



What Are Young Children Watching? Disparities in Concordant TV Viewing

Wanjiku F. M. Njoroge, Laura Marie Elenbaas, Mon T. Myaing, Michelle M. Garrison & Dimitri A. Christakis

To cite this article: Wanjiku F. M. Njoroge, Laura Marie Elenbaas, Mon T. Myaing, Michelle M. Garrison & Dimitri A. Christakis (2016): What Are Young Children Watching? Disparities in Concordant TV Viewing, *Howard Journal of Communications*, DOI: [10.1080/10646175.2016.1166086](https://doi.org/10.1080/10646175.2016.1166086)

To link to this article: <http://dx.doi.org/10.1080/10646175.2016.1166086>



Published online: 26 Apr 2016.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)

What Are Young Children Watching? Disparities in Concordant TV Viewing

Wanjiku F. M. Njoroge^{a,b}, Laura Marie Elenbaas^c, Mon T. Myaing^d, Michelle M. Garrison^e, and Dimitri A. Christakis^{d,f}

^aDepartment of Psychiatry and Behavioral Sciences, University of Washington, Seattle, Washington, USA;

^bDivision of Child and Adolescent Psychiatry, Seattle Children's Hospital, Seattle, Washington, USA;

^cDepartment of Human Development and Quantitative Methodology, University of Maryland, College Park, Maryland, USA; ^dCenter for Child Health, Behavior, and Development, Seattle Children's Research Institute, Seattle, Washington, USA; ^eDepartment of Health Services, Center for Child Health, Behavior, and Development, Seattle Children's Research Institute, Seattle, Washington, USA; ^fDepartment of Pediatrics, University of Washington, Seattle, Washington, USA

ABSTRACT

Although there has been much research in recent years examining early childhood media viewing, ethnically/racially diverse children consistently watch more TV than their non-Hispanic White peers. This study begins to explore associations between race/ethnicity and the viewing habits of young children and assesses whether and how often children are watching concordant shows (i.e. shows containing primary characters that “look like them”). As part of a larger media study, a community-based sample of parents of children ages 3–5 years were included. Parents completed a demographic survey assessing child/family characteristics and 1-week media diaries recording program names and screen time (TV/DVDs) for the index child. Concordance programming was defined as viewing shows with primary characters of the same race/ethnicity as the child. Results indicated that racial/ethnic minority children watched more shows with diverse characters (concordant shows and shows with “non-White” characters) than shows that contained “only White” characters, whereas racial/ethnic majority children spent approximately two-thirds of their viewing time watching shows with “Only White” characters. Interestingly, although programs with racial/ethnic minority characters (e.g., *Dora the Explorer*, *Sesame Street*) frequently appeared on children's media diaries, child race/ethnicity significantly predicted the proportion of time that participants spent watching racially/ethnically concordant programming.

KEYTERMS

Media; concordance; early childhood viewing; ethnicity; diversity

CONTACT Wanjiku F. M. Njoroge ✉ wanjiku.njoroge@yale.edu 📞 Children's Hospital of Philadelphia, Department of Child and Adolescent Psychiatry and Behavioral Sciences, 3440 Market Street, Suite 200, Philadelphia, PA 19104.

Wanjiku Njoroge is now affiliated with the Department of Child and Adolescent Psychiatry and Behavioral Sciences, Children's Hospital of Philadelphia.

This paper was supported by NICHD Research Supplements to Promote Diversity in Health-Related Research, PA-08-190, Media Impact on Preschool Behavior (R01 HD 56506).

Color versions of one or more of the figures in this article can be found online at <http://www.tandfonline.com/UHJC>.

2016 © Taylor & Francis Group, LLC

Recent literature has highlighted the continued overconsumption of media by racial/ethnic minority children compared to their non-Hispanic White peers (Rideout & Hamel, 2006; AAP, 2011; Jordan, 2005; Hughes, 2003). The authors of the 2011 Common Sense Media report (Rideout, Lauricella, & Wartella, 2011) found that young children, aged 0–8 years, continue to spend large amounts of time with media, despite recommendations by the American Academy of Pediatrics (AAP) for limited media use in early childhood (AAP Committee on Public Education, 1999). The most popular type of media in young childhood is still television, with 65% of children under the age of 8 years spending almost 2 hours per day watching TV/DVDs/videos. This report echoes prior studies regarding the amount of TV that young children are watching (AAP, 2011; Rideout & Hamel, 2006), and the disparity in media consumption between African American children and their White peers (Jordan, 2005; Vandewater et al., 2007).

Perspectives on quality programming

The AAP currently recommends limiting media use in children to 1–2 hr of quality programming per day (AAP, 2011), but definitions of quality programming often vary, and recommendations fall short of pinpointing specific programs for approval. The Annenberg Public Policy Center's (APPC) last report on the state of children's television reassessed the APPC quality index developed in 1996 and included topics of "continued concern" in the research literature (Graves, 1996; Woodward, 1999). One of these topics of concern was program racial/ethnic diversity, defined as the extent to which a program conveys social diversity through its significant representation of people from different racial and ethnic backgrounds. Prior studies have addressed the developmental impact of program content and quality in terms of violence and aggression (Anand & Krosnick, 2005; Bandura, 1965; Vandewater, Park, Huang, & Wartella, 2005; Warren, 2005), prosocial behavior (Friedrich-Cofer, Huston-Stein, Kipnis, Susman, & Clewett, 1979), and educational content (Anderson et al., 2001). However, few studies have focused on the diversity represented in children's television programs, including the gender, race/ethnicity, and native language of the characters (Woodward, 1999; Anand & Krosnick, 2005).

The content of children's programming is increasingly viewed as equally important as the amount of time that children spend with media, because young children interpret, internalize, and often imitate what they see in their social world, including what they see on television (Bandura, 1986; Bronfenbrenner & Morris, 1998). The link between early childhood media exposure and behavior has been investigated in regards to both negative (e.g., aggression; Klopfer, 2002; Zimmerman, Glew, Christakis, & Katon, 2005) and positive (e.g., early learning Lauricella, Gola, & Calvert, 2011) behavioral outcomes. And it is widely acknowledged that children's expectations, beliefs, and attitudes are shaped by their early experiences, environments, and cultural practices (Vygotsky, 1980; Rogoff, 2003).

TV program content and its impact on children's behavior and attitudes is of great concern not only to researchers and practitioners, but also to parents of young children (Warren, 2005). Specifically, parents voice concern regarding their

children imitating negative or aggressive behaviors seen on television (Boyatzis, Matillo, & Nesbitt, 1995; Donnerstein, Slaby, & Eron, 1994; Vandewater et al., 2005). However, although many parents endorse skepticism regarding their child's media consumption, they also endorse possible benefits of quality programming, including increased exposure to diverse communities, educational, and linguistic advantages (Rideout & Hamel, 2006; Shivers & Barr, 2007). Of increasing interest is that diverse parents have differing opinions on the merits and drawbacks of their young children's media consumption. For example, African American and Asian American parents are more likely than White parents to believe that programs with prosocial content can encourage prosocial play in preschoolers (Njoroge, Elenbaas, Garrison, Myaing, & Christakis, 2013).

However, prior studies on young children's identity development have noted that most parents have not fully considered the ways in which their young children are learning about culture and ethnicity through media consumption (Katz & Kofkin, 1997; Njoroge, Benton, Lewis, & Njoroge, 2009). Most parents have not considered the impact that media exposure may have on their child's future cultural development, and many families are unaware of the cultural messages their young children may be receiving from television, which may in turn impact their views of self. In fact, many parents report believing that the cultural messages their children are learning are only coming from the family and/or are overwhelmingly positive (Van Ausdale & Feagin, 2001).

The current study

As parents/caregivers are the primary gatekeepers in allowing and promoting young children's media consumption, this study focuses on parent/caregiver reports of their child's media behavior. In light of continued concerns regarding media overexposure in early childhood (AAP, 1999; Barr, Lauricella, Zack, & Calvert, 2010), increased preschool viewing is a compelling public health issue, as there are clinically meaningful implications about what to ask parents, including not focusing solely on the amount of TV that their children are watching, but rather what they are watching and why they are allowed to watch various programs (Rideout, Vandewater, & Wartella, 2003). By further investigating parent beliefs and behaviors pertaining to TV consumption, clinicians and policy makers can make better and more culturally informed recommendations, and impact children's early interactions with media (Njoroge & Elenbaas, 2013).

Although it is clear from current research that racial/ethnic minority children are watching more TV compared to their non-Hispanic White peers (Jordan, 2005; Vandewater et al., 2007), it is not clear what kinds of programs they are watching and how those programs might impact their emerging cultural identity. Because culture influences every aspect of human development and is reflected in childrearing beliefs and practices designed to promote healthy development (Rogoff, 2003), it is important to understand the choices that diverse parents and children make in terms of their TV program content, as that content has broad implications for child behavior and development. Drawing on the concerns in the research literature

regarding the importance of racial/ethnic diversity in children's programming, this study focused on racial/ethnic diversity in program content. Current projections suggest that by the year 2030 racial/ethnic minority children will constitute 54% of the U.S. school population (Hernandez, Denton, & Blanchard, 2011). The increasing diversity of the United States provides growing opportunities for using culturally valid approaches to understanding parenting practices (Garcia-Coll et al., 1996), particularly with regards to media consumption. To that end, this study assessed racial/ethnic concordance in children's television program choices, or the extent to which children watched programs with main characters from the same racial/ethnic background as themselves.

This study extends previous research measuring diverse families' attitudes and beliefs about media practices (e.g., Njoroge et al., 2013; Njoroge & Elenbaas, 2013) to focus on children's actual viewing behaviors, asking the original questions of what and who children are watching when they turn on the television, and whether those characters reflect the viewing child's own culture. Specifically, we investigated differences and commonalities in (a) the proportion of time that young children spent watching programs with characters who shared their race/ethnicity (concordant programs), (b) the proportion of time that young children spent watching programs with non-White characters, and (c) the specific program choices of families of diverse racial/ethnic backgrounds.

Method

Participants

This study used data collected in the context of a larger study of preschool viewing. To be eligible, children needed to consume at least some media each week and to have English-speaking parents. Parents were recruited from two metropolitan city pediatric clinics and a pediatric practice network, each serving a diverse population of patients. Attempts were made to oversample low-income families, as identified by Medicaid status or zip code of residence. Letters describing the study were sent to families with age-eligible children (3–5 years) without regard to whether the child had been seen in their pediatric clinic recently. Only one child from each family was eligible for inclusion. If parents who wished to participate in the study had more than one age-eligible child, the research study coordinator randomly selected an eligible child for inclusion.

Families were given the opportunity to “opt out” of further recruitment efforts, and to “opt in” by returning a postage-paid mailer. Those who neither opted out nor in were contacted by telephone and asked to participate 2 weeks after receiving the initial mailer introducing the study. Prior to enrollment, during an in-home visit, study staff explained the study in detail and obtained written informed consent from the parents. Study staff then collected the survey and 1 week media diary.

Of the 4,805 families contacted and assessed for eligibility, 314 opted-out (6%), 2,820 (59%) were unreachable by phone, (1,054) 22% declined to participate, and the

remaining families were included in the study. Six hundred seventeen (13%) families completed both the survey and 1-week media diary and are included in this analysis. No additional data are available on the participants who opted out, were unreachable by phone, or declined to participate (Myaing, Garrison, Rivara, & Christakis, 2011). The institutions' Institutional Review Board approved the research protocol.

Child race/ethnicity

Parents completing the survey defined the racial/ethnic makeup of our sample. In an attempt to capture the heterogeneity in our sample when identifying their child's race/ethnicity, parents were allowed to mark multiple boxes; such that a child could be (for example) both Asian American and African American, therefore allowing children to be in multiple categories. Participants were categorized for analyses into "only-White" and "any non-White" groups, which are exclusive of each other. The "any non-White" group was further categorized into three nonexclusive groups: "any Black," "any Asian," and "any Hispanic." Of note, "any Asian" group contained all those who marked Asian American, Pacific Islander, or Hawaiian. The participants consisted of 409 non-Hispanic White children categorized as "only White" (66%), 62 children as categorized as "any Black" (10%), 95 children as "any Asian" (15.4%), 34 children as "any Hispanic" (5.5%), and 182 "any non-White" (29.5%). Secondary to the limited number of participants, anyone who marked Native American was excluded, even if they also marked another non-Hispanic White race because of the difficulty of defining concordance in the television programs (Table 1).

Assessments

Parents/primary caregivers were asked to complete a survey that assessed child and family characteristics including: media use, parent attitudes to child television viewing, birth order of index child, number of adults in the household, marital status, household income, parental education, number of television sets in the household,

Table 1. Descriptives.

Descriptive	"Only White" (n = 409)	"Any Black" (n = 62)	"Any Asian" (n = 95)	"Any Hispanic" (n = 34)	"Any non-White" (n = 182)
Child age (<i>M</i> ± <i>SD</i>)	4.29 ± 0.64	4.26 ± 0.69	4.27 ± 0.63	4.11 ± 0.56	4.25 ± 0.64
Gender: Girl	186 (46%)	27 (44%)	39 (41%)	17 (50%)	79 (43%)
Have older sibling	157 (38%)	24 (39%)	32 (34%)	15 (44%)	68 (37%)
In daycare	130 (35%)	18 (35%)	37 (45%)	9 (30%)	62 (39%)
Single adult household	15 (4%)	16 (26%)*	4 (4%)	1 (3%)	20 (11%)*
TV in bedroom	11 (3%)	20 (32%)*	19 (20%)*	7 (21%)*	43 (24%)*
Participating parent with College Degree	356 (87%)	25 (40%)*	77 (81%)	22 (65%)*	119 (65%)*
Low income	49 (12%)	37 (62%)*	28 (30%)*	12 (35%)*	72 (40%)*

Note. Continuous variables compared using *t*-test. Categorical variables compared using Chi-Square test.

****p* < .001.

presence of a television in target child's bedroom, and number and ages of all children living in the household (including the index child).

Family socioeconomic status (SES) was measured using parents' self-reported annual family income and highest level of educational attainment. Low-income status was defined as 200% of the 2009 Federal Poverty Guidelines (Department of Health and Human Services, 2009) and calculated from self-reported household incomes and the number of household members. Education level of the parent who completed the survey was dichotomized to whether they had a college degree or not.

Media diaries

All participating families were asked to keep a 1-week media diary to record daily how much screen time (including TV, DVDs /videos, computer, and video games) the index child watched or played, and the names of specific programs, films, video games, and computer games. Historically, many different modalities have been used to measure media time exposure and content. Although there are difficulties with many of the modalities used, media and time diaries are a validated form of evaluating young child viewing practices and have been noted as the optimal strategy to capture accurate data (Huston, Wright, Rice, Kerkman, & St. Peters, 1990; Robinson, 1985; Robinson & Godbey, 2000; Vandewater & Lee, 2009). Concordance was only coded for TV/DVDs, (not for computer and video games) and was defined as the show having a primary character of the same race/ethnicity as the child. For example, for a child that was Asian American/African American, shows that contained "any Asian" characters and shows that contained "any Black" characters were considered concordant shows. Similarly for "only White" children, a show that contained any non-Hispanic White characters was considered concordant. Data on hours of viewing per week as well as shows viewed were obtained from these diaries.

Program coding system

The program classification/coding system for determining racial/ethnic concordance was developed by one of the co-authors. For each show, coders assessed the number of racially/ethnically diverse characters in each program, as well as identifying whether the character was a main character (determined by their role in the program). Characters who appeared consistently across the episode and who played an integral role in the program content determined the primary or main character. Phenotypic appearance and language(s) spoken determined race/ethnicity. For example, programs with primary Latino characters included *Dora the Explorer*, *Go Diego Go!*, and *Maya & Miguel*; shows with primary non-Hispanic White characters included *Caillou*, *Hey Arnold!*, and *Jane and the Dragon*; shows with primary African American characters included *Little Bill*, *Doc McStuffins*, and *SuperWHY*; and shows with primary Asian American characters included *Nihao Kai-Lan*, *Avatar*, and *Rugrats*.

Each show was coded once and the coding choices made for that episode were duplicated throughout the rest of the episodes viewed. The sample of programs the children watched is not necessarily representative of the entirety of all of the kinds of

programming available to families in this geographic area. Using a proven methodology (Woodward, 1999), the sample reflects the composite of the programming that the children watched over the course of a week. The children in this sample watched a total of 279 different show, and 234 different DVDs.

During coding, multiple, nonexclusive dichotomous variables were coded. That is, a single show could be coded as having main characters from two or more racial/ethnic backgrounds. For example, *Sesame Street* was coded as having primary characters from multiple racial/ethnic backgrounds, but *Ben 10* was coded as having primary characters from only one racial/ethnic background (non-Hispanic White). Because some animated shows included primary characters that were clearly presented more generally as people of color, there was also a variable for “other non-White.” A sample of 25% of the programs was independently double-coded to assess reliability of the coding system.

Three mutually exclusive summary variables were also created to assess not only whether children watched concordant TV programs, but whether they watched programs with racially/ethnically diverse characters, even if those characters did not match their own racial/ethnic background. These summary variables were (a) “Only White” (programs that included only non-Hispanic White primary or main characters), (b) “any non-White” (programs that included any primary or main character of color), and (c) “nonhumans” (programs that used entirely nonhuman characters; e.g., *Backyardigans*, *Spongebob Squarepants*).

Statistical analyses

We compared the characteristics of “only White” group against the “any non-White” group as well as against each of the nonexclusive “any Black,” “any Asian,” and “any Hispanic” groups, according to the research question under investigation (some analyses compared each racial/ethnic group individually, some compared racial/ethnic majority children and racial/ethnic minority children). Continuous variables were compared using *t*-tests and categorical variables were compared using Chi-Square tests. We ran a series of multiple linear regression models to understand whether race/ethnicity and gender are significant predictors of watching shows with any non-white characters or watching concordant shows while sequentially controlling for other demographic variables such as parental education and income, siblings, and presence of TV in the child’s bedroom. In all the regression analyses, recruitment site was taken into account as a random effect variable. All analyses were conducted with Stata 12 (StataCorp, 2003).

Results

Child race/ethnicity and child TV/DVD time

First, we present an overview of average time spent watching TV/DVDs per week, before proceeding to analyses of time spent watching concordant programming.

Table 2. Comparisons of Fraction of Total TV/DVD Time Watching Shows With “Only White Characters,” “Any Non-White Characters,” or “Only Nonhuman Characters,” and Watching Concordant Shows.

TV/DVD time	Only White (<i>n</i> = 409)	Any Black (<i>n</i> = 62)	Any Asian (<i>n</i> = 95)	Any Hispanic (<i>n</i> = 34)	Any Non-White (<i>n</i> = 1,820)
Total TV/DVD time	395.81 (264.17)	549.35 (377.10)***	412.38 (287.44)	429.06 (346.62)	454.41 (329.50)*
Fraction of time watching only White	0.31 (0.26)	0.33 (0.21)	0.35 (0.26)	0.21 (0.20)	0.32 (0.24)
Fraction of time watching any Non-White	0.44 (0.27)	0.44 (0.20)	0.46 (0.29)	0.52 (0.25)	0.47 (0.26)
Fraction of time watching only nonHumans	0.25 (0.24)	0.23 (0.21)	0.19 (0.21)*	0.26 (0.22)	0.21 (0.21)*
Fraction of time watching concordant shows	0.66 (0.27)	0.27 (0.20)***	0.23 (0.26)***	0.20 (0.18)***	0.24 (0.24)***

* $p < .05$. *** $p < .001$.

On average, children identified as “only White” spent 395.81 ($SD = 264.17$) minutes watching TV/DVDs per week compared to 454.41 ($SD = 329.50$) minutes for children identified as “any non-White.” Of the “any non-White” children, the “any Black” group watched 549.35 ($SD = 377.10$) minutes, “any Asian” group watched 412.38 ($SD = 287.44$) minutes, and “any Hispanic” group watched 429.06 ($SD = 346.62$) minutes of TV/DVDs per week (Table 2). The children defined as “any Black” watched significantly more television than their “only White” peers, approximately 2.5 extra hours a week (Figure 1).

Child race/ethnicity and proportion of time watching concordant shows

Our first research question pertained to the proportion of time that young children spent watching concordant programs. *Concordance* was defined as the show having a character of the same race or ethnicity as the child. For example, for a child who was described as Asian/African American, a *concordant show* would be defined

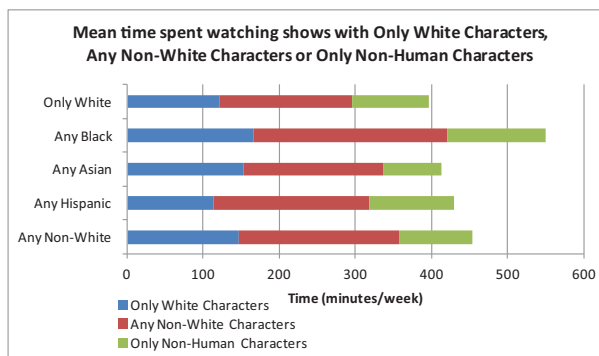


Figure 1. Time watching shows with only White characters, any non-White characters, or only nonhuman characters.

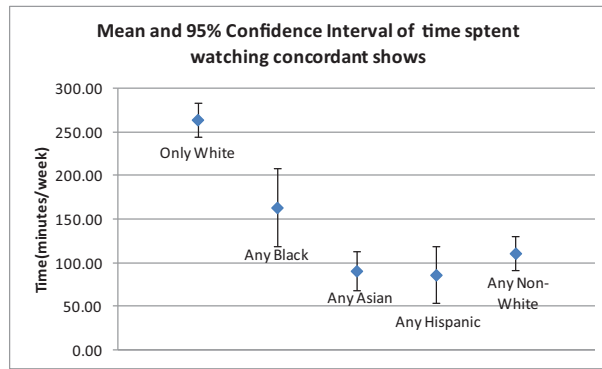


Figure 2. Time watching concordant shows.

as any show that contained any Asian characters or any show that contained any African-American characters. Similarly for children whose parents identified them as “only White,” a show that contained “any White” characters was considered concordant. Analyses revealed that children in the “any non-White” group spent 24% ($SD = 24\%$) of their TV/DVD time watching concordant shows compared to children in the “only-White” group who spent 66% ($SD = 27\%$; Table 2). Furthermore, the fraction of time that each “non-White” group spent watching concordant shows were similar, with children in the “any Black” group spending 27% ($SD = 20\%$), children in the “any Asian” group spending 23% ($SD = 26\%$), and children in the “any Hispanic” group spending 20% ($SD = 18\%$) of their total TV/DVD time watching concordant shows (Figure 2).

Child race/ethnicity and proportion of time watching shows with any character of color

Our second research question pertained to the proportion of time that young children spent watching programs with non-White characters. Analyses revealed that all children spent the most time watching shows with any “non-White” characters. “Only White” children spent 44% ($SD = 27\%$), “any Black” children 44% ($SD = 20$), “any Asian” 46% ($SD = 29$), “any Hispanic” 52% ($SD = 25$), and “any non-White” 47% ($SD = 26$) (see Figure 1). All of the children are spending more time watching shows with “non-White” characters than specifically concordant shows.

Child race/ethnicity, other demographic variables, and proportion of time watching concordant shows

Additional tests of our first and second research question were used to evaluate time spent watching concordant TV shows and shows with “any Non-White” characters between the racial/ethnic minority children and their non-Hispanic White peers. For this analysis, the racial/ethnic minority children were further consolidated into one group—“any non-White” group. This “any non-White” group and

Table 3. Regressions With “Any Non-White” vs. “Only White” as Predictor of Watching Shows With “Any Non-White” Characters or Watching Concordant Shows.

Variables	(1) Fraction “any non-White”	(2) Fraction concordance	(3) Total time “any non-White”	(4) Total time concordance
“Any non-White”	0.04 (−0.01–0.10)	−0.43*** (−0.48—0.39)	7.60 (−22.96–38.16)	−188.29*** (−223.16—153.42)
Child age	−0.02 (−0.05–0.02)	0.01 (−0.02–0.04)	−20.93* (−41.22—0.64)	−17.27 (−40.42–5.88)
Gender: Girl	0.02 (−0.02–0.07)	−0.02 (−0.06–0.02)	−4.28 (−30.40–21.85)	−14.42 (−44.23–15.38)
Parent with college degree	0.05 (−0.01–0.11)	−0.04 (−0.10–0.02)	−30.26 (−67.66–7.14)	−50.72* (−93.40—8.05)
Low income	0.01 (−0.05–0.08)	0.01 (−0.05–0.07)	52.82** (14.45–91.20)	60.29** (16.50–104.08)
Single adult household	0.08 (−0.02–0.18)	0.06 (−0.03–0.15)	26.81 (−31.18–84.80)	41.69 (−24.48–107.87)
TV in bedroom	−0.04 (−0.12–0.05)	−0.09* (−0.17—0.01)	22.58 (−29.12–74.27)	−2.52 (−61.51–56.47)
Observations	572	572	572	572
R-squared	0.02	0.40	0.06	0.18

Note. Confidenced interval in parentheses.

* $p < .05$. ** $p < .01$. *** $p < .001$.

the “only White” group were then compared by a series of multiple linear regression models which controlled for child age, gender, parent education, SES, whether the household only had one adult and whether there was a TV in the child’s bedroom. Even when controlling for these demographic variables, racial/ethnic minority children spent significantly less total time and a smaller fraction of their total TV/DVD time watching concordant shows. However, there was no significant difference between the two groups in the time (and fraction of time) spent watching shows with “any non-White” characters (Table 3).

Child race/ethnicity, gender, and types of shows watched

Our third research question pertained to the specific program choices of families of diverse racial/ethnic backgrounds. We descriptively assessed which specific programs children were watching by looking at their top five most frequent programming choices by child race/ethnicity. All of the children’s top five shows included shows with primary racially and ethnically diverse characters, with *Dora the Explorer* and *Sesame Street* present in every child’s top five programs. Of further interest were the differences that existed between racial/ethnic minority children’s programming choices, particularly amongst girls. For girls categorized as “any Black,” “any Asian,” or “any non-White,” *Dora the Explorer* was the most commonly watched show in terms of the frequency with which it appeared on media diaries and overall minutes spent watching. In contrast for “only White” girls, it was the second most watched program. For the boys, however the same trend did not hold,

although for “any Black” boys the most watched program was also *Dora the Explorer*. Also, of interest for “any Asian” children, *Nihao Kai-Lan* was included in their top five programs, which was not true for any of the other groups of children.

Conclusions

Current research has highlighted the possible benefits of early childhood TV viewing through increased exposure to diverse groups of people and emphasized the importance of diversity in children’s television choices (AAP, 2011; Boyatiz et al., 1995; Jordan, 2005; Rideout & Hamel, 2006; Vandewater et al., 2005; Vandewater et al., 2007; Warren, 2005;). However, very few studies have extended beyond assessing racial/ethnic disparities in the amount of time that young children spend with media to understand what and who young children are watching. The novel findings of this study revealed differences in the proportion of time that young racial/ethnic majority and minority children spent watching concordant programs and similarities in the proportion of time that young children of diverse racial/ethnic backgrounds spent watching programs where non-White characters had lead roles. These findings have broad implications for children’s cultural identity development, reduction of bias through exposure to diversity, and potential to learn from educational programs.

Importantly, racial/ethnic majority (non-Hispanic White) children spent fully two-thirds of their TV time watching shows with main characters who “looked like them,” whereas their Asian American, African American, and Hispanic/Latino peers spent between a third and a quarter of their time watching shows with characters who “matched” their racial/ethnic background. This means that non-Hispanic White children saw many more characters reflecting their own racial/ethnic background playing lead roles in their television programs than did their racial/ethnic minority peers.

At least two studies thus far have linked children’s learning from educational programming to their positive self-identification with the characters (e.g., *Dora the Explorer*; Calvert, 2006; Calvert, Strong, Jacobs, & Conger, 2007), and a growing body of literature is beginning to outline how the “parasocial” relationships that young children develop with favorite characters might encourage learning from characters perceived to be similar to the child (Hoffner, 1996). The finding that racial/ethnic minority children viewed far fewer examples of concordant characters in lead roles than did racial/ethnic majority children has important implications not only for the cultural identity development of these children, but also for the educational goals of many TV programs designed for this young age group.

A second key finding revealed that children of all racial/ethnic backgrounds spent between 44 and 52% of their TV hours watching programs with at least some non-White main characters. This means that, despite the racial/ethnic disparity in children’s concordant viewing, young children in this study were watching comparable amounts of television that exposed them to characters of racial/ethnic minority backgrounds. Preschoolers understand salient differences between diverse cultures, and their developing schemas reflect the larger society’s values

(Hamamoto, 1993; Hirschfeld, 2008). Furthermore, although media has often been criticized for conveying cultural biases (Graves, 1999), the idea that parents may search for racial/ethnic minority characters in their children's television programs as a way of encouraging and understanding diversity is supported by these data. Specifically, widely recognized programs including *Dora the Explorer* and *Sesame Street* were present on the media diaries of children from every racial/ethnic background and were especially common for racial/ethnic minority girls, who may perceive a "match" with Dora in both cultural background and gender. The intersection of race and gender in children's television programming, as well as how it relates to parent's choices for their children's media time, is worthy of in-depth investigation in future studies.

Study limitations

This study presents results based on a small sample of ethnically/racially diverse children. The families who participated in this study were recruited from pediatric clinics in a single geographic area, and the extent to which these results can be generalized elsewhere is not known. Further complicating the analysis is that the majority of ethnically/racially diverse children in this sample were recruited from a community-based clinic that serves low-income families. Only families that spoke English were included in this study, therefore limiting information regarding diverse linguistic groups.

Future directions

In spite of these limitations, future directions for communications researchers and policy makers alike include discovering who determines children's programming choices (e.g., are they child, parent, or sibling directed?). Echoing the recommendations of others researchers (e.g., Anand & Krosnick, 2005), the results of this study call for an examination of the factors that determine how much, and we might add, why a child interacts with particular forms of media. This question is a particularly urgent one in regards to racial/ethnic minority children as they are, and consistently have been, overconsumers of media, irrespective of current guidelines. Questioning parents regarding their deliberations on programming for their young children may help early childhood practitioners offer concrete guidance to parents on how to scaffold their child's media consumption. Findings from this study suggest that future research should further investigate the reasons for families' decisions regarding concordant and diverse media, including direct questions to parents regarding cultural content choices, to make cogent and concrete recommendations to families regarding early child TV exposure.

It is clear that race, ethnicity, and culture intersect with families' decisions regarding media consumption in early childhood. Parents are making programming decisions based on a complex set of factors, including their attitudes, beliefs, and expectations about media and child development (e.g., Donnerstein et al., 1994; Njorogé

et al., 2013; Spicer, 2010). The novel findings of this study contribute to the literature by revealing that parents make decisions about not only how much, but who their young children watch. Although non-Hispanic White children saw many more characters reflecting their own racial/ethnic background playing lead roles than did their racial/ethnic minority peers, there is ample evidence that despite these disparities in concordant viewing, young children of diverse backgrounds watched comparable amounts of television that exposed them to characters of racial/ethnic minority backgrounds. These findings suggest that, despite differences in children's exposure to concordant programming, families do make choices to expose their children to diversity via television programming.

References

- American Academy of Pediatrics. (2011). Media use by children younger than 2 sources. *Pediatrics*, *128*, 1040–1045.
- American Academy of Pediatrics, Committee on Public Education. (1999). *Pediatrics*, *104*, 341–343.
- Anand, S., & Krosnick, J. A. (2005). Demographic predictors of media use among infants, toddlers, and preschoolers. *American Behavioral Scientist*, *48*, 539–561.
- Anderson, D. R., Bryant, A., Wilder, A., Santomero, A., Williams, M., & Crowley, A. M. (2001). Researching blue's clues: Viewing behavior and impact. *Media Psychology*, *2*, 179–194.
- Bandura, A. (1965). Influence of models' reinforcement contingencies on the acquisition of imitative responses. *Journal of Personality and Social Psychology*, *1*, 589–595.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barr, R., Lauricella, A., Zack, E., & Calvert, S. L. (2010). Infant and early childhood exposure to adult-directed and child-directed television programming: Relations with cognitive skills at age four. *Merrill-Palmer Quarterly*, *56*, 21–48.
- Boyatzis, J., Matillo, G. M., & Nesbitt, K. M. (1995). Effects of the "Mighty Morphin Power Rangers" on children's aggression with peers. *Child Study Journal*, *25*, 45–55.
- Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental processes. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (5th ed., pp. 993–1028). Hoboken, NJ: John Wiley & Sons Inc.
- Calvert, S. L. (2006). Media and early development. In K. McCartney & D. Phillips (Eds.), *Blackwell handbook of early childhood development* (pp. 508–529). Malden, MA: Blackwell Publishing.
- Calvert, S. L., Strong, B. L., Jacobs, E. L., & Conger, E. E. (2007). Interaction and participation for young Hispanic and Caucasian girls' and boys' learning of media content. *Media Psychology*, *9*, 431–445.
- Department of Health and Human Services. (2009). Annual update of the HHS poverty guidelines. *Department of Health and Human Services. Federal Register*, *74*, 4199–4201. Retrieved from <http://aspe.hhs.gov/poverty/09fedreg.shtml>
- Donnerstein, E., Slaby, R., & Eron, L. D. (1994). *Violence and youth: Psychology's response* (vol. 2). Washington, D.C.: American Psychological Association.
- Friedrich-Cofer, L. K., Huston-Stein, A., Kipnis, D. M., Susman, E. J., & Clewett, A. S. (1979). Environmental enhancement of prosocial television content: Effects on interpersonal behavior, imaginative play, and self-regulation in a natural setting. *Developmental Psychology*, *15*, 637–646.

- Garcia-Coll, C., Lamberty, G., Jenkins, G., McAdoo, H. P., Crnic, K., & Vasquez Garcia, H. (1996). An integrative model for the study of developmental competencies in minority children, *Child Development*, 67, 1891–1914.
- Graves, S. B. (1996). Diversity on television. In T. M. MacBeth (Ed.), *Tuning in to young viewers: Social science perspectives on television* (pp. 61–86). Thousand Oaks, CA: Sage.
- Graves, S. B. (1999). Television and prejudice reduction: When does television as a vicarious experience make a difference? *Journal of Social Issues*, 55, 707–727.
- Hamamoto, D. Y. (1993). They're so cute when they're young: The Asian-American child on television. In G. L. Berry & J. K. Asamen (Eds.), *Children and television: Images in a changing sociocultural world* (pp. 205–214). Thousand Oaks, CA: Sage.
- Hernandez, D. J., Denton, N. A., & Blanchard, V. L. (2011). Children in the United States of America: A statistical portrait by race-ethnicity, immigrant origins, and language. *Annals of the American Academy of Political and Social Science*, 633, 102–127.
- Hirschfeld, L. A. (2008). Children's developing conceptions of race. In S. M. Quintana, & C. McKown (Eds.), *Handbook of race, racism, and the developing child* (pp. 37–54). Hoboken, NJ: John Wiley & Sons Inc.
- Hoffner, C. (1996). Children's wishful identification and parasocial interaction with favorite television characters. *Journal of Broadcasting and Electronic Media*, 40, 389–402.
- Hughes, D. (2003). Correlates of African American and Latino parents' messages to children about ethnicity and race: A comparative study of racial socialization. *American Journal of Community Psychology*, 31, 15–33.
- Huston, A. C., Wright, J. C., Rice, M. L., Kerkman, D., & St. Peters, M. (1990). Development of television viewing patterns in early childhood: A longitudinal investigation. *Developmental Psychology*, 26, 400–420.
- Jordan, A. B. (2005). Learning to use books and television: An exploratory study in the ecological perspective. *American Behavioral Scientist*, 48, 523–538.
- Katz, P. A., & Kofkin, J. A. (1997). Race, gender, and young children. In S. S. Luthar & J. A. Burack (Eds.), *Developmental psychopathology: Perspectives on adjustment, risk, and disorder* (pp. 51–74). New York, NY: Cambridge University Press.
- Klopper, P. H. (2002). Kids, TV viewing, and aggressive behavior. *Science*, 297, 49–50.
- Lauricella, A. R., Gola, A. A., & Calvert, S. L. (2011). Toddlers' learning from socially meaningful video characters. *Media Psychology*, 14, 216–232.
- Myaing, M. T., Garrison, M. M., Rivara, F. P., & Christakis, D. A. (2011). Differences between opt-in and actively recruited participants in a research study. *Journal of Clinical Medical Research*, 3, 68–72.
- Njoroge, W., Benton, T., Lewis, M., & Njoroge, N. (2009). What are infants learning about race? A look at a sample of infants from multiple racial groups. *Infant Mental Health Journal*, 30, 549–567.
- Njoroge, W., Elenbaas, L., Garrison, M. M., Myaing, M. T., & Christakis, D. A. (2013). Parent cultural attitudes and beliefs regarding young children and television. *JAMA Pediatrics*, 167, 739–745.
- Njoroge, W., & Elenbaas, L. M. (2013). Does culture matter in early childhood media use? *Zero to Three*, 33, 38–41.
- Rideout, V. J. & Hamel, E. (2006). *The media family: Electronic media in the lives of infants, toddlers, preschoolers and their parents*. Menlo Park, CA: Kaiser Family Foundation.
- Rideout, V. J., Lauricella, A., & Wartella, E. A. (2011). *Children, media, and race: Media use among White, Black, Hispanic, and Asian American children*. Washington, DC: Kaiser Family Foundation.
- Rideout, V. J., Vandewater, E. A., & Wartella, E. A. (2003). *Zero to six: Electronic media in the lives of infants, toddlers, and preschoolers*. Menlo Park, CA: Kaiser Family Foundation.

- Robinson, J. P. (1985). The validity and reliability of diaries versus alternative time use measures. In F. T. Juster & F. P. Stafford (Eds.), *Time, goods, and well-being* (pp. 33–62). Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan.
- Robinson, J. P., & Godbey, G. (2000). *Time for life: The surprising ways Americans use their time*. (2nd ed.). University Park, PA: The Pennsylvania State University Press.
- Rogoff, B. (2003). *The cultural nature of human development*. Cambridge, England: Oxford University Press.
- Shivers, E. M., & Barr, R. (2007). Exploring cultural differences in children's exposure to television in home-based child care settings. *Zero to Three, 27*, 39–45.
- Spicer, P. (2010). Cultural influences on parenting. *Zero to Three, 30*, 28–31.
- StataCorp. (2003). *Stata survey data reference manual: Release 8*. College Station, TX: Author.
- Van Ausdale, D., & Feagin, J. R. (2001). *The first r: How children learn race and racism*. Lanham, MD: Rowman & Littlefield.
- Vandewater, E. A., & Lee, S. J. (2009). Measuring children's media use in the digital age: Issues and challenges. *American Behavioral Scientist, 52*, 1152–1176.
- Vandewater, E. A., Park, S., Huang, X., & Wartella, E. A. (2005). "No-you can't watch that": Parental rules and young children's media use. *American Behavioral Scientist, 48*, 608–623.
- Vandewater, E. A., Rideout, V. J., Wartella, E. A., Huang, X., Lee, J. H., & Shim, M. (2007). Digital childhood: electronic media and technology use among infants, toddlers and preschoolers. *Pediatrics, 119*, 1006–1015.
- Vygotsky, L. S. (1980). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Warren, R. (2005). Parental mediation of children's television viewing in low-income families. *Journal Of Communication, 55*, 847–863.
- Woodward, E. H. (1999). The 1999 state of children's television report: Programming for children over broadcast and cable television. *Annenberg Public Policy Center Report RS-28*, 1–37.
- Zimmerman, F. J., Glew, G. M., Christakis, D. A., & Katon, W. (2005). Early cognitive stimulation, emotional support, and television watching as predictors of subsequent bullying among grade-school children. *Archives of Pediatric and Adolescent Medicine, 159*, 384–388.