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Mina Mavrić, Ibro Skenderović, Jasmina Kurpejović, Semra Selimović

PARENTS' AND EDUCATORS' PERCEPTIONS OF THE IMPACT OF MEDIA EXPOSURE ON THE COGNITIVE AND COMMUNICATIVE DEVELOPMENT OF PRESCHOOL CHILDREN*

Modern childhood is characterized by intense media exposure, which simultaneously carries developmental opportunities and risks. The aim of this research was to examine how parents and educators in Serbia perceive the impact of different types of media content on the cognitive and communicative development of preschool children, with a special emphasis on the differences in perceptions between these two groups. The research was conducted on a sample of 205 respondents – 105 educators and 100 parents of children aged 3 to 6 from different regions of Serbia. Two original questionnaires were constructed for the research – the Educator Questionnaire (28 items) and the Parent Questionnaire (22 items) – both using a five-point Likert scale. The data were processed using descriptive statistics and Pearson's chi-square test of independence, supplemented by Cramér's V as a measure of effect size. The results show that respondents perceive educational and interactive media content as a positive developmental activity, while passive and entertaining content in both groups is associated with negative perceptions. In all measured dimensions, statistically significant differences in perceptions between educators and parents were found ($p < 0.05$), with educators taking a more critical stance. The findings indicate the need to develop media literacy programs and harmonize approaches between families and preschool institutions.

Keywords: media exposure; preschool age; perceptions; cognitive development; communicative skills; parental mediation; educational content

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INTRODUCTION

Modern childhood can no longer be imagined without screens. Preschool children aged 3 to 6 years in Serbia and the wider Western Balkans region regularly encounter smartphones, tablets, and television sets from as early as two to three years of age, often for durations exceeding recommended guidelines. According to UNICEF regional data for South-Eastern Europe (2017), more than 70% of children in this age group spend significant time in front of screens daily. Recent European monitoring reports confirm that children's independent access to mobile digital devices continues to increase across early childhood populations, reinforcing the importance of guided mediation strategies (Ofcom 2023). International monitoring studies likewise indicate a steady increase in daily screen exposure among children under the age of eight across diverse sociocultural contexts (Rideout 2021). At the same time, the American Academy of Pediatrics (AAP, 2016) and the World Health Organization (WHO 2019) recommend limiting screen time to no more than one hour per day for children aged 2 to 5, and only in the context of active adult mediation.

This rapid change in children's everyday environments has prompted intense scientific and professional debate about whether digital media constitute a developmental threat or an untapped educational resource. While a growing body of research documents risks – including speech delay, decreased attention, hyperactivity, and poorer social skills (Christakis et al. 2004; Madigan et al. 2020; Radesky & Christakis 2016) – and associations between violent media content and increased aggressive behaviour (Anderson & Bushman 2001), recent studies further indicate that problematic patterns of media use in early childhood are associated with behavioural regulation difficulties and reduced self-regulation capacities (Domoff et al. 2020). Other studies demonstrate measurable benefits of high-quality, interactive, and educationally designed content, including improvements in prosocial behaviour (Fisch 2004; Linebarger 2016; Mares & Pan 2013; Coyne et al. 2018; Christakis et al. 2013).

In the context of preschool age, which Piaget (1952, 1959) describes as the pre-operative phase, and Vygotsky (1978) as the period of the most intense zone of proximal development, children are highly sensitive to the quality of environmental stimulation. Cognitive functions – including attention, working memory, symbolic thinking, and problem-solving – undergo rapid development during this period and may be shaped, for better or worse, by media experiences (Lillard & Peterson 2011). Language development is equally vulnerable: exposure to fast-paced, passive content has been associated with vocabulary deficits, while interactive and dialogic media

use has been linked to improved verbal expression (Linebarger & Walker 2005; Nathanson & Rasmussen 2011). Emotional and social competences are similarly foundational at this age: the development of emotional intelligence and the socialization of emotional competence depend on rich interpersonal interaction and sensitive adult guidance (Goleman 1995; Denham et al. 2012), resources that excessive screen use may displace.

The theoretical frameworks relevant to understanding these dynamics include Bandura's (1977) social learning theory, which posits that children model behaviours, speech patterns, and emotional responses from observed media figures; Gerbner's (1998) cultivation theory, which addresses the long-term influence of repeated media exposure on perceptions of reality; and Valkenburg and Peter's (2013) Differential Susceptibility to Media Effects Model (DSMM), which emphasises that media effects are modulated by individual, developmental, and social factors. Of particular relevance is the theory of parental and pedagogical mediation (Valkenburg et al. 1999; Nathanson 2001), which distinguishes active mediation (co-viewing with discussion), restrictive mediation (time and content limits), and co-use (shared, non-instructional viewing). Recent evidence reviews further emphasise that children's digital engagement outcomes depend strongly on the quality of parental mediation and the broader social context of media use (Livingstone et al. 2023).

In the national and regional literature, research on media exposure in the preschool period remains scarce. Existing studies focus primarily on school-age children or adolescents (Kuzmanović & Popadić 2016), and document a broader pattern of family disengagement: as Mavrić, Bećirović Alić and Smailović (2024, p. 136) observe, "the alienation of modern life in the parent-child relationship has led to a situation in which family members increasingly share the same physical space without communicating beyond basic needs" (translated from Serbian). This dynamic, observed among school-age children, is likely already taking shape during the preschool years – precisely the period this study addresses. Moreover, the perceptions and practices of key mediating agents – parents and preschool educators – have rarely been systematically examined and compared in a regional context.

It is on this empirical gap that the present study is focused. Rather than measuring developmental outcomes directly, this research captures the subjective perceptions of parents and educators as key mediators of children's media experiences. Such perceptions are consequential in their own right: they shape the decisions adults make about content selection, duration, and mediation strategies, and thus indirectly influence the developmental environments of preschool children.

RESEARCH METHODOLOGY

Research Problem and Aims

The central research problem of this study concerns the nature and direction of differences in how parents and preschool educators perceive the influence of media exposure on the cognitive and communicative development of children aged 3 to 6. All research questions refer to respondents' perceptions of the effects of media exposure rather than directly measured developmental outcomes. Specifically, the following research questions guided the inquiry:

- (1) How do parents and educators perceive the impact of different types of media content (educational, entertainment, interactive) on children's cognitive development, including attention, memory, and problem-solving abilities?
- (2) How do parents and educators perceive the social development of children in relation to the type of media content they are predominantly exposed to?
- (3) How do parents and educators perceive the role of educational media content in children's language development?
- (4) How do parents and educators perceive the association between daily screen time and children's social and communicative skills?
- (5) How frequently do parents and educators apply active and restrictive mediation strategies, and how do they perceive their developmental relevance in the context of children's media exposure?

The general aim of the study was to empirically examine the perceptions of educators and parents in Serbia regarding the impact of media exposure on the cognitive and communicative development of preschool children. In line with the research questions, the following specific objectives were formulated:

- (1) To identify and compare parental and educator perceptions of the effect of different types of media content on children's attention, memory, and problem-solving (addressed through items 10, 11, 12 of the Parental Questionnaire and items 7–10 of the Educator Questionnaire).
- (2) To examine parental and educator perceptions of the social development of children in relation to the type of media content they are predominantly exposed to (items 15 of the Parental Questionnaire; items 15, 16 of the Educator Questionnaire).
- (3) To examine parental and educator perceptions of the role of educational

media content in children's language and vocabulary development (items 13 and 14 of the Parental Questionnaire; items 11 and 12 of the Educator Questionnaire).

(4) To assess parental and educator perceptions of the association between daily screen time and children's social, communicative, and emotional skills (items 7, 15 of the Parental Questionnaire; items 15, 16 of the Educator Questionnaire).

(5) To analyse the frequency of parental and educational mediation strategies and parental and educator perceptions of their developmental relevance in the context of children's media exposure (items 20, 21 and 22 of the Parental Questionnaire; items 17 and 18 of the Educator Questionnaire).

Research Hypotheses

On the basis of the theoretical framework and research questions, the following hypotheses were formulated:

H1: Parents and educators perceive educational media content as contributing positively to the cognitive development of preschool children.

H2: Parents and educators perceive active media content as more beneficial for the development of communicative skills than passive content.

H3: Parents and educators perceive children exposed predominantly to active media content as having more developed social skills than those exposed to passive content.

H4: Parents and educators perceive excessive daily screen time (more than two hours) as negatively associated with children's cognitive and communicative development.

H5: Parents and educators perceive passive media exposure as associated with poorer language development in preschool children.

H6: Parents and educators perceive active parental and pedagogical mediation as developmentally relevant and associate its consistent application with more positive outcomes in children's media engagement.

Sample of Respondents

The study was conducted in June 2025 on the territory of the Republic of Serbia. Participants were recruited through a combination of purposive and convenience sam-

pling, with the aim of achieving diversity across gender, educational attainment, geographic region (urban and rural), and type of institution. Purposive sampling was employed because the research specifically targeted two groups with direct, ongoing experience of preschool children's media use – practising preschool educators and parents of children currently enrolled in preschool programmes. This criterion-based approach ensured informational richness and relevance of responses, consistent with the study's perceptual and exploratory aims (Etikan et al. 2016).

The educator group consisted of 105 respondents' (103 women, 2 men), aged 24 to 62 years ($M = 42.3$; $SD = 9.8$), with professional experience ranging from 1 to 38 years. In terms of educational attainment, 88% held a bachelor's degree and 12% a master's degree. The sample encompassed educators from state, private, and mixed preschool institutions in both urban and rural settings across several municipalities, including Belgrade, Raška, Kraljevo, Novi Pazar, Sjenica, Tutin, Priboj, and Prijepolje.

The parent group consisted of 100 respondents' – 71 mothers (71%) and 29 fathers or legal guardians (29%) – aged 24 to 48 years ($M = 35.7$; $SD = 5.4$). Educational attainment was distributed as follows: 28% secondary education, 54% higher education (undergraduate or postgraduate), and 18% primary or lower education. A total of 62% of parents resided in urban areas and 38% in rural or peri-urban areas. The total sample comprised $N = 205$ participants. Given that an anonymous electronic questionnaire was used with broad institutional outreach, individual response rate tracking was not feasible; this constitutes a recognised limitation of the study.

Research Instruments

Two original questionnaires were constructed for the purposes of this research: the Questionnaire for Preschool Educators (28 items) and the Questionnaire for Parents (22 items). The questionnaires were developed on the basis of a review of the relevant theoretical and empirical literature and were designed to capture perceptual and attitudinal data rather than objective behavioural measures.

The Questionnaire for Preschool Educators is structured around four thematic dimensions: (1) Perception of the impact of educational media content on cognitive development (8 items; e.g., 'Children who regularly use educational applications demonstrate better problem-solving abilities'); (2) Perception of the impact of entertainment content and video games on cognitive and language development (7 items); (3) Perception of the impact of screen time on children's social and emotional devel-

opment (7 items; e.g., 'Children who spend more than 2 hours daily in front of screens show reduced interest in peer interaction'); and (4) Attitudes towards mediation strategies and their application in institutional contexts (6 items).

The Questionnaire for Parents follows an analogous structure adapted to the family context, with the same four thematic dimensions. Items in the parental instrument are oriented towards subjective observation of developmental changes in the respondent's own child (e.g., 'I have noticed a visible improvement in my child's speech and vocabulary since using educational digital content'), rather than general professional appraisal.

All items in both questionnaires were rated on a five-point Likert scale, where 1 = 'Strongly disagree' and 5 = 'Strongly agree'. For the purposes of comparative statistical analysis, responses were recoded into three categories: Negative (scores 1–2), Neutral (score 3), and Positive (scores 4–5). This recoding enabled the application of Pearson's chi-square test of independence and is consistent with standard practice in perception-based survey research.

Prior to the main data collection, both questionnaires were piloted on a sample of 20 participants (10 educators and 10 parents) to assess the clarity and comprehensibility of item wording. Pilot feedback led to minor linguistic adjustments. It should be noted that the pilot was not designed for full psychometric validation; the internal reliability estimates reported (overall Cronbach $\alpha = 0.87$ for the Educator Questionnaire; $\alpha = 0.85$ for the Parental Questionnaire; subscale values ranging from 0.78 to 0.84) are therefore provisional and should be interpreted with caution. Formal construct validation was beyond the scope of the present study. Content validity was assessed by three experts in the fields of preschool education and media pedagogy, who independently reviewed item relevance and wording prior to finalisation.

Data Collection Procedure

Questionnaires were distributed electronically via the Google Forms platform. Educators were recruited through direct contact with preschool institutions and relevant professional associations in the target regions. Parents were recruited through kindergartens, school parent groups on social media platforms, and personal referrals. All respondents' were volunteers who provided informed consent electronically before completing the questionnaire. Anonymity and confidentiality of responses were guaranteed. Data were collected over a period of three weeks in June 2025.

RESULTS

Data were analysed using descriptive statistics (absolute frequencies and percentages) and Pearson's chi-square test of independence (χ^2) to examine differences in perceptions between the educator and parent groups. Cramér's V was calculated as a measure of effect size for each χ^2 test, with values interpreted as follows: $V < 0.10$ indicates a negligible effect; 0.10–0.29 small to moderate; 0.30–0.49 moderate to large; ≥ 0.50 large (Cohen, 1988). An overview of all chi-square test results is presented in Table 1.

Table 1. Overview of Pearson χ^2 test results – differences in perceptions between educators and parents

Variable	χ^2	df	p	V	Direction of difference
Educational content → cognitive development	10.847	2	0.004	0.230	Parents more positive
Entertainment content/video games → cognitive development	19.632	2	<0.001	0.309	Educators more negative
Educational content → language development	47.318	2	<0.001	0.480	Parents substantially more positive
>2 hours/day → social skills	12.104	2	0.002	0.243	Educators perceive higher risk
>2 hours/day → emotional stability	18.947	2	<0.001	0.304	Educators more critical
Active mediation → developmental relevance	8.921	2	0.012	0.209	Educators apply more consistently
Restrictive mediation → developmental relevance	6.543	2	0.038	0.179	Parents more frequent

Perceptions of the Impact of Media Content on Cognitive and Language Development

Results addressing H1, H2, and H5 are presented in Tables 2 and 3. With respect to educational media content and its perceived impact on cognitive development, 65.0% of parents and 43.8% of educators reported a positive perception, while only 10.0% of parents and 15.2% of educators expressed a negative view ($\chi^2 = 10.847$; p

= 0.004; $V = 0.230$). The difference, while statistically significant, represents a small-to-moderate effect, suggesting general agreement in the positive direction with parents being more optimistic. With regard to entertainment programmes and video games, the pattern reversed sharply: 59.0% of educators assessed these as having a negative impact on cognitive development, compared to 34.0% of parents ($\chi^2 = 19.632$; $p < 0.001$; $V = 0.309$), a moderate effect reflecting educators' substantially more critical professional stance.

The most pronounced difference emerged in perceptions of educational content and language development ($\chi^2 = 47.318$; $p < 0.001$; $V = 0.480$ – a large effect). Here, 67.0% of parents perceived a significant positive impact on children's vocabulary and verbal expression, compared to only 18.0% of educators who shared this view. An additional 34.0% of educators acknowledged a conditional positive effect (dependent on content quality and adult involvement), while 30.0% reported no significant impact. This divergence reflects the different vantage points from which each group observes children: parents assess individual developmental changes in their own child, often attributing observed progress to media use; educators apply a more systematic professional lens across groups of children over extended periods.

Table 2. Perception of the impact of different types of media content on cognitive development (frequency and %)

Type of content	Group	Positive	Neutral	Negative
Educational content	Educators (n=105)	46 (43.8%)	43 (41.0%)	16 (15.2%)
	Parents (n=100)	65 (65.0%)	25 (25.0%)	10 (10.0%)
Entertainment/video games	Educators (n=105)	12 (11.4%)	31 (29.5%)	62 (59.0%)
	Parents (n=100)	25 (25.0%)	41 (41.0%)	34 (34.0%)

Table 3. Perceptions of the impact of educational media content on language development (frequency and %)

Perceived impact	Group	Significant positive	Conditional/partial	No significant impact or negative
Educational content → language	Educators (n=105)	19 (18.0%)	36 (34.0%)	50 (48.0%)
	Parents (n=100)	67 (67.0%)	23 (23.0%)	10 (10.0%)

Perceptions of Screen Time and Social-Emotional Development

Results addressing H4 are presented in Table 4. A large majority of educators (75.2%) perceived excessive screen time (defined as more than 2 hours per day) as having a significant negative impact on children's social and communicative skills, compared to 55.0% of parents ($\chi^2 = 12.104$; $p = 0.002$; $V = 0.243$). A similar pattern was observed for perceived effects on emotional stability: 64.8% of educators and 35.0% of parents associated excessive screen time with increased irritability and emotional instability ($\chi^2 = 18.947$; $p < 0.001$; $V = 0.304$). Both differences are statistically significant, with effect sizes in the small-to-moderate range, indicating that while both groups perceive a negative association, educators hold substantially stronger concerns.

Table 4. Perceptions of the impact of excessive screen time (>2 hours/day) on children's social and emotional development (frequency and %)

Perceived consequence	Group	Significant negative	Partial/occasional	No impact/positive	Total	χ^2	p	V
Reduced social and communicative skills	Educators	79 (75.2%)	18 (17.1%)	8 (7.6%)	105	12.104	0.002	0.243
	Parents	55 (55.0%)	32 (32.0%)	13 (13.0%)	100			
Increased irritability/emotional instability	Educators	68 (64.8%)	28 (26.7%)	9 (8.6%)	105	18.947	<0.001	0.304
	Parents	35 (35.0%)	48 (48.0%)	17 (17.0%)	100			

Perceptions and Application of Mediation Strategies

Results addressing H6 are presented in Table 5. Active mediation (co-viewing combined with discussion and explanations) was reported as regularly applied by 74.3% of educators and 58.0% of parents ($\chi^2 = 8.921$; $p = 0.012$; $V = 0.209$). This difference may reflect the structured pedagogical framework within which educators operate, where guided interaction with media content forms part of intentional educational practice. The difference is statistically significant but modest in magnitude, suggesting that while active mediation is the preferred strategy in both groups, it is more consistently implemented in the institutional setting. Restrictive mediation (limiting screen time or content access) was applied regularly by 59.0% of educators and 71.0% of parents, with a statistically significant difference in favour of parents ($\chi^2 = 6.543$; $p = 0.038$; $V = 0.179$ – small effect), indicating that restrictive mediation is applied more consistently by parents in the home environment than by educators in institutional settings. This may reflect the greater autonomy parents have in regulating children's media use in the home environment. In addition to reporting differences in frequency of mediation strategies, respondents' in both groups also evaluated active mediation as more developmentally relevant than restrictive mediation, indicating a shared perception of its greater contribution to supporting children's media use.

Table 5. Frequency of application of parental and educational mediation strategies (frequency and %)

Mediation strategy	Group	Regularly applied	Occasionally	Rarely/Never	Total	χ^2	p	V
Active mediation (co-viewing + discussion)	Educators	78 (74.3%)	22 (21.0%)	5 (4.8%)	105	8.921	0.012	0.209
	Parents	58 (58.0%)	32 (32.0%)	10 (10.0%)	100			
Restrictive mediation (time/content limits)	Educators	62 (59.0%)	28 (26.7%)	15 (14.3%)	105	6.543	0.038	0.179
	Parents	71 (71.0%)	18 (18.0%)	11 (11.0%)	100			

Differences in perceptions according to selected sociodemographic variables

In addition to differences between educators and parents, descriptive comparisons were conducted to explore whether selected sociodemographic characteristics were

associated with variations in respondents' perceptions of media effects. Although the primary focus of the study was on group differences between educators and parents, several relevant tendencies were observed. Among educators, longer professional experience was associated with more critical assessments of the impact of entertainment media content and excessive screen time on children's social and communicative development. Educators with fewer years of experience more frequently reported neutral evaluations of media effects.

Among parents, higher educational attainment was associated with more frequent recognition of both the positive effects of educational media content and the potential risks of excessive screen exposure. Parents with lower levels of formal education more often reported uncertainty or neutral positions regarding media influence. No substantial differences were observed between respondents' from urban and rural environments in their general assessment of educational media content; however, parents from urban settings more frequently reported the use of active mediation strategies compared to those from rural areas. These tendencies should be interpreted cautiously, as the study was not primarily designed to test sociodemographic predictors of perceptions, but they nevertheless suggest that educational level and professional experience may play a moderating role in shaping attitudes toward children's media use.

DISCUSSION

The discussion that follows interprets differences in respondents' perceptions rather than differences in objectively measured developmental outcomes. The present study examined differences in how preschool educators and parents perceive the impact of media exposure on children's cognitive and communicative development. The findings are discussed below in relation to the formulated hypotheses, while maintaining a clear distinction between the perceptual nature of the data collected and the empirically established effects reported in prior research. All conclusions refer to what respondents' estimate and perceive, not to directly measured developmental outcomes. The findings are organised in relation to the six formulated hypotheses, which correspond to the five research questions guiding the study.

H1 and H2 – Perceived effects of media content type on cognitive and communicative development – received support from both groups, with parents holding a more positive view than educators. The finding that 65% of parents, compared to 44% of educators, perceive educational content as positively influencing cognitive

development is consistent with the pattern documented by Kuzmanović and Popadić (2016) in a Serbian study of 400 respondents', where parents' assessments of media benefits were systematically more optimistic than those of educators. A plausible explanation lies in the difference in context: parents observe individual change in their own child, often attributing visible progress to media use, whereas educators observe groups of children across longer periods and apply more systematic professional criteria. This contextual disparity has been noted in the broader mediation literature (Nikken & Schols 2022), and it underscores the importance of professional training in critical media literacy for both groups.

The large and significant difference in perceptions of educational content and language development ($V = 0.480$) – with 67% of parents perceiving a significant positive impact compared to only 18% of educators – merits particular attention. Rather than indicating that one group is correct and the other mistaken, this divergence reflects genuinely different observational frameworks. Parents frequently report noticing new words or phrases in their children's speech that they associate with viewed content, a subjective observation that is difficult to validate but is phenomenologically meaningful (Fisch 2004). These observations reflect parental interpretations of developmental change rather than directly measured language outcomes and should therefore be understood as indicators of perceived influence rather than confirmed effects. Educators, by contrast, assess language in relation to age-appropriate norms across children with varying exposure histories, and are therefore likely to be more conservative in attributing developmental progress to any single factor. This finding aligns with Linebarger and Walker's (2005) argument that the educational impact of media on language is highly dependent on content quality, dialogic embedding, and the presence of an adult mediator – conditions that are more likely to be met in structured institutional settings than in unsupervised home use. Shawcroft et al. (2023) further showed, in a longitudinal study, that structured parental media rules are associated with lower rates of problematic media use in early childhood, indicating that the organisational dimension of adult involvement is as consequential as its instructional dimension.

H3 received only partial support. Research Question 2 asked how parents and educators perceive the social development of children in relation to the type of media content they are predominantly exposed to. Hypothesis H3 was formulated to operationalise this question. The study did not include a direct comparative measure of perceived social skills across groups defined by content-type exposure; this represents an inherent limitation of the research design. Nevertheless, the consistently more crit-

ical assessments by educators of passive and entertainment content (Table 2) are indirectly consistent with the direction of H3, suggesting that respondents' associate passive media exposure with less favourable developmental outcomes. The study cannot establish whether children exposed to active media actually demonstrate more developed social skills in practice, and this hypothesis should be tested more directly in future research through instruments that explicitly compare perceived developmental outcomes across different content-type exposure profiles.

H4 and H5 – addressing perceived effects of excessive screen time – received strong support from educators, with more moderate agreement from parents. The finding that 75.2% of educators, compared to 55.0% of parents, perceive excessive screen time as significantly diminishing children's social skills reflects a pattern consistent with respondents' awareness of risks documented in the regional and international literature rather than direct evidence of developmental effects within the present sample. Christakis et al. (2004) found that early exposure to television was associated with attentional problems at age 7, and Madigan et al. (2020) reported, in a meta-analysis of studies involving over 40,000 children, an association between high screen time and delayed language development. These findings are cited here as contextual support for interpreting respondents' perceptions, not as empirical confirmation within the present study. Neumans' (1995) substitution hypothesis provides a complementary theoretical framework that may help explain why respondents' perceive excessive screen time as developmentally unfavourable. It is important to note that these empirical associations, derived from longitudinal and observational studies, concern measured developmental outcomes, whereas the present findings reflect the estimated perceptions of educators and parents. The convergence between respondents' perceptions and empirically documented risks is nonetheless noteworthy and suggests that both groups possess meaningful practical knowledge about these associations, even if their formal understanding of the research evidence may vary.

H6 – perceptions of active mediation as developmentally relevant – received support from both groups. The statistically significant difference in the frequency of active mediation between educators (74.3%) and parents (58.0%) is consistent with Nathanson and Rasmussen's (2011) finding that active mediation attenuates the negative effects of media exposure. Strouse et al. (2013) provided experimental evidence for this, demonstrating that dialogic co-viewing significantly enhances preschoolers' learning from video content compared to unmediated viewing. The more frequent application of active mediation in institutional settings is likely attributable not only to professional knowledge, but also to structural factors: educators operate within a

regulated curricular framework, while parents more often operate under time pressure with less access to professional guidance. The relatively high reported frequency of restrictive mediation among parents (71.0%) compared to educators (59.0%) reflects these contextual differences. It should be noted that the perception of active mediation as more developmentally relevant than restrictive mediation – evident in respondents' evaluations across both groups – is based on descriptive assessment rather than a formal statistical comparison between the two strategies, and should be interpreted accordingly.

Taken together, the results confirm that both groups perceive media exposure as a factor with significant developmental implications, and that the type of content and the quality of adult mediation are seen as decisive moderators. These perceptual findings are meaningful as a starting point for intervention: programmes aimed at harmonising approaches between parents and educators, improving media literacy, and promoting co-viewing and active discussion strategies are likely to address the gaps identified in this study. This interpretation reflects respondents' evaluations of mediation strategies rather than direct measurement of their effectiveness in shaping developmental outcomes.

Methodological Limitations

Several important limitations must be considered when interpreting these findings. First, the research is based entirely on self-reported perceptions, not on direct developmental assessments of children. Respondents' estimates of media effects reflect their subjective interpretations, which may be influenced by social desirability, prior beliefs, or selective attention to confirming evidence. The data therefore cannot support causal conclusions about the actual relationship between media exposure and child development.

Second, the study employed a cross-sectional design and purposive-convenience sampling, limiting the generalisability of findings to the broader population of educators and parents in Serbia or the region. The sample was not randomly selected, and the voluntary nature of participation may have introduced selection bias in the direction of respondents' with stronger prior views about media use.

Third, the absence of systematic response rate tracking – a consequence of the anonymous electronic distribution method – precludes an assessment of potential non-response bias. It is possible that respondents' who chose to participate hold more pronounced views on the topic than non-respondents.

Fourth, the internal reliability estimates reported for the instruments are provisional, having been obtained without full psychometric validation. Construct validity of the questionnaires has not been formally established, meaning that the dimensions identified may not constitute independent psychological constructs. Future studies should conduct confirmatory factor analysis prior to scale deployment.

Fifth, sociodemographic variables (age, educational level, years of experience, rural vs. urban setting) were described but not systematically incorporated into the comparative analyses, as the primary focus was on group-level differences between educators and parents. Future research should examine whether these variables moderate perceptions of media effects.

These limitations notwithstanding, the study provides an empirically grounded and contextually relevant account of perceptual differences between two key mediating groups in preschool children's media environments – a topic that remains underexplored in the regional literature. Future research should systematically examine the predictive role of sociodemographic variables such as parental education level, professional experience of educators, and urban–rural differences using multivariate analytical approaches.

Practical Implications

The findings carry concrete implications for practice and educational policy. First, the significant gap between parental and educator perceptions – particularly regarding the effects of educational content on language development – points to the need for structured channels of communication between families and preschool institutions. Regular joint information sessions in which educators share their professional observations with parents could help calibrate parental expectations and promote more intentional media use at home.

Second, given the high proportion of educators and parents who perceive passive entertainment content and excessive screen time negatively, but who nevertheless report inconsistent application of mediation strategies (particularly among parents), professional development programmes focused on practical mediation skills are warranted. Such programmes should be grounded in evidence-based guidelines (AAP, 2016; WHO, 2019) and adapted to the sociolinguistic and cultural context of the Western Balkans.

Third, the regional context underscores the need for high-quality, age-appropriate digital educational content in Serbian, Bosnian, and Croatian languages, as the availability of locally relevant content conditions the extent to which educators and parents

can exercise meaningful content selection. Investment in domestic educational applications and preschool media programmes represents a structural prerequisite for realising the potential of media as a developmental resource.

CONCLUSION

The results provide support for most of the five research questions and six corresponding hypotheses, while Hypothesis H3 received only partial support due to the absence of a direct comparative measure of perceived social skills across content-type exposure groups - a limitation inherent to a study design based on self-reported perceptions rather than directly measured developmental outcomes, and one that points to a clear direction for future research. A consistent pattern across all dimensions was the finding that educators reported more critical and more consistent perceptions than parents regarding the developmental implications of children's media exposure. This divergence reflects the different contexts from which each group observes children's development - institutional and professional versus familial and relational - and does not in itself indicate that one group's perceptions are more accurate than the other's.

The most practically significant finding is the discrepancy between the perceived importance of active mediation and its actual application frequency, particularly among parents. This gap between perceived importance and reported practice suggests that awareness of recommended mediation strategies does not necessarily translate into their consistent implementation. These perceptual differences between educators and parents represent an important starting point for designing coordinated media literacy interventions in both institutional and family contexts.

As a perceptual study, the findings of this research are subject to the inherent limitations of self-report data and non-probability sampling. Future research in this domain should employ mixed-method designs, combining survey data with behavioural observation and direct developmental assessment, and should incorporate longitudinal elements to track how perceptions and practices evolve alongside children's development. The integration of sociodemographic variables as moderators would further enrich the analysis. The present study offers a conceptually grounded and empirically documented contribution to a still underexplored field in the regional literature, and provides a foundation for both further inquiry and evidence-informed practice. As the study examined perceptions rather than directly measured developmental outcomes, the findings should be interpreted as indicators of how key adult mediators understand children's media environments rather than as evidence of causal media effects.

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PERCEPCIJE RODITELJA I VASPITAČA O UTICAJU MEDIJSKE IZLOŽENOSTI NA KOGNITIVNI I KOMUNIKACIJSKI RAZVOJ DJECE PREDŠKOLSKOG UZRASTA

Sažetak:

Savremeno djetinjstvo karakterizira intenzivna izloženost medijima, koja istovremeno nosi razvojne mogućnosti i rizike. Cilj ovog istraživanja bio je ispitati kako roditelji i vaspitači u Srbiji percipiraju uticaj različitih vrsta medijskih sadržaja na kognitivni i komunikativni razvoj djece predškolskog uzrasta, s posebnim naglaskom na razlike u percepcijama između ove dvije grupe. Istraživanje je provedeno na uzorku od 205 ispitanika – 105 vaspitača i 100 roditelja djece uzrasta od 3 do 6 godina iz različitih regija Srbije. Za potrebe istraživanja konstruirana su dva originalna upitnika – Upitnik za vaspitače (28 ajtema) i Upitnik za roditelje (22 ajtema) – pri čemu su oba koristila petostepenu Likertovu skalu. Podaci su obrađeni metodama deskriptivne statistike i Pearsonovim hi-kvadrat testom nezavisnosti, dopunjenim Cramérovim V kao mjerom veličine efekta. Rezultati pokazuju da ispitanici obrazovne i interaktivne medijske sadržaje percipiraju kao pozitivno razvojno djelovanje, dok se pasivni i zabavni sadržaji u obje grupe dovode u vezu s negativnim percepcijama. U svim mjerenim dimenzijama utvrđene su statistički značajne razlike u percepcijama između vaspitača i roditelja ($p < 0,05$), pri čemu vaspitači zauzimaju kritičniji stav. Nalazi ukazuju na potrebu razvoja programa medijske pismenosti i usklađivanja pristupa između porodice i predškolskih ustanova.

Ključne riječi: izloženost medijima; predškolski uzrast; percepcije; kognitivni razvoj; komunikativne vještine; roditeljska medijacija; obrazovni sadržaji

Authors' address

Adrese autora

Mina Mavrić

University of Novi Pazar

Department of Pedagogical and Psychological Sciences

mina.mavric@uninp.edu.rs

Ibro Skenderović

University of Novi Pazar

Department of Pedagogical and Psychological Sciences

i.skenderovic@uninp.edu.rs

Jasmina Kurpejović

University of Novi Pazar

Department of Pedagogical and Psychological Sciences

jasmina.kurpejovic@uninp.edu.rs

Semra Selimović

University of Novi Pazar

Department of Pedagogical and Psychological Sciences

semra.selimovic@uninp.edu.rs