Our everyday life is increasingly permeated by digital screen media (DSM) [1] which determine communication, relationships, and information transfer in all areas of life [2]. Children naturally grow up with DSM and this increasingly shapes the everyday life of babies and toddlers [3]. However, depending on the dosage, excessive use of DSM can lead to health problems and, in the long term, to physical damage [4]. A large number of studies suggests that this may be the case:

- Physical impairments (overweight, diabetes, sleep) [5–8]
- Performance deficits at school or university [9–16]
- Conspicuous social and communication behavior and aggressiveness [17–24]
- Computer game addiction [4, 25–28]
- ADHD, loss of empathy, speech development delays, fine motor development delays [29]

There is also evidence that DSM have a direct and indirect effect on parents, the child, their relationship and the world in which they live even before birth [30]. A connection between maternal use of mobile phones during pregnancy and an increased risk of behavioral problems, especially hyperactivity, in children has already been demonstrated [31].

A bibliographic analysis of publications from the last 15 years dealing with the use of DSM during pregnancy showed that there is still a great need for research [32]. Our first study of 40 pregnant women concluded, that DSM are used extensively during pregnancy and thus represent a significant influence on both mother and child [33].
The MediaFasting Initiative

Within the framework of an interdisciplinary expert conference with more than 50 experts from medicine, education, economics, psychology, media sciences as well as therapists, and students of various disciplines, the topic of childhood in times of digitalization was discussed. The result was that action is urgently needed, so children can grow up healthy. The initiative "MedienFasten" (Media Fasting) was created, which can be found at www.medialasting.org.

MediaFasting: A cooperation project with the Professional Association of Pediatricians and Adolescent Physicians Germany (BVKJ)

In a pilot study [34] with an open, prospective, multi-center design, a 44-day media fasting intervention was researched using a pseudonymized survey with before and after evaluation. The aim of MediaFasting was to enable people to more consciously perceive, challenge and change their personal use of screen media, both within themselves and within their families.

With the help of empirical findings, the use of DSM and its perceived effects should be presented to parents and their children, so that they could question and redesign their habits during the MediaFasting period. 1,284 families were approached in pediatric and family practices, schools and a children's hospital.
Results

The responses of 365 parents (82% female; 41±7 years) and 280 children (10.5 ± 3.1 years) were evaluated and 186 pre-/post-pairs were formed. During media fasting, parents and children actually significantly reduced their use of DSM:

Parents

- Smartphone/mobile phone from 1.99 ± 1.99 to 0.86 ± 0.63 hours/day
  = Diff. 1.09 ± 1.57 hours/day
Tablet/PC/laptop from $1.61 \pm 1.32$ to $0.77 \pm 0.88$ hours/day

$= \text{Diff. } 0.87 \pm 0.71 \text{ hours/day}$

Children

- Smartphone/mobile phone from $1.57 \pm 1.49$ to $0.82 \pm 1.15$ hours/day

$= \text{Diff. } 0.79 \pm 0.96 \text{ hours/day}$

- Tablet/PC/Laptop from $1.01 \pm 1.40$ to $0.57 \pm 1.32$ hours/day

$= \text{Diff. } 0.48 \pm 0.50 \text{ hours/day}$

Parents were also willing to reduce DSM during meals or before breakfast and not to use a smartphone in the bedroom at night. In terms of alternatives to using DSM, "being outside" was preferred by adults and children alike. Among women in particular, there was a slight improvement in well-being as well as a sense of awe and gratitude.

The results of the pilot project suggest that MediaFasting is able to reduce the use of DSM. There also seem to be special times and rituals in families, that are not yet affected by DSM, as well as uses and times of DSM that adults and children do not want to give up [34]. Further research on interventions to reduce the use of DSM is necessary, will be tested and investigated in future MediaFasting projects.

**Outlook and projects**

Beneath the scientific use through publications and public relations work on the topic of DSM, a number of other projects are planned in subgroups, such as in pregnancy, schools, kindergartens and universities. In addition, the development of a structured long-term ‘Media Care Program’ is underway with the BVKJ and other partners.

There is an increasing prevalence for diseases, where the quantity and quality of DSM plays a role in their genesis. The resulting direct and indirect costs and lifelong health consequences for individuals, their families, and the social security systems are huge. It can be expected, that interventions in this area will achieve positive clinical and economic
effects in the long term. MediaFasting must become a cultural impulse. Desirable would be a future MediaFasting on prescription.

**Project websites:** [www.mediafasting.org](http://www.mediafasting.org) (English) / [www.medienfasten.org](http://www.medienfasten.org) (German)

**Initiative Lifestyle:** [www.lebens-weise.org](http://www.lebens-weise.org) (German?)

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