

Position paPier

# Digital media and early childhood

Research status,  
effects and  
recommendations



GAIMH  
GERMAN SPEAKING ASSOCIATION FOR  
INFANT MENTAL HEALTH

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State of research, effects  
and recommendations

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# 1 Summary

Screen media are increasingly shaping the everyday lives of families. Concerns about the influence on the physical, socio-emotional and cognitive development of children from 0 to 3 years are increasing. Due to pandemic-related limitations, screen time has also increased among kindergarten children (DJI study, see Feil, 2014). Although the studies on screen media for children from 0 to 3 are still incomplete and inconsistent in places, it is becoming apparent that the development of children as a whole is endangered by screen media consumption that is excessive in terms of time, unsuitable in terms of content, and problematic in terms of its function. For a healthy development of children, direct encounters with sensitive people and the comprehension of the real world with all senses are still indispensable.

For parents, digital media can not only be helpful tools in a professional context, but can also be a resource for coping with everyday family life when used in a measured and targeted manner. However, two areas of risk are also apparent here: on the one hand, the distraction of parents, technofence, which can have a negative effect on the parent-child relationship, for example; on the other hand, the use of digital media in the educational context for a number of different purposes, e.g., as a digital babysitter or as a means of punishment or reward. This may have a short-term relieving effect, but does not contribute to emotional maturation and psychosocial development in the long term (Chaudron, 2015).

Media use paths are shaped in early childhood and are much more difficult to change later. Expectant parents and parents with children from 0 to 3 years of age should be informed early on about the importance of using digital media, i.e., in prenatal classes, playgroups, daycare centers, kindergartens, and other contexts. Filling existing structures with new content is successful.

more promising (Frieden, 2010) than efforts to change the behavior of individuals. So if we succeed in making the importance of using digital media an issue from the outset, the greatest successes can be expected.

The GAIMH therefore recommends bringing the topic into public awareness. The aim is not to criticize parents, but to inform them about the various ways digital media can influence children's development and to discover their own resources and alternatives for a media-free/media-reduced everyday life. For this purpose, professionally supported contacts of professionals and parents with young children are suitable. Reflection and change can begin on the basis of a trusting relationship between parents, child and professional support.

All professionals in the field of early childhood who work in guidance, counseling, and therapy should therefore address this topic in their training, continuing education, and continuing education programs. Personal media biographies and reflection on one's own use of digital media, both privately and professionally, are a suitable starting point for this.

For children aged 0 to 3 years and their parents, the current data on the impact of digital media use is comparatively thin, so that further studies on the influences of direct and indirect use of screen media are necessary, supplemented by intervention studies that examine and compare the effectiveness of different support and counseling services.

At the policy level, there should be a ban on the promotion of screen media products whose claimed developmental and educational benefits have not been substantiated by qualified scientific research.

## 2 introduction

As the Society for Mental Health in Early Childhood, we want to contribute to a critical examination of the topic of screen media use with this position paper. This concerns the direct use of digital media by children from 0 to 3 years and the use in the presence of children. As an interdisciplinary professional society, we address all professions and decision-makers involved in early childhood, starting with conception and pregnancy.

Screen media, increasingly including tablets and smartphones, are now part of the basic equipment not only of every household, but also of almost every adult. In 2019, 93% of all young people and 99% of all households in Germany owned a smartphone, 96% of all households owned a television and 63% owned a tablet (Feierabend et al., 2020). The situation in Austria (Saferinternet.at, 2020) and Switzerland (Waller et al., 2019) is comparable. Studies show that children under the age of 4 also come into contact with digital media (Feierabend, Plankenhorn & Rathgeb, 2015). The operation of tablets and smartphones is intuitive, so that children under the age of 3 are already able to perform fine-motor simple activities such as swiping and unlocking on these devices (Ahearne et al., 2015). Although no representative data are available for the younger age group of 0 to 3 years, studies show that younger children are dominated by receptive use of screen media (video, film) over interactive use (apps, computer games), while the reverse is true for older children.

The increasing digital penetration of all areas of life has meant that access to smartphones and tablets has become easy for parents and children. Due to the pandemic-related restrictions

The time spent on screens by kindergarten children has increased as a result of the global economic crisis (DJI study, see Feil, 2014; Saferinternet.at, 2020; Bernath, Waller & Meidert, 2020). This is particularly true for disadvantaged social groups. Help systems report an increase in problematic developmental trajectories among children from 0 to 3 years of age. Future research will focus on the contribution of digital screen media to this development.

The home office represents an additional new reality, the effects of which still need to be explored.

The pervasiveness of screen-based media in everyday family life has confronted parents and professionals with new situations and questions about appropriate parenting not only since the beginning of the pandemic: How much time are children allowed to spend with screen-based media and how does this affect their development? How do parents and professionals themselves deal with these media and for what reasons do they themselves and their children use screen media? How is the relationship and bonding quality between parents and children from 0 to 3 years influenced by this? What strategies are effective in the long term for limiting the consumption of screen media in families to a level that does not disrupt development? And how can professionals provide guidance to parents?

The debate about digitization and the pervasiveness of digital media in private and social life is caught between euphoria about new, unimagined opportunities, especially educational opportunities, and fears and even cultural pessimism. At the same time, the confrontation with new cultural technologies, from writing to the book and the television set to the current digital media, is one of the ever new tasks of humanity.

The present document deals with the above-mentioned questions from a transdisciplinary, pondering-critical perspective. The current state of studies from the perspective of various disciplines, such as media effects research, developmental psychology, bin- dation research and neuropsychology, is presented in conjunction with the many years of experiential knowledge of practitioners from GAIMH. Where possible, resulting solutions are formulated, supplemented by suggestions and recommendations for practice. The considerations concentrate on the time from the beginning of pregnancy to the third year of life. If necessary, higher ages are also considered. The behavior of the parents is also considered in view of the dependence of the children.

The overview of the state of research on the influences of the use of digital media on child development includes studies that refer to normally developed children. It is beyond the scope of this contribution to discuss studies on the use of screen media for children with special needs.

### 3 Media equipment and Media exposure

In order to be able to adequately assess research results on influences of screen media use, some framework information on media equipment and media exposure in German-speaking countries shall be described first:

In Germany, the Medienpädagogische Forschungsverbund Süd- west (MPFS) regularly conducts representative studies on the media usage behavior of children and young people. The miniKIM study focuses on 2 to 5-year-old children, the KIM study on 6 to 13-year-olds and the JIM study on young people aged 12 to 19. As part of the miniKIM study, a total of 623 parents were surveyed in 2020 about the media usage behavior of their 2- to 5-year-old children (Kieninger et al., 2021). According to the survey, almost all households had at least one television set, one computer and one cell phone or smartphone. Although 2- to 3-year-old children themselves still own a manageable range of devices, this number increases with age and has also increased very significantly among 2- to 3-year-olds since 2014, for example, from 3% to 15% for children's computers, from 2% to 10% for tablet PCs, and from 2% to 11% for TV. Over the same period, total screen time has also almost doubled to 68 minutes in 2020 compared to 2014, although this should not be over-interpreted as the increase is likely to be partly due to the special situation caused by pandemic-related restrictions. A comparison of equipment rates across ages can be seen in Table 1.

These equipment rates are also reflected in the use of digital media: According to parents, digital games on a PC/console, cell phone/smartphone or tablet, for example, took up 2 minutes a day.

table 1  
Own device ownership of children and adolescents in comparison

	miniKiM 2020		KiM 2020	JiM 2020
	2-3 J.	4-5 J.	6-13 J.	12-19 J.
CD/MP3/...Player	13%	20%	38%	n.a
Game console	1%	8%	41%	42%
Children's computer	15%	23%	14%	n.a
Mobile phone/smartphone	3%	5%	50%	94%
Computer/Laptop	n.a	n.a	18%	72%
TV set	11%	16%	34%	50%
Tablet PC	10%	18%	9%	38%

Notes:  
miniKIM study: survey in 2020, N = 600 (Feierabend et al., 2015); KIM study: survey in 2020, N = 1,216 (Feierabend et al., 2021); JIM study: survey in 2020, N = 1,002 (Feierabend et al., 2020); n.a. = not available.

for 2- to 3-year-olds and 9 minutes for 4- to 5-year-olds still account for a very small proportion of usage time. In comparison, the usage time for movies was 57 minutes per day for 2- to 3-year-olds and 80 minutes per day for 4- to 5-year-olds. Especially among the younger ones, the use of digital games occurred only in exceptional cases. Alongside books as the leading medium for 2- to 5-year-olds, moving images are thus the leading medium among the screen offerings, with a clear shift from traditional television (16 minutes) to pay streaming services (16 minutes), free video portals (12 minutes) and online offerings from TV broadcasters (13 minutes), which are also received on smaller devices such as tablets and smartphones. Looking at the older children aged 5 and above, it can be seen that almost all children

watch television daily or at least once or several times a week, i.e., more often than they play outside or meet friends, although the latter activities come before television (third place) in the survey of favorite activities. Cell phones, digital games and Internet use are also firmly anchored in leisure activities. For young people, smartphones and the Internet are daily companions. They have become a matter of course for most, followed by listening to music, online videos, linear television and video streaming services (Feierabend et al., 2020, Spitzer 2021).

Despite methodological differences, the figures on media equipment and exposure - at least for children aged 4 and older - are comparable with representative studies from Switzerland. In Switzerland, the ADELE+ study looks at children aged 4 to 6, the MIKE study at 6- to 13-year-olds and the JAMES study at young people aged 12 to 19. No representative study has yet been conducted in Switzerland for children aged 0 to 3. The figures on the availability of devices in children's rooms and on device ownership by children in the various age groups are shown in Table 2. With regard to media exposure of 4- to 6-year-old children, the ADELE+ study reports that television is the most important screen-related activity in this age group, followed by a significantly lower frequency of use of video games as well as tablets and cell phones. The average screen time is 56 minutes per day (Bernath, Waller et al., 2020).

It can be stated that in Germany as well as in Switzerland, representative studies are regularly conducted regarding the media equipment and exposure of children and adolescents. Nevertheless, representative figures for the age group from 0 to 3 years are only available from far back (Feierabend, Plankenhorn & Rathgeb, 2015) or not at all (Switzerland). The available figures from Germany and Switzerland are comparable, but significantly shorter than in some other European countries (De Craemer et al., 2015).

During the pandemic, screen time for games and social media increased significantly among children and parents. However, the DAK longitudinal study covers ages 10 and older. (<https://www.dak.de/dak/download/studie-mediensucht-ergebnisse-2508664.pdf>, 2021).

**table 2**  
*Device Availability in the Children's Room (ADELE+) and Device Ownership by Children and Adolescents (MIKE & JAMES).*

	aDele+ 2018	MiKe 2019	JaMes 2018
	4-6 J.	6-13 J.	12-19 J.
Music Player (CD/Cassette)	52%	56%	n.a
Game console (fixed / portable)	2%	27%	39%/37%
Children's computer	10%	n.a	n.a
Mobile phone/smartphone	1%	47%	99%
Computer/Laptop	0	14%	73%
TV set	1%	n.a	26%
Tablet PC	2%	2%	34%

*Notes:*  
ADELE+ study: survey in 2018, N = 919 (Bernath, Waller et al., 2020); MIKE study: survey in 2019, N = 1,103 (Waller et al., 2020); JAMES study: 2018 survey, N = 1,174 (Suter et al., 2018); n.a. = not available.

## 4 development needs and development tasks

In the first three years of life, infants and toddlers are particularly dependent on sensitive interaction with their caregivers in order to develop in the best possible socio-emotional, cognitive and physical way. In the following, some of the most important processes are briefly described in order to create a basis for the classification of the findings on screen use.

Even if born on term, the infant is immature and therefore dependent on a holding, protective, nurturing, and balancing environment to support its still low **regulatory capacity**. From birth, infants bring an interest in social interactions and preferentially turn their attention to human faces as well as voices. Parents, for their part, have a universal, biologically anchored intuitive talent for communicating with the baby, which enables them to understand the baby's signals and to make themselves understood ("intuitive parenting"). However, this ability varies greatly. The baby experiences a multitude of sensory impressions and always overwhelming emotions and states of tension. The attentive and attuned parents help the baby to cope with this, and from such repeated interactions the baby's ability to self-regulate gradually develops.

The sensitive attention and attitude of the parents was also described as **containment and mentalization**. This refers to the ability of the caregiver to provide support (containment) and meaning (mentalization) to events through his or her physical and emotional presence. For example, if the baby is very tense or overwhelmed by emotions, the caregiver captures these emotions.

The baby's or toddler's emotional overload, holds it in check (containment) and puts it into a context that makes sense (mentalization). Depending on the situation, the baby's tension can be regulated down, e.g. by feeding, rocking, carrying him around or putting him to sleep. The unbearable state may subside until finally calming and well-being are achieved. These repeated experiences of co-regulation are internalized by the baby and toddler and gradually transition into the ability to self-regulate.

Sensitivity, containment and the ability of caregivers to mentalize also play an important role in the child's developing attachment in the first years of life. Children who can turn to an emotionally available caregiver predominantly develop a secure attachment. It is now well established that secure attachment is essential to the healthy physical and psychological development of children (Grossmann, Grossmann & Waters, 2006). Securely attached children later have an easier time emotionally processing stressful events and show better cognitive performance (Weinfield et al., 2008). Secure attachment to caregivers is distinguished from various types of insecure attachment, avoidant, ambivalent (Ainsworth et al., 1978). In addition to these organized attachment structures, an attachment type can also be identified that is characterized by disorganized behavior of the child in stressful situations (Main & Solomon, 1990) and leads to a particularly unfavorable developmental prognosis for the child.

**Mentalization** is the ability to put oneself in the place of another person's wishes, intentions, feelings and thoughts while being aware of one's own needs, and to empathically understand the infant's inner world, for example. Mood expressions of the baby can be traced back to its needs and answered. The recurring, commenting mirroring and reflection of the child's emotions and thoughts help the child increasingly to understand the world of the other person.

mend to understand and regulate their own feelings (Sharp & Fonagy, 2008; Meins et al., 2001).

The concept of parental **sensitivity** summarizes reliable perception, correct interpretation, and prompt and adequate response to children's signals (Ainsworth et al., 1978; De Wolff & IJzendoorn, 1997; Verhage et al., 2016). **Emotional availability** describes, in addition to the mother's and father's sensitivity, their structuring, continuity, unobtrusiveness, and lack of hostility in their interactions. This also includes the willingness to be addressed and included by the child (Biringen, 2008). The ability of the caregiver to adapt to the child's ever-growing skills and to incorporate them into his or her own parental behavior. Of course, misunderstandings and misinterpretations of children's signals can always occur in the interactions between caregiver and child. However, it is crucial whether the adult in the situation is able to recognize this discrepancy, respond to it sensitively, and bring the interaction back into flow. A patient, curious, and conciliatory attitude and reassurance in the discrepant situation ultimately contribute to the emergence of secure attachment. Prolonged discrepancies that are not resolved stress the child.

Security and safety in the relationship with the caregivers are also important for **playing and learning**. If the child feels emotionally balanced, e.g. in familiar surroundings, familiar situations or in the presence of the caregivers, he or she can intensively explore the environment, play and gain new experiences. In stressful situations, which include permanent emotional stress, the child stops exploring and seeks closeness and contact with his caregiver until he has restored his inner balance through his support.

Development is a complex process in which existing and newly acquired skills influence each other. Thus, **motor skills** enable **cognitive progress** and these in turn challenge motor skills. Grasping opens up a variety of possibilities for the exploration of objects, and in standing, space is experienced in a new way, which in turn stimulates cognitive progress. Gross and fine motor skills make it possible to grasp and understand the environment, to explore objects and to "experiment" with them. From an early age, babies discover relationships between their own behavior and its consequences - for example, the sound they make when they shake the rattle.

- and thus experience self-efficacy. This feeling in turn encourages further exploration.

Early childhood education processes are initiated by the child itself in a stimulating environment. The experience of self-efficacy in active problem solving in dealing with the world plays a significant role in the acquisition of knowledge.

# 5 State of research and research gaps in relation to the developmental needs of children from the gaiMH perspective

## 5.1 Influences of media use by children

In the following, the current research situation regarding the connection between direct screen media use by children ("fore-ground") and the early childhood developmental world will be discussed. The focus is on relevant studies from 2007 onwards, since on January 9, 2007, Apple presented the iPhone, which represents a revolution in the concept of digital media (Block, 2007). The results are presented under six aspects.

### 5.1.1 Socio-emotional competencies and well-being.

Studies that have looked at the relationship between media use and socio-emotional competencies or well-being are rare compared to other developmental parameters, and findings are heterogeneous. Previous studies have reported associations between screen time and weaker social competencies, more peer aggression, increased relational but not physical aggression, and more frequent externalizing and emotional problems or lower self-control (e.g., Hinkley et al., 2018; Ostrov, Gentile & Mullins, 2013; Pagani, Fitzpatrick & Barnett, 2013; Corkin et al., 2021; Twenge & Campell, 2018).

Other authors have found no significant correlations between screen time and externalizing behavior,

resilience and curiosity, and problems with peers or self-efficacy reported (e.g., Hinkley et al., 2014; Przybylski & Weinstein, 2019; Tansriratanawong et al., 2017).

The BLIKK study (Kinder und Jugendliche im Umgang mit elektronischen Medien) found, among other things, that 50% of 2- to 5-year-old children exceed the daily screen time and, according to their parents, react with hyperactivity (Riedel, Büsching & Brand, 2016).

### GAIMH Perspective

In the first years of life, violent and rapidly changing emotional states often occur, which are absorbed, balanced and made better for the child by the empathic attention of the caregivers. These primary experiences contribute to the child's increasing ability to self-regulate and respond empathically to the people around him. If this regulating attention is absent (Tronick et al., 1978) or interrupted (5.2.1 Technoference), the child remains in stress, which manifests itself in restlessness, negative affect, or withdrawal, but is often not recognized as such (Fraiberg, 2003). If repeated frequently, this can result in an insecure attachment relationship (Madigan et al., 2006) and also put a strain on overall development.

### 5.1.2 Cognitive, motor and language skills

The correlations between the use of digital media and various indicators of cognitive and motor development are also heterogeneous. Positive correlations are found in cross-sectional or experimental studies with small numbers of cases, but no epidemiological studies.

Looking at overall IQ scores, general cognitive development, motoric, language, and math skills, and executive function, negative correlations were found (e.g., Aishworiya et al., 2019; Madigan et al., 2019; van den Heuvel et al., 2019).

No significant correlations were found in Antrilli & Wang, 2018; Neuman et al., 2014; Taylor, Monaghan & Westermann, 2018, where reading and visual-motor skills were also considered.

Positive correlations between interactive media use and language, cognition, and fine motor skills are found in Nobre et al., 2019. A comparison with children without use is lacking.

In an experimental study, children between 23.5 and 27.5 months of age were able to learn new words without interaction using a video (Kirkorian et al., 2016), without evidence of a long-term beneficial effect.

Other experimental studies, on the other hand, showed that children between the ages of 24 and 35 months were able to learn new words not only through direct interaction, but also comparably well through media-mediated synchronic interaction (live chat). Learning success was significantly worse when only the video was viewed (Roseberry et al., 2009; Roseberry, Hirsh-Pasek & Golinkoff, 2014).

This suggests that verbal interactions during screen media use (e.g., co-viewing) somewhat mitigate their negative effects on language development. However, they are not more beneficial than direct interaction with caregivers alone (Mendelsohn et al., 2010).

Slightly better fine motor skills were found in 24- to 42-month-old children who regularly used a tablet, with about

80% of children did so with a parent (Souto et al., 2019). It stands to reason that this accompaniment had a positive effect.

Reading an eBook aloud compared to a print book showed less verbal exchange and collaboration between parents and young children (Munzer et al., 2019).

## GAIMH Perspective

As receptive media, screen media primarily appeal to two sense organs, eyes and ears, and as interactive media with wiping and clicking, they also appeal to ~~h~~and minimally to fine motor skills, limited to a two-dimensional surface (Koch, Herbert & Bleckmann, 2017). Three- and multidimensional impressions and experiences with real objects thus shrink to two dimensions, even if the images move. The so-called learning contents are pre-structured by the program, so that self-initiated, self-directed, creative explorations and experiences with appeal to all senses are thereby largely excluded. In the presence of a reference person the application becomes somewhat alive. However, it does not achieve the effect of self-initiated learning with emotional resonance that contributes to the integration of what is learned. The use of digital media cannot open up this world of experience. The lively interaction with caregivers and the enabling exploration of the environment are essential and sufficient for overall development. Equitable educational opportunities are repeatedly cited as an argument for the use of digital media in the first years of life, especially in daycare centers and kindergartens. This ignores the fact that a secure bond with the caregiver supports the joy of play and exploration and enables early forms of learning.

### 5.1.3 overweight & fitness, development of eyes

Comparatively much research has been done on TV time and obesity with consistent results. There is much evidence that more screen time is associated with an unhealthier diet, less exercise, higher risk of obesity, and lower fitness (e.g., Fitzpatrick, Pagani & Barnett, 2012; Padmapriya et al., 2019; Sisson et al., 2012). For the question of whether and how prolonged focus on a screen affects the development of myopia, there are no studies yet for the under-3-year-olds (Lagrèze, 2021; Wang, 2020; Wong et al., 2021), but there is a WHO recommendation. According to this recommendation, 3- to 4-year-old children should get three hours of intensive outdoor exercise a day, if possible, in order to benefit from the favorable influence of daylight, spend a maximum of one hour sitting in front of a screen, and get 10 to 13 hours of restful sleep.

#### GAIMH Perspective

Screen time is often combined with snacking, which means that the health-promoting breaks between meals are no longer taken. Together with the lack of exercise, this leads to obesity, which in turn reduces the enjoyment of exercise. The fear that the development of the eyeball by focusing on the screen leads to myopia has not been confirmed for older children and must be investigated in the under-3s.

### 5.1.4 sleep behavior

A recent review (Janssen et al., 2020) examined, among other things, the association between daily as well as evening screen time and various sleep indices in under-5-year-old children.

The results vary. Some studies have shown that screen time, particularly with smartphones and tablets, is associated with poorer sleep quality in infants (0 to 1 years), very young children (1 to 2 years), and toddlers (3 to 4 years) (Twenge, Hisler & Krizan, 2019). Other studies found no effects or positive effects.

#### GAIMH Perspective

Sleep is a rhythmic process that is easily disrupted. With the support of caregivers, increasing amounts of food per meal and changing light in the day-night rhythm, irregular short sleep episodes after birth lead to longer sleep periods. Spending time outdoors, whether asleep in a stroller or moving around on their own, has a positive effect on sleep. This applies to all ages. Here, too, the secure basis of the relationship paves the way and is supportive. The use of digital media means stimulation, which makes it more difficult to get to sleep and reduces sleep quality. All screens should therefore be out of sight at least one hour before bedtime.

### 5.1.5 play and inner imagination

There are no findings on the topic of "Foreground" screen time and play and inner projection power for the corresponding age range. Nevertheless, there are studies that have investigated the relationship between "background" screen time and play. Experimental studies show that background screen use is negatively related to the duration of children's play (Evans Schmidt et al., 2008) and children's attention span during play (Courage et al., 2010; Evans Schmidt et al., 2008).

## GAIMH Perspective

Play is an elementary need for the acquisition of the world with all the senses. In a safe relationship and resonance space, the child can engage with its environment (Papousek, 2001). Parents are often unaware of how varied and stimulating, i.e. developmental, everyday life can be from the child's perspective if he or she is involved or can follow his or her curiosity in safety. Many parents feel pressured by the idea of having to play with their child without knowing how. The commercially offered play materials, some of them with promotion predicate, are used in this insecurity. However, they can rarely initiate play in the sense mentioned above. Therefore it makes sense to observe and guide the play of parents and child in the context of play groups, home visits or other contacts.

### 5.1.6 reward system, addictive behavior, online addiction

No studies on the age group 0 to 3 years are available yet. A general overview of all age groups is provided by Evers-Wölk & Opielka (2019).

## GAIMH Perspective

The development of addiction and the intensification of the risk of addiction through early contact with digital media is a concern of parents and professionals. The best protection is a secure attachment and an environment that protects and stimulates the maturation of the extremely complex brain. The emotional centers dominate in the first years of life and require co-regulation by caregivers. The structuring functions of the cerebrum, especially the frontal lobe, also develop with the help of co-regulation.

of the caregivers with the aim of achieving self-regulation, impulse control, action planning, frustration tolerance and perseverance. The reward system plays a dominant role. On the one hand, it is a drive, but on the other hand, it can pave the way to addiction by providing quick gratification. Digital media can make this possible and are often used as a quick reward. The experience that life goes on even without rewards should be a matter of course for parents and children and should be valued as essential preparation for the demands of everyday life, school, vocational training and university.

## 5.2 influences of parental media use

### 5.2.1 technoference, background Media-exposition, Home-office

The study of parental media use and the **sub** influences on child development is a new field of research. In the pandemic, the new experience of the home office has been added.

The problem with digital technologies is that they intensely bind attention and thus withdraw it from the child (Waldenfels, 2016; Dwyer, Kusklev & Dunn, 2018; Misra et al., 2016; Przybylski & Weinstein, 2019). This state is referred to as **absent presence** (Gergen, 2002). Even a television set running in the background causes less attentive behavior from the adult caregiver and fewer verbal and non-verbal exchanges between caregiver and child (Kirkorian et al., 2009; Christakis et al., 2018). In contrast, digital devices cause the caregiver to be more attentive to the child.

son turns to them completely. The countless possibilities exert a strong suction effect. This phenomenon is also called **immersion** or **absorption**. Thus, there may be prolonged phases in which a parent is not or only partially accessible and available to the child.

In modern everyday life, parent-child interaction is often interrupted immediately by the smartphone. This technology-induced interruption is referred to as **technoference** (McDaniel & Coyne, 2016a). A comprehensive overview of technoference with several dozen individual studies and derived recommendations for interventions can be found in McDaniel (2020).

Even if mobile technologies are merely visible, the quality of a face-to-face interaction can be influenced (mere **presence effect**).

However, whether the reduction in parental sensitivity and responsiveness with parental smartphone use in the presence of children is a transient or permanent finding still appears unclear.

In the **home office**, children experience all of these phenomena: **absent presence, absorption, technoference, and mere-presence effect**.

In a recent review (Braune-Krickau et al., 2021), the authors conclude that absorption has a stronger influence on parental sensitivity and responsiveness than short interruptions of interaction (technoference). On the other hand, in a long-term study, higher technoference scores correlated with parents' reports of their own compulsive or problematic media use, and children were more likely to exhibit externalizing behavior as they developed (McDaniel & Radesky, 2018b; Reed, Hirsh-Pasek & Golinkoff, 2017; Alvarez Gutierrez & Ventura, 2021).

### **Other study results:**

Smartphone use by mothers was associated with less eye contact and fewer verbal and non-verbal exchanges with the child (Radesky et al., 2015).

Mothers were also less likely to talk to their babies while breastfeeding or bottle-feeding when they were digitally distracted (Ventura, Levy & Shee-per, 2019).

In the still-face experiment, the phase of rigid facial expression was replaced for the mother or father by a phase of interaction with the smartphone, during which time the baby was not to be reacted to (Myruski et al., 2018; Stockdale et al., 2020). During the smartphone phase, children made less contact and showed less positive affect as well as more negative affect. Behavior in the reunification phase was less "demanding," possibly due to previous frustration experiences in re-establishing contact with a smartphone-attached parent. When mothers' smartphone use was more intensive in daily life, children showed less positive affect during the still-face phase and more difficult reunification (Myruski et al., 2018). These mothers were also less able to calm their child after a stressful situation (Myruski et al., 2018).

Parents who used their smartphones during parent-child interactions were rated as less sensitive and responded less both verbally and nonverbally to their children's offers of attention. According to the "displacement" hypothesis, time spent with technology or media displaces and decreases "quality time," that is, conscious parent-child relationship time (Coyne et al., 2014).

This can lead to lower quality of these parent-child interactions (Kildare & Middlemiss, 2017).

There are correlations between intensive parental smartphone use and child's challenging behavior, sleep and eating disorders (McDaniel & Radesky, 2018a; Riedel, Büsching & Brand, 2016).

An observational study on a playground showed that prolonged smartphone use by mothers or fathers was associated with lower parental sensitivity (Wolfers et al., 2019).

Even when sensitivity is stable, it can be significantly affected by external and situational factors (Lindhiem, Bernard & Dozier, 2010; Nievar, Van Egeren & Pollard, 2010). Child signals are then not or only partially perceived and thus cannot or only partially be adequately satisfied.

### GAIMH Perspective

- The lively interaction with reference persons is, as already be- written, the basis for the complex development of a child. The high distraction potential leads to interruptions again and again of interaction that is surprising and often inappropriate for the child. send "break in", leave it alone irritated.
- Many parents have a completely new life experience with the switch to a home office and the simultaneous care of their children during the Corona crisis. The care of younger children interferes with the necessary concentration on professional work. Constrained living arrangements and lack of relief options exacerbate this conflict (Bujard et al., 2020). The withdrawal of attention from the caregiver without a relationship connection triggers restlessness and eventually resignation in babies (Fraiberg, 2003). What long-term consequences this will have on the attachment quality, mental and physical health of the children is

- currently not yet foreseeable and will be scientifically recorded.
- Guidance for dealing with home office in the presence of a baby or/and very young child is therefore urgently needed.

### 5.2.2 Functions of media use

The use of digital media should be observed in a value-free manner and evaluated in a differentiated manner, even if it is obviously dysfunctional. From the perspective of parents of young children, for example, the smartphone fulfills important functions (McDaniel, 2020; Galovan & Drouin, 2020):

- 68% Reminder of the positive qualities of their child
- 65% Reminder of the positive aspects of being a parent
- 75% Search for strategies for more effective parenting
- 79% Search for ideas for activities with your child

Parents also seek how to meet their specific needs, such as maintaining social contacts or contacting supporters in crisis situations. Several counseling models exist for dysfunctional use behaviors, such as addictive social network seeking (Olson et al., 2021; Brevers & Turel, 2019), but none yet specifically target young parents. Counseling could ori- ent on a model for digital addictions (Bleckmann & Mößle, 2014). From the perspective of child protection, it is a matter of providing appropriate support for parents under stress, for whom the dysfunctional use of digital media can be and often is stabilizing.

## GAIMH Perspective

Parents, like all people, are looking for a counterpart, for recognition of achievement, for belonging and autonomy. These needs compete with the primary needs of a baby and very young child. Here the question arises, which real possibilities for the satisfaction of these basic needs can be found and strengthened. The extent to which parents are dependent on a supportive community is expressed in the Nigerian proverb "It takes a whole village to raise a child". Parents in nuclear families, and especially single parents, are often overwhelmed, insecure and lonely, and seek compensation through contact, information and relaxation. The smartphone and other digital media are always at hand and function well as stress regulators. One objection to this is that turning away usually happens so abruptly and incomprehensibly for the child that the child is irritated and thus left alone in stress. The legitimate use of digital media by parents should therefore be clearly demarcated from care and other interactions with the child. Not everything can be taken care of during the child's bedtime, especially since these are still very irregular at the beginning. The departure should therefore take place at an appropriate moment, be announced to the child and be limited in time, e.g. by a kitchen alarm clock. The child is accustomed to other everyday interruptions of attention for the needs of adults (personal hygiene, cooking, meals).

If parents are repeatedly distracted by digital media, this interrupts attention, gaze, speech, in short, the entire interaction. The absence of the caregiver, who is physically present for the child but emotionally unavailable, is confusing and triggers stress. The reaction of the child with

Crying and restlessness are then often soothed with the smartphone, but not solved, a vicious circle that parents are often unaware of. An app that shows the frequency and duration of smartphone use can prove clarifying here.

## 5.2.3 Digital permanent surveillance and violation of privacy

Other, less studied forms of screen ~~med~~ use in families with young children include digital monitoring, such as baby monitors with built-in cameras or a GPS tracker. Sharenting" - from "share" and "parent".

- refers to the dissemination of children's photos or videos by parents via social networks. This can violate the children's right to privacy or their right to their own image (Fankhauser & Fischer, 2017).

## GAIMH Perspective

One legal aspect is the protection of privacy. In principle, it must be assumed that data is collected at every opportunity. It is very likely that they will be used for commercial purposes. Surprisingly, many users are not aware of this opening up of the private sphere of life, or they accept it. Parents should be made aware of this and protective measures discussed.

## 5.3 intervention studies

The effectiveness of interventions to reduce screen time ("screen time reduction") is examined in three reviews that demonstrate reduction effects (DeMattia, Lemont & Meurer, 2006; Maniccia et al., 2011; Schmidt et al., 2012).

In a fourth review, no reduction effects were found, despite some effective interventions (Wahi et al., 2011). These reviews all consider the time spent with screen media. Two questions would be of interest here: what targeted intervention can reduce the use of developmentally impairing **media content**? Can dysfunctional patterns of use, which are seen as early signs of addiction development, be modified by specific interventions?

However, very little information is available for these questions.

A recent review of intervention studies in 2- to 14-year-old children found that a reduction in screen time resulted in an increase in sleep duration and an earlier bedtime, especially on weekends (Martin, Bednarz & Aromataris, 2020).

Möbke (2012) suggests that, especially for younger children, time constraint plays a central role in explaining the small but significant negative influences of screen media consumption on development. Screen media, which engage fewer senses than direct interaction with people or the environment (Koch, Herbert & Bleckmann, 2017), displace other, more developmentally beneficial activities in terms of time.

## 5.4 Summary of the current research situation and outlook

The results of previous research must be interpreted with caution for various reasons. Basically, it can be stated that hardly any reliable data from longitudinal studies are available on the use of screen media by children from 0 to 3 years of age, as this is a fairly new phenomenon. In particular, there are too few longitudinal studies that cover more than two measurement points and that measure the central aspects of child development at all

research status and research gaps in relation to the

measurement points and integrate them into the evaluations.

The current evidence base is patchy and contradictory. This heterogeneity can possibly be attributed to a combination of content-related and methodological characteristics of the studies conducted: The concept of digital media is very broad. Recent studies focus on the use of modern, portable devices, others still on television consumption. The methods used and the study designs are very heterogeneous and range from cross-sectional to longitudinal, from experimental to field studies, from telephone surveys to behavioral observations with large and small samples. In addition, the studies come from different regions of the world, so that cultural aspects should be taken into account.

In media effects research, experimental studies are often considered the weakest category because the laboratory situation does not correspond to everyday reality. In addition, the client's interest in his media product can influence the experiment. From the Berlin longitudinal study, Thomas Möbke drew the sobering conclusion: Acquired for learning, used for gambling.

It is recommended that the recording of screen media use and -exposure in everyday family life in early childhood for future research efforts. The proposals of the CAFE Consortium (Comprehensive Approach of Family Media Exposure; Barr et al.,

2020) as well as in a slightly different form before Bleckmann and Mößle (2014) propose a survey that asks more differentiated questions than before:

1. What are the usage times?
2. How long are the time intervals not interrupted by the use of digital media?
3. What content is used?
4. What are the functions/goals of the use? This also includes dysfunctional mood regulation, the function as a babysitter, the replacement/repression of real social contacts.
5. Is it Foreground or Background exposure or Technoference?

The experience of several decades of (children's) media effects research (Mößle, 2012) can be summarized in a few simple sentences:

Opportunities and risks depend

1. the age of the user: the younger, the worse
2. From the duration of use: the longer, the worse
3. of everyday vs. laboratory setting: the effect in everyday life is less desirable than that which could be suspected on the basis of experimental studies.
4. from the period of recording consequences: better in the short term, worse in the long term
5. Of processing aids: Unaccompanied child use is worse.

Digital media are present in everyday life and present challenges and opportunities for families and researchers. Little research has been done on the effects on children's development from pregnancy to the third year of life. This gap should be filled by high-quality studies.

## 5.5 Summary of gaiMH Perspective

The studies presented here show negative effects on physical, socio-emotional and cognitive development in early childhood when the child interacts directly with digital media. There is a temporary loss of intensity of experience due to an imbalance between visual, auditory, and haptic perception and multisensory perception. Sensorimotor integration, which is also an impetus for brain maturation, falls short. Long-term positive effects in normally developing children have not been demonstrated in the available studies. In the prolonged pandemic, screen time has expanded for families so that children 0 to 3 years of age are also indirectly and directly affected. For professionals, screen time is a good way to maintain contact with families. Reducing it to a meaningful level is an urgent task to avoid negative effects.

As digital media have become an integral part of everyday life and many professionals who work with parents and children aged 0 to 3 have grown up with screen media themselves, their use is not primarily questioned. A critical examination of one's own use should precede contact with parents in a professional context. The new self-knowledge can be experienced as a constraint, restriction and control and can primarily cause resistance and rejection. This own process of confrontation and reflection corresponds to that of parents in accompaniment, counseling and therapy. They, too, can react in an offended manner, feel restricted and controlled.

It is not easy to bring this explosive topic successfully into the professional world and then into the parental public. Well-founded knowledge, sensitivity and differentiation are good equipment for this.

There is agreement that screen time should be reduced and that this is a difficult task. Media literacy, i.e. the ability,

The ability to use digital media in a targeted manner, but also to be able to do without them and critically evaluate the content, should be present or developed among parents/caregivers. The Children's Commission in the German Bundestag therefore calls for a graduated concept to promote media literacy, in which the focus for young children is on protection from negative effects. Parents should be addressed and supported as responsible persons and multipliers (Kinderkommission, 2019). We recommend including all professionals who are in contact with children and parents in early childhood, from pregnancy to age 3. They should be specifically trained, educated and trained in the field of digital media contact of children and their parents (section 9).

For children with special needs, digital media have their defined place in guidance, counseling, and therapy.

## 6 reCommendations of the gaiMH

### 6.1 For the practice

All parents want the best for their children. This makes them accessible and at the same time highly vulnerable. They transfer the self-evident use of digital media and their positive experiences with it to the children without reflection. And the appeal of digital media for the children seems to prove the parents right. The realization that the use of smartphones in the adult world should not be transferred to the world of children requires support in putting this knowledge into practice.

A key to accessing parents is a familiar and protected framework, such as that provided by a grown, binding relationship. This includes contacts with professionals. Here, interest and willingness to cooperate can be awakened. In a group, the horizontal relationships and the experiences of the other participants can have a motivating and supportive effect.

A second key is an appreciative attitude toward parents, even if the use of digital media is obviously dysfunctional. This attitude includes: no confrontation with the topic, but sensitive introduction of the information in the observable current interaction with simultaneous guidance and encouragement for concrete play and activity possibilities with the child in this situation. In the continuing conversation, other everyday situations can be thought through that have so far been managed with the help of digital media, e.g., eating, sleeping, tantrums, speech, etc.

Playgroups, home visits, and counseling sessions are good opportunities to address dysfunctional use of digital media in foreground- or background-.

mode. The observations can be put into words in an appreciative manner and the reaction of the parents and the child can be awaited and, if necessary, absorbed. Concrete guidance, encouragement and support in solving everyday conflicts without digital media can be tried out directly. Parents feel safe and supported. With the security of the specialist and the trust in him, the child can also be confronted with frustrating experiences that would otherwise be interrupted or avoided with media distraction. The shared experience that children can eat, play and calm down without media can be seen as a developmental impulse for parents and children. The cooperation experienced in this way, the child's competence and self-efficacy are satisfying and encouraging for all involved and motivate them to persevere.

In Germany, the topic of "screen media" is foreseen for the first time in the early detection examination U7a at the age of 3. Since infants and toddlers are already increasingly confronted with screen media, both actively and passively, the current state of knowledge about possible consequences should already be addressed at U3 at 4 to 6 weeks. In this context, the current media consumption in personal and professional everyday life should be inquired about, as well as the associated exposure of the children. The focus should be on quality, i.e. what devices are available and where are they located, and on quantity, i.e. how long they are used, in what situations, with what function and with what content.

Concrete ways of structuring and dosing digital media use to protect children are a good start. Suggestions for media-free parent-child interaction with play, ~~moments~~ and a variety of sensory impressions, as well as the establishment of contacts between parents, provide security and a sense of self-efficacy and competence. An appreciative attitude should be maintained, even in the face of obviously dysfunctional use of digital media. Questions about the suitability of the

Recommendations and actions should be made at each contact. This task could be performed by a qualified medical assistant.

A questionnaire on this could already be filled out in the waiting room. The answers can be discussed with the qualified specialist. The following topics should be discussed:

- What digital media are available? Where are the devices located? How easy/difficult to reach?
- In what situations do parents use smartphones, tablets, computer, television set one?
- For the child: reward/punishment, mood and self-regulation, Calming, distraction, employment (babysitting), conflict resolution, Education.
- For parents: work tools, communication, information, distra-

kung, relaxation ...

- How much time in total do parents and siblings spend with Me-  
dien: smartphone, tablet, computer, TV? How much of this in presen-

heit of the toddler (0 to 3 years)?

- Are there rules for media use in the family? Can they be set on-

be held?

- Do parents know what the child is looking at and when, what the child

is playing with? Are

them in or not?

- What devices may the child use?

- How often and for how long does the child play with digital media or use

them?

- What does the child do with the digital media (content)?

- What alternatives to screen media use can the

Parents imagine?

- What obstacles do parents see/experience?

## 6.2 For a thematic complement to prevention, counseling, accompaniment and therapy

From GAIMH's point of view, the following recommendations and requirements result from the preceding remarks:

- Imparting knowledge and skills related to the topic of "Digital media and early childhood" as a mandatory component of the education, training and continuing education of professionals involved in early childhood care, counseling and therapy.
- Integration of a media anamnesis and media counseling into the Antenatal care for expectant mothers and fathers with admission

of the recommendations into the maternity guidelines.

- Integration of a media anamnesis and media counseling in the kin-screening examinations from the 4th to the 6th week of life. week (in Germany U3 and inclusion of the recommendations in the children's guidelines of the Federal Joint Committee G-BA). The purpose and duration of the child's use of digital screen media, the child's background exposure, and the parents' use of digital media should be considered.
- Strengthening preventive child protection through early assessment. The information provided by the system can be used to reduce parental overload. maternity passport and the recording of the current psychosocial life situation.
- Recognition and funding of qualified media anamnesis and media counseling as primary prevention by the responsible

Payers, such as health insurers, municipal providers and others.

- Upgrading the age rating "without age restriction" to "from 3 years", as is the case with the PEGI label (Pan European Game Information provides age ratings for video games in 38 European countries) is already implemented today.
- Control of advertising of screen media products for children from

0 to 3 years. Without a scientific basis, the products should not be allowed to be described as developmentally beneficial. Developmentally beneficial effects should be demonstrated in longitudinal studies with a non-digital comparison/control group.

- Funding of robust transdisciplinary research on impact and The effects of digital media use by children and their caregivers.

incorporating the experiential knowledge of practitioners (cf. 7).

- Funding intervention research on the effectiveness of various preventive approaches, taking into account the accessibility and the The project is designed to help parents overcome obstacles in different social milieus, educational levels, limited communication, cultural sensitivity, and parents with complex psychosocial stress situations.
- Expansion of the information and consulting capacities for handling The current pandemic-related or later postpandemic-related mical burdens on families with regard to the increased use of digital media. This also requires the rapid qualification of specialists for this work.

### 6.3 basic knowledge for qualified professionals

All early childhood professionals involved in guidance, counseling, and therapy should address the issue of digital screen media use in families with babies and young children.

Experience to date shows that communicating the new ~~fits~~ is not easy. It is an emotionally charged subject, and critical consideration of it can be perceived as insult, criticism or control. A special qualification is therefore advisable.

The development of an observational-critical, non-teaching basic attitude on the basis of scientifically founded basic

knowledge (chapters 3-5) together with the self-reflective view of one's own

The use of digital media enables and facilitates appreciative access to parents. Their individual diversity with different needs and prerequisites requires sensitivity and flexibility on the part of the likewise diverse professionals. Non-offensive, playful ways of accessing parents are presented below. Everyday practical tips and own discoveries for screen-free and developmental alternatives enable parents to experience self-efficacy and competence (chapter 7).

Many of the prerequisites necessary for this are only briefly covered, if at all, in existing training courses. Many specialists have therefore acquired the necessary prerequisites, at least in part, through extra-occupational self-study. In the future, the teaching of basic knowledge and skills should be an obligatory part of training and studies. Further education and training opportunities for professionals already working in the field should be expanded to include these topics:

- Biographical media history of the professional with critical Reflection: What media, from books to smartphones, do I have used? Which ones do I use today? When, how often, how long, which contents, in which situations, for which purposes? To what extent was this regulated and accompanied by my parents/other caregivers?
- Reflection on the "power of digital habits" as a self-experience to put themselves in the parents' shoes and reach them. can. Changing parental habits that could later hinder the healthy development of the child is a development process that can already be started during pregnancy. The goal is to structure and limit screen use: times with a screen when the child is sleeping and without when the child is awake. To avoid technofeference, attention to the screen and turning away from the child should only be done with an announcement.

- Knowledge of the current state of studies on screen media use. of babies and toddlers: no evidence for long-term positive Effects of digital media in early childhood, but increasing evidence of negative effects in the physical, emotional and cognitive spheres. The direct interaction between caregiver and child as the basis of the bio-psycho-social development of the child and its parents is restricted and disturbed.
- Knowledge of screen media use by caregivers. Distinction between background media exposure and technofeference, with the consequence of interaction disruption, sensory overload, permanent surveillance, data protection, dissolution of privacy.
- Knowledge of key roles and functions of digital media, especially smartphones and tablets, which are available everywhere and at all times. For the parents, they are: a means of contact, a source of information, a distraction, entertainment, and a release of tension. In the educational context, they take on the function of babysitter, in order to have time for other activities or also for themselves, sibling dispute mediator, reward/punishment.
- Reflection of these roles and functions, especially in the tense The field of short-term functionality and long-term development impact for the child. Identifying obstacles to the implementation of alternatives to digital media use in order to provide parents with targeted support.
- Knowledge about and understanding of uncertainties and conflicts In the transition to parenthood. The uncertainty with the child, with of the new role, loneliness after the loss of the professional-social environment very often leads to the Internet. The virtual community can relieve, but above all confuse and frighten. Qualified personal support would be useful.
- Knowledge of overt and covert advertising and manipulative strategies on the topic of "digital education policy".

## 7 Implementation in practice

### 7.1. Introduction of the topic in practical work

As described above, media are firmly anchored in everyday life. Parents therefore do not question their importance for their child's development. So how can you connect with this important issue? Three exercises have been developed for baby-parent playgroups with families from different backgrounds and with different levels of education:

- In autobiographical narrative play, emotional memories come to the fore. and experience with electronic and digital media for language and encourage self-reflection. This can lead to a more conscious approach to digital media. The development of one's own position on personal digital media consumption and knowledge about its effect on children enable responsible decisions and gradual changes with the goal of controlled, measured use.
- The Time Pie exercise makes visible the activities with which everyday life and free time of the parents are filled and how they distribute the time. This also applies to the children. Critical reflection on the space that digital media should occupy for the child can thus be introduced and kept alive.
- The mindfulness exercise with the apple is convincing due to the supra-comparison of looking at the picture of an apple and the apple in the hand, i.e. the optical perception (screen) versus the real, pleasurable experience of the apple with all senses.

First, the personal, emotional level is addressed. By sharing the

experience and reflecting on its meaning, insights are developed. This leads to questions about alternatives

the colorful staples that can become talking creatures, together-

on media use in everyday life. Parents are supported in making an informed and reflective decision about the purposes for which they and their children use media. This transfer makes it possible to make changes in everyday life that can then actually be tried out in the group context, guided and accompanied by professionals. The exercises can be used independently of each other, in the group or individually, as well as individually and culturally varied.

## 7.1.1. alternatives to cell phones & co. in everyday life with children

The question of alternatives to digital media use that are suitable for everyday use arises for everyone working in the field of early childhood. The following suggestions are aimed at parents. They are intended as an expandable basis for work in the field.

### **Instructive everyday life**

Children love to be "there", to do what the adults do. They learn from the model. So being involved in everyday actions through play as early as possible is not only fun, it's really educational. A few settings:

With its diverse, often colorful equipment, the **kitchen** always offers new play stimuli. Thus, the whisk becomes a microphone or a hand puppet. Unpacking and putting away, searching and finding are satisfying activities. Cooking with the preparations is full of sensory-motor, cognitive and senso-emotional experiences. Setting the table and thinking about who all needs a plate can lead from enumerating people into the more abstract world of numbers and quantities.

Dealing with **laundry is** also full of sensory impressions: from

The first steps can be taken by pulling the basket up and pushing it in front of the child, for example, by putting it into a kite or similar, by using fabrics that feel different, by pairing socks, by unpacking and packing, by dressing up, or by climbing up or into the laundry basket to discover the world. You can pull yourself up and dare to take your first steps by pushing it in front of you.

Watering **flowers** or taking care of **animals** together develops and strengthens the child's sense of responsibility.

Common to all the activities mentioned is the affirming sense of self-efficacy that generates new activities, and the response of the caregiver, who also experiences satisfaction.

### **Undertakings in everyday life**

A list for things to do in the area lowers the threshold for putting it into action:

special playgrounds, forest, meadow, water, farm and animal enclosure, accessible parent-child services.

### **Rhythmic everyday life**

Children love media, so it makes sense to have fixed rules for their use. Clarity about this makes it easier for the child to gradually accept it and for parents to endure protests.

Three helps:

- An alarm clock that heralds the end of screen time.
- **Repetition:** It doesn't always have to be something new. In a sequence that you watch repeatedly, there is still so much new to discover. Who still knows what happened next? Speaking, retelling or continuing to tell bridges the protest against the shutdown.

- A critical look at one's own habits: How often, how long, what do i use media for myself?

### **Out of sight, out of mind**

Screen media should not be constantly visible or audible, otherwise they represent a constant attraction. This applies to children and adults. Why not make the screen invisible during the day with a colorful cloth?

### **Comfort, reward, boredom**

In stressful situations, media can be "comforters" or distract the child from undesirable behavior. The temptation is great to calm the child with the use of media. However, media-free, interactive ways of resolving emotionally difficult situations in terms of catching (containment) and understanding (mentalization) should always be tried. Difficult situations in public put parents under particular pressure. Parents should not react here. The previously described attitude can be worked out. Parents can seek advice for this.

Boredom is part of life and enables something new to emerge. In the waiting room or in the car, a prepared and screen-free, can be helpful. With guessing and finger games or storytelling, waiting times can become times of attention and play.

### **Reference persons instead of screen**

Children need lively interaction and resonance. They learn through dialogue and the sharing of experiences, knowledge and feelings. They look at their caregivers with a scrutinizing eye and recognize from their behavior whether what they are doing is appropriate or inappropriate. In the other person and his or her reactions, they learn to recognize and evaluate their own feelings. If the other person is distracted by media or is not available, these important and developmental processes can be disturbed. In order to be able to understand this

It can be helpful, for example, to role-play this sudden turning away for the parents as an emotional experience of their own.

Children whine, defy or cry and parents quickly get under pressure, especially in public. Tiredness, hunger and frustration also upset the child. Here, personal attention in the sense of containment and understanding (mentalization) is a sensible response.

## 8 Free space for parents

Family life is always about balancing the different needs of parents and children. Educational work is exhausting and requires breaks. In a structured daily routine, children experience times when parents turn away. From the ~~experience~~ <sup>experience</sup> in a secure attachment, new opportunities for exploration and play arise from the frustration, the ability to be alone in the presence of the caregiver gradually develops. The availability is great to use the screen for a short time in case of bottlenecks. Conscious use, suitable content and limited time are important prerequisites for this. However, the search for screen-free alternatives should be continued. A few suggestions (see also

"Instructive Everyday Life"):

- Water has a high prompting character. At the sink children can with a few cups and a little water a whole

Spend a while.

- Everyday objects that can be handled: What is there  
More beautiful than plastic bowls, wrappers, cloths and bags,

in which "treasures" can be hidden and found?

- A place to draw in plain sight with thick crayons (no fiber-

painter), for the older ones possibly also scissors and glue.

- Toys that have become boring or out of sight can be make a big "comeback" after a while in hiding.

## 9 epilogue

Our aim is to provide you with this information from science and practice as a secure basis for dealing with and implementing the important and difficult topic of **"digital media and early childhood"**.

We will update the text as we gain new insights. For this purpose, we also ask for your feedback to [info@gaimh.org](mailto:info@gaimh.org).

## 10 Ongoing research projects with participation of gaiMH members

**Children and Digital Media (KiDiM)** Marie Meierhofer Institute for the Child Zurich Dr. Fabio Sticca and Valérie Brauchli (M.Sc)  
[www.mmi.ch/kidim](http://www.mmi.ch/kidim)

**Smart Baby Study (according to Still-Face)** Karl-Heinz Brisch and Marion Hantinger <https://bit.ly/36ufJ6C>

**REAL THERE**  
Prof. Dr. Paula Bleckmann and Prof. Dr. Eva-Maria Bitzer  
<https://bit.ly/3NITHgW>

**Smart Start**  
Zurich University of Applied Sciences (ZHAW) Prof. Dr. Agnes von Wyl, Larissa Schneebeil (M.Sc) and colleagues <https://bit.ly/3uopont>

**Smart Toddlers**  
Zurich University of Applied Sciences (ZHAW) Prof. Dr. Agnes von Wyl, Larissa Schneebeil (M.Sc) and colleagues <https://bit.ly/36IcyrI>

**SEMKI - Study of the influence of multitasking on mother-child interaction.**  
International Psychoanalytical University Berlin  
Prof. Dr. Annette Klein and Aleksandra Miki (M.A. Psych.)  
<https://bit.ly/35ak924>

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