

# Challenges and Strategies of Parent–Child Communication in the Digital Age: An Empirical Study Based on Social Media Use

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## Abstract

With the rapid proliferation of internet technology, mobile devices and social media, the ways in which parents and children communicate have undergone profound changes in the digital age. Social media offers family members real-time interaction platforms, but also brings issues such as information overload, distraction of attention and privacy concerns. Based on an integrated theoretical framework drawing from education, psychology and sociology, this paper employs questionnaires, interviews and statistical analysis to explore the challenges posed by social media use to parent–child communication and the corresponding strategies. The study finds that (1) although the overall frequency of parent–child communication has increased in digital contexts, the depth of interaction has decreased, manifesting in more information exchange but less emotional connection; (2) parental educational philosophies, media literacy and rules governing social media use significantly affect the quality of parent–child relationships; (3) unequal use of educational resources on social media intensifies educational anxiety, and parental anxiety is significantly positively correlated with parent–child conflict; and (4) joint participation, setting rules and improving media literacy are effective strategies for mitigating communication difficulties in the digital age. On this basis, the paper proposes establishing a “digital co-education” model, improving educational support systems and strengthening digital ethics education, with the aim of providing guidance for family education practice and optimization of parent–child relationships in the new era.

## Keywords

Digital age; parent–child communication; social media; family education; media literacy; educational anxiety.

## 1. literature review

### 1.1. Definition of Parent–Child Communication in the Digital Age

“Parent–child communication in the digital age” refers to the exchange of information, emotional interaction and educational activities among family members through various online and offline channels in the context of widespread use of the Internet and mobile media. This includes not only traditional face-to-face communication but also instant messaging, photo and video sharing and joint online learning via social media such as WeChat, Weibo, Instagram and TikTok. Researchers note that digital parent–child communication is characterized by the extension of time and space (communication is not limited by time and location), fragmentation of information sharing (content tends to be brief and scattered) and the leveling of participants (children’s rights to express themselves in cyberspace are enhanced).

Early research focused mainly on the impact of the Internet on adolescents’ development, such as issues of Internet addiction and related psychological or behavioral problems. With the spread of social media, parents have also become users and “digital parent–child interaction” has become a focus. Studies show that social media changes the flow of information within

families: parents can communicate daily matters with their children through group chats and can learn about their children's lives through friends-circle posts. However, when parents lack media literacy, invasion of children's privacy and frequent monitoring can easily trigger parent-child conflicts.

## **1.2. The Impact of Social Media Use on Parent-Child Relationships**

On the positive side, the interactive and real-time nature of social media facilitates parent-child communication. Parents and children who are geographically separated can enjoy "cloud companionship" through video calls, and parents can promote joint growth by studying together with their children via online education platforms. Some studies suggest that social media increases information transparency between parents and children and raises the frequency of family interactions, which is particularly valuable for families with left-behind children. On the other hand, the challenges posed by social media are also evident:

(a) Distraction and diminished quality of companionship. Parents may frequently check their phones while spending time with their children, neglecting face-to-face conversation, resulting in the phenomenon of "phone companionship."

(b) Content risks and value conflicts. Social media contains a large amount of unsuitable content (such as violence, pornography and extremist rhetoric). Children lacking discernment skills can be negatively affected. Conflicts between parents' value systems and online culture can also lead to educational dilemmas.

(c) Blurred privacy boundaries. When parents post information about their children on social media or excessively monitor their children's social activities, it can trigger privacy violations and undermine trust.

(d) Information overload and anxiety. In a flood of information, parents are prone to social comparisons, creating educational anxiety; children may find themselves influenced by online evaluations, leading to social pressure.

## **1.3. Communication Strategies from the Educational Perspective**

From the standpoint of education, the core of family education lies in "accompanying growth." In the digital era, family education should evolve from one-way parental instruction to interactive co-learning. The democratic style of education, which emphasizes respect and listening, is well suited to the social media environment. Some scholars have proposed the model of digital co-parenting, encouraging parents and children to jointly discuss online information and establish family media-use rules, thereby reducing the generational gap through shared participation. Furthermore, media literacy education is viewed as an important means of improving family education quality. Parents need to learn how to guide their children in the rational use of social media, cultivating critical thinking and self-control abilities.

## **1.4. Attachment and Communication from the Psychological Perspective**

Attachment theory in psychology emphasizes that secure attachment provides individuals with emotional support and stress-resistance resources. Research shows that parents' emotional responsiveness, respect for children's autonomy, and sensitivity to emotions help maintain secure attachment in the digital environment. For example, when parents actively share their own online experiences and encourage children to express their feelings about the digital world, emotional resonance between them increases. Conversely, excessive control and punitive monitoring may lead children to resist or seek identity validation in the online world, resulting in a form of "network attachment."

## **1.5. Structure and Culture from the Sociological Perspective**

Sociology focuses on how digital technologies reshape family structures and cultures. Only-child families often exhibit "over-involvement" and "high expectation" tendencies, which are

intensified by social media use. In multi-generation households, intergenerational conflicts take new forms—for instance, grandparents who lack digital literacy may struggle to understand children's social behaviors. Social transformation has also weakened social support systems, placing the burden of family education mainly on parents. Scholars who emphasize social responsibility advocate for cooperative community education, school–family partnerships, and broader social collaboration to create a supportive environment for family education.

In summary, existing research provides valuable insights into understanding parent–child communication in the digital era, yet limitations remain. Empirical studies on the specific role of social media in family education are still insufficient, and research on the interaction between family education concepts and media literacy variables is limited. Building on this foundation, the present study develops an integrated model to explore in depth how social media use affects the quality of parent–child relationships and proposes targeted strategies for improvement.

## 2. Theoretical framework

Based on the above literature review, this study constructs a “Parent–Child Communication Influence Model in the Digital Era.”

The model includes the following main variables:

**Family Educational Philosophy:** Parents' cognition of educational goals and methods, categorized into traditional achievement-oriented and modern development-oriented types.

**Media Literacy Level:** The ability of both parents and children to filter, evaluate, and create information on social media.

**Social Media Use Patterns:** The frequency, content, and forms of parent–child interaction through social media, including messaging, sharing posts/moments, and participating together in online activities.

**Parent–Child Communication Quality:** The depth of communication content, emotional resonance, accuracy of information transmission, and level of satisfaction.

**Educational Anxiety:** The degree of parental concern about children's academic performance and social competition.

**Parent–Child Relationship Quality:** Indicators such as intimacy, frequency of conflict, trust, and satisfaction.

**Model Hypotheses:**

H1: Social media use patterns influence the quality of parent–child relationships through the mediating effect of communication quality.

H2: Family educational philosophy moderates the way media is used within families.

H3: Media literacy positively moderates the relationship between social media use and parent–child communication quality.

H4: Educational anxiety mediates the relationship between family educational philosophy and parent–child relationship quality.

H5: Socioeconomic status (SES) affects family media literacy and educational philosophy.

## 3. Research methods

### 3.1. Research Design

This study adopts a mixed-methods design, incorporating both quantitative surveys and qualitative interviews. Quantitative data are used to test the proposed model hypotheses, while qualitative interviews provide supplementary insights into the nuances and emotional experiences within the communication process.

### 3.2. Sample Selection

The research subjects consist of 200 families from a city in northern China. To ensure diversity, a stratified random sampling method was employed, including both one-child and multi-child families from different socioeconomic backgrounds. The children's ages range from 6 to 16 years, allowing an examination of parent-child communication differences across primary to high school stages.

Table 1. Basic Information of the Sample (N = 200)

Item	Category	Frequency (n)	Percentage (%)
Child's Gender	Male	104	52
	Female	96	48
Parents' Occupation	Government/ Public Institution Employee	68	34
	Enterprise Employee	82	41
	Self-employed/ Freelancer	50	25
Parents' Educational Level	Associate Degree or Below	44	22
	Bachelor's Degree	112	56
	Master's Degree or Above	44	22

Note: Data were obtained from the author's field survey of 200 families in a city in northern China in 2024. The gender ratio of children is approximately 1:1, and the distribution of parental occupation and education level is representative.

### 3.3. Quantitative Instruments

#### Parental Education Concept Scale (PECS)

Adapted from previous studies, this scale includes four dimensions: achievement orientation, holistic development, democratic participation, and traditional authority. It contains 20 items rated on a 5-point Likert scale.

#### Media Literacy Scale (MLS)

This scale measures information evaluation ability, media use norms, and privacy protection awareness, with 15 items in total.

#### Social Media Use Inventory (SMUI)

Designed to assess frequency of use (times per day), usage purposes (entertainment, learning, social interaction), and interaction types (information exchange, emotional sharing, joint activities).

#### Parent-Child Communication Quality Scale (PCCQS)

Evaluates communication openness, listening and understanding, and conflict resolution, consisting of 25 items.

#### Educational Anxiety Scale (EAS)

Based on existing research, this scale measures three dimensions: academic anxiety, comparative anxiety, and control anxiety, with 12 items.

### Parent–Child Relationship Scale (PCRS)

Assesses intimacy, trust, and conflict frequency, with 15 items.

All scales demonstrated good reliability and validity in the pilot study, with Cronbach's  $\alpha$  coefficients above 0.80.

### 3.4. Qualitative Interviews

The qualitative component involved 20 families who voluntarily participated in interviews after completing the questionnaire. These families represented diverse educational philosophies, media use habits, and socioeconomic statuses (SES). The semi-structured interviews focused on the following themes:

Daily use of social media among family members;

The content and emotional experience of parent–child communication via social media;

Difficulties and conflicts encountered in digital communication;

Parental strategies for managing and guiding children's social media use;

External support desired by families.

Each interview lasted approximately 60 minutes. Transcripts were analyzed using thematic analysis, with coding and categorization conducted systematically.

### 3.5. Data Analysis

Quantitative data were analyzed using SPSS 27.0, applying descriptive statistics, correlation analysis, regression analysis, and Structural Equation Modeling (SEM) for hypothesis testing.

Qualitative data were coded and categorized using NVivo 12.0, identifying emerging themes and interaction patterns.

## 4. Empirical results

### 4.1. Descriptive Statistics and Reliability Test

Cronbach's  $\alpha$  coefficients were calculated for each scale. Results indicated high reliability across all instruments: • Parental Education Concept Scale:  $\alpha = 0.88$  • Media Literacy Scale:  $\alpha = 0.85$  • Social Media Use Inventory:  $\alpha = 0.82$  • Parent–Child Communication Quality Scale:  $\alpha = 0.90$  • Educational Anxiety Scale:  $\alpha = 0.83$  • Parent–Child Relationship Scale:  $\alpha = 0.87$  All exceeded the accepted reliability threshold ( $\alpha > 0.80$ ). The mean and standard deviation of the main variables are shown in Table 2.

Variable	Mean (M)	Standard Deviation (SD)
Parental Education Concept	3.78	0.54
Media Literacy Level	3.65	0.61
Social Media Use Frequency	4.20	0.72
Parent–Child Communication Quality	3.92	0.47
Educational Anxiety	3.10	0.65
Parent–Child Relationship Quality	4.05	0.42

Overall, the mean value of parental education concept was relatively high, suggesting that most families in the sample embrace modern educational philosophies. Media literacy levels were moderately high, and the high frequency of social media use indicates that digital communication has become a primary mode of interaction. Both parent–child communication quality and relationship quality were rated highly, although educational anxiety remained present to a certain extent.

### 4.2. Correlation Analysis

Pearson correlation analysis was conducted to examine relationships among the variables. Results revealed that: • Parental education concept was positively correlated with parent–child relationship quality ( $r = 0.53$ ,  $p < 0.01$ ). • Media literacy level was positively correlated with parent–child relationship quality ( $r = 0.48$ ,  $p < 0.01$ ). • Social media use frequency showed a weak positive correlation with parent–child communication quality ( $r = 0.22$ ,  $p < 0.05$ ), though excessive use tended to lower communication quality (nonlinear relationship). • Parent–child

communication quality was highly correlated with relationship quality ( $r = 0.72, p < 0.001$ ). • Educational anxiety was negatively correlated with relationship quality ( $r = -0.45, p < 0.001$ ). Additionally, parental education concept was positively associated with media literacy ( $r = 0.59, p < 0.001^*$ ), indicating that modern educational concepts often accompany higher media literacy.

### 4.3. Regression Analysis

A multiple linear regression was conducted with parent–child relationship quality as the dependent variable and parental education concept, media literacy level, social media use, educational anxiety, and SES as independent variables.

The model explained 62% of the variance ( $R^2 = 0.62$ ), showing strong explanatory power.

Key findings include: • Parental education concept ( $\beta = 0.28, p < 0.001$ ), media literacy level ( $\beta = 0.24, p < 0.01$ ), and parent–child communication quality ( $\beta = 0.45, p < 0.001$ ) all had significant positive effects on relationship quality. • Educational anxiety ( $\beta = -0.32, p < 0.001$ ) had a significant negative effect. • SES did not directly affect parent–child relationship quality but was positively correlated with media literacy. These results indicate that educational philosophy, media literacy, and communication quality are key determinants of the quality of parent–child relationships in the digital era.

### 4.4. Structural Equation Modeling (SEM) Analysis

To further test the hypotheses, a Structural Equation Model (SEM) was built to examine how social media use influences parent–child relationship quality through communication quality and the moderating roles of educational concept and media literacy.

The model showed good fit indices:  $\chi^2/df = 2.56$ , RMSEA = 0.062, CFI = 0.93, TLI = 0.91.

Results revealed that: • The direct effect of social media use on relationship quality was not significant. • The indirect effect, mediated by parent–child communication quality, was significant. • Media literacy positively moderated the relationship between social media use and communication quality — higher media literacy strengthened the positive effect. • Educational anxiety partially mediated the relationship between parental education concept and relationship quality.

### 4.5. Qualitative Interview Findings

Interviews with 20 families were transcribed and coded, yielding four major themes:

(a). “Screen Dependence” Phenomenon:

Most parents admitted difficulty in detaching from their phones during family time, often scrolling through social media while spending time with their children, leading to distracted interactions. Children also complained, saying, “My parents don’t listen; they’re always on their phones.”

(b) . Privacy and Trust Dilemmas:

Many parents shared photos or updates about their children on social media, which children found intrusive. Some parents monitored their children’s chat histories or social posts, showing a lack of respect for privacy. Consequently, children felt mistrusted and created “private accounts” or migrated to alternative platforms.

(c) . Digital and Knowledge Gaps:

Intergenerational differences in digital competence caused communication barriers. Parents often struggled to understand online slang or youth culture, leading to conversational distance. Grandparents, unfamiliar with digital tools, were unable to assist or guide, leaving most responsibilities to parents or external institutions.

(d). Co-Parenting Strategies in the Digital Era:

Some families experimented with joint digital participation to enhance communication. They watched educational videos together, discussed trending topics, and set family media-use agreements — such as no phones during meals or no screen time 30 minutes before bedtime. Parents reported that these practices improved interaction quality.

Families also expressed a desire for external guidance, including parent-training workshops and community lectures, to strengthen their understanding of social media and digital education. This finding aligns with prior literature emphasizing the importance of social support systems in modern family education.

## 5. Discussion

**The Complex Relationship Between Social Media Use Frequency and Parent–Child Relationships** The findings reveal a nuanced relationship between social media use frequency and parent–child relationships. When used moderately and with healthy content, social media can serve as a facilitating tool for parent–child communication, increasing opportunities for interaction. However, excessive use—especially when dominated by entertainment or aimless browsing—can distract attention and reduce meaningful communication.

The fragmented and superficial nature of social media often leads to shallow exchanges: parents and children get accustomed to interacting through emojis or brief messages, which over time erodes the depth of emotional connection and the quality of dialogue.

**The Critical Role of Media Literacy** Media literacy affects not only an individual’s ability to evaluate information but also determines whether a family can use social media constructively. This study found that higher levels of media literacy amplify the positive impact of social media on communication quality.

This suggests that media literacy should become a core component of family education. Parents must enhance their own media competence and actively guide their children to think critically, filter information, and practice self-protection online. Schools and social institutions should also offer media literacy programs and parent workshops, helping parents understand both the opportunities and risks of digital communication.

**The Moderating Roles of Educational Philosophy and Educational Anxiety** Modern educational philosophy emphasizes child-centered development, encouraging holistic growth and diverse evaluation. However, many families remain influenced by traditional exam-oriented thinking, focusing excessively on grades while neglecting emotional and social development—thereby increasing parental educational anxiety.

Such anxiety often drives parents to use social media for comparison or information-gathering—monitoring other children’s academic achievements or extracurricular activities—which, in turn, heightens stress and indirectly pressures their own children, leading to conflicts. Reducing educational anxiety requires both conceptual transformation and structural support—for instance, alleviating school admission pressures and ensuring fair distribution of educational resources.

**The Bridging Role of Communication Quality** Regardless of technological changes, the quality of communication remains the central factor shaping parent–child relationships. This study confirms that communication quality mediates the relationship between social media use and parent–child relationship quality.

Effective communication helps bridge the emotional distance caused by media use. By listening empathetically and providing feedback, parents can build trust and emotional resonance. They should share their own digital experiences, discuss online challenges with their children, and jointly establish reasonable media-use rules, allowing children to feel both respected and involved.

**Limitations and Future Directions** This study's sample was drawn from one city in northern China, which may limit regional generalizability. The data are cross-sectional, preventing causal inference. Additionally, the rapid evolution of social media platforms may produce varying effects across contexts.

Future research should include larger and more diverse samples, adopt longitudinal designs, and integrate behavioral or physiological data (e.g., eye-tracking or digital footprint analysis) to better capture the dynamics of digital communication.

Moreover, special populations—such as left-behind children, single-parent families, and migrant households—warrant further exploration to understand the distinctive features of their digital parent-child interactions.

## 6. Strategic Recommendations

**Building a “Digital Co-Parenting” Model** Families, schools, and communities should form a collaborative educational system that jointly addresses the impact of digital technology on family relationships.

Schools can host “Digital Parenting Classes” to teach parents effective ways to manage social media. Communities can organize “Digital Co-Parenting Workshops” for experience sharing and expert guidance. Within families, parents and children should jointly explore online content, learn new digital skills together, and co-create media-use rules, emphasizing accompanied supervision instead of authoritarian control.

**Strengthening Media Literacy Education** Media literacy education must become integral to both family and school curricula.

Parents should update their perceptions—understanding that media literacy extends beyond technical proficiency to include ethical awareness, value judgment, and self-protection.

Educational authorities are encouraged to develop national curriculum guidelines on media literacy for parents and students.

Media platforms should also assume social responsibility by providing family-friendly and youth-safe modes, supporting parents in managing their children's online behavior.

**Establishing Family Media Contracts** A family media contract is a collaboratively developed agreement that defines media-use rules within the household.

It can specify:

daily screen time limits, no-device zones (e.g., during meals or before bedtime), and consent-based information sharing. The process of negotiating the contract itself fosters communication, teaching children responsibility and self-regulation. Parents must also model adherence to these rules to reinforce credibility and consistency.

**Reducing Educational Anxiety** Educational anxiety stems largely from social competition and inequitable resource distribution.

At the family level, parents should shift from achievement-oriented to growth-oriented mindsets, focusing on long-term development rather than short-term grades.

At the policy level, the government should ensure educational equity and balance access to quality resources to reduce systemic stressors.

Socially, a rational public discourse about education should be cultivated to counter the trend of competitive comparison and overtraining.

**6.5. Strengthening Psychological Support Systems** The challenges of digital-era parenting are not only technological but also psychological.

Families, schools, and communities should build integrated mental health support networks to monitor and address emotional well-being among both parents and children.

Practical measures include family counseling sessions, psychological workshops, and school-based emotional education, which promote self-awareness, emotional regulation, and relational resilience.

## 7. Conclusion

In the digital era, social media has revolutionized communication but simultaneously introduced new challenges for family interaction.

Based on empirical research involving 200 families from northern China, this study found that educational philosophy, media literacy, social media usage patterns, and educational anxiety significantly influence the quality of parent–child relationships.

Social media exerts both positive and negative effects on relationships—the determining factor lies in the quality of communication and emotional connection. Promoting media literacy, fostering digital co-parenting, establishing family media contracts, alleviating educational anxiety, and enhancing mental health support are practical and effective strategies for navigating these challenges.

The family remains the first classroom of life, and the success of family education in the digital age directly affects children’s mental health and social adaptability. As surveys (e.g., sdkcpa.com) suggest, most families recognize the impact of digital technology on communication. However, transforming challenges into opportunities requires collaboration among families, schools, communities, and policymakers.

Future research should explore cross-cultural and cross-family differences in digital communication and investigate how technological innovation and educational reform can jointly contribute to building harmonious parent–child relationships and a healthy digital ecosystem.

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