

Screening Parenting-Adolescent Relationships, Screen Behaviors, Tridimensional Acculturation,
and Health among Black Immigrant and Refugee Adolescents during Dual Pandemics

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Abstract

This brief report assesses parent-adolescent relationships, screen behaviors, and tridimensional acculturation as risk and promotive/protective factors for health among Black U.S. immigrant/refugee adolescents during the dual COVID-19 and racism/Whiteness pandemics. Eighty-nine immigrant/refugee-origin adolescents completed online surveys (72% Somali American, 28% Jamaican American; 45% female; 15% foreign-born; M=14.11 years). Regression analyses revealed that parental autonomy support, parental restrictive media mediation, adolescent media literacy self-efficacy, and adolescent heritage culture identification were promotive of better screen media use behaviors. Importantly, screen self-regulation was a better predictor of general health than was screen time. Results highlight many parenting strengths in Black immigrant/refugee families and underscore the resilience-promoting power of parent-adolescent relationships. Health implications are discussed to provide guidance for future prevention efforts.

Keywords: screen media use, tridimensional acculturation, immigrant youth, parent-adolescent, Black immigrant/refugee

Introduction

This brief report takes a risk and resilience approach (Masten et al., 2021) using multiple levels of analysis to explore initial associations among parent-adolescent relationships, screen behaviors, tridimensional (3D) acculturation, and physical and mental health among Black immigrant/refugee youth during the dual pandemics of COVID-19 and racism/Whiteness (Ferguson et al., 2021). Screen media time (i.e., time on screens) is a known predictor of poorer physical health (including food consumption) in adolescence (Robinson et al., 2017), whereas screen self-regulation (i.e., behaviors to manage media use) is a stronger predictor of mental health for youth (Orben & Przybylski, 2019; Pluhar et al., 2019). During the height of the COVID-19 pandemic, screen time increased for children and adolescents globally (Eales et al., 2021; Pandya & Lodha, 2021). This may have been exacerbated for Black adolescents in the United States, including Black immigrant youth, following Mr. George Floyd's murder, a jarring reminder of the longstanding Whiteness pandemic perpetuating racism (Ferguson et al., 2021). Black youth are disproportionately targeted by media promoting unhealthy lifestyles, including junk food ads (Harris et al., 2019), and mental health struggles are exacerbated by the experiences of racism in the United States, including police brutality (Mattingly et al., 2022). Because of these racial dynamics, Black U.S. immigrant/refugee youth (henceforth, immigrant) experience a complex, intersectional form of acculturation that is shaped by both their ethnicity *and* their race – 3D acculturation (Ferguson et al., 2012). Thus, this study explores the screen behaviors of Black U.S. immigrant/refugee youth during these dual pandemics in relation to family, acculturation, and health factors.

Screen Media Behaviors, Parent-Adolescent Factors, and 3D Acculturation

Many large-scale national U.S. surveys have assessed youth media use behaviors (e.g., Rideout & Robb, 2019) but not among Black or immigrant/refugee youth. *Adolescents' media literacy*, including media literacy self-efficacy and food-focused media literacy, can associate with their screen use behaviors. *Media literacy self-efficacy*, meaning feeling capable of identifying trustworthy information online, is a potential correlate of high media use, though this research is not as established with Black or immigrant youth (Li et al., 2023). What little is known suggests that traversing multiple cultural worlds expands the media options of U.S. immigrant youth (Louie, 2003), and they may use media as a tool in their acculturation (Manago & McKenzie, 2022). Additionally, *food-focused media literacy*, meaning understanding that companies use persuasion to advertise foods for profit, buffers the impact of screen time on adolescent nutrition, including for Black Jamaican adolescents (Brown, 2006; Ferguson et al., 2020).

Parental mediation can also associate with adolescents' screen use behaviors. Parental mediation includes how parents limit (restrictive mediation) and/or talk with their child about what they see in media (active mediation) and is typically related to lower screen time and better-quality media use (Valkenburg et al., 2013). One study found that over 70% of Black Jamaican mothers in Jamaica report discussing screen time with their adolescents and the emotional intensity of those parent-adolescent discussions is associated with higher adolescent media literacy (Nelson et al., 2020). However, little work has been done to examine parental mediation in Black American or U.S. immigrant families (Chen & Shi, 2019).

Parent-child factors also play a role in screen use behaviors. Open conversations and media limits set by parents help maintain children's interest in heritage media, promoting greater

well-being for immigrant youth (Burgos et al., 2017). For example, Black immigrant youth with higher-quality *parent-child communication* utilize more heritage culture media, which is in turn, associated with healthier eating (Gillespie et al., 2024). However, these associations may not extend to general (vs. heritage) screen time. *Parental autonomy support*, meaning how parents support children in making their own choices, is another important buffer for general youth well-being, including in immigrant communities (Abad & Sheldon, 2008). Additionally, parental autonomy-supportive styles of communication are related to lower screen time (Bjelland et al., 2015).

Media can be used as a tool for *3D acculturation* of Black immigrant youth who navigate media from three cultural streams – African American culture, European American culture, and their heritage culture (Ferguson et al., 2012). Further, these cultural orientations may be associated with daily screen time and healthy eating for Black U.S. immigrant adolescents. Whereas European American orientation is associated with more daily screen time and less healthy eating for Black acculturating adolescents in the Caribbean (Ferguson et al., 2018), African American orientation may increase Black U.S. immigrant adolescents' consumption of African American media and vulnerability to junk food ads targeting African American youth (Harris et al., 2019). Conversely, immigrant youths' heritage culture orientation can be protective against excessive screen time (Ferguson et al., 2018) and poor nutrition (Guendelman et al., 2011).

Screen Time, Screen Regulation, and Mental and Physical Health

Screen use behaviors have been shown to be related to both physical and mental health. However, the *type* of screen use behavior varies with the particular outcome. Screen media time has a strong relationship to youths' physical health outcomes, likely due to more sedentary time

(i.e., less *physical activity*; Robinson et al., 2017). Additionally, youth eat more while viewing screens, and are more exposed to food and beverage marketing through screen media (Robinson et al., 2017). Black youth are disproportionately targeted by junk food ads (Harris et al., 2019), meaning their screen media use might be even more strongly related to their *nutrition* than other youth. While screen media time has an established relation to worse physical health (except for heritage media: Gillespie et al., 2024), its relation to mental health is far less clear. Mental health has a stronger relationship to screen self-regulation, meaning how well youth manage their screen use versus simple screen time (Pluhar et al., 2019). There is a dearth of research on this topic in Black or immigrant youth, so research needs to continue disentangling this relation in racially and culturally diverse populations.

The Current Study

This brief report is an initial look at the associations among screen behaviors, parent-adolescent relationships, and 3D acculturation, as risk and promotive/protective factors for physical and mental health among Black U.S. immigrant adolescents during dual pandemics. Based on the foregoing theory and research, we examined several questions regarding Black immigrant adolescents: Q1) How did adolescents use screens during the dual pandemics? (H1: none). Q2) What media literacy, parent-adolescent, and acculturation factors are associated with adolescents' screen behaviors? (H2: higher media literacy self-efficacy, African American orientation, and European American orientation; and lower heritage culture orientation, restrictive/active parental mediation, parental autonomy support, and parent-adolescent communication will associate with higher screen time and lower screen self-regulation.) Q3) Which screen media use behaviors are risks or buffers for physical and mental health? (H3: less screen time and higher screen self-regulation will predict better health across multiple domains.)

Method

In this section, we report how we determined our sample size, all manipulations (if any), and all measures in the study. See Hodges et al. (2024) for further details of the methodology and research ethics. IRB approval was received from both collaborating universities on this project (IRB #STUDY00011248 from the University of Minnesota and 20201309 from the University of Miami).

Participants and Procedure

Participants were Black U.S. adolescents from Somali backgrounds (72%) in the Twin Cities area, MN, and Jamaican backgrounds in the South Florida area ($n = 89$; 15.2% foreign-born). Sample size was determined by maximizing the number of participants we were able to recruit in our one-year study period. Participants were 11-18 years old ($M=14.11$, $SD=2.04$; 48 males, 40 females, 1 adolescent not identifying as male or female). Following signed parental consent, adolescents completed an online survey while on Zoom with project staff and received a \$30 e-gift card incentive.

Measures

Screen/Media Behaviors. We assessed *weekly media use* (time in minutes per day, 7 items) outside of school/distance learning and *media use during COVID-19* (less/same/more media than pre-pandemic, 1 item created by study team) (see Table 1 for all measures and descriptives, and Table 2 for all correlations). Two items from the ScreenQ (Hutton et al., 2018) assessed *screen self-regulation*, meaning how adolescents thought and worried about managing their screen time (mean score; $\alpha=.63$). *Media literacy self-efficacy* (3 items, Musharraf et al.,

2018; $\alpha=.68$) and *food-focused media literacy* (10 items, Powell & Gross, 2018; $\alpha=.74$) were also assessed.

Tridimensional (3D) Acculturation. Cultural orientations to heritage, African American, and European American cultures were measured separately using an adapted Language, Identity and Behavioral Acculturation Scale with seven items per cultural orientation (Birman & Trickett, 2001; α s range .73-.94).

Parent-Adolescent Factors. *Perceived parental autonomy support* was measured (6-item abbreviated version the Perceived Parental Autonomy Support Scale with author's permission: Mageau et al., 2015; $\alpha=.88$). Additionally, *parent-adolescent communication* (6 items, abbreviated Refugee Parent-Child Relational Communication Scale with author's permission: Khawaja et al., 2017; $\alpha=.68$) and *parental mediation* were assessed (one item about restrictive mediation and one item about active mediation: Valkenburg et al., 2013).

Health. *Mental health* was measured using the four-item PHQ-4, Kroenke et al. (2009) ($\alpha=.89$). A single-item measure captured *perceived general health* (Fosse and Haas, 2009). *Sugary food and drink consumption* (3 items) and *salty food intake* (single item) were measured via the Revised Diet Assessment Questionnaire adapted from the Dietary Screener Questionnaire from the 2015 National Health Interview Survey Cancer Control Supplement (National Cancer Institute, 2016) ($\alpha_{\text{Sugary}}=.84$). Moderate and vigorous *physical activity* in the last week were reported in minutes and summed (6 items; Booth, 2000; Craig et al., 2003).

Covariates. We assessed *COVID-19 impact* by asking how much the pandemic impacted their day-to-day life. To capture the Whiteness pandemic impact, the *everyday discrimination* scale (short version) assessed how often adolescents experienced discrimination in public spaces such as restaurants (6 items, Sternthal et al. 2011) ($\alpha=.86$).

Plan of Analysis

Data were missing completely at random according to Little's MCAR test (Little, 1988). Five multiply imputed datasets were generated and then averaged using SPSS 27. Hierarchical linear regressions were conducted predicting (separately) screen time, screen self-regulation, and health outcomes. Predictors were added individually in blocks (i.e., covariates, adolescent media literacy, parental mediation, parent-adolescent factors, adolescent factors, and 3D acculturation), then all together. Both screen time and screen self-regulation were included in models predicting health outcomes. To account for non-independence of any sibling data, we employed robust estimators of standard errors (Freedman, 2006). Significantly correlated demographic variables (among age, gender, parental education, grades) were included as covariates as well as COVID-19 impact and Whiteness pandemic impact to account for the dual pandemics. Regression analyses conducted controlling for cultural group (Somali vs. Jamaican) confirmed that results were very similar; therefore, this is not included as a covariate in presented results. The study data are not available for public use, though exact measures can be requested individually.

[TABLES 1 & 2 HERE]

Results

RQ1: Adolescent Screen Use During Dual Pandemics

On average, adolescents used 52 hours of screen media weekly (SD=32.44) primarily on social media, TV, and cellphones. Fifty-three percent reported using more screen time than pre-pandemic (28% same, 9% less, 10% media use “changed in a different way”). Additionally, 52% reported “too much” screen time and 49% worried about their screen time. For favorite screen time activities, 79.6% endorsed social media platforms, 78.6% a TV show/movie, 47% videogames, 13.5% streaming platforms, and 13.5% Manga.

RQ2: Factors Associated with Adolescent Screen Behaviors

In the full regression model with all predictors (Table 3, Model 6), less restrictive parental media mediation ($\beta=-7.81, p<.01$) and higher media literacy self-efficacy ($\beta=8.32, p<.05$) were associated with higher screen time. Lower quality parent-adolescent communication was also associated with higher screen time when other variables (e.g., adolescent factors, 3D acculturation) were not included (Table 3, Model 4; $\beta=-5.51, p<.05$). Stronger heritage culture identification was associated with better screen self-regulation (Table 4, Model 6; $\beta=.46, p<.05$).

RQ3: Adolescent Screen Behaviors in Relation to Physical and Mental Health

Both screen time and screen self-regulation predicted higher salty food intake ($\beta_{\text{Time}}=.04, p<.05$; $\beta_{\text{Self-regulation}}=1.77, p<.05$) and sugar intake ($\beta_{\text{Time}}=.01, p<.001$; $\beta_{\text{Self-regulation}}=.29, p<.05$). However, only screen self-regulation was associated with better perceived general health ($\beta=.31, p<.05$). See Table 5.

[TABLES 3, 4, and 5 HERE]

Discussion

The purpose of this brief report was to document risk and resilience during the dual pandemics of COVID-19 and Whiteness for 3D acculturating Black immigrant/refugee adolescents regarding their screen media use behaviors. Our results revealed that adolescents reported using more screen media during the COVID-19 pandemic; however, several parenting and adolescent factors acted as sources of resilience. Additionally, screen time and screen self-regulation were associated with nutritional health, while screen self-regulation was related to general health.

Screen Time as a Risk Factor?

This study measured both screen time and screen self-regulation due to the growing understanding that *how* adolescents are using screens is equally/more important than how *much* (Odgers & Jensen, 2020). Current findings partially supported this guidance. Consistent with national and international findings, adolescents in this study reported using more screen time post-COVID-19 pandemic onset (Eales et al., 2021; Pandya & Lodha, 2021). Higher screen time was associated with higher salty and sugary food intake, which may reflect eating salty and sugary snack foods (e.g., chips, candy) while watching media. Surprisingly, screen self-regulation was also linked to higher salty and sugary food intake, suggesting that self-regulation efforts for media consumption do not necessarily generalize to food consumption (nor physical activity, given the null association between both screen variables and physical activity). On the other hand, adolescents' screen self-regulation, but not screen time, was related to better general perceived health. To our knowledge, this is the first study to demonstrate this in a Black or immigrant sample.

Buffers of Screen Behaviors

Many parent-adolescent factors buffered adolescent screen time, though not screen self-regulation, including parental restrictive media mediation and parental autonomy support. This indicates that, during the dual pandemics, Black immigrant parents' efforts to monitor their teen's media use and support them in their autonomy are protective against higher screen time (but not screen self-regulation; Burgos et al., 2017). Given the theoretical difference between screen time and screen self-regulation (Odgers & Jensen, 2020; Pluhar et al., 2019), it is not surprising that they were differentially associated with parent-adolescent factors.

Whereas parent-adolescent factors were protective against higher screen time, adolescents feeling more efficacious in their media literacy skills had *higher* screen time. This

could be due to higher screen time leading adolescents to feel more comfortable with identifying trustworthy information, given that they are more exposed to this content on screens. However, directionality was not assessed in this study.

As expected, higher heritage culture identification was associated with better screen self-regulation, even when all other parent and adolescent factors were included in the model. This study, therefore, replicates prior findings that heritage culture identification is promotive/protective for adolescent media health (e.g., Ferguson et al., 2018).

Considering Risks and Buffers Together

It is important to consider the risks and buffers together. This study indicated far more buffers against higher screen time and worse screen-self regulation (i.e., heritage culture orientation, parent-adolescent communication, parent restrictive mediation) versus risk factors (only higher media self-efficacy for screen time). This is good news for Black immigrant youth and families! Interestingly, the proposed association between screen self-regulation and mental health was not borne out in this sample. This could be due to the cursory self-regulation measure used. Future studies should continue to use well-established measures of mental health with more substantive measures of media self-regulation. Additionally, the initial correlation between screen self-regulation and mental health was significant. The disappearance of this relation in the final model could be due to the addition of both COVID-19 impact and discrimination, speaking to the contexts needed when addressing questions of screen behaviors in marginalized populations.

Implications

Study results have theoretical and practical implications for the physical and mental health of Black U.S. immigrant adolescents and can inform prevention and health promotion

efforts. First, this study revealed the adaptive power of the Black immigrant family system as a source of significant resilience in the face of raging dual pandemics. There were *many* buffers against poor adolescent media use behaviors, including several parenting strengths. In addition to celebrating these strengths, parents and practitioners can monitor and/or limit their teen's media use as appropriate, while ensuring they still feel supported in their autonomy. Practitioners and educators could also work to empower parents in their own media use because parents who feel more confident in their own media use are often more efficacious in engaging in media mediation with their child/adolescent (Shin, 2018).

This study also has implications relevant to the entrenched U.S. racial health disparities. Based on its unique associations with adolescents' reported general health, screen self-regulation could be a better parenting intervention target for concerned caregivers versus merely reducing screen time. Future research can explore the directionality between screen self-regulation and adolescent health, then work with adolescents to develop interventions to promote better screen self-regulation and health. These interventions could be disseminated via social media or gaming platforms for digital natives such as these adolescents. Additionally, as Black immigrant adolescents use media as a tool in their 3D acculturation, future research could examine the content of their screen time in relation to the Whiteness pandemic (Louie, 2003; Manago & McKenzie, 2022).

Limitations

While this study is novel in many ways, it was the first exploration of these topics in a marginalized sample during dual pandemics and should be considered an initial probe. For ethical and cultural reasons, minimizing participant burden was a top priority, therefore, more comprehensive measures of screen self-regulation could be created and used in future research in

non-pandemic times. Additionally, the age range in this sample was wide (ages 11 to 18 years), and given the small sample size, more granularity in age-related analyses was not possible. Therefore, there could have been age-related effects not captured in this study that future research can explore. Finally, it would be ideal for future studies to assess the association between parent-adolescent factors and health using screen media use behaviors as a mediator.

Conclusion

Findings of this study provide a snapshot of the resilience of Black U.S. immigrant/refugee adolescents and parents during the dual pandemics of COVID-19 and Whiteness, where parent-adolescent factors and heritage culture orientation were protective for adolescents' screen behaviors and health. This study was the first to specifically disentangle screen time from screen self-regulation in a Black or immigrant/refugee sample, finding that screen self-regulation was a stronger predictor of general health for Black immigrant youth, whereas both were associated with nutritional health. In sum, though stressors were abundant, these adolescents and their families demonstrate the many ways in which parent-adolescent relationships and heritage culture maintenance are protective for immigrant and refugee youth of color.

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Table 1

Descriptive Statistics of Sample Characteristics and Variables Included in Analyses (N = 89)

Variable	<i>M (SD) or %</i>	<i>Observed range</i>
<i>Non-model study variables</i>		
1. Age (in years)	14.11 (2.04)	11–18
2. Somali (vs. Jamaican)	71.9%	--
3. Media use during COVID-19	2.66 (.77)	1–4
<i>Covariates</i>		
4. Father education ^a	4.47 (1.87)	No school–Grad. degree
5. Mother education ^a	4.19 (2.04)	No school–Grad. degree
6. Male (vs. female)	53.9%	--
7. COVID-19 impact	3.03 (1.15)	1–5
8. Everyday discrimination scale	2.20 (1.02)	1–4.83
<i>Substantive study variables</i>		
9. Weekly media use (hours per week)	52.19 (32.44)	5.75–130
10. Screen self-regulation	2.41 (.72)	1–3.5
11. Mental health problems	.62 (.76)	0–3
12. Perceived general health	3.46 (1.01)	1–5
13. Sugar food & drink consumption	3.46 (5.11)	.06–32.10
14. Salty food consumption	.59 (.76)	0–4.5
15. Physical activity (minutes per week)	449.04 (386.34)	0–2004
16. Perceived restrictive parental mediation	2.92 (1.15)	1–5
17. Perceived active parental mediation	3.13 (1.01)	1–5
18. Media literacy self-efficacy	3.54 (.77)	1–5
19. Food-focused media literacy	2.93 (.42)	1.77–4
20. Perceived parental autonomy support	4.86 (1.37)	1.5–7
21. Parent-adolescent relational communication	1.55 (.36)	0–2
22. Heritage culture identity acculturation	3.59 (.48)	2–4
23. Heritage culture behavior acculturation	2.51 (.55)	1.29–3.86
24. African American identity acculturation	3.20 (.80)	1–4
25. African American behavior acculturation	2.77 (.73)	1–4
26. European American identity acculturation	1.14 (.22)	1–2.02
27. European American behavior acculturation	2.98 (.59)	1.43–4

Note. ^a Mother/father education: 1 = No school; 2 = Some high school; 3 = High school diploma; 4 = Some college; 5 = Associate’s Degree; 6 = Bachelor’s Degree; 7 = Graduate or Professional Degree.

Table 2*Correlations Between Substantive Study Variables Included in Analyses (N = 89)*

Variable	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
9. Weekly media use (hours per week)	1.00																		
10. Screen self-regulation	-0.30**	1.00																	
11. Mental health problems	0.29**	-0.41***	1.00																
12. Perceived general health	-0.15	0.29**	-0.37***	1.00															
13. Sugar food & drink consumption	0.16	0.16	0.06	0.20	1.00														
14. Salty food consumption	0.30	0.15	-0.07	0.31**	0.19	1.00													
15. Physical activity	-0.08	0.02	-0.12	0.08	0.18	0.00	1.00												
16. Perceived restrictive parental mediation	-0.35***	0.14	-0.28**	0.01	-0.16	-0.04	0.06	1.00											
17. Perceived active parental mediation	-0.08	-0.05	0.02	-0.06	-0.12	0.03	-0.15	0.29**	1.00										
18. Media literacy self-efficacy	0.22*	-0.02	0.12	0.10	0.07	0.16	-0.08	-0.22*	-0.02	1.00									
19. Food-focused media literacy	0.01	-0.10	0.17	-0.01	0.00	0.06	-0.05	-0.19	0.04	0.44***	1.00								
20. Perceived parental autonomy support	-0.38***	0.23*	-0.35***	0.19	0.07	-0.11	0.15	0.32**	0.17	-0.22*	-0.12	1.00							
21. Parent-adolescent relational communication	-0.32**	0.15	-0.37***	0.18	-0.01	-0.14	0.14	0.30**	0.32**	-0.04	0.11	0.53**	1.00						
22. Heritage culture identity acculturation	-0.03	0.23*	-0.20	0.13	0.00	0.13	0.08	-0.02	0.04	0.21	0.21*	0.19	0.33**	1.00					
23. Heritage culture behavior acculturation	-0.13	0.25*	-0.21*	0.10	0.05	-0.03	0.03	0.13	0.06	0.05	0.11	0.20	0.37***	0.55***	1.00				
24. African American identity acculturation	0.06	-0.01	0.02	0.00	0.04	-0.15	0.06	-0.15	-0.10	0.10	-0.03	0.16	0.19	0.41***	0.23*	1.00			
25. African American behavior acculturation	0.28**	-0.13	0.09	-0.07	0.06	0.06	0.09	-0.04	-0.09	0.16	0.04	-0.12	0.03	0.28**	0.31**	0.50***	1.00		
26. European American identity acculturation	-0.02	-0.07	0.11	-0.08	0.05	-0.05	0.18	-0.05	-0.10	0.03	-0.02	0.14	0.05	-0.32**	-0.21*	-0.11	-0.18	1.00	
27. European American behavior acculturation	0.21*	-0.08	0.23*	-0.08	0.13	0.08	0.04	-0.04	0.01	0.06	0.00	-0.08	0.02	0.17	0.02	0.13	0.09	0.08	1.00

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

Table 3*Hierarchical Regressions predicting Screen Time with Unstandardized Betas (N = 89)*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	B	B	B	B	B	B
<i>Covariates</i>						
Age	1.11	0.56	-0.47	0.19	1.02	-1.13
Mother education	-0.34	-0.33	-0.60	-0.93	-0.08	-0.71
COVID-19 impact	5.13	5.75	5.11	3.12	5.18*	4.55
Daily discrimination	6.59	7.58*	6.57*	3.46	6.74	5.37
<i>Adolescent factors</i>						
Media literacy self-efficacy		12.18**				8.32*
Food-focused media literacy		-13.45				-12.35
<i>Parental mediation</i>						
Parent restrictive mediation			-9.74***			-7.81**
Parent active mediation			2.26			3.71
<i>Parent-adolescent factors</i>						
Parental autonomy support				-5.51*		-3.64
Parent-child communication				-11.62		-9.73
<i>Tridimensional acculturation</i>						
Heritage identification					-3.80	-0.69
African American identification					3.71	3.39
European American identification					3.71	1.96
Intercept	7.13	6.89	52.29	80.72*	4.45	85.30

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. p-values reflect robust p-values calculated from robust estimators of standard errors.

Table 4

Hierarchical Regressions predicting Screen Self-Regulation with Unstandardized Betas (N = 89)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	B	B	B	B	B	B
<i>Covariates</i>						
Age	-0.06	-0.06	-0.04	-0.05	-0.06	-0.04
Mother education	-0.004	-0.004	-0.001	-0.003	-0.01	-0.01
COVID-19 impact	-0.13*	-0.13	-0.14*	-0.12	-0.12	-0.11
Daily discrimination	-0.08	-0.08	-0.09	-0.06	-0.08	-0.09
<i>Adolescent factors</i>						
Media literacy self-efficacy		0.03				0.03
Food-focused media literacy		-0.04				-0.12
<i>Parental mediation</i>						
Parent restrictive mediation			0.09			0.07
Parent active mediation			-0.11			-0.12
<i>Parent-adolescent factors</i>						
Parental autonomy support				0.05		0.04
Parent-child communication				-0.003		-0.06
<i>Tridimensional acculturation</i>						
Heritage identification					0.42**	0.46*
African American identification					-0.13	-0.16
European American identification					-0.14	-0.17
Intercept	3.78***	3.80***	3.72***	3.36***	2.88**	2.93**

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. p-values reflect robust p-values calculated from robust estimators of standard errors.

Table 5

Regressions predicting Mental Health, General Health, Nutritional Health, and Physical Activity using Screen Time and Screen Self-Regulation as Predictors (N = 89)

	Predicting Mental Health	Predicting General Health	Predicting Sugar Intake	Predicting Salty Intake	Predicting Physical Activity
	B	B	B	B	B
<i>Covariates</i>					
Gender	1.75**	-0.18	1.62	0.15	-144.01
Age	0.25	-0.04	0.33	0.002	-24.78
Mother education	0.17	0.03	0.03	0.08	-42.82*
COVID-19 impact	0.53*	0.11	-1.24	-0.02	-33.58
Daily discrimination	0.73*	-0.28*	-0.26	-0.16	-7.49
<i>Main effects</i>					
Total screen time	0.002	-0.0002	0.04*	0.01***	-0.07
Screen self-regulation	-0.63	0.31*	1.77*	0.29*	-63.62
Intercept	-6.31**	3.69***	-5.77	-0.90	1470.12*

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. p-values reflect robust p-values calculated from robust estimators of standard errors. Only perception of screen amount was included as an independent variable in the mental health analysis due to confounding screen worry with the worry variables used in the mental health composite.