

2017

A qualitative study conducted in the USA exploring Latino fathers' beliefs, attitudes and practices related to their young children's eating, physical activity and sedentary behaviours

Ana Cristina Lindsay

Sherrie F. Wallington

Mario A. Muñoz

Mary L. Greaney

University of Rhode Island, mgreaney@uri.edu

Follow this and additional works at: https://digitalcommons.uri.edu/kinesiology_facpubs

Citation/Publisher Attribution

Lindsay, A., Wallington, S., Muñoz, M., & Greaney, M. (2018). A qualitative study conducted in the USA exploring Latino fathers' beliefs, attitudes and practices related to their young children's eating, physical activity and sedentary behaviours. *Public Health Nutrition*, 21(2), 403-415. doi:10.1017/S1368980017002579

Available at: <https://doi.org/10.1017/S1368980017002579>

This Article is brought to you by the University of Rhode Island. It has been accepted for inclusion in Kinesiology Faculty Publications by an authorized administrator of DigitalCommons@URI. For more information, please contact digitalcommons-group@uri.edu. For permission to reuse copyrighted content, contact the author directly.

A qualitative study conducted in the USA exploring Latino fathers' beliefs, attitudes and practices related to their young children's eating, physical activity and sedentary behaviours

The University of Rhode Island Faculty have made this article openly available.
[Please let us know](#) how Open Access to this research benefits you.

This is a pre-publication author manuscript of the final, published article.

Terms of Use

This article is made available under the terms and conditions applicable towards Open Access Policy Articles, as set forth in our [Terms of Use](#).

**PUBLIC
HEALTH NUTRITION**



**CAMBRIDGE
UNIVERSITY PRESS**

A qualitative study conducted in the U.S. exploring Latino fathers' beliefs, attitudes and practices related to their young children's eating, physical activity and sedentary behaviors

Journal:	<i>Public Health Nutrition</i>
Manuscript ID	PHN-RES-2017-0688.R1
Manuscript Type:	Research Article
Keywords:	Latino, fathers, practices, physical activity, eating
Subject Category:	8. Community nutrition

SCHOLARONE™
Manuscripts

Running Head: Latino fathers beliefs and practices1 **INTRODUCTION**

2 **Latinos and Hispanics (hereafter referred to as Latinos)** are
3 the largest and most rapidly growing population group in the
4 United States¹ (U.S.) and children in low-income Latino families
5 have an elevated risk of becoming overweight or obese.² **Recent**
6 **statistics show that almost 17% of Latino preschool children are**
7 **classified as being obese compared to 11% of Black, 4% of White,**
8 **and 3% of Asian children.**² As a result, childhood obesity among
9 Latinos is a pressing public health concern as childhood weight
10 status tracks into adulthood and increases risk of other obesity-
11 related chronic diseases.^{2,3}

12 Establishing healthy eating and physical activity (PA)
13 habits early in life is important for preventing obesity and related
14 co-morbidities in childhood and beyond.^{4,5,6} **Multiple behavioral**
15 **risk factors such as unhealthy eating habits (e.g., consumption of**
16 **calorie-dense, nutrient-poor food), low physical activity levels and**
17 **increased sedentary behaviors have been linked to disparities in**
18 **childhood obesity among Latino children.**^{2,3,6} Parents are key
19 players in determining their children's weight status through the
20 home environment they create for eating, PA and sedentary
21 behaviors (SB).^{4,7-11} Furthermore, parents shape their children's
22 eating, PA, and SB through their knowledge of nutrition; influence
23 over food selection, meal structure and home eating patterns;
24 modeling of eating, PA, and SB, including television-viewing and

Running Head: Latino fathers beliefs and practices

25 screen-time.^{4,8,10-12} Due to parental influences on their children's
26 eating and PA practices—and thus in preventing obesity, they
27 should be central to collective efforts to end the childhood obesity
28 epidemic.^{4,5,12}

29 To date research examining parental influences on
30 children's healthy eating, PA, and SB has primarily focused on
31 mother-child interactions.^{3, 6-11,13-20} This research documents the
32 critical influence of mothers' beliefs, attitudes, parenting styles,
33 and practices on children's eating, PA, SB, and weight
34 status.^{10,11,13-20} Although, in most cultures, mothers still spend
35 more time caring for their children, fathers' involvement in
36 childcare has increased over the past decades, especially in high-
37 income countries.²¹⁻²⁵ This increase may be due to changes in the
38 labor market, increased participation of women in the labor force,
39 and changes in family roles and dynamics.^{23,26}

40 Recent reviews point to the limited representation of fathers
41 on parenting and childhood obesity research.²⁷⁻³⁰ Despite the
42 increasing number of studies examining fathers' food parenting
43 practices,³¹⁻³⁵ available research assessing the influence of
44 parenting styles and practices on children's eating among Latino
45 fathers is limited.³⁶⁻⁴⁰ Nonetheless, these studies underscore
46 father's influential role on children's eating.³⁶⁻⁴⁰ This small body of
47 research indicates the need for further research, but also suggests that
48 Latino fathers be included in nutrition interventions designed to reduce

Running Head: Latino fathers beliefs and practices

49 and prevent child obesity.³⁶⁻⁴⁰ Similarly, a growing research literature
50 documents the influential role of fathers on children's PA and SB,
51 but the majority of this research has focused on Caucasian, middle-
52 income fathers^{39,41} with limited research examining Latino fathers'
53 beliefs, attitudes and practices related to young children's PA and
54 SB.^{39,41} Results of a recent review that included 13 studies
55 examining home environmental influences on childhood obesity
56 among Latino children (2-17 years) revealed that Latino children
57 spend more time using media (e.g., watching television (TV),
58 playing video games) and have fewer limitations placed on them
59 by their parents regarding the use of media than White or Black
60 children and that this lack of limits was associated with increased
61 inactivity and child weight gain.⁷ The majority of studies included
62 in this review were comprised primarily of Latina mothers,
63 highlighting the need for additional studies to include Latino
64 fathers.⁷

65 Identifying and understanding potentially modifiable
66 factors associated with increased risk of child obesity among
67 minority, low-income children, such as Latinos, is critical to
68 collective efforts to prevent and control childhood obesity.^{3,6} Given
69 limited but increasing evidence of the influential role of fathers in
70 their children's development of eating, PA, and SB, the purpose of
71 the present study was to expand on the current existing research
72 and examine Latino fathers' beliefs, attitudes and practices related to

Running Head: Latino fathers beliefs and practices

73 their young children's eating, PA and SB.

74 **METHODS**

75 **Study Design and Sample**

76 The present study was part of a community-based, mixed-
77 methods research study designed to assess parenting styles and
78 practices related to eating, PA, and SB associated with risk of
79 childhood obesity that is being conducted with Latino families
80 living in the state of Rhode Island (RI).⁴² We used a purposive
81 sampling method to recruit participants from Special Supplemental
82 Nutrition Program for Women, Infants and Children (WIC) clinics
83 and community-based programs and agencies serving
84 predominantly Latino populations in RI. Clinics and community-
85 based programs and agencies were contacted by a Research
86 Coordinator who explained the purpose of the research and asked
87 the sites to participate in recruitment efforts. Sites agreeing to
88 participate were mailed study flyers in Spanish and English that
89 included a phone number for interested participants to call. Flyers
90 were posted at agencies between June and October 2016.

91 Individuals who contacted the research coordinator were screened
92 for study eligibility. Fathers were eligible to participate if they self-
93 identified as being of Hispanic ethnicity; were 21 years of age or
94 older; had lived in the U.S. for at least 12 months; had at least one
95 child between 2 and 8 years of age, **who was enrolled or eligible**
96 **for the WIC program; and had** shared parental responsibilities for

Running Head: Latino fathers beliefs and practices

97 or cohabitated with said child. Initial eligibility included being a
98 parent of at least one child between 2-5 years of age, which is the
99 age group eligible for the WIC program. However, to recruit a
100 sufficient number of fathers, we extended age limit to 8 years of
101 age, given that most eligible families had children of multiple ages.

102 We chose to conduct focus group discussions (FGDs)
103 because they are an important technique for conducting research in
104 diverse cultural settings, and provide valuable information.^{43,44}
105 Moreover, the synergistic effects of group settings elicit ideas and
106 discussion that may not arise in individual interviews.^{43,44} Ethics
107 approval was obtained from the University of Massachusetts
108 Boston Ethics Board (IRB# 2013060).

Data Collection

110 We conducted seven FGDs with Latino fathers at local
111 public libraries and community agencies between August and
112 October 2016. Each FGD had three to five participants. All FGDs
113 were conducted in Spanish, and moderated by a bilingual native
114 Spanish-speaker, trained in qualitative research methods, using a
115 semi-structured discussion guide that explored fathers': (a)
116 definitions of healthy eating and active living; (b) beliefs and
117 attitudes related to healthy eating, PA, and SB of young children;
118 (c) practices related to eating, PA, and SB; and (d) perceptions of
119 barriers to children's healthy eating and PA (Table 1). The FGD

Running Head: Latino fathers beliefs and practices

120 guide was piloted-tested in a FGD with Latino fathers not included
121 in this study and refined prior to use.

122 Before each FGD, the moderator explained the study's
123 purpose and procedures, and participants provided written,
124 informed consent. Before beginning each FGD, the moderator
125 asked fathers to think about their youngest child (2-8 years of age)
126 when participating in the discussion. Each audiotaped FGD lasted
127 between 60 and 80 minutes, and a trained, bilingual (Spanish and
128 English) research assistant took notes during each session. The
129 moderator and research assistant convened for approximately 15
130 minutes after the end of each FGD to discuss new and recurring
131 themes heard during the session, which were then added as probes
132 to the FGD guide.

133 At the completion of FGD, participants received a \$25 gift
134 card for participation and completed a brief, self-administered
135 survey that assessed participants' socio-demographics (e.g.,
136 education, marital status, country of origin, length of time living in
137 the U.S., etc.), and level of acculturation via the Short
138 Acculturation Scale for Hispanics (SASH).⁴⁵ The SASH is a 12-
139 item measuring scale validated for use in Latino groups, such as
140 Mexican Americans, Cuban Americans, Puerto Ricans,
141 Dominicans, and Central and South Americans.⁴⁵ The SASH
142 assesses language use, media use, and ethnic social relations. An
143 acculturation score was computed by averaging across 12 items;

Running Head: Latino fathers beliefs and practices

144 measured on a scale of one to five (1=least acculturated, 5=fully
145 acculturated).⁴⁵

146 Analysis

147 Audio tapes were transcribed verbatim in Spanish and
148 translated into English without identifiers. To ensure that the
149 integrity and equivalence of the data was not lost in the process of
150 translation, a professional transcriptionist, bilingual and native
151 Spanish-speaker translated the transcripts using forward-backward
152 techniques to establish semantic equivalence in translation. We
153 analyzed transcripts using thematic analysis, an iterative process of
154 coding the data in phases to find meaningful patterns.^{46,47} Analytic
155 phases included data familiarization, generation of initial codes,
156 searching for and review of themes and patterns, and defining and
157 naming themes. The NVivo 11 software (QSR International Pty
158 Ltd. Version 11, 2015) was used to assist in coding, organizing and
159 indexing of the qualitative data. All transcripts were read and
160 reviewed by two authors who identified and generated initial
161 codes, concepts, and themes. Next, themes were reviewed,
162 identified, defined, and named.^{46,47} Descriptive statistics and
163 frequencies were calculated for the socio-demographic data and the
164 Marin scale using Microsoft Excel 2008.

165 RESULTS

166 Seven FGDs with 28 Latino fathers of young children
167 representing 28 unique families were conducted. Participants' ages

Running Head: Latino fathers beliefs and practices

168 ranged from 27 to 49 years old (mean=34.2, standard deviation
169 (SD)=2.8). Participants had an average of two children (range: 1–
170 4) per household, and 92.9% (n=26) cohabited full-time with their
171 children. Approximately 71.4% (n=20) had a high school degree
172 (50%, n=14) or general education diploma (GED) (21.4%; n=6),
173 and 60.7% (n=17) reported an annual family income of \leq \$40,000.
174 Nearly all (85.7%; n=24) were foreign-born, and had lived in the
175 U.S. for an average of 14.3 years (SD=2.7). The majority (92.9%;
176 n=26) reported speaking primarily Spanish at home, and their
177 mean acculturation score was 2.32 (SD=0.36), indicating that they
178 more closely identified with Latino culture, although they were
179 close to “bicultural”. See Table 2 for additional information on the
180 demographic characteristics of the fathers participating in the
181 study.

182 Emergent themes related to fathers’ beliefs, attitudes and
183 practices related to eating, PA, and SB of their young children are
184 discussed below. Table 3 presents representative quotes illustrating
185 each theme.

I. Beliefs, Attitudes and Practices Related to Healthy Eating

187 *Fathers’ Definitions of Healthy Eating.* Fathers defined healthy
188 eating in a variety of ways, although most offered a definition that
189 focused on the importance of eating a balanced diet that included
190 adequate amounts of fruits, vegetables, and proteins. Fathers also

Running Head: Latino fathers beliefs and practices

191 spoke of limiting fried, “junk,” and fast foods, and several noted
192 the importance of portion control.

193 ***Fathers Believe Healthy Eating is Important.*** Across all FGDs,
194 **fathers agreed** about the importance of healthy eating for one’s
195 health and quality of life, including both adults and children.
196 Moreover, several fathers viewed healthy eating as a lifestyle, and
197 reported that they consistently tried to eat a variety of healthy
198 prepared foods. A few fathers noted the importance of children
199 developing early healthy eating habits.

200 ***Fathers Do Not Always Eat Healthy, But Are Aware of the Need***
201 ***for Improvement.*** Although there was **consensus about the**
202 importance of healthy eating, some fathers spoke of the difficulties
203 associated with this, especially given the availability and
204 accessibility of unhealthy foods. Fathers also noted that a lack of
205 time impacted their food choices and led them to select less
206 healthy and more convenient options. In addition, a few fathers
207 mentioned that it is “easy to give in to unhealthy food choices
208 when feeling stressed out”.

209 ***Fathers’ Food Parenting Practices***
210 ***Continued Effort.*** A few fathers spoke of their continued efforts to
211 promote and support their children’s healthy eating. Fathers
212 explained that the food available outside of their home is a
213 constant “temptation”, and impacts what types of foods their

Running Head: Latino fathers beliefs and practices

214 children want to eat, and “threatens” their children’s healthy eating
215 habits.

216 *It is Okay to Indulge and Eat Unhealthy Once in a While.* A few
217 fathers reported that it is inevitable that their children will eat
218 foods that are unhealthy, but that they tried to keep it to a
219 minimum and mostly to the weekends. In addition, a couple of
220 fathers suggested allowing “unhealthy” food choices as “once-in-a-
221 while” reward.

222 *Eating Out.* Some fathers noted that they rarely eat out, while
223 others reported that they eat out frequently. Fathers most often
224 went out to eat with their families on the weekends. When asked
225 about the types of restaurants they frequent and foods ordered,
226 fathers reported going to large chain restaurants, ethnic restaurants
227 (e.g., Chinese, Hispanic) or out for pizza. Several fathers spoke of
228 eating at fast-food restaurants, as it can be hard to eat out with
229 young children.

230 *Fathers’ Involvement with and Responsibilities for Child***231 *Feeding***

232 *Fathers Have a Traditional View of Motherhood.* Most fathers who
233 lived full-time with their children reported that their child’s mother
234 most often decided what their children and families ate, as well as
235 how meals were prepared. A few fathers did note that it was a joint
236 decision about the foods served to their families. The two fathers
237 who did not co-reside with their children reported that they

Running Head: Latino fathers beliefs and practices

238 followed the lead of the mother regarding meals and child feeding.
239 Some fathers explained that they preferred to let the mother make
240 the decisions about child feeding as they felt mothers know how to
241 best teach and instill healthy habits. A few fathers were more
242 directly involved in decisions about child feeding due to the
243 mothers' work schedule.

Fathers' Perceived Barriers to Children's Healthy Eating.

244 Fathers noted several barriers to their children's healthy eating,
245 including parents having limited time for cooking homemade
246 meals due to mothers **working long hours** and conflicting family
247 schedules. Additionally, some fathers spoke of children being
248 "picky eaters", and preferring foods such as chicken nuggets to
249 more healthy options. Some fathers noted that easy access to and
250 availability of inexpensive unhealthy foods that appealed to
251 children's taste was a main influence in their children's eating
252 habits.
253

Fathers Would like their Children's Eating Habits to Change.

254 When asked about goals for their children, several fathers noted
255 that they wanted their child to eat more healthfully and eat less
256 "junk" and "sugary" foods, such as candy and soda. Nonetheless, a
257 couple of fathers did not think this was feasible because their
258 children are exposed to and prefer these sorts of foods. **Several**
259 fathers **noted that although** their children were good eaters, they
260 would like their children to eat a greater variety of foods, including
261

Running Head: Latino fathers beliefs and practices

262 more fruits and vegetables, and less processed foods. A few fathers
263 expressed concerns for their children's current weight status, and
264 alluded to wanting their children to lose weight.

265 ***Fathers Would Like to Change Their Eating Habits.*** A few
266 fathers explained that along with their children they also should eat
267 more healthfully. **Several fathers stated that they needed to pay**
268 **attention to portion sizes and increase their fruit and vegetable**
269 **intake.** Furthermore, several fathers noted that they would like to
270 lose weight and spoke of doing this by increasing their physical
271 activity and watching what they eat.

272 II. Beliefs, Attitudes and Practices Related to PA and SB

273 ***Fathers' Definition of Active Living.*** When queried as to what
274 active living means, about half of the participants provided a
275 definition that focused on PA, while most others provided a
276 broader definition that focused on being actively engaged in life,
277 being mentally active, participating in family activities, being
278 autonomous, and/or working. A few fathers provided a hybrid
279 definition that encompassed both being physically active and being
280 engaged in life. **A couple of fathers provided slightly different**
281 **definitions of active living for children and parents,** by defining
282 active living for children as including interactions with friends as
283 well as opportunities for intellectual growth.

284 ***Fathers' Believe PA is Important.*** Across all FGDs, fathers
285 explained that they believed that PA is important for health and for

Running Head: Latino fathers beliefs and practices

286 maintaining a healthy weight. Several fathers also mentioned the
287 importance of PA for overall quality of life and mental health.

288 ***Joint Decisions About Family Activities.*** Most fathers, but not all
289 reported that decisions regarding family activities were made by
290 the family, with children, if old enough, being part of the decision-
291 making process. **Some fathers** explained that they were more
292 physically active than the mothers, who were more involved with
293 household chores and keeping a family schedule. A few fathers
294 noted that family activities sometimes unfold without planning and
295 may be based on what the children feel like doing. A couple of
296 fathers explained that they are usually active with their sons and
297 their wives with their daughters.

298 ***Fathers' Parenting Styles and PA Parenting Practices***

299 ***Fathers Are Permissive of Sedentary Activities for their Children***
300 ***and Struggle to Set Limits.*** Several fathers acknowledged engaging
301 in sedentary behaviors with their children and being permissive of
302 children's screen-time behaviors. A few fathers noted that setting
303 limits on screen-time can be difficult, especially, during the cold
304 winter months, when children are more likely to spend more time
305 inside. Some fathers described **being permissive and allowing their**
306 **children to have unlimited screen-time.** Furthermore, some fathers
307 explained that playing video games, etc., is an acceptable part of
308 children's lives nowadays and difficult to limit. A number of
309 fathers noted that their children, especially their sons, enjoyed

Running Head: Latino fathers beliefs and practices

310 playing video games, using their electronic devices, and watching
311 TV and that they often spent time with their children watching
312 soccer matches on TV and playing video games. Fathers also
313 spoke of other sedentary activities that their daughters enjoyed,
314 such as playing with dolls and coloring.

315 *Fathers Report Being Involved and Engaged in Their Children's*
316 *PA.* Overall, fathers felt that they were more involved and engaged
317 in their children's PA than with feeding their children.

318 Nevertheless, fathers reported that their children participated in
319 both active and sedentary activities. They reported that their
320 children liked playing soccer, swimming, and playing outside. A
321 few fathers noted that school had a positive impact on their
322 children's physical activity levels by providing opportunities for
323 active play.

324 *Fathers View Themselves as Physical Activity Role Models.* Some
325 fathers recognized the importance of modeling PA, but noted that
326 they were not always as physically active as they should
327 Nevertheless, a few fathers reported seeking out and being
328 involved in adult sports programs in their communities.

329 Furthermore, a couple of fathers noted involving their children in
330 household chores (e.g., yard work) that required their children to
331 be active.

332 *Fathers Perceptions of Barriers to Child Being Physically Active.*
333 Not all fathers felt that there were barriers that prevented their

Running Head: Latino fathers beliefs and practices

334 children from being physically active. For example, several fathers
335 reported that they lived in safe neighborhoods that allowed their
336 children to play freely in their yards and in the neighborhood (e.g.,
337 access to parks). However, others noted barriers to PA including
338 accessibility, cost of activities/programs, and cold weather.

339 Additional noted barriers included having to schedule activities
340 and having to work long hours.

341 *Fathers' Desire to Be More Physically Active.* A few fathers
342 reported that they should be more physically active and spoke of
343 being more active in the past. They noted that their reduced PA
344 had contributed to their gaining weight. Only a limited number of
345 fathers reported wanting their children to be more physical active.

DISCUSSION

347 The current literature examining Latinos' parenting and
348 their children's health-related behaviors has primarily focused on
349 Latina mothers' beliefs, attitudes and practices related to their
350 young children's eating, PA, and SB.^{8,11,14-20,48-53} To date, there is a
351 paucity of information on these topics among Latino fathers. To
352 address this gap, the present qualitative study explored Latino
353 fathers' beliefs, attitudes and practices related to healthy eating,
354 PA, and SB of their young children among a predominantly
355 immigrant sample.

356 Although we purposively invited fathers with young
357 children (2-8 years) to participate in the study and developed the

Running Head: Latino fathers beliefs and practices

358 FGD guide to focus on **food parenting practices** and eating and PA
359 habits of young children, it is worth noting that several fathers
360 discussed these topics within the context of the whole family,
361 including older and younger children. This is consistent with
362 previous qualitative research and indicates the importance of the
363 family within Latino communities.^{7,13,17,52,53} It also suggests that
364 the family should be considered the unit of change, as prevention
365 of child overweight and obesity will not be successful without
366 considering parents and children as a complete unit.^{7,13,17,52,53}

367 **Recent trends suggest an increase in overall father**
368 **involvement in child care, with a few differences across racial and**
369 **ethnic groups of fathers.**^{21,23,25,26} Research on cultural models of
370 parenting practices suggests that Latinos value of *familism* (e.g.,
371 family obligations, family reciprocity) is associated with behaviors
372 that encourage fulfilling familial roles, such as taking care of
373 children, which may lead to fathers being highly engaged in
374 parenting.^{26,55-58} Studies conducted with Latino fathers in the U.S.
375 suggest that they spend more time with their children in shared
376 caregiving activities than White fathers.⁵⁴⁻⁵⁸ A recent study with
377 Latino parents and their 3-12 years old children found that Latino
378 fathers spent more time in caregiving activities than fathers from
379 other ethnic groups.⁵⁸

380 Latino fathers participating in this study believed in the
381 importance of healthy eating for their children, themselves, and

Running Head: Latino fathers beliefs and practices

382 their families. Nevertheless, the majority reported a number of
383 familial practices including eating out, getting take out, etc., that
384 have been linked to unhealthy eating habits and increased risk of
385 overweight and obesity among children.^{37,38} Moreover, several
386 fathers reported a number of unhealthy personal eating habits
387 (ignoring portion size, making unhealthy food choices, etc.) that
388 may influence their children's eating behaviors, which most fathers
389 wished would change. This finding is congruent with studies
390 involving Latina mothers, and underscores the importance of
391 childhood obesity prevention interventions to address parents' own
392 eating behaviors.^{11,13,14,16,17} Given the importance of parental
393 modeling in the development of children's eating behaviors,
394 parenting interventions should incorporate opportunities to engage
395 fathers and promote changes in fathers' own eating habits and food
396 behaviors.^{17,59-66}

397 Contrary to recent studies conducted with Caucasian,
398 middle-income fathers, most Latino fathers participating in our
399 study reported that they had limited responsibilities for organizing
400 child's meals and deciding what foods to feed the child.⁵⁹⁻⁶⁵
401 Our study found that Latino fathers appeared to allow their child's
402 mother to make most decisions regarding their child's healthy
403 eating and that they were more actively involved in their children's
404 PA behaviors. This finding may reflect traditional parenting roles,
405 with mothers bearing most responsibilities for child feeding.

Running Head: Latino fathers beliefs and practices

406 Nevertheless, a few fathers reported that they shared some **child**
407 **feeding** responsibilities with the mother, especially when the
408 mother worked long hours.³⁷

409 **Although more research is needed, our findings suggest**
410 **that Latino fathers may be more interested in participating in**
411 **interventions to promote PA and be less enticed to participate in**
412 **interventions that focus solely on healthy eating. This should be**
413 **taken into consideration when designing obesity prevention**
414 **interventions involving Latino fathers.** Future studies should
415 continue to explore Latino fathers' roles and responsibilities for
416 child feeding, and associations with children's eating habits and
417 weight status. **This information will be important for the design of**
418 **obesity prevention interventions targeting Latino families that**
419 **include fathers.**

420 Consistent with previous research,^{67,68} a few fathers in the
421 current study expressed concerns for their children's weight status,
422 and alluded to the fact that they like their children to **lose** weight.
423 **Appropriate assessment of a child's weight, followed by**
424 **appropriate weight management strategies is important for the**
425 **prevention of obesity during childhood, as parents who**
426 **misperceive their children's weight status are less likely to engage**
427 **in interventions to reduce risk of pediatric obesity.**^{67,68} Previous
428 studies with Latino mothers and fathers indicate that both parents
429 are likely to misperceive their children's weight status, mostly

Running Head: Latino fathers beliefs and practices

430 underestimating their weight status.^{37,67,68} Future research should
431 further explore Latino fathers' perceptions of their children's
432 weight status and how their perceptions and attitudes towards their
433 child's weight impact their food parenting practices and children's
434 weight status. This information is important as evidence suggests
435 parents who report more concerns about their child becoming
436 overweight or obese also report more controlling food parenting
437 practices (what and how much their child eats) that may have
438 unintentional negative impacts (e.g., overly restricting food
439 access).^{10,32,48,60,62}

440 Although our findings revealed that Latino fathers appeared
441 to be more involved and engaged in children's PA than eating and
442 feeding, we also found that fathers engaged in sedentary activities
443 with their children, appeared permissive of children's SB, and
444 struggled to set limits on children's screen-time. These findings are
445 important given evidence of the influence of paternal parenting
446 styles and practices on children's PA and screen-viewing
447 behaviors.⁶⁹⁻⁷² Previous research suggests that parental attitudes
448 towards and use of screen time including parents' own screen-
449 viewing habits, using screen-viewing as a form of childcare (or
450 babysitter), viewing screen-time as a source of education and as a
451 means of child relaxation result in permissive styles toward their
452 children screen-viewing.⁶⁹⁻⁸² Furthermore, our findings indicate
453 that Latino fathers' ability to model healthy physical activity

Running Head: Latino fathers beliefs and practices

454 behaviors for their children may be limited by their lack of self-
455 efficacy to participate in these behaviors themselves and indicate
456 that interventions should focus not only on fathers' styles and
457 practices, but also on helping fathers increase their self-efficacy for
458 these behaviors. Existing research evidence combined with
459 finding from this current study indicate the need for future research
460 to further examine fathers' attitudes and personal behaviors, as
461 well as the influence of Latino fathers' parenting styles and
462 practices on their children's PA and SB. This information will be
463 critical for designing interventions to decrease Latino children's
464 screen-time and sedentary behaviors.

465 **Moreover**, study findings also suggest possible gender
466 differences in fathers' report of their daughters and sons' PA and
467 SB, as well as their involvement and engagement in activities with
468 their sons, and daughters. Despite the small number of fathers who
469 reported such differences, this is worth exploring further in future
470 qualitative and quantitative research.

471 **In conclusion, although** the role of fathers in the promotion
472 of their children's eating, PA, and SB is a growing area of
473 research, there is still limited information available on the role of
474 minority fathers including Latinos.^{17,36-40} **This current study**
475 **provides insights into the role of Latino fathers in promoting their**
476 **children's eating, PA, and SB behaviors within the family**
477 **environment and contributes information that allow for a more**

Running Head: Latino fathers beliefs and practices

478 complete picture of how Latino parents view eating and PA
479 environments for their children. Given the central role of the
480 family in the Latino culture, effective interventions targeting the
481 promotion of healthy eating, PA, SB and ultimately the prevention
482 of child obesity and related chronic diseases, should take into
483 account the role of fathers.^{13,17,36-39}

484 Existing research suggests obesity prevention interventions
485 designed for Latino children and families should target multiple
486 behaviors (eating, PA, SB, sleep), be family-focused and involve
487 both parents.⁸³⁻⁸⁹ Research also suggests the importance of the
488 intervention context (particularly, family constraints, ethnicity and
489 parental motivation) in changing behaviors Furthermore,
490 interventions need to consider adapting program content to
491 consider cultural preferences.⁸³⁻⁸⁹ In the case of Latinos, the use of
492 culturally appropriate lay leaders (*promotoras*) to deliver
493 interventions has shown to be efficacious. The present study adds
494 to the existing literature and can inform the design of future
495 research and the development of parenting and family-based
496 interventions targeting Latino families.^{80,81}

497 Study findings should be considered in light of some
498 limitations. Findings are based on a nonrandom, purposeful, and
499 relatively small sample of low-income, Latino fathers recruited
500 from community-based organizations located in a few cities in RI.
501 Selection bias may have resulted in fathers having a heightened

Running Head: Latino fathers beliefs and practices

502 interest and awareness about eating, PA, and SB. Furthermore,
503 given that our recruitment strategy included recruiting participants
504 from the WIC clinics, it is possible that fathers might have been
505 more inclined to believe that mothers were more knowledgeable of
506 nutrition because of their participation in the WIC program. Future
507 research should utilize both qualitative and quantitative methods
508 that address these study limitations by using different recruiting
509 methods, and exploring Latino fathers' beliefs, attitudes and
510 practices related to eating, PA, and SB from other communities
511 across the U.S. Nevertheless, this qualitative study provided deep
512 insight into primarily immigrant, Latino fathers' personal beliefs,
513 attitudes, and practices related to child eating, PA, and SB and
514 contributes new information to the current scant literature on
515 Latino fathers and prevention of childhood obesity.

516 CONCLUSIONS

517 The present study provides new information on the beliefs
518 and child feeding and PA practices of Latino fathers, most of
519 whom were immigrants. The results may provide important targets
520 for interventions aimed at promoting children's healthy eating and
521 PA practices involving Latino fathers. Given the importance of the
522 family in Latino culture, and indication from the literature of the
523 importance of the family context in the development of early
524 healthy eating and PA habits, future research should further
525 explore the role of fathers' parenting styles and practices in the

Running Head: Latino fathers beliefs and practices

526 development and support of children's early eating and PA habits.
527 This information is needed to identify risk factors amenable to
528 interventions and to design culturally appropriate parenting and
529 family-based interventions targeting the home environment of
530 Latino children and designed to meet the specific needs of this
531 ethnic group.

532

533 Abbreviations

534 US: United States; PA: physical activity; SB: sedentary behaviors; RI:
535 Rhode Island; TV: television; WIC: Special Supplemental Nutrition
536 Program for Women, Infants and Children; FGD: focus group
537 discussions; SASH: Short Acculturation Scale for Hispanics; GED:
538 General Educational Diploma.

539

540

541

542

543

544

545

546

547

548

549

550

551

552

553

554

Running Head: Latino fathers beliefs and practices555 **REFERENCES**

556

- 557 1. Ennis, S., Rios-Vargas, M., & Albert, N. *The Hispanic*
558 *population: 2010*. 2011. Retrieved from
559 [https://www.census.gov/prod/cen2010/briefs/c2010br-](https://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf)
560 [04.pdf](https://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf).
- 561 2. Ogden CL, Carroll MD, Lawman HG, Fryar CD, Kruszon-
562 Moran D, Kit BK, Flegal KM
563 Trends in Obesity Prevalence Among Children and
564 Adolescents in the United States, 1988-1994 Through
565 2013-2014. *JAMA*. 2016 Jun 7;315(21):2292-9. doi:
566 10.1001/jama.2016.6361.
- 567 3. Singh GK, Siahpush M, Hiatt RA, et al. Dramatic increases
568 in obesity and overweight prevalence and body mass index
569 among ethnic-immigrant and social class groups in the
570 United States, 1976–2008. *J Community*
571 *Health*. 2011;36(1):94–110. doi: 10.1007/s10900-010-
572 9287-9.
- 573 4. Lindsay AC, Sussner KM, Kim J, Gortmaker S. The role of
574 parents in preventing childhood obesity. *Future Child*. 2006
575 Spring;16(1):169-86.
- 576 5. Lindsay AC, Greaney ML, Wallington SF, Mesa T, Salas
577 CF. A review of early influences on physical activity and
578 sedentary behaviors of preschool-age children in high-
579 income countries. *J Spec Pediatr Nurs*. 2017 Apr 13. doi:
580 10.1111/jspn.12182.
- 581 6. Lumeng JC, Taveras EM, Birch L, Yanovski SZ.
582 Prevention of obesity in infancy and early childhood: a
583 National Institutes of Health workshop. *JAMA Pediatr*.
584 2015;169(5):484-90.doi:
585 10.1001/jamapediatrics.2014.3554.
- 586 7. Ochoa A, Berge JM. Home Environmental Influences on
587 Childhood Obesity in the Latino Population: A Decade
588 Review of Literature. *J Immigr Minor Health*. 2017
589 Apr;19(2):430-447. doi: 10.1007/s10903-016-0539-3.

Running Head: Latino fathers beliefs and practices

- 590 8. Schrempft S, van Jaarsveld CH, Fisher A, Fildes A, Wardle
591 J. Maternal characteristics associated with the obesogenic
592 quality of the home environment in early childhood.
593 *Appetite*. 2016 Dec 1;107:392-397. doi:
594 10.1016/j.appet.2016.08.108.
- 595 9. Schrempft S, van Jaarsveld CH, Fisher A, Wardle J. The
596 Obesogenic Quality of the Home Environment:
597 Associations with Diet, Physical Activity, TV Viewing, and
598 BMI in Preschool Children. *PLoS One*. 2015 Aug
599 6;10(8):e0134490. doi: 10.1371/journal.pone.0134490.
- 600 10. Sleddens EF, Kremers SP, Stafleu A, Dagnelie PC, De
601 Vries NK, Thijs C. Food parenting practices and child
602 dietary behavior. Prospective relations and the moderating
603 role of general parenting. *Appetite*. 2014 Aug;79:42-50.
604 doi: 10.1016/j.appet.2014.04.004. Epub 2014 Apr 13.
- 605 11. Conlon BA, McGinn AP, Lounsbury DW, Diamantis PM,
606 Groisman-Perelstein AE, Wylie-Rosett J, Isasi CR. The
607 Role of Parenting Practices in the Home Environment
608 among Underserved Youth. *Child Obes*. 2015
609 Aug;11(4):394-405. doi: 10.1089/chi.2014.0093.
- 610 12. Birch LL, Davison KK. Family environmental factors
611 influencing the developing behavioral controls of food
612 intake and childhood overweight. *Pediatr Clin North*
613 *Am*. 2001 Aug;48(4):893-907.
- 614 13. Lindsay AC, Sussner KM, Greaney ML, Peterson KE.
615 Latina mothers' beliefs and practices related to weight
616 status, feeding, and the development of child overweight.
617 *Public Health Nurs*. 2011 Mar-Apr;28(2):107-18. doi:
618 10.1111/j.1525-1446.2010.00906.x.
- 619 14. Silva Garcia K, Power TG, Fisher JO, O'Connor TM,
620 Hughes SO. Latina mothers' influences on child appetite
621 regulation. *Appetite*. 2016 Aug 1;103:200-7. doi:
622 10.1016/j.appet.2016.04.013.
- 623 15. Murashima M, Hoerr SL, Hughes SO, Kaplowitz SA.
624 Feeding behaviors of low-income mothers: directive
625 control relates to a lower BMI in children, and a

Running Head: Latino fathers beliefs and practices

- 626 nondirective control relates to a healthier diet in
627 preschoolers. *Am J Clin Nutr.* 2012 May;95(5):1031-7. doi:
628 10.3945/ajcn.111.024257.
- 629 16. James KS, Connelly CD, Rutkowski E, McPherson D,
630 Gracia L, Marenò N, Zirkle D. Family-based weight
631 management with Latino mothers and children. *J Spec*
632 *Pediatr Nurs.* 2008 Oct;13(4):249-62.
- 633 17. Lora KR, Cheney M, Branscum P. Hispanic Mothers'
634 Views of the Fathers' Role in Promoting Healthy Behaviors
635 at Home: Focus Group Findings. *J Acad Nutr Diet.* 2017
636 Jun;117(6):914-922. doi: 10.1016/j.jand.2017.01.005.
- 637 18. Thompson DA, Polk S, Cheah CS, Vandewater EA,
638 Johnson SL, Chrismer MC, Tschann JM.
639 Maternal Beliefs and Parenting Practices Regarding Their
640 Preschool Child's Television Viewing: An Exploration in a
641 Sample of Low-Income Mexican-Origin Mothers. *Clin*
642 *Pediatr (Phila).* 2015 Aug;54(9):862-70. doi:
643 10.1177/0009922815574074.
- 644 19. Matheson DM, Robinson TN, Varady A, Killen JD. Do
645 Mexican-American mothers' food-
646 related parenting practices influence their children's weight
647 and dietary intake? *J Am Diet Assoc.* 2006
648 Nov;106(11):1861-5.
- 649 20. Sosa ET. Mexican American mothers' perceptions of
650 childhood obesity: a theory-guided systematic literature
651 review. *Health Educ Behav.* 2012 Aug;39(4):396-404. doi:
652 10.1177/1090198111398129.
- 653 21. Hofferth S, Lee Y. Family structure and trends in
654 US fathers' time with children, 2003-2013. *Fam*
655 *Sci.* 2015;6(1):318-329.
- 656 22. Bianchi SM. Maternal employment and time with children.
657 Dramatic change or surprising continuity? *Demography*, 37
658 (4) (2000), pp. 401–414
- 659 23. Yeung WJ, Sandberg JF, Davis-Kean PE, Hofferth SL.
660 Children's time with fathers in intact families. *Journal of*
661 *Marriage and Family*, 63 (1) (2001), pp. 136–154

Running Head: Latino fathers beliefs and practices

- 662 24. Feinberg ME. The internal structure and ecological context
663 of coparenting. A framework for research and intervention.
664 *Parenting: Science and Practice*, 3 (2) (2003), pp. 95–131
- 665 25. Raley S, Bianchi SM, Wang W. When Do Fathers Care?
666 Mothers' Economic Contribution
667 and Fathers' Involvement in Child Care. *AJS*. 2012
668 Mar;117(5):1422-1459.
- 669 26. Cabrera NJ, Hofferth SL, Chae S. Patterns and predictors of
670 father-infant engagement across race/ethnic groups. *Early*
671 *Child Res Q*. 2011;26(3):365-375.
- 672 27. Davison KK, Gicevic S, Aftosmes-Tobio A, Ganter
673 C, Simon CL, Newlan S, Manganello JA. Fathers'
674 Representation in Observational Studies on Parenting and
675 Childhood Obesity: A Systematic Review and Content
676 Analysis. *Am J Public Health*. 2016 Nov;106(11):e14-e21.
- 677 28. Khandpur N, Blaine RE, Fisher JO, Davison KK. Fathers'
678 child feeding practices: a review of the evidence. *Appetite*.
679 2014 Jul;78:110-21. doi: 10.1016/j.appet.2014.03.015.
- 680 29. Freeman E, Fletcher R, Collins CE, Morgan PJ, Burrows T,
681 Callister R. Preventing and treating childhood obesity: time
682 to target fathers. *Int J Obes (Lond)*. 2012;36(1):12–15.
- 683 30. Fraser J, Skouteris H, McCabe M, Ricciardelli LA,
684 Milgrom J, Baur LA. Paternal influences on children's
685 weight gain. A systematic review. *Fathering: A Journal of*
686 *Theory, Research, and Practice about Men as Fathers*, 9 (3)
687 (2011), pp. 252–267
- 688 31. Harris TS, Ramsey M. Paternal modeling, household
689 availability, and paternal intake as predictors of fruit,
690 vegetable, and sweetened beverage consumption among
691 African American children. *Appetite*. 2015 Feb;85:171-7.
692 doi: 10.1016/j.appet.2014.11.008.
- 693 32. Vollmer RL, Adamsons K, Foster JS, Mobley AR.
694 Association of fathers' feeding practices and feeding style
695 on preschool age children's diet quality, eating behavior
696 and body mass index. *Appetite*. 2015 Jun;89:274-81. doi:
697 10.1016/j.appet.2015.02.021.

Running Head: Latino fathers beliefs and practices

- 698 33. Khandpur N, Charles J, Blaine RE, Blake C, Davison K.
699 Diversity in fathers' food parenting practices: A qualitative
700 exploration within a heterogeneous sample. *Appetite*. 2016
701 Jun 1;101:134-45. doi: 10.1016/j.appet.2016.02.161.
- 702 34. Mallan KM, Daniels LA, Nothard M, Nicholson JM,
703 Wilson A, Cameron CM, Scuffham PA, Thorpe K. Dads at
704 the dinner table. A cross-sectional study of Australian
705 fathers' child feeding perceptions and practices. *Appetite*.
706 2014 Feb;73:40-4.
- 707 35. Morgan PJ, Collins CE, Plotnikoff RC, Callister R,
708 Burrows T, Fletcher R, Okely AD, Young MD, Miller A,
709 Lloyd AB, Cook AT, Cruickshank J, Saunders KL, Lubans
710 DR. The 'Healthy Dads, Healthy Kids' community
711 randomized controlled trial: a community-based healthy
712 lifestyle program for fathers and their children.
- 713 36. Guerrero AD, Chu L, Franke T, Kuo AA. Father
714 Involvement in Feeding Interactions with Their Young
715 Children. *Am J Health Behav*. 2016 Mar;40(2):221-30. doi:
716 10.5993/AJHB.40.2.7.
- 717 37. Parada H, Ayala GX, Horton LA, Ibarra L, Arredondo EM.
718 Latino fathers' feeding-related parenting strategies
719 on children's eating. *Ecol Food Nutr*. 2016 May-
720 Jun;55(3):292-307. doi: 10.1080/03670244.2016.1161616.
- 721 38. Penilla C, Tschann JM, Deardorff J, Flores E, Pasch LA,
722 Butte NF, Gregorich SE, Greenspan LC, Martinez SM,
723 Ozer E. Fathers' feeding practices and children's weight
724 status in Mexican American families. *Appetite*. 2017 Oct
725 1;117:109-116. doi: 10.1016/j.appet.2017.06.016. Epub
726 2017 Jun 17.
- 727 39. Turner BJ, Navuluri N, Winkler P, Vale S, Finley E. A
728 qualitative study of family healthy lifestyle behaviors
729 of Mexican-American and Mexican immigrant fathers and
730 mothers. *J Acad Nutr Diet*. 2014 Apr;114(4):562-9. doi:
731 10.1016/j.jand.2013.12.010.
- 732 40. Lora KR, Hubbs-Tait L, Ferris AM, Wakefield D. African-
733 American and Hispanic children's beverage intake:

Running Head: Latino fathers beliefs and practices

- 734 Differences in associations with desire to drink, fathers'
735 feeding practices, and weight concerns. *Appetite*. 2016 Dec
736 1;107:558-567. doi: 10.1016/j.appet.2016.09.012.
- 737 41. Thompson DA, Vandewater EA, Matson PA, Tschann JM.
738 Young low-income ethnic minority children watch less
739 television when their mothers regulate what they are
740 viewing. *Acta Paediatr*. 2015 Mar;104(3):300-5. doi:
741 10.1111/apa.12879.
- 742 42. Lindsay AC, Greaney ML, Wallington SF, Wright JA,
743 Hunt AT. Depressive symptoms and length of U.S.
744 residency are associated with obesity among low-income
745 Latina mothers: a cross-sectional analysis. *Int J Environ*
746 *Res Public Health*. 2017 Aug 2;14(8). pii: E869. doi:
747 10.3390/ijerph14080869.
- 748 43. Kidd PS, Parshall MB. Getting the focus and the group:
749 enhancing analytical rigor in focus group research. *Qual*
750 *Health Res*. 2000;10(3):293-308.
- 751 44. Miles, M., & Huberman, A. (1994). *Qualitative data*
752 *analysis* (2nd ed.). Thousand Oaks, CA: Sage.
- 753 45. Marin, G., Sabogal, F., Marin, B. V., Otero-Sabogal, R., &
754 Perez-Stable, E.J. (1987). Development of a short
755 acculturation scale for Hispanics. *Hispanic Journal of*
756 *Behavioral Sciences*, 9(2), 183-205.
- 757 46. Ritchie J, Spencer L. In: *Analysing Qualitative*
758 *Data*. Bryman A, Burgess R, editor. London: Routledge;
759 1994. *Qualitative data analysis for applied policy research*.
- 760 47. Vaismoradi M, Turunen H, Bondas T. Content analysis and
761 thematic analysis: implications for conducting
762 a qualitative descriptive study. *Nurs Health Sci*.
763 2013;15(3):398-405. doi:10.1111/nhs.12048
- 764 48. Tschann JM, Martinez SM, Penilla C, Gregorich SE, Pasch
765 LA, de Groat CL, Flores E, Deardorff J, Greenspan LC,
766 Butte NF. Parental feeding practices and child weight status
767 in Mexican-American families: a longitudinal analysis. *Int*
768 *J Behav Nutr Phys Act*. 2015 May 20;12:66. doi:
769 10.1186/s12966-015-0224-2.

Running Head: Latino fathers beliefs and practices

- 770 49. Mejia de Grubb MC, Salemi JL, Gonzalez SJ, Sanderson
771 M, Zoorob RJ, Mkanta W, Levine RS. Parenting style and
772 perceptions of children's weight among US Hispanics: a
773 qualitative analysis. *Health Promot Int*. 2016 Aug 4. pii:
774 daw050.
- 775 50. Santiago-Torres M, Adams AK, Carrel AL, LaRowe TL,
776 Schoeller DA. Home food availability, parental dietary
777 intake, and familial eating habits influence the diet quality
778 of urban Hispanic children. *Child Obes*. 2014
779 Oct;10(5):408-15. doi: 10.1089/chi.2014.0051.
- 780 51. Olvera N, Power TG. Brief report: parenting styles
781 and obesity in Mexican American children: a longitudinal
782 study. *J Pediatr Psychol*. 2010 Apr;35(3):243-9. doi:
783 10.1093/jpepsy/jsp071.
- 784 52. Lindsay AC, Sussner KM, Greaney ML, Peterson KE.
785 Influence of social context on eating, physical activity, and
786 sedentary behaviors of Latina mothers and their preschool-
787 age children. *Health Educ Behav*. 2009 Feb;36(1):81-96.
788 doi: 10.1177/1090198107308375. Epub 2008 Aug 8.
- 789 53. Lindsay AC, Sussner KM, Greaney ML, Peterson KE.
790 Latina mothers' beliefs and practices related to weight
791 status, feeding, and the development of child overweight.
792 *Public Health Nurs*. 2011 Mar-Apr;28(2):107-18. doi:
793 10.1111/j.1525-1446.2010.00906.x. Epub 2010 Nov 24.
- 794 54. Mirande A. Ethnicity and fatherhood. In: Bozett FW,
795 Hanson S, editors. *Fatherhood and families in cultural
796 context: Focus on men*. New York, NY: Springer; 1991. pp.
797 53–82.
- 798 55. Mirande JL. *Hombres y machos: Masculinity and Latino
799 culture*. Boulder, CO: Westview; 1997.
- 800 56. Roopnarine JL, Ahmeduzzaman M. Puerto Rican fathers'
801 involvement with their preschool-age children. *Hispanic
802 Journal of Behavioral Sciences*. 1993;15(1):96–107.
- 803 57. Toth JF, Xu X. Ethnic and cultural diversity in fathers'
804 involvement: A racial/ethnic comparison of African

Running Head: Latino fathers beliefs and practices

- 805 American, Hispanic, and White fathers. *Youth &*
806 *Society*. 1999;31(1):76–99.
- 807 58. Hofferth SL. Race/ethnic differences in father engagement
808 in two-parent families: Culture, context, or
809 economy. *Journal of Family Issues*. 2003;24:185–216.
- 810 59. Harris TS, Ramsey M. Paternal modeling, household
811 availability, and paternal intake as predictors of fruit,
812 vegetable, and sweetened beverage consumption among
813 African American children. *Appetite*. 2015 Feb;85:171-7.
814 doi: 10.1016/j.appet.2014.11.008.
- 815 60. Vollmer RL, Adamsons K, Foster JS, Mobley AR.
816 Association of fathers' feeding practices and feeding style
817 on preschool age children's diet quality, eating behavior
818 and body mass index. *Appetite*. 2015 Jun;89:274-81. doi:
819 10.1016/j.appet.2015.02.021.
- 820 61. Khandpur N, Charles J, Blaine RE, Blake C, Davison K.
821 Diversity in fathers' food parenting practices: A qualitative
822 exploration within a heterogeneous sample. *Appetite*. 2016
823 Jun 1;101:134-45. doi: 10.1016/j.appet.2016.02.161.
- 824 62. Mallan KM, Daniels LA, Nothard M, Nicholson JM,
825 Wilson A, Cameron CM, Scuffham PA, Thorpe K. Dads at
826 the dinner table. A cross-sectional study of Australian
827 fathers' child feeding perceptions and practices. *Appetite*.
828 2014 Feb;73:40-4.
- 829 63. Morgan PJ, Collins CE, Plotnikoff RC, Callister R,
830 Burrows T, Fletcher R, Okely AD, Young MD, Miller A,
831 Lloyd AB, Cook AT, Cruickshank J, Saunders KL, Lubans
832 DR. The 'Healthy Dads, Healthy Kids' community
833 randomized controlled trial: a community-based healthy
834 lifestyle program for fathers and their children. *Prev Med*.
835 2014 Apr;61:90-9. doi: 10.1016/j.ypmed.2013.12.019.
- 836 64. Webber KJ, Loescher LJ. A systematic review of parent
837 role modeling of healthy eating and physical activity for
838 their young African American children. *J Spec Pediatr*
839 *Nurs*. 2013; 18(3):173-88. doi: 10.1111/jspn.12033.

Running Head: Latino fathers beliefs and practices

- 840 65. Tibbs T, Haire-Joshu D, Schechtman KB, Brownson RC,
841 Nanney MS, Houston C, Auslande W. The relationship
842 between parental modeling, eating patterns, and dietary
843 intake among African-American parents. *J Am Diet Assoc.*
844 2001; 101(5):535-41.
- 845 66. Arredondo EM, Elder JP, Ayala GX, Campbell N, Baquero
846 B, Duerksen S. Is parenting style related to children's
847 healthy eating and physical activity in Latino families?
848 *Health Educ Res.* 2006 Dec;21(6):862-71.
- 849 67. Myers S, Vargas Z. Parental perceptions of the preschool
850 obese child. *Pediatr Nurs.* 2000 Jan-Feb;26(1):23-30.
- 851 68. Gauthier KI, Gance-Cleveland B. Hispanic Parental
852 Perceptions of Child Weight in Preschool-Aged Children:
853 An Integrated Review. *Child Obes.* 2015 Oct;11(5):549-59.
854 doi: 10.1089/chi.2014.0152. Epub 2015 Jul 28.
- 855 69. Jago R, Thompson JL, Sebire SJ, Wood L, Pool L, Zahra
856 J, Lawlor DA. Cross-sectional associations between the
857 screen-time of parents and young children: differences by
858 parent and child gender and day of the week. *Int J Behav*
859 *Nutr Phys Act.* 2014 Apr 23;11:54. doi: 10.1186/1479-
860 5868-11-54.
- 861 70. Jago R, Zahra J, Edwards MJ, Kesten JM, Solomon-Moore
862 E, Thompson JL, Sebire SJ. Managing the screen-viewing
863 behaviours of children aged 5-6 years: a qualitative analysis
864 of parental strategies. *BMJ Open.* 2016 Mar
865 1;6(3):e010355. doi: 10.1136/bmjopen-2015-010355.
- 866 71. Jago R, Sebire SJ, Lucas PJ, Turner KM, Bentley
867 GF, Goodred JK, Stewart-Brown S, Fox KR. Parental
868 modelling, media equipment and screen-viewing among
869 young children: cross-sectional study. *BMJ Open.* 2013
870 Apr 24;3(4). pii: e002593. doi: 10.1136/bmjopen-2013-
871 002593. Print 2013.
- 872 72. Lloyd AB, Lubans DR, Plotnikoff RC, Collins CE, Morgan
873 PJ. Maternal and paternal parenting practices and their
874 influence on children's adiposity, screen-time, diet and

Running Head: Latino fathers beliefs and practices

- 875 physical activity. *Appetite*. 2014a Aug;79:149-57. doi:
876 10.1016/j.appet.2014.04.010.
- 877 73. McClendon ME, Umstadd Meyer MR, Ylitalo KR, Sharkey
878 JR. Physical Activity of Mexican-Heritage Youth During
879 the Summer and School-Year: The Role
880 of Parenting Strategies. *J Community Health*. 2017 May 8.
881 doi: 10.1007/s10900-017-0358-z.
- 882 74. Rodríguez-Oliveros G, Haines J, Ortega-Altamirano D,
883 Power E, Taveras EM, González-Unzaga MA, Reyes-
884 Morales H. Obesity determinants in Mexican preschool
885 children: parental perceptions and practices related to
886 feeding and physical activity. *Arch Med Res*. 2011;
887 42(6):532-9. doi: 10.1016/j.arcmed.2011.10.006.
- 888 75. Asplund KM, Kair LR, Arain YH, Cervantes M, Oreskovic
889 NM, Zuckerman KE. Early Childhood Screen Time and
890 Parental Attitudes Toward Child Television Viewing in a
891 Low-Income Latino Population Attending the Special
892 Supplemental Nutrition Program for Women, Infants, and
893 Children. *Child Obes*. 2015 Oct;11(5):590-9. doi:
894 10.1089/chi.2015.0001.
- 895 76. O'Connor TM, Cerin E, Lee RE, Parker N, Chen TA,
896 Hughes SO, Mendoza JA, Baranowski T. Environmental
897 and cultural correlates of physical
898 activity parenting practices among Latino parents with
899 preschool-aged children: NiñosActivos. *BMC Public*
900 *Health*. 2014 Jul 10;14:707. doi: 10.1186/1471-2458-14-
901 707.
- 902 77. O'Connor TM, Chen TA, Baranowski J, et al. Physical
903 activity and screen-media-related parenting practices have
904 different associations with children's objectively measured
905 physical activity. *Child Obes* 2013;9:446–453.
- 906 78. Jago R, Sebire SJ, Lucas PJ, Turner KM, Bentley
907 GF, Goodred JK, Stewart-Brown S, Fox KR. Parental
908 modelling, media equipment and screen-viewing among
909 young children: cross-sectional study. *BMJ Open*. 2013

Running Head: Latino fathers beliefs and practices

- 910 Apr 24;3(4). pii: e002593. doi: 10.1136/bmjopen-2013-
911 002593.
- 912 79. Jago R, Sebire SJ, Edwards MJ, Thompson JL. Parental TV
913 viewing, parental self-efficacy, media equipment and TV
914 viewing among preschool children. *Eur J Pediatr.* 2013
915 Nov;172(11):1543-5. doi: 10.1007/s00431-013-2077-5.
916 Epub 2013 Jun 29.
- 917 80. Jago R, Wood L, Zahra J, Thompson JL, Sebire SJ.
918 Parental control, nurturance, self-efficacy, and screen
919 viewing among 5- to 6-year-old children: a cross-sectional
920 mediation analysis to inform potential behavior change
921 strategies. *Child Obes.* 2015 Apr;11(2):139-47. doi:
922 10.1089/chi.2014.0110. Epub 2015 Jan 13.
- 923 81. Johnson L, Chen TA, Hughes SO, O'Connor TM. The
924 association of parent's outcome expectations for child TV
925 viewing with parenting practices and child TV viewing: an
926 examination using path analysis. *Int J Behav Nutr Phys*
927 *Act.* 2015 May 28;12:70. doi: 10.1186/s12966-015-0232-2.
- 928 82. Pearson N, Salmon J, Crawford D, Campbell K, Timperio
929 A. Are parental concerns for child TV viewing associated
930 with child TV viewing and the home sedentary
931 environment? *Int J Behav Nutr Phys Act.* 2011 Sep
932 27;8:102. doi: 10.1186/1479-5868-8-102.
- 933 83. Crespo NC, Elder JP, Ayala GX, Slymen DJ, Campbell
934 NR, Sallis JF, McKenzie TL, Baquero B, Arredondo EM.
935 Results of a multi-level intervention to prevent and control
936 childhood obesity among Latino children: the Aventuras
937 Para Niños Study. *Ann Behav Med* 2012 Feb;43(1):84-100.
- 938 84. Ayala GX, Elder JP, Campbell NR, Arredondo E, Baquero
939 B, Crespo NC, Slymen DJ. Longitudinal intervention
940 effects on parenting of the Aventuras para Niños study. *Am*
941 *J Prev Med* 2010 Feb;38(2):154-62.
- 942 85. Falbe J, Cadiz AA, Tantoco NK, Thompson HR, Madsen
943 KA. Active and Healthy Families: A Randomized
944 Controlled Trial of a Culturally
945 Tailored Obesity Intervention for Latino Children. *Acad*

Running Head: Latino fathers beliefs and practices

- 946 Pediatr. 2015 Jul-Aug;15(4):386-95. doi:
947 10.1016/j.acap.2015.02.004.
- 948 86. Kaiser L, Martinez J, Horowitz M, Lamp C, Johns M,
949 Espinoza D, Byrnes M, Gomez MM, Aguilera A, de la
950 Torre A. Adaptation of a culturally relevant nutrition and
951 physical activity program for low-income, Mexican-origin
952 parents with young children. *Prev Chronic Dis*. 2015 May
953 14;12: E72. doi: 10.5888/pcd12.140591.
- 954 87. de la Torre A, Sadeghi B, Green RD, Kaiser LL, Flores
955 YG, Jackson CF, Shaikh U, Whent L, Schaefer SE. Niños
956 Sanos, Familia Sana: Mexican immigrant study protocol for
957 a multifaceted CBPR intervention to combat
958 childhood obesity in two rural California towns. *BMC*
959 *Public Health*. 2013 Oct 31;13:1033. doi: 10.1186/1471-
960 2458-13-1033.
- 961 88. Zoorob R, Buchowski MS, Beech BM, Canedo
962 JR, Chandrasekhar R, Akohoue S, Hull PC. Healthy
963 families study: design of a
964 childhood obesity prevention trial for Hispanic families.
965 *Contemp Clin Trials*. 2013 Jul;35(2):108-21. doi:
966 10.1016/j.cct.2013.04.005.
- 967 89. Schmied E, Parada H, Horton L, Ibarra L, Ayala G. A
968 Process Evaluation of an Efficacious Family-Based
969 Intervention to Promote Healthy Eating: The Entre Familia:
970 Reflejos de Salud Study. *Health Educ Behav*. 2015
971 Oct;42(5):583-92. doi: 10.1177/1090198115577375.
972
973



Running Head: Latino fathers beliefs and practices

Table 1: Questions from the focus group discussion guide on Latino fathers' beliefs, attitudes and practices related to their young children's eating, physical activity and sedentary behaviors.

Topic	Discussion Guide Questions
Father's beliefs, attitudes and practices related to child eating and feeding	
Beliefs and attitudes related to healthy eating	What does healthy eating mean to you? <i>Probes:</i> How would you describe a "healthy meal"? How do you decide if a food is good for health? What foods do you think are good for health?
Perceptions of child's eating and feeding experiences	In general, how satisfied are you with the types and amount of food your child eats? <i>Probes:</i> Why? Is it the same as what the rest of family eats? Is it culturally appropriate? Is it healthy? What are some foods that you wish your child would eat more of or more often? <i>Probes:</i> Why? What food do you wish your child would eat less often? <i>Probes:</i> Why? What are your biggest concerns about how your child eats? <i>Probes:</i> Do you ever worry your child does not eat enough? Do you ever worry that your child eats too much? Do you ever worry about not having enough food to provide to your child?
Practices related to child's eating and feeding at home	Describe a typical mealtime routine at your home. <i>Probes:</i> Who regularly prepares the meal? Who is present at the meal? Regularity of mealtime: Do you usually sit together as a family to eat? Does your child eat separately from the rest of the family? Does your child eat the same type of food as the rest of the family? Is the TV usually on during mealtimes? How are decisions made about what foods to feed your child? <i>Probes:</i> Healthy foods; Cost/convenience; Cultural values and traditions; According to advice or direction from another person? If yes, probe further: What is that person's role or relationship to you/your child? Describe any limits to eating that you set for your child during meals. <i>Probes:</i> How about snacks? Any particular types of foods and/or drinks not allowed?
Fathers' personal healthy eating practices and desire for personal changes	In general, how satisfied are you with the types and amount of food you eat? <i>Probes:</i> Why? Is it the same as what the rest of family eats? Is it culturally appropriate? Is it healthy?
Father's beliefs, perceptions and practices related to child physical activity	
Beliefs and perceptions of children's physical activity at home	How important do you think it is for children to be physically active? <i>Probes:</i> Do you think it is a problem for kids to spend too much time being sedentary or not being physically active? How much physical activity do you think children need? <i>Probes:</i> Why? How physically active is your child at home? <i>Probes:</i> Plays actively outside? Plays actively inside? Does not play actively when at home? In general, how satisfied are you with the amount of physical activity your child engages in? <i>Probes:</i> Why? Do you wish he or she would be more active? Do you wish he or she had more outdoor playtime? What are some types of physical activity or active play your child engages in while at home? <i>Probes:</i> Riding his or her bike? Playing in nearby playground or park? What are your biggest concerns about how physically active your child is? <i>Probes:</i> Do you ever worry your child does not engage in enough physical activity? Do you ever worry that your child is too sedentary? What types of things would you like to change about how physically active your child is at home? <i>Probes:</i> Amount? Types of activity?

Running Head: Latino fathers beliefs and practices

Practices related to screen time at home	<p>Do you have any rule at home for your child regarding TV and/or video time or playtime with electronics? <i>Probes:</i> Time limit on TV and electronics? Not allowing electronics in home?</p> <p>What kinds of rules or practices do you have at home regarding your child watching TV and/or videos or playing with electronics? <i>Probes:</i> Time limit on TV and electronics? Not allowing the TV on during meals? Not allowing TV during the week?</p> <p>Does your child own his or her own TV, computer, or portable video game equipment? <i>Probes:</i> Do you let your child keep these electronics at all times?</p>
Fathers' personal physical activity and sedentary behaviors and desire for personal changes	In general, how satisfied are you with the amount of physical activity you engage in? <i>Probes:</i> Why? Do you wish you would be more active? If desire changes, what would you change in your physical activity behaviors?
Father's Perceptions of Barriers Related to Child's Healthy Eating, Physical Activity and Sedentary Behaviors	
Barriers faced by fathers and families in structuring a home environment conducive to healthy eating and physical activity	<p>What types of barriers, if any, do you face in making sure that your child eats or drinks what you think is "good" for him or her at home? <i>Probes:</i> Time? Cost? Knowledge of what and how much to feed your child? Influence of other people in the household (e.g., older siblings, grandparents, father, mother)</p> <p>What types of barriers do you face in making sure that your child is physically active when at home? <i>Probes:</i> Space? Time? Household obligations? Neighborhood safety? Knowledge of how physically active your child should be? Influence of other people in the household (e.g., older siblings, grandparents, father, mother)</p> <p>What types of barriers do you face in making sure that your child does not spend too much time sedentary time such as watching TV and/or videos or playing videogames at home? <i>Probes:</i> Lack of household rules? Space? Time? Other obligations that keep you from having time to take your child out to play?</p>
Final remarks	Is there anything else you would like to share with us related to your children's eating and physical activity experiences at home or at the family childcare home?

Running Head: Latino fathers beliefs and practices**Table 2:** Socio-demographic and acculturation characteristics of study participants (n = 28).

	Mean + SD	n (%)
Age	34.2 ± 2.8	
US-born		
Yes		4 (14.3)
No		24 (85.7)
Country/Territory of Origin		
Colombia		9 (32.2)
Dominican Republic		6 (21.4)
Puerto Rico		4 (14.3)
Ecuador		2 (7.1)
El Salvador		2 (7.1)
Mexico		2 (7.1)
Guatemala		1 (3.6)
Venezuela		1 (3.6)
Honduras		1 (3.6)
Years in the United States*	14.3 ± 2.7	
Predominant language spoken at home		
Spanish		26 (92.9)
English		2 (7.1)
Marin scale acculturation score	2.32 ± 0.36	
Marital status		
Married		26 (92.9)
Divorced		2 (7.1)
Education level		
Less than high school		8 (28.6)
High school degree		14 (50.0)
General Education Development (GED)		6 (21.4)
Household annual income		
> \$40K/year and ≤ \$50,000		11 (39.3)
≤ \$40K/year		17 (60.7)
Currently Employed		
Yes		26 (92.9%)
No		2 (7.1%)

Note: *only includes fathers not born in US states.

Running Head: Latino fathers beliefs and practices

Table 3: Focus group themes and supporting quotes from Latino fathers (n=28) regarding their beliefs, attitudes and practices related eating, physical activity and sedentary behaviors of their children aged 2 to 8 years.

Themes	Representative quotes
Healthy Eating and Food Parenting Practices	
Definition	
Fathers’ definitions of healthy eating	<p><i>“The diet should be healthy, should include vegetables and fruits, but necessarily everything. Healthy eating should include equilibrium”</i></p> <p><i>“I say it’s no fast-foods, not eating any fast food meals...”</i></p> <p><i>“For me it’s a balanced diet. It doesn’t matter what you eat, it’s about the portion.”</i></p> <p><i>“Healthy eating to me is a lifestyle, it’s a way of life. It comes with so much more than just food. It’s a big part of it, but healthy, it’s just about knowing how to prepare the right meal and serving the right portion and at the right time.”</i></p>
Importance	
Fathers believe healthy eating is important	<p><i>“Healthy eating is one of the most important things for one’s health, and living healthy...umm, it affects one’s quality of life”</i></p> <p><i>“I think it’s important that the kids learn to eat healthy, healthy foods when there are young...it has an impact on their growth and health ...”</i></p>
Personal Practices	
Fathers do not always eat healthy, but are aware of the need to improve their eating habits	<p><i>“I think it’s important to try [eat healthy], but sometimes you can’t help it... there’s just so much food out there, everywhere you go, fast-food, quick and cheap, and one makes bad choices...”</i></p> <p><i>“...Many times I have to eat whatever is quickly available, fast and on-the-go...so, the fastest and convenient is not healthiest...pizza, tacos, hamburgers...”</i></p>
Fathers’ Food Parenting Practices	
Continued effort	<p><i>“It’s a constant effort... you need to keep trying to teach them [children] to eat healthy ...all of us [adults included]”</i></p> <p><i>“I would like to change her [daughter] temptation. When we are driving she always wants to go to a fast food place. I know that a lot of places now offer healthier choices in their menus... salads, yogurts, fruits...[fast-food restaurants] now got things that are more natural, but still it’s a temptation...”</i></p>
It is Okay to Indulge and Eat Unhealthy Once in a While	<p><i>“You can’t expect that children are going to eat healthy all the time. Every now and then they have some food that’s not good [healthy] ... some fries, some candy and ice cream... they are kids...”</i></p> <p><i>“I wish that my son would eat healthier, but he likes to eat some foods that are unhealthy, just like most kid...”</i></p>
Eating out	<p><i>“During the week we eat at home and during the weekends we go out...”</i></p> <p><i>“Chinese buffets, I love it. I love the shrimp. Sometimes we go to American restaurants, pizza, McDonalds once in a while, Burger King, those types of things. Sometimes we have had enough [home cooking] at home, so to vary we visit those places...”</i></p> <p><i>“If we got out, Wendy’s or McDonalds. She [daughter] always goes out for pizza...”</i></p> <p><i>“When we go out to eat, it’s usually a place where we can get some pizza, sometimes we take the kids to Applebee [chain restaurant] or stuff like that. Places that we know typically where they [children] like to eat...”</i></p> <p><i>“We try to go out to restaurants, but [with children] it’s hard to have a sit down meal. We get fast-food, pizza...always Wendy’s for fast-food...”</i></p>

Running Head: Latino fathers beliefs and practices

Fathers' Involvement with and Responsibilities for Child Feeding	
Fathers Have a Traditional View of Motherhood	<p><i>"She [mother] is most direct contact when she is buying the food and when she chooses what we eat."</i></p> <p><i>"Yeah, usually is my wife. But we both help each other in that. But usually she makes the decision. "Latino moms usually are the ones who do that..."</i></p> <p><i>"I like to follow the mother's lead...it's just easier that way."</i></p>
Fathers' Perceived Barriers to Children's Healthy Eating	
Time constraints	<p><i>"Sometimes during the week it's hard to find the time to prepare a meal. If my wife does not plan everything during the weekend, sometime we just need to eat something on the go..."</i></p> <p><i>"My wife likes to plan in advance, she does the shopping during the week and prepare some of the foods that take longer...during the week our working hours can be long. My mother-in-law helps, but sometimes if we don't have things planned it's hard to cook a family meal"</i></p>
Conflicting schedules	<p><i>"My wife does a lot, it's crazy with the schedule at work, and sometimes it changes the last minute...if I am not home it's hard..."</i></p> <p><i>"My wife has a more set schedule and she gets home at around 4 PM and tries to get things started so that when I get home with the kids we can have a meal, but it can be hard"</i></p>
Convenience	<p><i>"Sometimes you need to get something quick after a long day of work...the kids come home from school, my wife is still at work...so, we just get some take out..."</i></p> <p><i>"Every now and again, we just get something to eat before coming home - my wife, myself, and the kids. Sometimes if I need to work late, my wife and the kids grab something...some days she just can't do everything. I say, that's fine, no one is going to die because you are not cooking today..."</i></p>
Easy access and availability of unhealthy food choices	<p><i>"It's hard to resist sometimes...nowadays it's so easy for kids [and adults] to eat fast food... When I was growing up, bad food was fried food at home ..."</i></p> <p><i>"You know, everywhere you go there is food, junk food, and it doesn't cost much...sometimes you don't even think about it ...when you see the kids have eaten 2-3 junk food already, a donut, a hamburger and fries and soda...just like that...it's everywhere"</i></p>
Desire for Changes	
Fathers Would like their Children's Eating Habits to Change	<p><i>"I'd like to see some changes... I would like my daughter to stop eating candy, and eat food. I also would like [daughter] to drink water and not soda."</i></p> <p><i>"You know, that little cookie here and candy there is not good, so probably that is one of the things I would like to change. Cut down on the sugar."</i></p> <p><i>"Have some lower intake in sugar, that is my wish...but that is probably unrealistic..."</i></p> <p><i>"I guess my goal would be for them to eat more vegetables. More of a balanced diet, umm, you know, like we've touched upon throughout this talk ... a more balanced diet, and cutting down on the processed foods..."</i></p> <p><i>"I just want mine [child] to umm... be in a balanced weight or at a healthy weight. With healthy, umm...with healthy traditions and just I want them to eat right. I want them to grow up to be healthy adults. That they [children] are educated and have the knowledge of what is good for you, what's not good for you...that's what I wish for them [children]"</i></p>

Running Head: Latino fathers beliefs and practices

Fathers Would Like to Change Their Eating Habits	<p><i>"I am trying to change because before I could eat whatever I never worried about gaining weight. Since I'm not running as much and stuff like that, I'm noticing that I'm getting a little heavier."</i></p> <p><i>"I am not satisfied, because I think that relatively speaking, I am in the worst shape in my life. So, I think that from that point of reference ... how I used to be, I'm not there. So, currently, you know, I would like to change...lose weight. I know I'm not going to go back to when I was eighteen, but definitely be in better shape, be you know, in shape."</i></p> <p><i>"I'm very interested in changing what I eat. I know I eat very unhealthy and that is something I've been trying to change actually. So, definitely want to change."</i></p>
Physical Activity and Sedentary Behaviors	
Definition	
Fathers definitions of active living	<p><i>"Active living to me would be somebody who goes outside, sees how beautiful life is, goes on a walk, exercise, doing activities with friends, family, just living life in a positive way, which doesn't involve just standing still. A body in motion will stay in motion. Just, moving around and trying to enjoy it."</i></p> <p><i>"Daily exercise, have a life that is not always siting near the television, do exercise for your whole body – walk, run, and play sports. Now, I currently don't run, but walk in the morning."</i></p> <p><i>"Active living for me is staying active. Not necessarily doing exercise, but something like just walking. Even just going to the mall and just walking."</i></p>
Importance	
Fathers believe physical activity is important	<p><i>"Being active is very important. You need to get your body moving to keep healthy and it really helps you mentally too..."</i></p> <p><i>"For the kids especially, I think they need to be moving, get themselves more alert, more engaged...I think that the kids cannot spend a lot of time just sitting in front of the computer or playing video games...they need to be active for their health"</i></p> <p><i>"Our body was made to be active! So, believe that being active is necessary to keep healthy!"</i></p>
Responsibility	
Joint decisions about family activities	<p><i>"I mean, we both decide in many ways. He is with her [mother] more than he is with me, but at the same time we have the same philosophy."</i></p> <p><i>"We try to always do things together as a family. We go to the zoo, we go together, we go to the museum, we go together, so that is more shared decision...when we are at home, then my wife is more in charge..."</i></p>
Parenting Styles and Practices	
Permissive Style and Limit Setting	
Fathers Are Permissive of Sedentary Activities for their Children and Struggle to Set Limits	<p><i>"You know with my daughter it's difficult...she kind of like to play with dolls, do her coloring...I am not going to interfere with that...I just let her do what she wants and like. I just like to live in harmony...why fight, right?"</i></p> <p><i>"It's kind of hard because you want them to be active and play, but every kid is doing it and nowadays it's just part of their lives, so it's kind of hard to be always telling them no this no that ..."</i></p> <p><i>My son, he is very much video games, if he can play video games and stay indoors, that would be it, heaven for him! So, I constantly have to tell him, "get outside", go out and play. Or, I have another rule with him. My son is twelve. You can play video games, but every time you win, or every time you get a next level, you have to do then push-ups. If you don't do, you don't play. It's a battle with everything..."</i></p> <p><i>"Well the kids nowadays, they love their video games and stuff like that. So, we try to set some limits, but they still do it...it's kind of inevitable to keep them off line..."</i></p>

Running Head: Latino fathers beliefs and practices

Involvement and Engagement	
Fathers Report Being Involved and Engaged in Their Children's Physical Activity	<p><i>"It is usually me when it comes to doing stuff with them...usually mom comes home and she's kind like to keep everything in order kind of thing. Usually, the kids come and the house is...you house is in order and everything"</i></p> <p><i>"You know my wife wants to do more things with my daughter and I do with my son. I'll go hike with son and all those type of stuff."</i></p> <p><i>"You know I kind of like to get my kids involved in some sports and play...my son plays karate, soccer, I really enjoy taking him to the activities, and that's also good because it gives my wife a break to do her things around the house..."</i></p>
Role Modeling	
Fathers View Themselves as Physical Activity Role Models	<p><i>"I know it's important for my kids to see we are active, you know, if they see you just sitting around and watching TV, they will want to do that...so, I try to take them out whenever I can, just get outside and play..."</i></p> <p><i>"My son loves soccer, and that's great because I grew up playing soccer, so he and I play together, you know I like show him how to play..."</i></p> <p><i>"We do some work yard together. I make my older and younger son cut the grass. My two little ones help me out with the gardening stuff. Just working on the yard..."</i></p>
Barriers to PA	
Fathers' perceptions of barriers to children being physically active	<p><i>"It's pretty much coordinating the schedule with her mom and myself. Sometimes it's just hard to get everything going including get the kids out with all that needs to get done"</i></p> <p><i>"You know living in New England the weather is always a factor. When the weather changes you cannot go outside and be as active as you like, then you just wait, stay more inside until the weather changes again."</i></p> <p><i>"Honestly, the factor is that it is a financial issue. I have four them [children] and I want them to try everything and try every class in the world, but honestly I can't afford it. That is my issue...I wish I could put them in every sport and give them every outlet to find out what their talent is and what they are going to best at. But financially I can't do it."</i></p> <p><i>"I think if you have access to different sports in terms of the city or the state because sometimes you have to find the cheaper sport in your neighborhood and it's not the best for your child. I think every school, if you have more access, it would be better. "</i></p>
Desire for Change	
Fathers desire changes in their own physical activity habits	<p><i>"The physical activity that I am doing right now is none. I would like to return to soccer, but I have a problem with my foot...I don't know, I just like to go back to being active again..."</i></p> <p><i>"I am not satisfied because I think that relatively speaking, I am in the worst shape in my life. So, currently, you know, I would like to be in better shape. I used to be more active than I am now."</i></p> <p><i>"I think I can still walk more. I would like to change that. I don't think I've been doing that much lately and also maybe from home, if the weather doesn't allow me to walk, have some treadmill, have something I can still be active even if I didn't get out of my house"</i></p>

Running Head: Latino fathers beliefs and practices

For Peer Review