Intergenerational food-focused media literacy in Jamaica

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ABSTRACT

Media use has been linked to unhealthy eating, but there is evidence that parent discussion about media and media literacy can inoculate against negative media effects. Therefore, we examined the relationships between mothers' food-focused media literacy and their discussions about media and their adolescents' food-focused media literacy in a survey of 82 mother-adolescent dyads in Jamaica, a middle-income country where obesity is rising. As expected, mothers' food-focused media literacy was both greater than and positively related to their adolescents' food-focused media literacy. The nature of the discussion (i.e., emotional intensity) about the time adolescents spent using media (TV, computer/electronics) positively related to adolescents' media literacy. This study contributes to understanding how mothers may shape their adolescent's media literacy and underscores the importance of considering parent-adolescent discussions for food-focused media literacy.

Keywords: *media literacy, media discussion, intergenerational influence, Jamaica, remote acculturation*.

INTRODUCTION

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Adolescents are using more media than ever (U.S.: Lenhart, 2015; Jamaica: MRSL, 2014), yet not much is known about their level of media literacy or the ways in which their media literacy may be shaped by their parents. Media literacy is defined as "the ability to access, analyze, evaluate, create, and act using all forms of communication" (NAMLE, 2020). It can be developed by training in schools (e.g., Hobbs, 2004; Nelson, 2016) or parental discussion (Austin et al., 2015; Hindin et al., 2004; see also The Families and Media Project; Joan Gaz Cooney Center). However, few studies measure parent *and* adolescent media literacy or explore how they are potentially linked despite the importance of understanding intergenerational influences on consumer socialization (Moore et al., 2017). Currently, scholars are calling for research on media socialization and the process by which media literacy is developed (e.g., Pfaff-Rudiger & Riesmeyer, 2016).

Media literacy is important because it helps audiences to develop critical thinking skills to circumvent unwanted media effects (e.g., persuasive messages for alcohol, tobacco or food: Austin & Johnson, 1997; Austin et al., 2018; Bickham & Slaby, 2012; Pinkleton et al., 2007; Powell & Gross, 2018). Given the evidence that supports the links between consumer exposure to food advertising and consumption of food (e.g., Halford et al., 2004; Harris et al., 2009), and the rising obesity rates in Jamaica (WHO, 2014), which is our research context, we investigate *food-focused* media literacy (i.e., critical thinking and media literacy about food messages). Food-focused media literacy and critical thinking about media can help audiences develop coping skills to circumvent food advertising influence and lead to behavioral intentions to eat more healthily (Powell & Gross, 2018).

Parenting style and parent mediation and discussion practices may influence media literacy skills (e.g., Livingstone, 2002; Mendoza, 2009; Nathanson, 2002). Although some research suggests that any kind of discussion about media is important for media literacy because it draws attention to the issue of media (e.g., Austin, 1993; Chakroff & Nathanson, 2011; Warren, 2017), not much research has explored whether or how the *nature* of the discussion relates to media literacy despite the importance of communication style in parent mediation strategy and the potential for conflict about media use between teens and parents (e.g., Valkenburg et al., 2013). Indeed, parental discussions with adolescents are often emotionally charged with varying levels of effectiveness (e.g., Main et al., 2016). Therefore, we explore the perceived emotional intensity of discussions between mothers and adolescents about adolescent media use and how intensity relates to food-focused media literacy.

Finally, most media literacy research examines youth or parents in developed countries (e.g., U.S.: Powell & Gross, 2018; Belgium: Hudders et al., 2017; UK: Livingstone, 2004). There are fewer studies related to media literacy in developing countries, which have different media landscapes and import media from developed regions, yet often have more limited access to media literacy training. We explore food-focused media literacy in Jamaica, which is categorized as a middle-income developing country (United Nations, 2019). Mothers were selected as parent participants for the study, given that matrilineal families are the norm in Jamaican culture and that "mothers are primarily the socializing agents compared to fathers" (e.g., Burke & Kuczynski, 2018).

Jamaican context

Jamaica, situated in the Caribbean basin between North and South America, is a unique context in which to investigate these research questions because globalization has brought in external media influences, overwhelmingly from the United States, which are intermingled with local media (MRSL, 2014). The "geo-linguistic similarities" between Jamaica and the United States and the economic disparity between nations allow the importation of media programs from the U.S. into Jamaica via its "free to view" local television stations (e.g., Gordon, 2009). Cable television, coming from the U.S, reaches at least 55% of the population. Due to codes from the Jamaican Broadcasting Commission, the satellite feeds come directly from the U.S. with U.S. programming and advertising intact (Gordon, 2009).

The heavy presence of U.S. culture on the island through several vehicles including U.S. media has given rise to a new "Americanized Jamaican" or "*Jahmerican*" bicultural identity for some Jamaicans by way of a process called "remote acculturation" (e.g., Ferguson et al., 2019a; Ferguson & Bornstein, 2015). In other words, some youths and parents in Jamaica have developed a strong affinity for U.S. culture, including entertainment and media and have even come to feel part-American.

In turn, research has shown that *Jahmerican* adolescents and mothers in Jamaica tend to watch more U.S. cable television every day and eat more unhealthily (Ferguson et al., 2018). Unhealthy eating is a major modifiable risk factor for obesity and associated chronic non-communicable diseases (NCD) like diabetes (WHO, 2014), and the Caribbean has the worst NCD rate in the Americas (PAHO, 2011). U.S. brands in Jamaica are prevalent, with a majority of food advertising in U.S. cable television (Harrison & Marske, 2005; Roseman et al., 2014), Jamaican newspapers (Ahn et al., in press), and outdoor advertising in Kingston, Jamaica (Nelson et al., 2020) featuring less healthy foods that are high in sugar, sodium or fat.

Some research suggests that media literacy can help attenuate negative media effects, including less healthy food advertising (e.g., Livingstone & Helsper, 2006); however, this idea has been minimally studied in Jamaica or similar contexts in the globalizing developing world. Therefore, as a first step, we are interested in investigating the level of food-focused media literacy among mothers and their adolescents. As a whole, this study examines possible links between mothers' and their adolescents' food-focused media literacy and explores whether discussions about media and the emotional intensity of those discussions are related to adolescent food-focused media literacy. We explore these patterns in the cultural context of Jamaica, a moderately collectivist country where family is an important socialization force (Ferguson, 2007).

Media literacy

The main media literacy domains (Jolls & Wilson, 2014) are: *Authors and Audiences* (the source of the message impacts message interpretation and messages are created for specific target audiences); *Messages and Meanings* (messages convey certain points of view and values; messages can influence attitudes and behavior, and different audiences may interpret those messages in different ways); and *Representation and Reality* (messages filter reality, so they may leave out important information). We are interested in media literacy related to advertising in this study.

Media literacy can help protect audiences as a *counternegative effect* (Potter, 2010). In this way, learning about media practices helps audiences develop critical and skeptical thinking skills to circumvent unwanted media effects (e.g., deceptive messages on adolescent consumers' consumption choices toward alcohol, tobacco, and other substances: Austin &

Johnson, 1997; Bickham & Slaby, 2012; Pinkleton et al., 2007). Some scholars equate this ability to engage in defensive message processing to being the result of the "forewarning" of the illegitimacy of the message type or content of the messages (e.g., Austin et al., 2015). The focus on the development of knowledge among audiences about how, why, when, where and for what purpose media messages are created becomes an important way to develop coping or counter argument skills to help audiences circumvent any negative effects. In this way for our context, establishing food-focused media literacy may be one way to combat the persuasive effects of food advertising on food-related attitudes and behaviors.

Media literacy development in childhood and adolescence

Understanding the development of media literacy goes beyond gauging the level of knowledge, but also examines the process by which youth gain media literacy (Pfaff-Rudiger & Riesmeyer, 2016). Media or advertising literacy is likely to be linked to cognitive stages of development (John, 1999). From a very young age, children are heavily exposed to media (Connell et al., 2015). In this *perceptual stage (ages 3-7),* children can start to recognize or distinguish advertising from the program content (John, 1999), yet they are not able to recognize the content as persuasive (Kunkel & Castonguay, 2012).

Children at this age also enjoy advertising with mostly positive attitudes and are just at the beginning stage of thinking critically about messages (Nelson et al., 2017). It is the next cognitive stage of development – *the analytical stage (ages 7-11)* - where the persuasive intent of advertising and understanding of bias and deception can occur (John, 1999). There is some discrepancy in the literature about whether or when children in this stage can use their knowledge of persuasion and media literacy to enact defensive processing or counter arguing to messages (e.g., John, 1999; van Reijmersdal et al., 2012).

However, the *reflective stage of development (ages 11-16)* is where critical thinking about media and persuasion is developed and enacted (John, 1999). Adolescents in this stage are able to identify specific tactics of persuasion and message bias and have the ability to begin to actively practice skepticism towards media messages (Bousch et al.,1994).

Parent-adolescent intergenerational differences in media literacy

Based on theories of cognitive development (John, 1999), adults' media literacy should be fully developed, whereas children's and adolescents' media literacy are still developing. Overall, researchers have not examined adult media literacy very much (Livingstone et al., 2005; Peterson, 2012), nor have researchers linked parental knowledge about media and advertising to their children's knowledge (Wright et al., 2005).

An exploratory study using focus groups among adult women showed a fairly sophisticated level of media literacy about food advertising, particularly among those with knowledge about the products featured in advertising or with experience in the production of messages (Peterson, 2012). One study in the Netherlands compared children's (ages 8-12) and un-related adults' (ages 18-30) recognition and understanding of advertising or persuasion and selling intent (i.e., advertising literacy) using a survey (Rozendaal et al., 2010). The results of the survey revealed that more than 90% of all the children and adults could recognize advertising. Furthermore, 99% of adults (as compared with 84.9% of children ages 11-12) could understand a message's selling intentions. However, whereas 96% of the adults could understand the persuasive tactics and intent of media messages, only 72.1% of children ages 11-12 could do so. This study suggests that there are some cognitive development and consumer socialization components to media literacy, and that adults' media literacy, at least about traditional advertising, should be fairly high. There is no other research that we found which has compared adult and youth media literacy, especially among parent-child generation dyads.

In addition, no research has assessed the level of media literacy in Jamaica among either adults or youths. Therefore, we measure the level of food-focused media literacy among Jamaican mothers and their adolescents (ages 11-13). There appear to be no published studies in the U.S. or internationally available literature that have measured the links between parents and their children or adolescents with respect to media literacy. Based on the important role of family in transmitting values and practices from shared family experiences and discussions related to consumption and media (Moore et al., 2017), we also expect there will be a positive relationship between mothers' food-focused media literacy and their adolescents' food-focused media literacy. Scholars found that parents with a higher level

of media literacy (i.e., those who received media literacy intervention training) were more likely to indicate they would convey some kind of media literacy information to their children (Pearce & Baran, 2018). Given this body of research demonstrating higher media literacy among adults and probable links between parents and children's media literacy, we predicted the following:

Hypothesis 1 (H1): Jamaican mothers' food-focused media literacy will be higher than that of their adolescents.

Hypothesis 2 (H2): Jamaican adolescents' food-focused media literacy will be positively related to that of their mothers.

Discussion about media use and media literacy

Parenting styles vary along two main dimensions according to the seminal research by Baumrind (1971): authority or demandingness (behavioral control) and affection or responsiveness (warmth, support). These dimensions fall into four basic categories of parenting styles. The authoritative style, which provides both responsiveness and demandingness, results in communication and guidance. In contrast, authoritarian parents are low in responsiveness and high in demandingness, whereas permissive parents tend to be warm but exert no control over their children and "uninvolved" parents are not warm and do not impose any restrictions.

In Jamaica, parents are influential in their children's lives, even seen as primary role models by high school students (Ferguson, 2007). Older research suggested that authoritarian parenting styles were most common in the Caribbean (Smith & Mosby, 2003; Brown & Johnson, 2008) as Jamaican parents traditionally used top-down communication styles that involve commands rather than open and reasoned communication. However, in a recent study surveying over 2,000 Caribbean adolescents across four Caribbean countries, the majority of adolescents perceived their parents' styles as authoritative, followed by neglectful/uninvolved (Lipps et al., 2012). Recent focus groups among Jamaican mothers revealed that mothers' own descriptions of parenting strategies were stern but evolving over generations. Today's mothers discussed the combination of increased warmth and listening skills combined with high expectations for their children (Ferguson & Iturbide, 2013).

Research has shown that parents can influence their children's media use and media literacy through what

Potter referred to as natural interventions (Potter, 2010), when discussions of media and potential effects occur during media viewing or everyday life. Parents may also mediate children's media use and attitudes through restrictive actions (e.g., limiting screen time or restricting certain kinds of content). Valkenberg et al. (1999) outlined three different parental mediation strategies: (1) restrictive intervention; (2) social co-viewing; and (3) instructional intervention or active mediation. Restrictive interventions, which relate to authoritarian parenting styles, involve limiting or restricting exposure to media (Nathanson, 2002). Discussions about media use are among the most fraught for teens and their parents (Valkenburg et al., 2013) with U.S. mothers more likely to use restrictive and active mediation with adolescents more often than fathers are (Padilla-Walker & Coyne, 2011). The frequency of talking or parental communication with their children about media issues (Warren, 2001) and the level of parent-child talk can influence parental mediation practices (Warren, 2017). To our knowledge, no published research to date in Jamaica has investigated the effects of parent communication about media or the potential influence of such discussions on media literacy. Given that parents in Jamaica have traditionally been thought to use restrictive practices and top-down type communications (e.g., Smith & Moore, 2013) – although evidence suggests this may be changing over time toward more authoritative styles (Ferguson & Iturbide, 2015) – we might expect that discussions would reflect this restrictive or more commanding communication style. Furthermore, given research that suggests that adolescent-parent communications often result in conflict (e.g., Main et al., 2016), we were particularly interested in examining the emotional intensity of those discussions (Robin & Foster, 1989). Given the lack of media research in this cultural context to inform a clear hypothesis, we pose this research question:

RQ1: What is the emotional intensity of mothers' discussion about their adolescents' media use and how might the discussion be linked to adolescent food-focused media literacy?

METHODS

Overview

Because we are interested in measuring and comparing food-focused media literacy levels and types of discussions between mothers and their adolescents, a survey was deemed an appropriate method to capture these data as an initial descriptive study. Previous research assessing media literacy has often used self-reported surveys (e.g., U.S.: Bier, 2010; Powell & Gross, 2018; Primack et al., 2006; Netherlands: Rozendaal, et al., 2010).

Participants

Seventh graders along with their mothers were recruited from three traditional high schools in Kingston and St. Andrew, Jamaica, serving families across a broad geographical area. Participants provided parental consent and adolescent assent, then completed screening questionnaires based upon which 92 dyads were enrolled. This study was part of a larger body of research related to media, cultural identity, and health. Therefore, inclusion criteria were 1) self-reported unhealthy eating, and 2) self-reported identification with European American culture or daily U.S. media viewing. In regard to the second criterion, *Jahmerican* individuals were targeted for this study because they are known to consume more U.S. cable television daily, and to eat more unhealthily, so media literacy may be particularly important to investigate in this sub population (Ferguson et al., 2018). Dyads were excluded if: individuals ate very little junk food (once per week or less), did not enjoy U.S.-produced media and had not watched any U.S.-produced television in the past month, if either person was not a Jamaican citizen, if the mother/mother-figure had not been the primary female guardian for at least five years, if the dyad did not live in the same household, or if either individual had not lived continuously in Jamaica for several years preceding the time of data collection (eight years for adolescents and 15 years for mothers).

For 10 of these dyads, at least one person had not turned in the questionnaire; therefore, the analytic sample was reduced to 82 adolescents (girls, $n = 42$, $M_{age} = 12.70$, $SD = 0.37$ and boys, $n = 40$, $M_{age} = 12.52$, $SD = 1.85$) and their mothers ($M_{age} = 39.25$, $range_{age} = 28-52$ $SD_{age} = 5.94$). There was a wide range of socioeconomic backgrounds within the sample. Mothers' education ranged from "less than 7th grade" (2.7%) to "graduate professional degree (e.g., MS, MD, PhD)" (17.6%), with the largest group being "technical/vocational program or started university" (30.5%) (scale adapted from Hollingshead, 1975). Additionally, using a list of 20 household possessions wherein one extra point is added for each additional phone or vehicle in the household

beyond one, mothers reported a range of 1 - 31 possessions such as kitchen appliances, cable TV, and mobile phones (scale adapted from Wilks et al., 2007). On average, families had 10+ household possessions (M = 13.87, range = 6-26, SD = 4.22), showing that our sample had slightly higher SES than the Wilks et al. (2007) nationally representative sample.

Measures

Food-focused media literacy. A 14-item media literacy scale, based on the integrated theoretical framework of media literacy with the three core domains of the construct, was used to assess adolescents' and mothers' media literacy. The items were adjusted to focus on food-related media with core concepts of media literacy used by Primack and other authors in the development of the smoking media literacy (SML) scale (Primack et al., 2006), which was amended for media (Bier et al., 2010). The three core media literacy domains are: 1) Authors and Audiences (AA); 2) Messages and Meanings (MM) and 3) Representation and Reality (RR). Representative items include "People who advertise think very carefully about the people they want to buy their product" (Authors/Audiences); "Two people may see the same advertisement and get very different ideas about it" (Messages/Meanings); and "Movies and TV shows don't usually show life like it really is" (Representation/Reality).

Participants completed each item on a 4-point Likert type scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (4), and scores on individual items were averaged to determine an overall media literacy score. Similar items were also assessed for reliability and validity in prior research (Primack et al., 2006a; Primack et al., 2006b).

Intensity of mother adolescent discussion about media time. Two items from an adapted version of the self-report Issues Checklist (Robin & Foster, 1989) were used to assess the intensity for parent-youth discussion about media time. Mothers indicated whether they had discussed time watching TV or use of computer/electronics with their adolescent during the last week and if so, they rated the intensity of those discussions on a three-point scale from "Calm" (1) to "Angry" (3). The "did not discuss" option was placed on the left side of this scale instead of the right to make the scale most intuitive for the Jamaican participants. The two items showed good internal consistency (Cronbach's α = .71; inter-item correlation, r = -0.55) so

were combined to create a two-item measure of discussion about media time.

Background variables. In addition to adolescents' gender and SES and mothers' education (described earlier), mothers' and adolescents' media time were used as covariates. Regarding media time, a question on watching television from the 19-item HABITS questionnaire (Wright et al., 2011) was adapted and expanded to assess the number of hours adolescents and mothers spend watching American-produced (i.e., U.S. TV) and Jamaican-produced (i.e., Jamaican TV) programs. Participants had a four-item response option including "0-1 hour a day" (1), "1 hour a day" (2), "2 hours a day" (3) or "3 or more hours a day" (4). An average score was calculated for adolescents and mothers, for Jamaican and U.S. items, respectively.

RESULTS

Preliminary results

Descriptive statistics and inter-correlations among study variables are displayed in Table 1. Adolescents' time spent watching Jamaican-produced TV was significantly correlated with their food-focused media literacy scores (r = -.25, p < .05). Mean scores for mothers' (M = 3.14, SD = 0.46) and their adolescents' (M = 2.84, SD = 0.40) media literacy scores on a 4-point scale were moderate. Mothers' education was positively and significantly correlated with their food-focused media literacy (r = .36, p < .001).

Results for H1: Mother-adolescent intergenerational differences in food-focused media literacy

As hypothesized (H1), results of the paired samples t-test revealed that mothers scored significantly higher on food-focused media literacy as compared with their adolescents (M_{parent} = 3.14, SD = 0.46, M_{youth} = 2.83, SD = 0.40, $t(81)$ = -5.60, p < .01, with a large effects size: d = 1.25). Comparing mothers' and adolescents' scores at the item level revealed that compared to their adolescents, mothers are especially critical of how media messages leave out important information and are aware of how tactics (e.g., showing happy people) may cause you to forget about the true message content (see Table 2).

Table 1. *Descriptive statistics and inter-correlations among study variables*

Variables	1	2	3	4	5	6	7	8	9	10	11	M (SD)
1. Youth's gender	-											1.48 (.50)
2. Mothers' education	.010	-										4.95 (1.54)
3. # of Possessions (P)	-.021	.56**	-									13.87 (4.22)
4. US TV (Y)	-.202	-.013	.203	-								2.63 (1.02)
5. Jamaican TV (Y)	-.037	-.261*	-.329*	-.127	-							2.17 (.93)
6. US TV (P)	-.155	-.068	-.063	.408**	-.034	-						2.64 (1.12)
7. Jamaican TV (P)	.102	-.341**	-.347**	-.162	.400**	.075	-					2.63 (1.01)
8. For topics you have discussed with your child during the last week, mark a choice between 'calm'...-Time on computer/electronics	-.264*	-.043	.071	.125	-.122	-.100	-.050	-				3.45 (1.80)
9. Intensity of the Discussion about media time TV	-.206	-.009	.086	.141	-.089	-.035	-.024	.886**	-			3.21 (1.74)
10. Media Literacy (Y)	-.113	.079	-.094	.145	-.257*	.109	-.021	.230*	.299**	-		2.84 (.40)
11. Media Literacy (P)	.211	.237*	.051	-.140	-.164	-.166	-.149	.276*	.191	.361**	-	3.14 (.46)

Note. *$p < .05$; **$p < .01$.

Y: Youth; P: Parent; Last three variables represent parents' expectancies regarding active mediation of food-related messages on presented variables. Jamaican and US TV time measured with 4-item response options ranging from 1 (0-1 hour/day) to 4 (3 or more hours/day).

Table 2. *Comparing Adolescents' and Mothers' Food-Focused Media Literacy*

Media Literacy Variables	Adolescents		Mothers		95% CI		T
	M	*SD*	*M*	*SD*			
Wearing a shirt with a fast food brand on it makes you into a walking advertisement.	2.08	1.02	2.98	.10	.62	1.18	6.397***
Fast food ads link unhealthy food to natural things that humans want like love, good looks, and power.	2.49	.87	2.80	.96	.05	.55	2.433**
Two people may see the same movie or TV show and get very different ideas about it.	3.21	.70	3.30	.76	-.12	.30	.800
Different people can see the same food ad in a magazine and feel completely different about it.	3.14	.77	3.30	.74	-.07	.38	1.400
A fast food billboard may catch one person's attention but not even be noticed by another person.	2.97	.76	2.98	.88	-.22	.26	.142
People are influenced by TV and movies, whether they realize it or not.	3.05	.79	3.28	.79	-.01	.49	1.877
People are influenced by advertising.	2.47	.69	2.93	.84	.22	.70	3.804***
When people make movies and TV shows, every camera shot is carefully planned.	3.27	.70	3.29	.81	-.18	.23	.209
There are often hidden messages in ads.	2.94	.84	3.27	.82	.08	.58	2.616*
Most movies and TV shows that show people eating make it look more attractive than it really is.	3.20	.84	3.48	.74	.04	.52	2.340*
Fast food ads show happy, healthy, slim people to make people forget about the health risks.	3.06	.87	3.48	.70	.20	.63	3.959***
When you see a buy-one-get-one-free food deal, it's usually not actually a good deal in the long run.	2.49	.84	2.72	.88	.00	.46	2.019*
When you see a food ad, it is very important to think about what was left out of the ad.	2.63	.88	2.91	.88	.06	.49	2.541*
Advertisements usually leave out a lot of important information.	2.71	.96	3.12	.89	.18	.64	3.603**

Note. *p < .05; **p < .01; ***p < .001.
Participants indicated the frequency for which they agreed with each statement on a scale from 1=never; 2=sometimes; 3=often and 4=very often.

Results for RQ1: What is the nature of mothers' discussion about their adolescents' media use and how might the emotional intensity of the discussion be associated with youth media literacy?

On average, most mothers (73.6%) reported that they had had a discussion about television time with their adolescents in the past week. The intensity of those discussions was perceived as calm (34.2%), a little angry (30.1%), or angry (19.2%) by mothers.

Discussion about time on computers/electronics showed similar patterns: 85% of mothers reported discussing this issue with their adolescents in the last week with calm (29.7%), a little angry (31.1%), or angry (24.3%) discussions. The combined variable for television and computer/electronics was used for the regression (i.e., discussions about "media time").

Regression analysis showed that mothers' perceived intensity of the discussion about media time positively predicted adolescents' general media literacy ($\beta = .06$, $p < .05$), after controlling for adolescents' time watching Jamaican-produced TV. That is, mothers who engaged in more emotionally intense (angry) discussions about their adolescents' media (TV, computer/electronics) time had adolescents with higher media literacy (See Table 3).

Table 3. *Summary of the regression analysis predicting youths' food-focused media literacy*

Variables	Youth's Media Literacy			
	Step 1		Step 2	
	B	**SE$_b$**	**B**	**SE$_b$**
Adolescents' Jamaican TV time	-.122[*]	.050	-.096[*]	.045
Mothers' media literacy	-	-	.247[**]	.091
Perceived intensity of discussion about media time	-	-	.059[**]	.028
R	.283		.489	
R^2	.080		.239	
Model *F*	6.26[*]		7.22[**]	
ΔR^2			.159	
ΔF			7.32[*]	

Note. *p < .05; **p < .01.

DISCUSSION

Despite the acknowledgement of the importance of intergenerational influence (Moore et al., 2017), little or no research has actively examined parents' media literacy or linked it to that of their children. Scholars call for more research and a deeper understanding of how socialization agents contribute to the process of developing media literacy (e.g., Pfaff-Rudiger & Riesmeyer, 2016). We found that Jamaican mothers' food-focused media literacy was more highly developed than that of their adolescents, as we hypothesized. Interestingly, this was particularly true for items related to perceptions of influence. Cognitive development and consumer socialization models suggest that adolescents in the analytical stage should be developing critical thinking and skepticism toward media, but it is not fully developed (John, 1999). These adolescents in Jamaica appear to be appropriately in that stage with respect to their critical media literacy perceptions.

In addition, as expected, the media literacy scores of mothers and their adolescents were positively related; our correlational analyses further revealed that times spent watching Jamaican and U.S. television for mothers and their adolescents were also highly correlated. This is related to other research conducted in the U.S. which has shown positive associations between parents' computer use and those of their adolescents (Vaala & Bleakley, 2015).

To our knowledge, this is the first study to report media literacy among mothers and their adolescents in a developing country. As a comparison, U.S. adolescents of about the same age showed significantly higher scores on a similar media literacy scale (M = 3.11; Bier et al., 2010) as compared with the Jamaican youth in our sample (M = 2.83). To the degree that this reflects a real difference rather than cultural scale reporting differences, this difference between Jamaican and U.S. youth media literacy suggests that media literacy training may benefit Jamaican youth; the effects of media on youth may be more pronounced for this Jamaican population because their media literacy skills are less well developed. In other words, it may be that with lower media literacy audiences are less able to

critically engage or develop skepticism toward persuasive media messages. These media effects may be compounded by the fact that they are exposed to two cultures' media given that they are embedded in two macrosystems – Jamaican media and US media (Ferguson et al., 2018). Thus, families in developing countries like Jamaica need media literacy skills to combat local and global messages, which is different from 40 years ago when primarily local media messages were available. Our findings suggest that stronger media literacy training and more active parental mediation may be needed in this environment. Acknowledging the role of cultural influences on the development of media literacy as well as understanding the macro-media environment is important.

The mothers in our sample scored about the same score on this general media literacy scale (M = 3.14) as did adolescents in the U.S. (M = 3.11; Bier et al., 2010). There is no comparable measure for U.S. mothers. We do not know much about parent media literacy in general. The opportunity to increase media literacy through training for both parents and their children offers a promising avenue for future research. Most of the media literacy interventions have focused primarily on children or adolescents (e.g., Jeong et al., 2012; Pinkleton et al., 2007). The efficacy of shared media literacy/family interventions seems promising (Ferguson et al., 2019b; Powell & Gross, 2018).

Family discussion and youth media literacy

Parents can influence youth access to and understanding of media through mediation strategies. Research shows that as parents have discussions about media with their children, the children become smarter consumers of media by being more critical (Austin, 1993; Austin et al., 2015; Chakroff & Nathanson, 2011). However, it may also be the case as children become adolescents, and especially in this age of digital media, that adolescents can initiate such conversations and perhaps even help their parents' media understanding. By engaging in family-based discussions on the media, parents and children or adolescents may be more intentional in selecting how much media they consume. Our study results showed that the majority of mothers reported discussing television time (73%) and computer/electronics time (85%) with their adolescents in the last week. Thus, media time is an important and frequent topic of conversation among mothers and their adolescents in Jamaica. Interestingly, we found that adolescents whose mothers did *not* discuss time spent

watching TV showed the lowest media literacy scores as compared with adolescents whose mothers discussed time spent watching TV, at least among those who showed more intensity in their discussion. Therefore, mother-adolescent discussion of any kind of media use appears to be linked in some way to adolescents' thinking about media in general and media literacy, which is consistent with past research (Chakroff & Nathanson, 2011; Warren, 2017).

Our research seems to suggest that the nature of the discussion, the emotional *intensity* of the parent-adolescent discussion about the time their adolescent spends on media (TV, computer/electronics) relates positively to food-focused media literacy. Adolescents whose mothers indicated a "little angry" or "angry" discussion of their adolescents' time spent on TV or computer/electronics (likely reflective of a restrictive mediation style) also showed the highest media literacy scores. Research among U.S. mothers has shown that they tend to "lead with" negative emotions in discussions with younger adolescents more than their older counterparts (Main et al., 2016).

This finding about discussion intensity is somewhat novel in the parent mediation literature despite the knowledge that adolescents and their parents often communicate in emotionally charged ways (e.g., Main et al., 2016), especially about media use (Valkenburg et al., 2013). Our findings fit into the broader literature about parent mediation suggesting that active communication and discussion about media can result in positive effects (Warren, 2017). Future research might investigate the nature of the interaction about media use and content among both parent and child/adolescent and discern how it varies across the life-stage and by medium. It is likely that emotional negativity and intensity will increase with adolescence.

Limitations and future research

Our results are correlational, based on self-reported surveys among mothers and their adolescents. Despite the prevalence of these types of methods in this line of research (e.g., Bier et al., 2010), additional methods may be helpful (e.g., experimental, observations; longitudinal: Coyne et al., 2017). We found that mothers who perceived more intensely angry discussions with their adolescents about television or computer/electronics time had more media literate adolescents. It may be that emotional intensity of parent-adolescent discussions is the driver of adolescent media literacy, or it could be that more media literate

adolescents welcome more intense parent-adolescent discussions about media use, or there could be a third driver such as a shared personality trait between mothers and adolescents such as low agreeableness (i.e., less cooperative, more critical). We did not measure parenting style or mediation style in this study. Future research could see whether intensity of discussion about media time relates to parenting styles and to media literacy. Qualitative methods such as focus groups (Chen, et al., 2013; Peterson, 2012) could help us to uncover richer findings with respect to how, when, where, why, and the phenomenological experience of parent-adolescent discussions about media literacy or mediation in this population.

Media literacy measurement in our study was based on a standard scale assessing the main components of media literacy ("General Media Literacy"; Bier et al., 2010) with a focus on food advertising, and questions about parent discussion focused on television and use of computers/electronics. However, the scale has not been validated previously in other countries. Additional questions about other forms of media to gauge media literacy may be helpful in future research. With the explosion of media, families are exposed to other types of media besides television. There is some evidence that parents may be less aware of or may not fully understand newer media forms and persuasion tactics such as social media (Daneels & Vanwynsberghe, 2017). As a result of media literacy disparities between generations, there may be some kind of reverse consumer socialization and media literacy occurring, where parents are learning from their children or where children turn to guidance from their peers because of their parents' lack of knowledge (e.g., Pfaff-Rudiger & Riesmeyer, 2016). Future research might explore when, where, and how those socialization processes are happening and how media literacy is acquired. Our study showed that the mothers' education level was related to their food-focused media literacy. It would be interesting to discover if advanced education leads to more critical thinking in general or if media literacy is covered in the curriculum.

Given that our research reported here was part of a broader study about the health of adolescents and their families in Jamaica, our survey measures were somewhat limited. Therefore, although the discussion and intensity of discussion about media helped inform our understanding of media literacy, we did not gather data about the fuller range of mediation strategies. Certainly, different forms of parent mediation or nuances in our understanding of parent actions or

discussion may be required for new forms of media (see discussion by Daneels & Vanwynsberghe, 2017). In addition, future research might investigate the influence of parents' media literacy and mediation strategies for their family's actual food-related behaviors as scholars suggest that "parents' media literacy skills affect their family's dietary behavior" (Austin et al., 2015, pp. 1256).

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