	Year old	yr

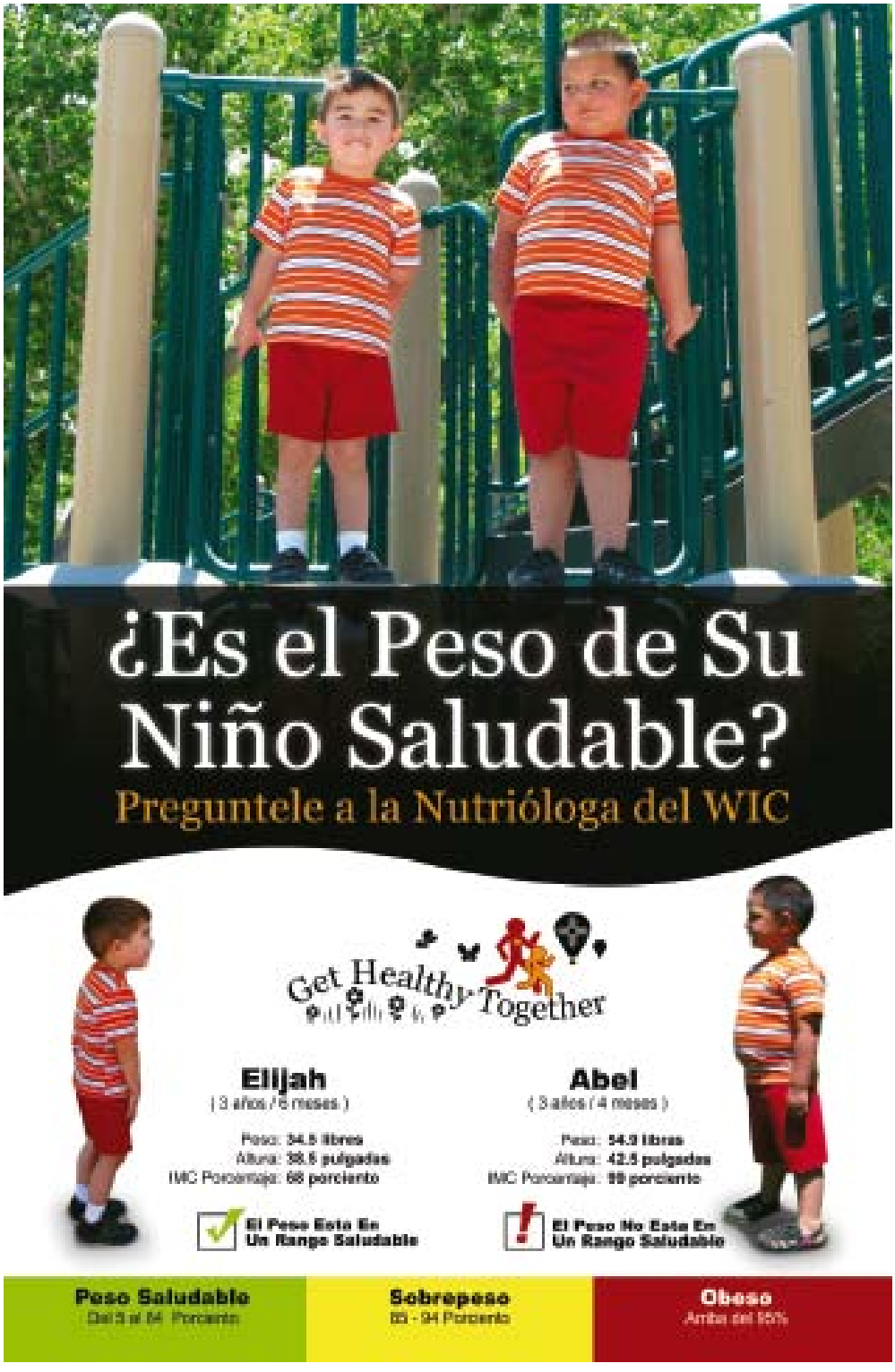
Appendix C: Skills Training Tools

I. BMI Posters – English



Appendix C (continued):

I. BMI Posters – Spanish



Appendix C (continued): Skills Training Tools

II. Nutrition and Activity Self-History Form (NASH) – English, front page

Nutrition & Physical Activity Self-History Form

Get Healthy Together

To be completed at all WIC visits by the parent or guardian with children ages 2 to 5 years. Please complete the questions below about your child.

Sex (*circle*): Male Female **Age**: _____ years _____ months

Medical Information:

1. Does your child have any medical problems today? ____Cold ____ Rashes ____ Wheezing/Asthma ____Diarrhea _____Constipation Other: _____
2. What items do you give your child/children (circle all that apply)? Vitamins Fluoride Iron
   Medicines (please write in his/her medicines): _____
3. Does your child have any food allergies? ____Yes ____No
   If yes, please write in his/her food allergies: _____

Family History: Do any family members have any of the following health conditions?:

Health Condition:	Circle the family member(s) with the health condition:					
Diabetes	Mother	Father	Grandparent	Aunt	Uncle	None/Unknown
Heart Disease / Heart Attack	Mother	Father	Grandparent	Aunt	Uncle	None/Unknown
High Blood Pressure	Mother	Father	Grandparent	Aunt	Uncle	None/Unknown
Obesity	Mother	Father	Grandparent	Aunt	Uncle	None/Unknown
Stroke	Mother	Father	Grandparent	Aunt	Uncle	None/Unknown

Please circle the answers to the questions below:

1. Food Choices - how many **times per day** does your child/children:
   a. Eat vegetables (not French fries)? 0-1 times/day 2-3 times/day 4-5 times/day 6-7 times/day
   b. Eat fruit? 0-1 times/day 2-3 times/day 4-5 times/day 6-7 times/day
   c. Eat fried food? 0-1 times/day 2-3 times/day 4-5 times/day 6-7 times/day
   d. Eat sweets and/or salty snacks? (such as chips, candy, cookies) 0-1 times/day 2-3 times/day 4-5 times/day 6-7 times/day
   e. Drink water? 0-1 times/day 2-3 times/day 4-5 times/day 6-7 times/day
   f. Drink juice? 0-1 times/day 2-3 times/day 4-5 times/day 6-7 times/day
   g. Drink soda or sweetened fruit drinks? 0-1 times/day 2-3 times/day 4-5 times/day 6-7 times/day
   h. What type of milk does your child/children drink most often:
   Whole 2% 1% Non-fat/Skim Soy Other types of milk (chocolate, lactose-free, etc.)
   Rarely drinks milk Never drinks milk Formula Breastmilk
2. Meal Patterns – how many **days per week** does your child/children:
   a. Eat breakfast? 0-1 days/wk 2-3 days/wk 4-5 days/wk 6-7 days/wk
   b. Eat a meal with the family? 0-1 days/wk 2-3 days/wk 4-5 days/wk 6-7 days/wk
   c. Eat "fast food" meals? 0-1 days/wk 2-3 days/wk 4-5 days/wk 6-7 days/wk
   d. Eat meals or snacks in front of the TV? 0-1 days/wk 2-3 days/wk 4-5 days/wk 6-7 days/wk
3. Nutrition Habits:
   a. What things, other than food, does your child/children eat? (circle all that apply) Dirt Clay Crayons
   Dust Ashes Carpet Fibers Cigarette Butts Paint Chips Foam Rubber Other: _____

Appendix C (continued):

II. NASH form – English, back page

3. Nutrition Habits (continued):

b. Which of these does your child/children use to eat or drink? (circle all that apply)

Breast Bottle Cup (no top) Sippy Cup Spoon Fork Fingers

c. How would you describe your child's/children's eating?

OK Picky Eats too much Eats too little Won't try new things

Other eating habits: _____

d. I make sure my child/children eat(s) meals and snacks about the same times every day.

☐ Often ☐ Usually ☐ Sometimes ☐ Not very often ☐ No snacks between meals

e. I make my child/children taste everything I make for a meal.

☐ Often ☐ Usually ☐ Sometimes ☐ Not very often

f. To get my child/children to eat, I offer something like a dessert or a toy.

☐ Often ☐ Usually ☐ Sometimes ☐ Not very often

g. My child/children eat(s) off and on all day.

☐ Often ☐ Usually ☐ Sometimes ☐ Not very often

h. If I don't set limits, my child/children eat(s) too much.

☐ Often ☐ Usually ☐ Sometimes ☐ Not very often

4. Physical Activity:

How many **days per week** does your child/children:

a. Participate in "free" play or unstructured play time with other kids?

☐ 0-1 days/wk ☐ 2-3 days/wk ☐ 4-5 days/week ☐ 6-7 days/wk

b. Participate in play groups, team sports or other structured physical activity with the family or other kids?

☐ 0-1 days/wk ☐ 2-3 days/wk ☐ 4-5 days/wk ☐ 6-7 days/wk

How many **hours per day** does your child/children:

a. Watch TV? ☐ Less than 1 ☐ 1-2 hrs/day ☐ 3-4 hrs/day ☐ 5 or more

b. Use computer and play video games? ☐ Less than 1 ☐ 1-2 hrs/day ☐ 3-4 hrs/day ☐ 5 or more

c. Do any of your children have a TV in their bedroom? ☐ Yes ☐ No

d. Does your child/children go to sleep and wake up at about the same time each day? ☐ Yes ☐ No

5. Concerns:

Are you concerned about your weight? ☐ Yes ☐ No

Are you concerned about the weight of any of your children? ☐ Yes ☐ No

Are you concerned about the eating habits of any of your children? ☐ Yes ☐ No

Are you concerned about the activity levels of any of your children? ☐ Yes ☐ No

Do you have other concerns you would like to discuss today? ☐ Yes ☐ No

Do you often run out of money or food stamps to buy food? ☐ Yes ☐ No ☐ Sometimes

Please write other concerns here:

_____

_____

Thank you for completing this questionnaire.
Please return to the WIC receptionist.

NASH WIC English Version - 2008

Appendix C (continued): Skills Training Tools

II. Nutrition and Activity Self-History Form (NASH) – Spanish, front page

Forma de Nutrición y Actividad Física

Esta forma tiene que ser completada en todas sus visitas a WIC por el padre/madre o tutor de los niños entre las edades de 2 a 5 años. Por favor complete las siguientes preguntas acerca de usted y de su hijo(a)

Get Healthy Togéther

Sexo: ____ Masculino ____ Femenino **Edad:** ____ Años ____ Meses

Información Médica:

1. ¿Su niño(a) ha tenido algún problema médico/de salud hoy? ___ Resfriad ___ Salpullido__ Asma/Silbido (pitido) del pecho ___ Diarrea ____ Constipación/Estreñimiento Otro:_____
2. Encierre en un círculo lo que usted le da a su niño(a): Vitaminas Fluoruro (flúor) Hierro
   Medicinas (escriba nombre de las medicinas): _____
3. ¿Tiene su hijo(a) alergia a alguna comida? _____Si _____No
   Si contesta sí, por favor escriba cuáles: _____
4. ¿Algún miembro de la casa fuma o usa otros productos de tabaco? _____Si _____No
5. ¿Ha llevado al dentista ha su niño(a) de 2-5 años? _____Si _____No

Historia Familiar: ¿Alguien de su familia padece alguna de las siguientes enfermedades?

Estado de Salud:	Encierre en un círculo el miembro de la familia que tinga alguna:				
Diabetes	Madre	Padre	Abuelo(a)	Tío(a)	Ninguno / no sé
Enfermedades cardiacas/ Ataque del Corazón	Madre	Padre	Abuelo(a)	Tío(a)	Ninguno / no sé
Alta Presión	Madre	Padre	Abuelo(a)	Tío(a)	Ninguno / no sé
Obesidad	Madre	Padre	Abuelo(a)	Tío(a)	Ninguno / no sé
Embolia	Madre	Padre	Abuelo(a)	Tío(a)	Ninguno / no sé

Por favor encierre en un círculo las respuestas de las siguientes preguntas:

1. Selección de Alimentos - ¿Cuántas veces por día su hijo(a):
   a. ¿come vegetales (no papas fritas)? 0-1 vez/día 2-3 veces/día 4 -5 veces/día 6-7 veces/día
   b. ¿come frutas? 0-1 vez/día 2-3 veces/día 4 -5 veces/día 6-7 veces/día
   c. ¿come comidas fritas? 0-1 vez/día 2-3 veces/día 4 -5 veces/día 6-7 veces/día
   d. ¿come dulces/aperitivos salados? 0-1 vez/día 2-3 veces/día 4 -5 veces/día 6-7 veces/día
   (Como papitas, dulces, galletas)
   e. ¿toma agua? 0-1 vez/día 2-3 veces/día 4 -5 veces/día 6-7 veces/día
   f. ¿toma sodas, bebidas azucaradas? 0-1 vez/día 2-3 veces/día 4 -5 veces/día 6-7 veces/día
   g. ¿toma jugos aprobados 100% por WIC?
   0-1 vez/día 2-3 veces/día 4 -5 veces/día 6-7 veces/día
   h. ¿Qué tipo de leche toma su hijo(a)?
   Leche entera (4%) al 2% al 1% Leche descremada De soya Fórmula Toma Pecho
   Leche deslactosada Otra (chocolate, etc.) Toma muy poca leche Nunca toma leche
2. Patrón/Rutina de Comidas - ¿Cuántas veces por semana su hijo(a):
   a. ¿desayuna? 0-1 días/sem 2-3 días/sem 4-5 días/sem 6-7 días/sem
   b. ¿come la familia reunida? 0-1 días/sem 2-3 días/sem 4-5 días/sem 6-7 días/sem
   c. ¿come comidas rápidas? 0-1 días/sem 2-3 días/sem 4-5 días/sem 6-7 días/sem
   d. ¿come comidas y bocados frente al televisor? 0-1 días/sem 2-3 días/sem 4-5 días/sem 6-7 días/sem

- CONTINÚE AL REVERSO -

Appendix C (continued): Skills Training Tools

II. NASH form – Spanish, back page

3. Hábitos Nutricionales: Para a, b y c, enciene en un círculo todos las respuestas que correspondan:

a. ¿Qué cosas, aparte de comida, su hijo(a) come?

Lodo Plastilina Crayones Polvo Cenizas Colillas de cigarros Pintura

Hule espuma Otro: _____

b. ¿Cuáles de las siguientes usa su hijo(a) para tomar y comer actualmente?

Leche materna (pecho) Botella (biberón, pacha) Vaso (sin tapa)

Vaso (con tapa) Cuchara Tenedor Con las dedos

c. ¿Cómo puede describir el apetito de su hijo(a)?

Bueno Selectivo Come mucho Come poco No prueba cosas nuevas

Otros hábitos alimenticios: _____

d. Me aseguro de que mis hijos coman regularmente y coman "snacks" (refrigerios) diariamente a la misma hora.

☐ Muy seguido ☐ Usualmente ☐ Algunas veces ☐ No muy seguido ☐ No bocadas entre comidas

e. Hago a mi hijo(a) pruebe todo lo que hago de comer.

☐ Muy seguido ☐ Usualmente ☐ Algunas veces ☐ No muy seguido

f. Para que mi hijo(a) coma, le ofrezco postre o algún juguete.

☐ Muy seguido ☐ Usualmente ☐ Algunas veces ☐ No muy seguido

g. Mi hijo(a) come continuamente todo el día. ☐ Muy seguido ☐ Usualmente ☐ Algunas veces ☐ No muy seguido

h. Si no pongo límites, mi niño(a) come demasiado.

☐ Muy seguido ☐ Usualmente ☐ Algunas veces ☐ No muy seguido

4. Actividades Físicas:

¿Cuántas veces a la semana su niño(a)?

a. ¿participa en juegos libres o juegos sin estructra con otros niños?

☐ 0-1 días/semana ☐ 2-3 días/semana ☐ 4-5 días/semana ☐ 6-7 días/semana

b. ¿participa en juegos con grupos, equipos de deportes, y otras actividades planeadas con la

☐ 0-1 días/semana ☐ 2-3 días/semana ☐ 4-5 días/semana ☐ 6-7 días/semana

¿Cuántas horas al día su niño(a)?

a. ¿ve(n) televisión? ☐ Menos de 1 hora/día ☐ 1-2 horas ☐ 3-4 horas ☐ 5 horas o mas

b. ¿usa computadora y juegos de video?

☐ Menos de 1 hora/día ☐ 1-2 horas ☐ 3-4 horas ☐ 5 horas o mas

c. ¿Alguno de sus hijos tiene televisión en su recamara? ☐ Si ☐ No

d. ¿Conoce el tipo de programas de TV que su hijo(a) ve? ☐ Si ☐ No

e. ¿Permite que su hijo(a) coma en su cuarto cuando ve TV? ☐ Si ☐ No

5. Inquietudes/Preocupaciones:

¿Le preocupa su peso? ☐ Si ☐ No

¿Le preocupa el peso de alguno de sus hijos? ☐ Si ☐ No

¿Le preocupa los hábitos de comer de sus hijos? ☐ Si ☐ No

¿Le preocupa el nivel de actividades físicas de sus hijos? ☐ Si ☐ No

¿Se queda sin dinero o estampillas de comida frecuentemente? ☐ Si ☐ No ☐ Algunas Veces

¿Tiene algunas otras preocupaciones que quiera hablar hoy? ☐ Si ☐ No

Por favor escriba lo que le preocupa: _____

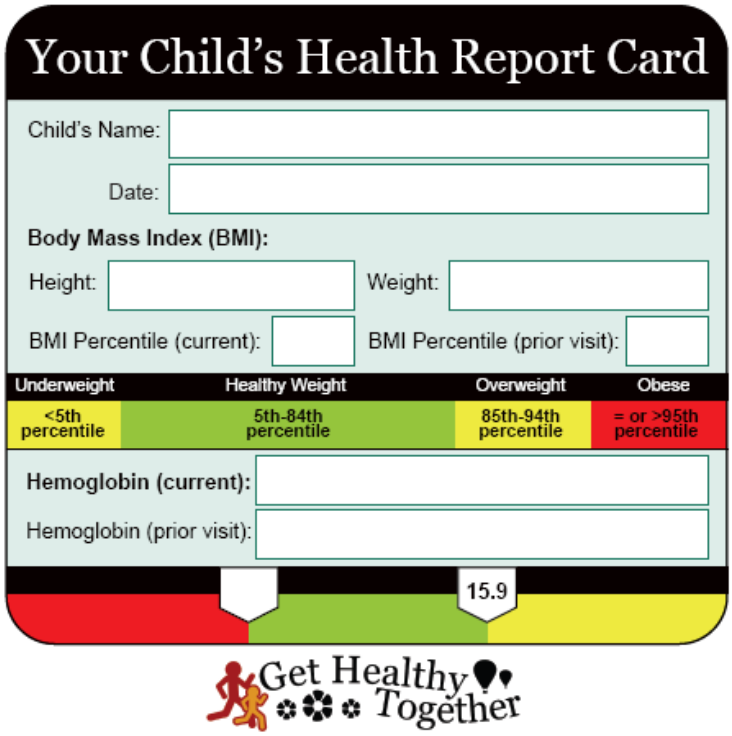
_____

Gracias por contestar esta forma. Regrésalo a la recepcionista del WIC.

NASH WIC Spanish Version - 2009

Appendix C (continued): Skills Training Tools

III. Report Card / Action Plan (ReCAP) – English



Appendix C (continued): Skills Training Tools

III. Report Card / Action Plan (ReCAP) – Spanish

Appendix C (continued): Skills Training Tools

IV. Talking Tips – English (front and back)

Eating Fruits & Vegetables

Recommendation: 1½ cups of fruit and 2½ cups of vegetables every day.

- Eat a fruit or a vegetable at every meal.
- Choose more dark green and orange vegetables.
- Choose different color fruits and vegetables to get the right mix of nutrients.

Try all kinds of fruits and vegetables fresh, frozen, canned or dried

Enjoying Family Meals

Recommendation: Eat family meals together 3 times per week.

- Eating together 3-6 times per week as a family (with no TV on) will help your child(ren) have:
- Higher self-esteem and less depression,
- Reduced risk of drug, alcohol and tobacco use,
- Healthier weight.

Family meals help encourage communication and trust between parents and children and reduce family conflict.

More Physical Activity

Recommendation: 60 minutes per day structured activity & free play.

- Free play, indoors or outdoors, helps your toddler learn social, leadership, motor and physical skills needed to enter school.
- Regular activity will help your child's brain develop. He/she will achieve a healthy weight, better concentration skills, and less depression.

Family physical activity, like a 10-minute walk-and-talk, is very popular with children.

Offering 'Child-Sized' Portions

Recommendation: Once your child can use a spoon, let him/her serve their own food.

- A serving for your child is about the size of his/her fist.
- Parents provide healthy food, children choose what foods to eat and how much to eat from what is served at the meal.

Eating A Healthy Breakfast

Recommendation: Eat a healthy breakfast every day.

- Choose whole grains: toast, oatmeal, cereal with skim milk.
- Choose fresh fruit or 100% juice.
- Choose a healthy protein: egg, peanut butter, etc.

Choosing Healthy Beverages

Recommendation: Limit juice to 1 cup per day. Choose low fat or skim milk.

- Choose low fat milk and water as your primary beverages.
- Make sure you choose 100% juice.
- Keep sodas and sweetened beverages for special occasions.

Your body treats liquid calories the same as solid calories — lots of high calorie drinks can pack on the pounds!

Watching Less TV

Recommendation: 1-2 hours / day for children 2-18 yrs, 0 hours / day for toddlers age <2 yrs.

- Create a daily TV Budget for family. Each time TV is watched, subtract the minutes from the budget. Once you hit "0," no more TV!
- Each member of the family creates a TV program schedule for the next week.
- Ideal TV Time =< 14 hrs / week

Have kids create a list of activities they would do instead of TV. Work with them to do the activities.

Appendix C (continued): Skills Training Tools

IV. Talking Tips – Spanish (front and back)

Comer Frutas & Vegetales

Recomendación: 1½ taza de fruta y 2½ tazas of vegetales al día.

• Coma una fruta o vegetal en cada comida.

• Escoja vegetales de color verde y naraja obscuros.

• Escoja vegetales y frutas de diferentes colores para mezclar los nutrientes correctos.

Pruebe todo tipo de frutas y vegetales — frescos,congelados, en lata o secos.

Disfrutar Todos de Las Comidas

Recomendación: Tener comidas familiares 3 veces a la semana.

• Comer juntos 3 veces a la semana como familia (sin la TV puesta) le ayudara a sus hijos a:

• Alta autoestima & menos depresión,

• Reducir el riego de usar drogas, alcohol & tabaco

• Un peso más saludable.

Tener comidas familiares ayuda a los padres e hijos a tener una mejor comunicación y reducir los conflictos familiares.

Jugar Juntos en Familia

Recomendación: 60 minutos al día- de actividades estructuradas & jugos libres.

• El jugar libremente con los pequeños dentro y fuera de la casa, les ayuda ha desarrolarse socialmente, ha tener liderazgo, en sus destrezas fisicas y motoras necesarias para entrar a la escuela.

• Actividades regulares ayudaran ha desarrollar el cerebro de su niño (a). El/Ella va ha alcanzar un peso saludable, mejor concentración en sus habilidades y menos depresión.

Alguna actividad fisica familiar como caminar por 10 minutos, es muy popular cuando se tiene

Ofrecer "Tamaños de Porciones de Niños"

Recomendación: Una vez que su hijo(a) aprenda ha usar la cuchara, deje que se sirva la comida por sí mismo.

• Una ración para su hijo (a) es del tamaño del puño del niño (a).

• Los padres proveen de comida saludable, los niños escojen que alimentos quieren y cuanto.

Tener Un Desayuno Saludable

Recomendación: Desayune todos los dias.

• Escoja granos enteros: pan tostado,avena,cereal con leche descremada.

• Escoja jugo fresco o jugo al 100% .

• Escoja 1 proteína saludable: huevo,crema de cacahuate (mani) etc.

Escojer Bebidas Saludables

Recomendación: Limite el jugo a 1 taza al día. Escoja leche baja en grasa o decremada.

• Escoja leche baja de grasa o agua como su bebida principal.

• Asegurese que compre jugo al 100%.

Guarde sodas y bebidas azucaradas para ocasioness!

Ver Menos Televisión

Recomendación: 1-2 horas / día para niños de 2-18 años, 0 horas / día para niños menores de 2 años.

• Pude crear un presupuesto de TV familiar. Cada vez que se vea TV, substraer los minutos del presupuesto. Una vez que se reduzca a "0", no más TV

• Cada miembro de su familia pude crear un horario de TV por semana.

• Idealmente el Tiempo de TV = < 14 hrs / semana

Deje a los niños crear una lista de actividades para hacer en lugar de ver TV. Ayúdelos a crear las actividades.

Appendix D: GHT Wellness Champion Job Description

Get Healthy Together Staff Wellness Program

Coordinating Organization: New Mexico WIC

POSITION: GHT Clinic Wellness Champion

EMPLOYEE CLASSIFICATION: Volunteer Position

FUNCTION OF WORK: Provide leadership for GHT wellness program at public health/WIC clinic

PROGRAM SUPERVISION: GHT project director and GHT project region liaisons (NTT group)

DUTIES AND RESPONSIBILITIES

- Work collaboratively with GHT project director to select and implement wellness sessions in clinic.
- Help in the review and feedback on an easy-to-read Get Healthy Together Wellness Program Manual.
- Organize and coordinate monthly wellness sessions designed to improve the health habits and wellness of participating staff.
- Develop an understanding of wellness topics to be covered in sessions included but not limited to: smoking cessation, weight management, nutrition/diet, exercise, stress management, sedentary behavior, financial management, and other useful wellness information.
- Submit completed behavior tracking forms each month to project director.
- If available, use GHT program website to download wellness information and resources.
- Coordinate GHT program promotional signage and wellness billboards at the clinic.
- Guide WIC and public health employees in completing NM Department of Health- approved Health Risk Assessment tools.

Appendix E: Anthropometric Measures

A sub-sample of 75 WIC staff member provided biometric data at a statewide annual meeting that met a month prior to the implementation of the GHT program. The mean body mass index (BMI) for the sub-sample was 30.57 (SD = 6.35). For measurement periods 1-5 the mean BMI for the entire sample was 30.01 (SD = 6.58), 29.68 (SD = 6.61), 29.85 (SD = 6.69), 29.89 (SD = 6.68) and 30.08 (SD = 6.85). In addition, the correlations of each time point with the physical measurement period for the sub-sample were greater than .91. The comparability of the means and standard deviations along with high correlations between the self-reported measures and the actual measurement of the BMI components suggest that self-report scores are reasonably valid indicators of actual BMI. The table below shows the percentage of WIC staff in each level of BMI.

NM WIC STAFF BMI DATA	Baseline
Mean BMI	30.57 (6.53)
Percent in Each BMI Category	
Underweight (BMI less than 18.4)	0.0%
Healthy (18.5 to 24.9)	20.8%
Overweight (25 to 29.9)	54.2%
Obese (greater than 30)	25.0%

Appendix F: Pedometer Data

Omron model HJ-720ITC pedometers were utilized to document the level of physical activity among WIC nutritionists. Omron pedometers clip to the waist, have a memory capacity of 41 days, and allow the downloading of data directly from the pedometer to a computer. When worn on the hip the Omron model HJ-720ITC pedometers have been found to have an absolute percent error rate (pedometer steps – actual steps/ actual steps) across walking speeds of 2.3% ± 2.8% (Holbrook, Barreira, & Kang, 2009).

With the present sample, the reliability of the pedometer scores as measured by Cronbach's α was .90, .83, .85 and .80 for waves one, two, three and four respectively. The test-retest reliability as measured by Pearson's *r* were greater than .40 for all time points. These estimates of reliability indicate the scores are "good" to "excellent" for research purposes. These findings suggest the scores generated by the Omron pedometers are appropriate for GHT's research purposes.

Appendix G: Item Content and Reliability Estimates - International Physical Activity Questionnaires (IPAQ) Physical Activity

Physical Activity

Directions: Think about all the **vigorous** activities that you engaged in during the **past 7 days.** Vigorous physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

> During the last 7 days, on how many days did you engage in vigorous physical activities like heavy lifting, digging, aerobics, or fast bicycling?
>
> Days per week_____
>
> On average, how much time did you usually spend performing vigorous physical activities on those days?
>
> Minutes per day _____

Days of Vigorous physical activity test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	.48				
Post 2	.44	.47			
Post 3	.53	.56	.54		
Post 4	.44	.43	.47	.58	

Minutes of vigorous physical activity test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	.00				
Post 2	.82	.09			
Post 3	.33	.18	.46		
Post 4	.61	.13	.69	.27	

Appendix G (continued): Item Content and Reliability Estimates - International Physical Activity Questionnaires (IPAQ) Physical Activity

Directions: Think about all the **moderate** activities that you engaged in during the **past 7 days.** Moderate activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

> During the last 7 days, on how many days did you engage in moderate physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.
>
> Days per week_____
>
> On average, how much time did you usually spend doing moderate physical activities on those days?
>
> Minutes per day _____

Days of moderate physical activity test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	.08				
Post 2	-.17	.17			
Post 3	.04	.34	.23		
Post 4	.05	.15	.16	.15	

Minutes of moderate physical activity test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	.31				
Post 2	.16	.22			
Post 3	.16	.001	.04		
Post 4	.15	.03	.16	.21	

Appendix G (continued): Item Content and Reliability Estimates - International Physical Activity Questionnaires (IPAQ) Physical Activity

Directions: Think about the time you spent **walking** in the **last 7 days.** This includes at work and at home, walking to travel from place to place, and any other walking you might do solely for recreation, sport, exercise or leisure.

> During the last seven days, on how many days did you walk for at least 10 minutes at a time?
>
> Days per week_____
>
> On average, how much time did you usually spend walking on those days?
>
> Minutes per day _____

Days of walking test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	.16				
Post 2	.22	.32			
Post 3	.35	.47	.50		
Post 4	.29	.31	.57	.64	

Minutes of walking test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	.30				
Post 2	.40	.19			
Post 3	.28	.43	.40		
Post 4	.51	.37	.38	.23	

Appendix G (continued): Item Content and Reliability Estimates - International Physical Activity Questionnaires (IPAQ) Physical Activity

Directions: This question is about how much time you spent sitting on weekdays during the last 7 days. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent at a desk, visiting friends, reading, or sitting or lying down to watch television.

> During the last 7 days, how much time did you spend sitting on an average week day? (Use a decimal point to indicate minutes. For example, 2.5 for two and a half hours)
>
> Hours per day _____

Hours of sitting per day test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	.00				
Post 2	.05	.27			
Post 3	.05	-.03	.18		
Post 4	-.08	.77	.12	-.06	

Appendix H: Physical and Social Self Concepts Reliability Estimates

Note: Item content not provided due to copyright issues.

Physical Self-Concept test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.74				
Post 1	0.73	0.80			
Post 2	0.70	0.81	0.76		
Post 3	0.70	0.73	0.78	0.74	
Post 4	0.70	0.67	0.73	0.75	0.80

Social Self-Concept test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.82				
Post 1	0.79	0.81			
Post 2	0.65	0.68	0.80		
Post 3	0.69	0.72	0.71	0.82	
Post 4	0.66	0.66	0.62	0.72	0.78

Appendix I: Short-Form (SF) 36 Subscale Reliability

The Energy/Fatigue, General Health, Physical Functioning scales from the SF-36 were used to assess general and physical health. The SF-36 has a history of providing scores that are reliable and valid indicators of these constructs. The subscale reliabilities are reported below.

Energy fatigue test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.88				
Post 1	0.52	0.88			
Post 2	0.54	0.51	0.90		
Post 3	0.47	0.51	0.68	0.86	
Post 4	0.21	0.22	0.27	0.33	0.81

General Health test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.76				
Post 1	0.80	0.76			
Post 2	0.77	0.78	0.80		
Post 3	0.77	0.72	0.79	0.82	
Post 4	0.75	0.73	0.75	0.78	0.81

Physical functioning test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.89				
Post 1	0.40	0.86			
Post 2	0.48	0.64	0.86		
Post 3	0.45	0.65	0.65	0.92	
Post 4	0.23	0.44	0.47	0.52	0.90

Appendix J: General Nutrition Reliability Estimates

1. Yesterday, how many times did you:

    Eat vegetables (excluding potatoes)?
    Eat fruits (excluding fruit juices)?
    Eat bran cereals?
    Eat Beans (excluding green/string beans)?
    Eat candy bars?
    Eat French fries?
    Eat potato chips?
    Eat junk food?
    Have milk, soy milk, yogurt, cheese or other dairy products?
    Drink sugared drinks like soda (exluding diet soda), fruit drinks, lemonade, or sports drinks (e.g. Gatorade)?

2. How often do you use lowfat dairy products? (1 = "Never" and 6 = "Always")

Eat vegetables test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	0.38				
Post 2	0.39	0.43			
Post 3	0.27	0.24	0.38		
Post 4	0.27	0.30	0.42	0.41	

Eat fruits test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	0.41				
Post 2	0.38	0.47			
Post 3	0.40	0.44	0.50		
Post 4	0.48	0.48	0.52	0.35	

Eat bran cereals test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	0.21				
Post 2	0.34	0.35			
Post 3	0.25	0.29	0.51		
Post 4	0.45	0.35	0.56	0.53	

Appendix J (continued): General Nutrition Reliability Estimates

Eat beans test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	0.42				
Post 2	0.27	0.54			
Post 3	0.25	0.27	0.47		
Post 4	0.43	0.39	0.54	0.35	

Eat candy bars test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	0.39				
Post 2	0.08	0.34			
Post 3	0.16	0.07	0.03		
Post 4	0.29	0.54	0.25	0.03	

Eat French fries test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	0.11				
Post 2	0.10	0.03			
Post 3	0.07	0.05	0.06		
Post 4	0.23	0.17	0.09	0.08	

Eat potato chips test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	0.03				
Post 2	-0.12	-0.09			
Post 3	-0.05	0.14	0.06		
Post 4	-0.13	0.31	0.21	0.17	

Eat junk food test-retest reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	0.27				
Post 2	0.33	0.31			
Post 3	0.40	0.36	0.29		
Post 4	0.28	0.24	0.33	0.22	

Appendix J (continued): General Nutrition Reliability Estimates

Consume dairy products test reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	0.40				
Post 2	0.46	0.47			
Post 3	0.23	0.31	0.27		
Post 4	0.41	0.29	0.45	0.36	

Consume sugary drinks test reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	0.47				
Post 2	0.47	0.35			
Post 3	0.48	0.46	0.41		
Post 4	0.32	0.35	0.47	0.20	

Low-fat dairy test reliabilities as measured by Pearson's r (off diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline					
Post 1	0.74				
Post 2	0.62	0.58			
Post 3	0.46	0.54	0.64		
Post 4	0.59	0.59	0.64	0.63	

Appendix K: Exercise Self-Efficacy Reliability Estimates

Exercise Self-Efficacy Scale (1 = "not confident at all" and 5 = "Very confident").

I am confident that I can participate in regular exercise when:

I am tired.
I am in a bad mood.
I feel I don't have the time.
I am on vacation.
I am spending time with friends or family who do not exercise.
It is raining or snowing.

Exercise self-efficacy test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.79				
Post 1	0.58	0.82			
Post 2	0.59	0.58	0.86		
Post 3	0.55	0.48	0.55	0.80	
Post 4	0.57	0.51	0.57	0.58	0.84

Appendix L: Body Area Satisfaction Scale Reliability Estimates

Body Area Satisfaction

1. **Directions:** Please indicate how dissatisfied or satisfied you are with each of the following areas or aspects of your body (1 = "very dissatisfied" and 5 = "very satisfied').

   Face (facial features, complexion)
   Hair(color, thickness, texture)
   Lower Torso (buttocks, hips, thighs, legs)
   Mid torso (waist, stomach)
   Upper torso (chest or breasts, shoulders, arms)
   Muscle tone
   Weight
   Height
   Overall appearance

Body area satisfaction test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.86				
Post 1	0.78	0.86			
Post 2	0.75	0.84	0.85		
Post 3	0.70	0.74	0.81	0.85	
Post 4	0.68	0.74	0.77	0.83	0.86

Appendix M: Nutritionists Self-Efficacies Reliability Estimates

Nutritionist Self-Efficacies (For all scales 1 = "Strongly disagree" and 5 = "Strongly agree".)

Nutrition Assessment

I feel confident in my ability to:
Measure hemoglobin accurately.
Explain hemoglobin results to clients.
Measure height and weight accurately.
Explain body mass index (BMI) percentile to clients.

Nutrition Assessment test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.82				
Post 1	0.72	0.82			
Post 2	0.58	0.64	0.88		
Post 3	0.52	0.58	0.53	0.88	
Post 4	0.45	0.72	0.53	0.54	0.88

Motivational Interviewing Skills

I feel confident in my ability to:
Assess WIC clients' health concerns.
Assess WIC clients' interests.
Assess WIC clients' readiness to change.
Use motivational interviewing techniques with clients.
Adapt my counseling techniques for clients at different levels of readiness to change.
Help clients set realistic health behavior goals.

Motivational interviewing skills test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.89				
Post 1	0.59	0.87			
Post 2	0.58	0.72	0.92		
Post 3	0.26	0.72	0.58	0.94	
Post 4	0.45	0.70	0.68	0.74	0.90

Appendix M (continued): Nutritionists Self-Efficacies Reliability Estimates

Language Differences
When working with non-English speaking clients:

I can find effective ways to communicate.
I can provide useful service to them.
I often find the situation frustrating.
I find it difficult to understand them.
I feel that they do not comprehend my advice.

Counseling language differences test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.87				
Post 1	0.78	0.89			
Post 2	0.68	0.61	0.87		
Post 3	0.32	0.47	0.54	0.85	
Post 4	0.58	0.35	0.39	0.29	0.78

Cultural Differences
When working with clients from cultural or ethnic backgrounds different from my own:

I am often unsure how I should act.
I can usually see things from their perspective
I worry that I will do or say something that will offend someone.
People from some ethnic backgrounds are more difficult to work with than others.
Our cultural differences cause misunderstandings.
The advice I provide conflicts with their values.

Counseling cultural differences test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.88				
Post 1	0.70	0.76			
Post 2	0.62	0.63	0.80		
Post 3	0.62	0.62	0.54	0.79	
Post 4	0.53	0.48	0.46	0.61	0.84

Appendix M (continued): Nutritionists Self-Efficacies Reliability Estimates

Nutrition

After a counseling session I'm sure the client is better informed about the importance of proper nutrition.

If a client is uninterested in learning about nutrition there is nothing I can do.
The nutritional advice I give does not seem to have an effect on my clients.
The advice I provide clients helps them change their nutritional behavior.
My advice helps clients improve their dietary habits
I feel confident in my ability to counsel clients on dietary behaviors.

Counseling nutritional topics test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.70				
Post 1	0.04	0.74			
Post 2	0.16	0.44	0.75		
Post 3	0.26	0.45	0.72	0.76	
Post 4	0.12	0.43	0.69	0.69	0.75

Physical Activity

I feel confident in my ability to counsel clients on physical activity.
It is very difficult to get my clients to become more physically active.
I am confident that I can help clients understand how important exercise is.
If a client does not want to learn about exercise there is little I can do about it.
My support helps clients increase their physical activity level.
I feel confident in my ability to counsel clients on sedentary activity

Counseling about physical activity test-retest reliabilities as measured by Pearson's r (off diagonal) and the single-administration reliabilities as measured by Cronbach's alpha (on diagonal).

	Baseline	Post 1	Post 2	Post 3	Post 4
Baseline	0.56				
Post 1	0.58	0.67			
Post 2	0.57	0.66	0.57		
Post 3	0.52	0.48	0.53	0.64	
Post 4	0.47	0.48	0.54	0.55	0.68

Appendix N: Client Satisfaction Item Content and Subscale Reliability

For all scales 1 = “Strongly disagree” and 6 = “Strongly agree”.
Times 1 through 3 post-intervention reliabilities are in parentheses, respectively.

1. Clerk Satisfaction (0.65, 0.52, 0.92)

    The clerk respected my private information.
    My privacy was respected by the clerk.
    The clerk treated me in a professional manner.

2. Facility (0.55, 0.52, 0.91)

    I felt safe in the clinic’s parking lot.
    I felt safe inside the clinic building.
    I thought the building was attractive.

3. Nutritionist Care (0.65, 0.74, 0.95)

    The nutritionist spent enough time with me.
    The nutritionist addressed all of my concerns.
    The nutritionist understands my life.

4. Nutritionist Technical Skill (0.66, 0.64, 0.96)

    There was plenty of time to talk about how my child’s weight or BMI relates to his/her health.
    The nutritionist explained the relationship between weight or BMI and health risk clearly.
    If I want to improve my child’s weight, the nutritionist’s advice will be very helpful.

5. General Satisfaction (0.57, 0.52, 0.92)

    I find the services provided by the clinic to be very helpful
    I did not have to wait very long at all to see the nutritionist.
    My experience at WIC clinics is usually positive.

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Appendix O: Chart Abstraction Rubric

For abstraction, a rubric (see below) was developed to assign the codes. This rubric was created with the input of a group of WIC nutritionists and GHT program developers. One coder was used for the entire abstraction process. Prior to abstraction the coder received a period of training. The training consisted of discussing each coding category and reviewing charts to identify examples within the charts of each category.

To assure the coding procedure was not rater dependent and consistent a random sample of 20 was drawn and scored by two raters. Cohen's kappa, a measure of agreement for nominal data, was calculated. Excluding documented risk behaviors, medical referrals and barriers, all rater agreements were found to be at acceptable levels for the measures. Therefore, another 40 charts were randomly sampled and scored by the two raters. The resulting scores were then assessed for rater agreement. Excluding barriers, all coding categories had "substantial" to "almost perfect" agreement (Landis & Koch, 1977).

Scoring Rubric for NM WIC ADP Charts

Diet Analysis

1. Weight status documented? (0=No, 1=Yes)
2. Parent's concern/readiness to change documented? (0=No, 1=Yes)
3. Risk behavior counseling documented? (0=No, 1=Yes)

   Scoring rules for risk behavior counseling

   - When scoring risk behavior counseling category, say 'yes' to anything that implies that they talked about one of the risk behavior counseling topics.
4. Documented tool use? (0=No, 1=Yes)
5. Documented successes? (0=No, 1=Yes)

   Scoring rules for successes

   - Say 'yes' if the nutritionist documented any progress encountered in the interview or identified something positive. A success is anything that could be considered good (eats fruits and vegetables, drinks water between meals, etc.). "Mom will…" is a success.

Appendix O (continued): Chart Abstraction Rubric for WIC ADP Charts

6. Documented issues or barriers?

Scoring rules for issues or barriers

- Say 'yes' if the nutritionist documented any barriers or issues encountered in the interview or identified something that needs work or is limiting success.
- Weight and readiness to change are not scored as a success or barrier because these are separate categories on the score sheet.

1. Weight-related goal? (0= No Goal, 1=Goal)
2. TV viewing goal? (0=None reported, 1=General goal, 2=Quantified goal)
3. Activity goal? (0=None reported, 1=General goal, 2=Quantified goal)
4. Family meals goal? (0=None reported, 1=General goal, 2=Quantified goal)
5. Fruit & Veg. goal? (0=None reported, 1=General goal, 2=Quantified goal)
6. Beverage goal? (0=None reported, 1=General goal, 2=Quantified goal)
7. Breakfast goal? (0=None reported, 1=General goal, 2=Quantified goal)
8. Child portions goal? (0=None reported, 1=General goal, 2=Quantified goal)
9. Medical referral given? (0=No, 1=Yes)

Tool Use

1. Report Card Action Plan? (0=Not used, 1=used)
2. BMI Poster? (0=Not used, 1=used)
3. NASH? (0=Not used, 1=used)
4. NM Fit Kids Flip Chart? (0=Not used, 1=used)
5. MyPyramid Food Guide Pyramid? (0=Not used, 1=used)
6. GHT Talking Tips? (0=Not used, 1=used)
7. Healthy Snacks Handout? (0=Not used, 1=used)
8. Activity / Growth & Development Handout? (0=Not used, 1=used)
9. Iron Facts Handout? (0=Not used, 1=used)
10. Other tool? (Write in tool used)

Appendix P: Participants Monthly Wellness Goal Report Form

Get Healthy Together Staff Wellness Program

Wellness Program Progress Report

Clinic: _____

Date: _____

Please check one:

_____WIC staff member _____Non-WIC clinic staff

***Note*:** If WIC staff, please provide WIC ID number _____

Wellness Goal #1: _____

Please place a check mark below the phrase that describes your progress toward achieving this goal.

No progress	Slight progress	Some progress	Good progress	Very good progress	Achieved goal	Achieved goal and more

If you set another goal, please complete the following.

Wellness Goal #2: _____

Please place a check mark below the phrase that describes your progress toward achieving this goal.

No progress	Slight progress	Some progress	Good progress	Very good progress	Achieved goal	Achieved goal and more

After completing, please fold and place in the mailing envelope provided.

Appendix Q: Peer Interviewer Training Protocol (Conducted over 2 sessions)

I. Explain purpose of peer interview
    a. Address confidentiality

II. Describe the format of the survey
    a. Provide details about expected time length of each survey
    b. Give clip-board, pencils, folders, return envelopes

III. Demonstrate appropriate survey delivery
    a. Allow for questions

IV. Practice Surveys
    a. Observe practice survey by peer surveyor (standardized client)
        i. Provide feedback
    b. Observe second practice survey by peer surveyor
        i. Provide feedback

V. Question & Answer Session

VI. Surveyor conducts 5 surveys
    a. Review written responses
    b. Provide feedback

VII. Summary, Wrap-up and Adjournment

Appendix R: Coding Scheme for Peer Interviews

Reaction about child's diet. Examples from the interviews of a negative reaction about a child's diet are "Mother was told to help her daughter eat more calcium, mother finds it hard to make the her daughter drink milk" and "Feels that the nutritionist doesn't believe that she really has to struggle with the daughter to maker her eat." An example of a positive comment is "Mother was happy to go home with some tricks on how to get her son to eat vegetables."

Reactions about Child's Weight. Examples of a negative comment related to discussions about child's weight are "She (the nutritionist) said that she is obese according to the chart based on height and weight and age. Mom completely disagrees." An example of a positive comment is "Nutritionist said that child is right where she needs to be. This made the mother feel good about things she is doing for her child."

Reactions about Child's Physical Activity. Examples of a negative reaction to discussions about child's physical activity are "Nutritionist said that her son needs to watch less TV, this made the mother feel that she was not doing a good job." A positive example is "Nutritionist encouraged the mother to get him very active and said for the mother to maybe think about a sport the child could do. The mother thought this was a good idea and will start to research some activities."

Affect Towards the Appointment. Comments that were elicited during the interviews that were negative were of the following nature "Feels that the nutritionist is a little snooty and looks down at the mother" and "Mother feels that there needs to be more information passed out and that it would help to have better nutritional classes, nutritionist always tells her the same thing, like the nutritionist is a robot." Positive comments were of the nature of "Service was great. No need to make changes, just keep up the good work" and "Nutritionist gave the mother a lot of helpful information, and she is always helped right away, very appreciative of the service she is given."

Appendix S: University of NM Graduate Student Projects within Get Healthy Together

Treatment Fidelity for the Skills Training Intervention

Treatment fidelity is a measure of how well the implemented intervention and the planned intervention match. This project addressed the evaluation of treatment fidelity to the skills training.

One nutritionist from each of the 44 participating clinics was randomly selected to participate in the treatment fidelity phone interview. If a randomly selected nutritionist from one of the 44 clinics declined participation, another nutritionist from that clinic was selected when possible. Out of the 44 participating clinics, there were 40 clinics represented in the treatment fidelity interview. The interview protocol was developed specifically for this research. The interview was standardized and the Principal Investigator conducted all interviews over the telephone. Each interview lasted no more than 10 minutes. Answers were either categorized into one of the answers on the interview form or written down for later categorization if an appropriate answer was not already on the form. All participants were asked six sets of questions. Participants in the skills training group were asked one additional set of questions.

The power of this study was too low to detect many differences between the groups because the sample size was so small. However, there were several answers that had results with a large enough difference in percentages to show a possible trend. The differences between the two groups may not be statistically significant, but there could be some clinical significance in some of the differences. For example, a difference of 19.3% in nutritionists that will use the word “overweight” when counseling parents may make a difference in how many parents will understand the need for immediate weight

Appendix S (continued): University of NM Graduate Student Projects within GHT

intervention. There was also not a statistically significant difference of 14.5% in the number of nutritionists in each group that mentioned they would use motivational interviewing techniques or ask the parents if they are concerned when talking about their child's weight, with the usual training group having a higher percentage. This difference may be clinically significant because the nutritionists in the usual training group could be showing that they do not have as many

It appears that the goals for the last two treatment fidelity elements, receipt of treatment and enactment of treatment, were met in this research. However, this interview did not collect enough information to say if the goals of the first three treatment fidelity elements, design of study, provider training and delivery of treatment, were completely met. Further research should include an examination of who the providers are for follow-up trainings and more on the content of the follow-up trainings.

<u>Evaluation of the usefulness of the Nutrition and Activity Self-History (NASH) form</u>

This project explored the usefulness of an alternative to a FFQ for identifying nutrition risk and pediatric weight-related health issues. An on-line survey was developed to assess participants' perceptions of the Get Healthy Together NASH form. Of the 55 participants who were sent the survey, 36 completed the survey. The majority of the participants (83%) indicated they were nutritionists and 16% consisted of either eligibility interviewers or managers. After using the NASH for five months, WIC professionals rated the NASH very positively for how helpful it was in determining nutritional risk factors.

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On average WIC staff indicated that they use the NASH 75.33% (*SD* = 29.9) of the time when certifying or recertifying clients. On the whole favorable ratings were given to the NASH in all areas of counseling clients. In addition WIC staff felt that the NASH was a useful tool for helping clients set healthy lifestyle goals. When compared to the food frequency questionnaire WIC staff found the NASH easier to use and a better tool to help staff identify a clients' readiness to change. They also reported that the tools help guide the conversation with the client about the child's weight and weight-related behaviors.

Evaluation of items on the Nutrition and Activity Self-History (NASH) form

Over 5,000 completed NASH forms were reviewed, with a subset of 365 randomly selected for analysis. Frequency of dietary intake and physical activity as noted on the NASH were compared to recommended dietary intake and physical activity patterns for age to address the validity of the NASH form. The dietary patterns identified on the NASH form appear to follow recommended patterns for children set forth by the USDA, American Medical Association (AMA) and the Center for Disease Control and Prevention (CDC). Because the NASH form does not outline serving sizes, but rather asks times per day or days per week, a direct correlation cannot be made between recommended guidelines and actual reported intake in the NM WIC population. Using the NASH form, parents reported expected and desired patterns for fruit, vegetable, fried foods, sweet or salty snacks, and soda and sweetened fruit drinks. Furthermore, parents reported desired patterns for fast food consumption, family meals, and consumption of breakfast as a meal. Based on these findings, it is concluded that the NASH form is an

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indicator of meal patterns and food choices as related to the *Dietary Guidelines for Americans* and can be used as an assessment tool to determine if recommended dietary patterns are being followed.

This study evaluated the ability of a parent or guardian participating in the NM WIC program to complete and understand the NASH form. Based on item selection frequencies, the Spanish form may not have been understood by the parent or guardian as well as the English form. Lack of item selection on the Spanish form may be related to misunderstanding of the question, language, cultural, and/or literacy barriers. Further explanation of questions may enhance response rate and assessment for appropriate reading level may enhance the use of the NASH form by eliminating literacy as a major barrier to client use of the form.

<u>Follow-up on continued use of NASH and other GHT tools at the completion of the grant</u>

Another on-line survey is scheduled for distribution in January 2011 to identify usage patterns and acceptability of the NASH, BMI poster, Talking Tips and Report Card. This will follow the state-wide training on the use of these tools, ensuring clinics that were assigned to all levels of intervention will have access to the tools previously only used in the clinics assigned to the skills training intervention.

Appendix T: Research Article - Journal of Nutrition Education and Behavior, 2011

Research Article

Motivational Interviewing Skills are Positively Associated with Nutritionist Self-Efficacy

Scott C. Marley, PhD, MPH[1]; Kira Carbonneau, MEd[1]; Donna Lockner, PhD, RD[1]; Debra Kibbe, MS[2]; Frederick Trowbridge, MD[2]

ABSTRACT

Objective: To examine the relationships between physical and social self-concepts, motivational interviewing (MI), and nutrition assessment skills with dimensions of counseling self-efficacy.

Design: Cross-sectional survey.

Setting: Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) clinics.

Participants: Sixty-five WIC nutritionists.

Main Outcome Measures: Counseling self-efficacy on topics related to physical activity and nutritional behaviors and in the presence of language and cultural differences.

Analysis: Multiple linear regression.

Results: Nutritionists' perception of their own MI skills was positively associated with their self-efficacy for counseling clients of a culture different than their own, when counseling about physical activity, and when counseling about nutrition behavior. Hispanic ethnicity and social self-concept were positively associated with counseling self-efficacy when culture differences were present. Physical self-concept was positively associated with self-efficacy related to physical activity topics. Nutrition assessment skill was negatively associated with self-efficacy for working with non-English-speaking clients.

Conclusions and Implications: Development of MI skills and strategies to improve social and physical self-concept may increase WIC nutritionists' counseling self-efficacy, particularly when counseling clients from diverse backgrounds.

Key Words: self-efficacy, counseling, nutritionist, motivational interviewing, WIC (*J Nutr Educ Behav.* 2010;■:1-7.)

INTRODUCTION

Over the past several decades, pediatric obesity rates have increased in virtually every region and population of the United States (US).[1,2] The marked increase in obesity prevalence represents a serious threat to public health. In response, early intervention programs have been developed for, and by, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) to help prevent and treat pediatric overweight in low-income families. For these efforts to succeed, WIC employees should be well trained in obesity prevention counseling. Previous findings from WIC projects included in the US Department of Agriculture-funded Fit WIC program identified staff self-efficacy as a key component of effective obesity prevention counseling.[3,4] In addition, WIC employees who participated in staff wellness programs were more likely to address physical activity and weight issues with clients.[4] Building on these findings, New Mexico WIC developed a program, Get Healthy Together (GHT), designed to improve the counseling self-efficacy of WIC staff through training on motivational interviewing (MI) and interpreting body mass index (BMI), as well as a wellness program for staff.

According to Bandura, self-efficacy is a person's beliefs about his or her ability to perform in a desired manner or achieve certain goals.[5] When self-efficacy is high, individuals feel empowered to be successful in their endeavors. Although counseling parents of overweight children has been reported to be a challenge owing to multiple factors,[6] improving nutritionists' self-efficacy for counseling clients on their dietary and physical activity choices may help WIC nutritionists provide better counseling to parents about management of pediatric obesity.[3] This hypothesis is supported by the finding that the higher WIC nutritionists' self-efficacy in oral health counseling was, the more likely they would be to discuss and write dental referrals.[7]

These findings inform the theoretical framework of GHT and provide the basis for studying the relationship between nutritionists' counseling

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doi:10.1016/j.jneb.2009.10.009

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self-efficacy and nutritionists' self-reported skills and self-concept. The skills that nutritionists were asked about were MI skills and nutrition assessment skills. The two areas of self-concept investigated were physical and social self-concept.

Motivational Interviewing

Motivational interviewing is a patient-centered approach to facilitating behavioral change. Practitioners using MI techniques assess the client's readiness for making changes and then guide the discussion accordingly. Of particular importance to MI is the development of a collaborative client-practitioner relationship based on empathy, autonomy, acceptance, and egalitarianism.[8-10] A meta-analysis found evidence supporting the effectiveness of MI in a variety of domains including alcohol and drug abuse, human immunodeficiency virus, and diet and exercise.[11] Of specific interest to the present study were the findings that MI-based interventions were effective in counseling about diet and exercise, and the advantages of using MI were generally greater with ethnic minority populations.[11]

In nutrition research, a recent study found that MI-trained dietitians scored higher on measures of empathy and change-related statements compared to dietitians who did not receive MI training. The patients of these MI-trained dietitians had significantly lower saturated fat intake relative to patients of control group dietitians.[12] Based on these results, it is expected that nutritionists who have been trained in MI skills will report higher counseling self-efficacy.

Nutrition Assessment Skills

Nutrition assessment skills are the foundation of nutritionists' evaluations of their clients. The ability to evaluate basic health indicators such as hemoglobin and BMI and the ability to explain these concepts to clients are expected to contribute to the success of counseling clients about dietary habits. The authors anticipated that nutritionists who rated themselves higher for knowledge of measuring and interpreting BMI would report greater counseling self-efficacy. Evidence for this concept was seen in a study reviewing medical students' self-reported knowledge and efficacy for discussing cardiovascular nutrition concepts with patients.[13] In this study, medical students were randomly assigned to receive nutrition education training or to a control group. Students who received the training were more knowledgeable about nutrition education and reported higher efficacy with regard to discussing nutrition. Comparable results were found with pharmacy students in their self-reported ability to practice primary care nutrition after receiving education on basic nutrition assessment.[14] Based on these studies, it is hypothesized that self-reported nutrition assessment skills should be positively associated with nutritionists' counseling self-efficacy.

Physical and Social Self-Concept

Physical self-concept describes perceptions of one's personal characteristics, such as sex, height, and weight.[15] Previous findings from Fit WIC indicate that WIC staff found improving their personal wellness through physical activity and wellness opportunities in the workplace helped them to be better counselors.[4] Therefore, GHT includes a personal wellness program for WIC staff. The wellness component of GHT is targeted not toward changing participants' weight per se, but rather toward increasing wellness through encouraging participants to increase their physical activity as well as improve other health behaviors such as stress reduction and diet. Evidence for the relationship between physical activity and physical self-concept is provided in a recent study investigating the effects of an exercise program with adults from a large Midwestern university. Participants in the exercise program showed a statistically significant increase in physical self-concept, as measured by the Tennessee Self-Concept Scale (TSCS).[16]

Social self-concept is a "measure of how a person perceives him or herself in relation to others. Social self-concept reflects an individual's sense of adequacy and worth in social interactions with other people."[15] Because of the relationship-building aspects of nutrition counseling, nutritionists who report high levels of social self-concept are expected to report high levels of self-efficacy in their interactions with clients.

The present study was undertaken to identify baseline relationships between WIC nutritionists' counseling self-efficacy with nutritionists' demographics, self-reported skills in MI, skills in nutritional assessment (specifically, measuring and interpreting BMI and iron status), social self-concept, and physical self-concept. The authors investigated whether physical self-concept, social self-concept, self-reported MI skills, and BMI assessment skills were related to counseling self-efficacy.

METHOD

Sample

Prior to beginning the GHT program, the New Mexico Department of Health Staff Survey was sent to nutritionists at all WIC clinics in the state of New Mexico, except for 1 clinic reserved for pilot-testing of instruments. The survey, written in English, was provided on-line, and nutritionists were allocated extra time during their workday to complete the survey. The survey link was sent to participants' employee e-mail addresses. To increase participant response, 4 reminders were sent. All procedures were approved by the University of New Mexico Institutional Review Board. Participation was voluntary and consent was secured using an online consent form. Of the 82 eligible WIC nutritionists in the state, 73 completed the survey, resulting in an 89% response rate. Since respondents were primarily Hispanic and white/non-Hispanic (89%), the authors were limited in ability identify race/ethnic differences beyond these 2 groups. Therefore, the analyses were restricted to Hispanic and white participants (n = 65). See Table 1 for sample demographics.

Instruments

After a review of self-efficacy measures from other domains of research,[17-19] a pool of questions was developed to reflect the counseling environment

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Table 1. Demographic Characteristics of WIC Nutritionists Responding to Survey (n = 65)

Age (y)	42.3 (SD 12.8)
Sex, female	100%
Educational background	
Less than bachelor's degree	5%
Bachelor's degree	83%
Graduate degree	12%
Race/ethnicity	
Hispanic/Latino	59%
White (non-Hispanic)	41%

SD indicates standard deviation; WIC, Special Supplemental Nutrition Program for Women, Infants, and Children; y, years.

of WIC nutritionists. The content of the items was then reviewed by a panel of experts in nutrition counseling and revised. These items were pilot-tested on WIC nutritionists in the clinic not participating in GHT to determine readability and subject appropriateness, and whether sufficient score variability was present. The items selected to measure counseling self-efficacy were separated into the following 4 dimensions: (1) respondents' perception of their self-efficacy for counseling non-English-speaking clients (5 items); (2) respondents' perception of their self-efficacy for counseling clients from cultures different than those of the respondent (7 items); (3) respondents' perception of their self-efficacy for counseling clients about dietary choices (6 items); and (4) respondents' perception of their self-efficacy for counseling clients about physical activity (6 items). These 4 dimensions were selected as conceptually meaningful after consultation with WIC nutritionists in the state, who identified these dimensions as the most relevant to counseling in the culturally and linguistically diverse WIC setting. See Appendix A in the Supplementary Data for item content and scale reliabilities as measured by Cronbach α.

Four additional items assessed respondents' self-confidence in their nutrition assessment skills, and 6 items asked about self-perceived MI skills. All used 5-point Likert scales, with "strongly disagree" and "strongly agree" as anchors. See Appendix B in the Supplementary Data for item content and reliabilities.

The TSCS was used to assess nutritionists' physical and social self-concepts.[15] As specified by the TSCS, 14 items were used to assess physical self-concept (α = .79), and 12 items to assess social self-concept (α = .82). For both scales, items were summed and divided by the total number of items for subscale total scores. Using Nunnally and Bernstein's criteria for internal consistency as measured by Cronbach α, all measures are considered acceptable to very good for research purposes.[20,21]

For all the subscales, items were summed and divided by the total number of items for each subscale to create subscale total scores. Calculating scores in this manner resulted in individual scores ranging from 1 to 5, with scores of 1 and 5 indicating low and high perceived standing on the subscale, respectively.

Analysis

Descriptive statistics and correlations were calculated for each quantitative variable to ascertain whether the assumptions associated with multiple regression were met. One variable, nutrition assessment skills, was found to be negatively skewed, suggesting that the nutritionists perceived their assessment skills to be high. Therefore, a median split was used to calculate low and high assessment skill categories.

For the primary analyses, 4 multiple regressions were calculated using each nutritionist's self-efficacy score for each of the 4 dimensions as the dependent variable and race/ethnicity (Hispanic vs white), years as a nutritionist, nutrition assessment skills (low vs high), MI skills, physical self-concept, and social self-concept as independent variables. For each regression analysis, when the P value was less than .05 the overall regression was interpreted as statistically significant. If the regression was significant ($P < .05$) then statistically significant betas were interpreted.

RESULTS

The descriptive statistics for the self-reported self-efficacies, self-concepts, number of years working as a WIC nutritionist, MI skills, and nutrition assessment skills are reported in Table 2. The mean responses on the self-reported measures were above the neutral point, indicating the nutritionists generally held positive perceptions of their physical and social self-concepts and counseling self-efficacies. Of interest are the zero-order correlations, with the exception of counseling self-efficacy in the presence of language differences. The counseling self-efficacies and physical and social self-concepts had moderate to large positive correlations with MI skills.

Results of the regression analyses for the 4 dimensions of counseling self-efficacy are shown in Table 3. Ethnicity/race was significantly related to self-efficacy when counseling non-English-speaking clients. When compared with Hispanic nutritionists, white, non-Hispanic nutritionists reported lower self-efficacy when working with clients who do not speak English. Social self-concept was positively associated with counseling self-efficacy when working with language differences. In addition, a significant difference between high vs low nutrition assessment skills was found, indicating that high assessment skills are negatively associated with self-efficacy for working with language differences.

Motivational interviewing skills and social self-concept were positively associated with counseling self-efficacy when working with clients from cultural backgrounds that are different than those of the counselor. Motivational interviewing skills were also positively related to counseling

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Table 2. Mean (standard deviations) and Correlations of Key Variables (n = 65)

	Counseling Self-efficacies				Self-concepts		Years and Skills		
	Language (V1)	Culture (V2)	Nutrition (V3)	Physical (V4)	Physical (V5	Social (V6)	Years (V7)	MI Skill (V8)	Assessment (V9)
V1	3.5 (0.8)								
V2	.32**	3.3 (0.7)							
V3	.23*	.45**	3.6 (0.4)						
V4	.32*	.41**	.68**	3.5 (0.4)					
V5	.10	.27*	.36**	.48**	3.5 (0.5)				
V6	.35**	.45**	.40**	.40**	.43**	4.0 (0.5)			
V7	.00	-.14	.02	-.02	.09	-.13	6.1(6.2)		
V8	.20	.49**	.52**	.60**	.44**	.44**	-.20	5.0 (0.6)	
V9	.12	.21	.31**	.38	.25*	.25*	.15	.50**	4.6 (0.6)

MI indicates motivational interviewing.
Note: Means (standard deviations) for each variable are reported on diagonal, and correlations are on the off diagonal.
*$P < .05$; **$P < .01$.

about nutrition-related topics and for counseling about physical activity. Physical self-concept was also positively associated with counseling about physical activity. No other factors were associated with the dimensions of counseling self-efficacy.

DISCUSSION

This study investigated the relationship between WIC nutritionists' counseling self-efficacy, as measured by responses to questions about 4 dimensions of counseling, and the nutritionists' self-report of MI skills, nutrition assessment skills, physical self-concept, and social-self-concept. Data were collected at baseline before a program aimed at improving MI, nutrition assessment, and staff personal wellness was instituted.

Being Hispanic and having higher social self-concept were both associated with higher self-efficacy for working with clients who speak a language other than English. The difference between white and Hispanic nutritionists is likely owing to bilingualism being more common among Hispanics in the southwestern US. Some Hispanic nutritionists may consider Spanish their first language and therefore report higher self-efficacy for counseling clients who speak Spanish. Surprisingly, better self-reported nutrition assessment skills were negatively associated with the dimension of counseling self-efficacy related to working with clients who speak a language other than English. This finding may be related to incongruence between the health literacy level of the nutritionist and that of the WIC client. Health literacy is defined by "a person's ability to function in the health care setting using their skills in literacy and numeracy."[22] Nutritionists who report better nutrition assessment skills such as measuring and interpreting BMI and hemoglobin levels may be able to explain these concepts, yet they do so in a way that is not targeted at the clients' level of health literacy, which may cause frustration for the nutritionist. The other factor positively associated with counseling self-efficacy when working with non-English speakers was social self-concept. This finding indicates that perceived social skills are especially important when working with non-English speakers.

An interesting pattern emerged for nutritionists' self-efficacy when counseling clients from cultural backgrounds different than those of the nutritionists. Self-reported MI skills and social self-concept were positively associated with nutritionists' self-efficacy for working with clients of differing cultures. This finding further supports the importance of MI skills found in other studies with samples from culturally diverse populations.[23,24] These studies indicate the skills associated with MI reduce barriers between nutritionists and clients by developing dyadic communications.

Self-reported MI skills was the only factor positively associated with nutrition counseling self-efficacy. Similar to self-efficacy for counseling in the presence of cultural differences, this result provides support for improving MI skills. The positive relationship between perceived MI skills and nutritional counseling self-efficacy may be a result of the skill of the nutritionists in eliciting clients' internal motivations and building upon them, which in turn may improve nutritionists' self-efficacy for counseling about nutrition.

Self-reported MI-related skills and physical self-concept were significantly related to higher self-efficacy for counseling about physical activity. It was expected that physical self-concept would be associated with nutritionists' self-efficacy for counseling about physical activity. It is likely that this is a credibility issue, where if an individual has positive regard for him or herself physically, he or she feels more efficacious about counseling others to improve physically through activity. Studies investigating physicians' disclosure of healthful habits, such as exercising and eating right, to patients found that physicians who are able to discuss their own healthful habits are better able to motivate their patients to alter their health behaviors.[25]

The interactions that take place between nutritionists and clients are

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Table 3. Summary of Linear Regression Analyses of Counseling Self-efficacy Dimensions on Demographics, Skills, and Self-concepts (n = 65)

	B	SE	β	t	P
A. Self-efficacy for counseling non-English-speaking clients					
$F(6,58) = 4.20$; $P < .01$; $R^2 = .30$					
Constant	-.07	1.13		-.06	.94
Race/ethnicity (Hispanic = 0)	-.54	.22	-.31	-2.33	.01
Years at current position	.01	.01	.11	.96	.33
Motivational interviewing	.30	.19	.21	1.56	.12
Nutritional assessment (0 = "low")	-.52	.22	-.31	-2.33	.01
Physical self-concept	.01	.23	.01	.08	.93
Social self-concept	.57	.22	.33	2.54	<.01
B. Self-efficacy for counseling clients from different cultural backgrounds					
$F(6,58) = 4.88$; $P < .001$; $R^2 = .33$					
Constant	-.42	.88		-.47	.63
Race/ethnicity (Hispanic = 0)	.19	.14	.149	1.31	.19
Years at current position	-.01	.01	-.117	-.98	.33
Motivational interviewing	.39	.15	.34	2.52	<.01
Nutritional assessment (0 = "low")	-.04	.17	-.03	-.28	.78
Physical self-concept	.06	.18	.04	.35	.72
Social self-concept	.39	.17	.28	2.21	.02
C. Self-efficacy for counseling clients about nutrition-related topics					
$F(6, 58) = 4.58$; $P < .01$; $R^2 = .32$					
Constant	.95	.58		1.63	.10
Race/ethnicity (Hispanic = 0)	.08	.09	.10	.87	.38
Years at current position	.005	.008	.08	.66	.50
Motivational interviewing	.28	.10	.39	2.83	<.01
Nutritional assessment (0 = "low")	.01	.11	.01	.09	.92
Physical self-concept	.12	.12	.13	1.01	.31
Social self-concept	.13	.11	.14	1.13	.26
D. Self-efficacy for counseling clients about physical activity					
$F(6, 58) = 4.33$; $P < .01$; $R^2 = .31$					
Constant	.36	.61		.59	.55
Race/ethnicity (Hispanic = 0)	.14	.10	.16	1.38	.17
Years at current position	-.005	.008	-.07	-.61	.53
Motivational interviewing	.29	.10	.39	2.80	<.01
Nutritional assessment (0 = "low")	-.20	.12	-.22	-1.67	.09
Physical self-concept	.26	.12	.27	2.11	.03
Social self-concept	.10	.12	.11	.84	.40

B indicates beta; β, standardized beta; SE, standard error.

clearly complex. Although self-reported MI skills and social and physical self-concept were noted in this study to be associated with some dimensions of counseling self-efficacy, the relationships cannot be deemed as causal because of the study design. The relationship does suggest, however, that attempts to improve MI skills, physical self-concept, and social self concept may help improve nutritionists' self-efficacy in counseling.

The GHT staff development program currently underway in New Mexico incorporates a skills training component that is designed to complement MI by providing tools that facilitate the conversation between counselors and clients. The new tools include a poster targeted to parents showing a child with a healthful BMI and one with a BMI above the 95th percentile. This poster is intended to begin a conversation between nutritionists and parents about how it may be difficult to determine whether a child's weight is in the healthful range based on appearance. Another tool is the Nutrition and Activity Self-History Form, used as an assessment tool and to probe about parental concerns for children 2-5 years old. In addition, GHT Talking Tips is a laminated sheet with images of topics related to a healthful lifestyle used to ask parents what they are interested in talking about. Lastly, the Report Card–Action Plan is a small card given to parents and used to record a child's hemoglobin, height, weight, BMI, referrals, family health goal, and next WIC appointment.

If the correlational evidence supporting the relationship between MI-related skills and self-efficacy can be attributed to a causal relationship, it is expected that GHT's emphasis on training nutritionists to use tools that

complement MI will result in higher levels of self-efficacy for working with clients from cultural backgrounds different than that of the nutritionist, counseling about nutrition, and counseling about physical activity. However, follow-up over the 2-year course of GHT will help determine whether this component of the staff development program can be reduced in favor of more time for MI training.

Another component of the GHT program is a personal staff wellness program. Previous research with WIC staff indicates that participation in personal wellness programs leads to improved self-efficacy in pediatric overweight prevention counseling.[4] The participants in that study reported that when they were more active as a result of the wellness program, they were more likely to discuss physical activity with the WIC clients. Nutritionists who are exposed to this component of GHT will also be compared with the baseline data reported here to determine whether the wellness program improves nutritionists' self-efficacy for counseling their clients to engage in physical activity.

Strengths and Limitations

There are 2 primary strengths associated with the present study. The first is the high level of nutritionist participation in the study. With 89% of the eligible WIC nutritionists participating in the study, it is reasonable to assume that the sample is representative of WIC nutritionists in the state of New Mexico. The second is the use of an instrument with established reliability and validity. The TSCS has a considerable body of evidence supporting the reliability and validity of the scores produced by it. The correlations of the 2 self-concept scales with the newly formed measures of nutritionist self-efficacy provide criterion-related validity evidence.

In addition to all data being self-reported, the major limitation of this study is the reliability of the new measures of self-efficacy. Although the reliability of these measures is considered to be adequate to very good and appropriate for research purposes,[21] there may still be a considerable amount of error in the measures. This error results in attenuated correlations between the variables. It is likely that the estimates of the relationships are lower than they would be if the measurements were error free. Another limitation of the study is its correlational design. Correlational designs are useful for identifying potential points of intervention; however, it is important not to associate correlation with causation. Therefore, interventions using random assignment and careful application of interventions, such as GHT, are necessary to investigate the causal relationships between the variables under study.

IMPLICATIONS FOR RESEARCH AND PRACTICE

The present study investigated the relationships between 4 dimensions of nutritionist counseling self-efficacy and demographics, MI-related skills, nutrition assessment skills, social self-concept, and physical self-concept. The results implicate self-reported MI skills as the strongest factor for overall counseling self-efficacy. In addition, social self-concept was positively related to self-efficacy with respect to counseling clients of a culture different than one's own, and physical self-concept was positively associated with self-efficacy related to physical activity counseling. These results suggest that strategies aimed at improving WIC nutritionists' perception of their MI skills may have the largest impact on improving counseling self-efficacy, whereas improved social self-concept and physical self-concept may be of lesser value, and improved self-reported nutrition assessment skills may not be beneficial in the absence of a connection with the client. To test this hypothesis, GHT is a program currently extending findings from Fit WIC and evaluating the effectiveness of staff training to improve self-perception of MI skills and social self-concept. In addition, the personal staff wellness component of GHT is testing whether participation in a wellness program improves nutritionists' physical self-concept.

ACKNOWLEDGMENTS

This study was financed through federal funds from US Department of Agriculture WIC Special Project Grant: Revitalizing Quality Nutrition Services. The authors would especially like to thank the nutritionists from the New Mexico WIC programs who participated in the study. The content of this publication does not necessarily reflect the views or policies of the New Mexico WIC, University of New Mexico, or the International Life Sciences Institute Research Foundation.

SUPPLEMENTARY DATA

Supplementary data associated with this article can be found in the online version at doi: 10.1016/j.jneb.2009.10.009.

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