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# Family digital well-being: The prospect of implementing media technology management strategies in Polish homes

#### Abstract

The article determines whether media technology management strategies are being implemented in the homes of Polish families, and what effects they may have. A total of 94 families were examined through four research methods: in-depth interviews with all family members, family diary protocols, individual interviews, and an online questionnaire survey of family representatives. The families were placed into four categories according to their attitude to technology management and daily practices: unconscious and passive, conscious and passive, conscious and ineffective, and conscious and effective. Four main types of media technology management strategies were considered: technology oriented, media content oriented, time oriented, and usage mode oriented. Most surveyed families do not manage to achieve high digital well-being due to a lack of awareness and/or willingness to manage technologies at home, or the ineffectiveness of attempts to reduce them. Conscious and effective families, being minority, consistently pursue diverse and mixed media management strategies.

**Keywords**: family well-being, digital well-being, mediatization of family life, media management strategies, children and media.

# Rodzinny dobrostan cyfrowy: perspektywy wdrażania strategii zarządzania technologiami medialnymi w polskich domach

Streszczenie: W artykule określono, czy w domach polskich rodzin są wdrażane strategie zarządzania technologiami medialnymi i jakie niesie to skutki. Na potrzeby projektu przebadano 94 rodziny, stosując cztery metody badawcze: wywiady pogłębione ze wszystkimi członkami rodziny, dzienniczki rodzinne, indywidualne wywiady indywidualne oraz internetowe badanie kwestionariuszowe. Wyodrębniono cztery kategorie rodzin w zależności od ich stosunku do zarządzania technologią i codziennych praktyk: nieświadome i pasywne, świadome i pasywne, świadome i nieskuteczne oraz świadome i skuteczne. Uwzględniono cztery główne typy strategii zarządzania technologiami medialnymi: zorientowane na technologię, zorientowane na treść mediów, zorientowane na czas użycia i zorientowane na sposób użycia. Większości badanych rodzin nie udaje się osiągnąć wysokiego dobrostanu cyfrowego ze względu na brak świadomości i/lub chęci zarządzania technologiami w domu lub nieskuteczność podejmowanych prób ich ograniczenia. Świadome i efektywne rodziny, stanowiące mniejszość, konsekwentnie stosują zróżnicowane i mieszane strategie zarządzania mediami.

Słowa kluczowe: dobrostan rodziny, dobrostan cyfrowy, mediatyzacja życia rodzinnego, strategie zarządzania mediami, dzieci i media.

## Introduction

The aim of the article is to determine whether contemporary Polish families are overcoming the challenges to find a balance in their usage of media technologies in their homes. The article answers the following question: What media technology management strategies are used by Polish families, with what effect and what are the causes and consequences of not implementing any strategies? The study considers different ways of regulation, such as certain methods, principles and tools, and it also takes into account the diversity of families.

This analysis is based on the theory of mediatisation, i.e. the mutual transformation of a specific field of life and media, which combines material, cultural and phenomenological approaches. The findings of the research refer to the role of media in families, in terms of media technology excess and limitation problems. As sporadically postulated the study of the digital well-being of families requires an integrated and comprehensive analysis of whole, multiple diverse families, including those with no children; it also requires a consideration of the entire home media environment, not only the Internet. This is why the study focuses on adults and juveniles and the entire spectrum of media technologies that shape transformation processes within families. This research was conducted on 94 Polish families. Initially, in-depth interviews with all members of different types of families were held, which were combined with an extensive family diary protocol. In the second phase, further in-depth individual interviews were carried out and an online questionnaire survey with family representatives was conducted.

The article starts by placing this analysis within a theoretical context of mediation of the family life, by defining the family well-being and explaining the research methodology. The results section consists of a presentation of four types of families, who have been categorised according to their relationship with and management of media technologies at home. This section also includes a presentation of the four main media management strategies.

 $<sup>^{\</sup>rm 1}$  E.g. L.M. Padilla-Walker, S.M. Coyne, "Turn that thing off!" parent and adolescent predictors of proactive media monitoring, "Journal of Adolescence" 2011, No. 4, pp. 705–715.

## Literature review

The family and the media have a place in several approaches to media studies: cultural<sup>2</sup>, ethnographic<sup>3</sup>, social<sup>4</sup> and normative<sup>5</sup>. The relationship between media and families is also present in interdisciplinary family studies<sup>6</sup> and other academic fields, including psychology<sup>7</sup>, pedagogy<sup>8</sup>, sociology<sup>9</sup>, ethnography<sup>10</sup>, computer science<sup>11</sup> and medicine<sup>12</sup>. In the field of paediatrics, some standards have been developed to provide a basis for proper conduct for parents. Their latest reports have adapted to the challenge of greater flexibility; for example, by proposing the creation of a tailored Family Media Use Plan<sup>13</sup> that serve here as a reference point in comparative studies.

The question that often arises is, in practice, how do families sort out the management of media technologies and their well-being at home? Research in various disciplines has, thus far, been dominated by the children's perspective, and the problem is often reduced to the management of so-called screen time<sup>14</sup>. The issue of parenting

<sup>&</sup>lt;sup>2</sup> E.g. S. Livingstone, From family television to bedroom culture: Young people's media at home [in:] Media studies: Key issues and debates, ed. E. Devereux, Sage, Los Angeles 2007.

<sup>&</sup>lt;sup>5</sup> E.g. M. Bovill, S. Livingstone, *Bedroom culture and the privatization of media use* [in:] *Children and their changing media environment: a European comparative study*, eds. S. Livingstone, M. Bovill, L. Erlbaum Associates, Mahwah 2001.

 <sup>&</sup>lt;sup>4</sup> E.g. I. Paus-Hasebrink, J. Kulterer, P. Sinner, Social inequality, childhood and the media: A longitudinal study of the mediatization of socialisation, Palgrave Macmillan, Cham 2019.
<sup>5</sup> E.g. D.A. Gentile, D.A. Walsh, A normative study of family media habits, "Journal of Applied Developmental Psychology" 2002, No. 2, pp. 157–178.

<sup>&</sup>lt;sup>6</sup> E.g. L.S. Clark, *Parental mediation theory for the digital age*, "Communication Theory" 2011, No. 4, pp. 323–343.

<sup>&</sup>lt;sup>7</sup> E.g. W. Sanders, J. Parent, R. Forehand, N.L. Breslend, *The roles of general and technology-related parenting in managing youth screen time*, "Journal of Family Psychology" 2016, No. 5, pp. 641–646.

<sup>&</sup>lt;sup>8</sup> E.g. L. Veldhuis, A. van Grieken, C.M. Renders, R.A. Hira Sing, H. Raat, *Parenting style, the home environment, and screen time of 5-year-old children; the 'be active, eat right' study,* "PLoS One" 2014, No. 2, e88486.

<sup>&</sup>lt;sup>9</sup> E.g. R. Kammerl, M. Kramer, *The changing media environment and its impact on socialization processes in families*, "Studies in Communication Sciences" 2016, No. 1, pp. 21–27.

<sup>&</sup>lt;sup>10</sup> E.g. S. Pink, K. Leder Mackley, *Saturated and situated: Expanding the meaning of media in the routines of everyday life*, "Media, Culture & Society" 2013, No. 6, pp. 677–691.

<sup>&</sup>lt;sup>11</sup> E.g. A. Hiniker, S.Y. Schoenebeck, J.A. Kientz, *Not at the dinner table: Parents' and children's perspectives on family technology rules* [in:] Proceedings of the 19th ACM conference on computer-supported cooperative work & social computing, ed. D. Gergle, Association for Computing Machinery, New York 2016.

 $<sup>^{12}</sup>$  E.g. J.A. Gingold, A.E. Simon, K.C. Schoendorf, Excess screen time in US children: association with family rules and alternative activities, "Clinical Paediatrics" 2014, No. 1, pp. 41–50.

<sup>&</sup>lt;sup>13</sup> American Academy of Paediatrics: Council on Communications and Media, Media use in school-aged children and adolescents, "Pediatrics" 2016, No. 5, e20162592.

<sup>&</sup>lt;sup>14</sup> E.g. S. Schoeppe, A.L. Rebar, C.E. Short, S. Alley, W. Van Lippevelde, C. Vandelanotte, How is adults' screen time behaviour influencing their views on screen time restrictions for children? A cross-sectional study, "BMC Public Health" 2016, No. 1; N. Elias, I. Sulkin, Screen-assisted parenting: The relationship between toddlers' screen time and parents' use of media as a parenting tool, "Journal of Family Issues" 2019, No. 18, pp. 2801–2822.

mediation dominates in the pedagogical approach, which usually overlooks adults, adult children, and families without children.

The mediation of childhood is a well explored area with a strong Internet focus, including the study of online risks<sup>15</sup>. This concept is associated with children's digital well-being<sup>16</sup>. More broadly, digital well-being is understood 'as a state obtainable not only by the individual through his/her personal "digital well-being sills", but also as a characteristic of a community whose norms, values and expectations contribute to its members' comfort, safety, satisfaction and fulfilment'<sup>17</sup>. Such a definition allows the family to be used as an example of a community characterised by a set of specific attributes that strives for well-being.

In this context, family digital well-being is understood as part of the overall condition of a family, which consists of interacting elements that are all crucial determiners of the quality of family life. This has been revealed through a subjective assessment of the state of the family, with regard to the use of media technology. Subjectively understood well-being can be confronted through the observed effects of a certain degree of media use, as well as through objectified indicators that result from external recommendations or comparisons between different groups of families. In this study, the subjective digital well-being of a family is determined through an evaluation of the effects of media management strategies at home, or the lack thereof. Additionally, reference to objective criteria, such as recommendations from expert<sup>18</sup>, allow for comparison.

# Methodology

The research was conducted on 94 Polish families, i.e. 284 family members. The sample varied in terms of gender, age, place of residence and level of education of informants. A triangulation of four research methods was used: in-depth interviews with all family members, family diary protocols, individual interviews with family representatives, and an online questionnaire for family representatives<sup>19</sup>. The process of obtaining information involved 119 informants. None of them received any gratuities for participating in the study. Participation was voluntary and all the data was anonymised.

<sup>&</sup>lt;sup>15</sup> E.g. Kids online: Opportunities and risks for children, eds. S. Livingstone, L. Haddon, Policy, Bristol 2009.

<sup>&</sup>lt;sup>16</sup> B. Nansen, K. Chakraborty, L. Gibbs, C. MacDougall, F. Vetere, *Children and digital wellbeing in Australia: Online regulation, conduct and competence*, "Journal of Children and Media" 2012, No. 2, pp. 237–254. See also: E. Sevon, K. Malinen, A. Rönkä, *Daily wellbeing in families with children: A harmonious and a disharmonious week*, "Journal of Family Studies" 2014, No. 3, pp. 221–238.

 $<sup>^{17}</sup>$  M. Gui, M. Fasoli, R. Carradore, "Digital well-being". Developing a new theoretical tool for media literacy research, "Italian Journal of Sociology of Education" 2017, No. 1, p. 155.

<sup>&</sup>lt;sup>18</sup> E.g. American Academy of Paediatrics...

Data were collected from February 2019 to June 2019 and from October 2019 to January 2020. Interviews were conducted in Polish and English, and one in Russian.

In the first stage, 15 direct and in-depth interviews with all members of families were held. These were combined with a self-audit, self-limitation and self-reflection of family members, based on extensive diary protocols. These procedures focused on the scope, scale and temporal dimension of the use of media technologies within the home and an assessment of their overall impact on family life.

The selection of families for the research sample was based on certain preconditions. All selected families consisted of at least two people living together in Poland who are either married or cohabiting with a child or children, including those whose children are adults who no longer live with their parents, or single parents cohabiting with children. The aim was to include families with no children, as well as those with one, two or more children, and to take into account the age difference between the children (up to 10 years old) and adolescents (above 11 years old).

The in-depth interviews ended with instructions about the paper or digital diary. The families were instructed to fill out the diary over an average week (not during holidays, trips, celebrations, or other special periods), starting on Monday and ending on Sunday. The questions in both the interview scenario and the diary were of a quantitative and qualitative nature. Participation in the study also included an experimental challenge to not use selected media technology within the family, and the effects of abstinence were tracked. During the course of completing their diary, the family self-diagnosed themselves by identifying which of the technologies were dominant in their family life. They were then asked to give up this particular technology for one day during the week and one day at the weekend. At the end of each day, the family members had a conversation, in which they answered questions about the impact of technology on their home life.

Data obtained from interviews and diaries were analysed using a thematic coding process. An open-coding approach was used, in order to accommodate emerging themes. Complete packages of data from a given family were analysed, which made it possible to view the data from multiple sources, as well as to identify a given case in depth, and then compare and categorize it. Subjective digital well-being was estimated on the basis of respondents' statements concerning the impact of technology on their family's quality time, emotions and relationships. A reference for objective digital well-being was made using the recommendations of the American Paediatrics Association<sup>20</sup>.

Based on the conclusions of the study, a second phase of research was conducted, which focused on the problem of media technology management within families. During this phase, 54 in-depth individual interviews with family representatives were conducted, either directly or via telephone or Internet call. In addition, 25 online questionnaires were carried out by family representatives, with whom no interviews had been conducted. In both cases, the questions were similar. The selection of the family

<sup>&</sup>lt;sup>20</sup> American Academy of Paediatrics....

representatives was random. The second sample included 79 Polish families with different ages and number of children.

#### Results

The implementation of a media technology management strategy was only noted in individual cases. 46.8% of respondents noticed a need for reduction in technology usage; 35.4% did not recognise such a need; 17.7% had a problem determining this need; 68.3% of the respondents thought it would be difficult to limit technology usage at home; 24% thought it was easy; and 11.4% had a problem determining the level of difficulty. 60.8% of family representatives believed that the media technology that has the greatest impact on their family is the Internet; 27.8% of respondents chose smartphones and the remaining 8.9% chose other technologies, such as the TV.

When describing their perfect family time, almost all respondents would choose to spend time without media technology. The only media-related activity that occasionally appeared in the answers was watching a film together. Listening to music was mentioned less frequently and reading books even less so. The greatest needs that were most frequently mentioned were non-digital forms of entertainment, such as board and card games, as well as simply talking and eating together, spending time in nature as well as playing sports.

By combining the results of the first and second phase, four main approaches towards media technology management strategies in the home were differentiated. The first type of family displayed a lack of development or implementation of any media technology management strategy (inert and passive families). The second type of family saw the need to introduce a strategy but did not implement any rules, methods, or tools (aware and passive families). The third type of family perceived the need for technology management; however, the strategy was implemented ineptly or was ineffective in the context of the needs and expectations of the family, as well as within expert recommendations (active and ineffective families). The last type of family saw the need to limit technology usage and implemented an effective strategy, both from the point of view of the family's evaluations, as well as recommendations (active and effective families). The results of the analysis of each type of family are presented below, which explain the reasons each particular model was chosen and its effects on family digital well-being.

#### Inert and passive families

Despite high usage of technology of inert and passive families, which was evidenced by both the objective criteria (i.e. APA recommendations) and often the subjective evaluation as well, family members rarely reflected on their own condition. Family members didn't see the negative side to their lack of conscious management of media technologies at home. They didn't realise the problems caused by unsustainable technology usage. Even if they became aware of their family member's addiction, they didn't find it problematic. Sometimes, they felt lost in relation to technology, as they couldn't determine what they wanted for themselves or others. In this respect, they didn't reflect on the future either.

Indifference and passivity occurred primarily as a result of adopted priorities. Members of these families didn't hide the fact that the most important thing to them was to 'have everything at hand' — to do things easily, quickly and pleasantly. They were not even able to partially give up technologies that make their lives easier. Even if they tried to slightly limit their technology usage, they quickly gave up. Most of the time, they didn't make any such attempt at all, as they considered it to be unfeasible. Parents of teenage children completely handed over the management of this sphere to their children, as they considered them to be ready for independence and responsible for managing this sphere of their parents' life. In the case of young children, technology was an indispensable companion and guardian that, without which, parents would no longer be able to care for their children. One parent even admitted that 'limiting technology would limit the possibility of reconciling work and raising children'.

Another reason for inactivity was the perceived harmlessness of the amount of time spent at home with technology: 'It's not all time, so it's not a problem'. Families didn't consider spending 2–3 hours using technology, out of the 5–6 hours they spent at home together between returning from work or school and going to bed, to be 'too much': 'We don't feel it's "pathological" too much. We have our "analogue moments" and we know that it can be worse, so we don't feel that it is (i.e., a restriction) necessary'. Moreover, external expectations were perceived as being so strong that, even if someone denied them, the environment would overwhelm them and force them to return to technology, as self-exclusion would lead to irreparable social losses.

A large amount of time spent using media technologies was recorded. More activities were done using technology than without it. Some technologies were used non-stop when somebody was at home, such as the TV. Communication was increasingly mediated with technology, even between family members who are at home. For example, texting a child to come to dinner was considered to be a normal occurrence. The importance of direct communication was underestimated. Informants reported that contact became difficult and relationships weakened. Family members seemed to be living in 'separate worlds'. For instance, a single mother bringing up a teenage boy would spend all her free time watching TV and surfing the Internet, while her son played computer games. They both spent all afternoon, evening, and even part of the night, in front of screens, which adds up to a total of 8–9 hours. Trying to limit technology usage during the diary challenge required a lot of emotional effort, and it brought about no significant reflections in this particular family.

In spite of, or perhaps because of, the low awareness of family members, their passivity manifested in resistance to potential change, as they stated that their digital well-being was good or even very good. The family reported satisfaction about the life improvements and facilitations that the unlimited possibilities of technology can bring

about. However, this was associated with a lack of awareness of the effects of uncontrolled usage of technology. Families didn't know why, what, or how to begin limiting their technology use. When comparing these families to those in other categories, or, even more so, to the expert recommendations, a random and chaotic style of technology usage was frequently observed. This approach resulted in certain mental, emotional, or even medical problems, including addiction, a lack of deep relationships, and problems with one's sight or spine.

#### Aware and passive families

The second category was made up of families whose members had gained awareness of the unsustainability problem of media technology use but did nothing about it. We observed minor attempts at an individual level, which were very selective and short-lived. Family members reported problems such as limited contact between household members, minimal time spent together, and weakened relationships. In the case of adults experiencing intensive work on the computer during the daytime, their awareness of technology role was actually growing; however, they couldn't cope with their own fatigue, which was a significant reason why they reached for technology at home. Members of these families didn't control their daily routines around technology or give in to certain reflexes, such as involuntarily reaching for a smartphone. In these families, 'the rule of a few minutes' was observed, which involves filling in the short time between longer activities by using a smartphone. The respondents pointed out that these short periods of time didn't allow for anything else and that reaching for a smartphone is mechanical. They rationalised a possible strategy of reduction: 'I think that given that we don't look at the phone while we're together, but rather in situations where each of us is busy with our own affairs, this restriction doesn't have to be too drastic'. They realised that technology 'distracts from analogue life' and 'kills time'. They lack strength and ideas in terms of how to solve their problem. One of the mothers admitted that limiting the technology would 'put them under stress', so they made no attempt. One of investigate fathers declared that, in his free time, he would gladly do something with his family other than watch TV, but he knew that the others preferred TV, so he gave up on any attempts to change. The digital well-being of such families was of a low quality, according to both the expert recommendations and subjective assessment. Unlike inert and passive families, these families manifested the will to change.

#### Active and ineffective families

The characteristics of active and ineffective families were very similar to aware and passive ones; however, the difference is that active and ineffective families displayed conscious actions to change the situation, despite the fact that these changes ultimately failed. In these families, technology was something important and, above all, adults saw the positive sides of technology. Often, it was the only tool for the ritual habits and integration of family members.

Although these families took on the challenges of managing the use of media technologies, they did not find success in the end. They selectively chose strategies that dealt with certain times of usage or specific types of content, and they rarely limited device usage. The implementation of strategies was chaotic and inconsistent. Parents had problems enforcing restrictions and didn't set the right example themselves. Contradictions and inconsistencies increased the sense of frustration. There was mutual resentment: 'Oh, you've already seen "all" Facebook, you're picking on me now!'. Often, a random strategy was implemented, and, after a short period of time, there was a form of overreaction. Families who took up the challenge of giving up technology during the course of the diary filing often made up for their abstinence by using technology even more at the end of the day. Some had to find a replacement technology during the course of the study, as they weren't able to cope with the elimination of the other technology.

Communication with people outside the home was almost permanent. In one of the families, a 'two-minute rule' was taken over from office job and introduced at home. The rule stated that, when a message could be answered in two minutes, it should be done immediately, even if other activities were interrupted. In some families, smartphones accompanied household members continuously; they were taken into the bathroom, used in the middle of the night and even in the shower.

In these families, it was recognised that the 'outside world' enforced the use of technology. Not using it would result in self-exclusion. However, these families did engage in critical reflection, and they admitted that they needed more discipline, better organisation of their free time, and performing activities without using technology. They also admitted to hurting each other by misusing technology. The threat of addiction in a family member was perceived.

In such families, a strong attachment to technology and a lack of an effective home management strategy resulted in moderate subjective and objective, i.e. recommended digital well-being. Their limited efforts gave the impression that their use of media technologies in the home was under control, and the rules didn't make bring about the expected effects. However, these families had displayed awareness, a willingness, and the effort to find solutions and implement them, as well as to draw individual conclusions from decisions made.

#### Active and effective families

The last group of families actively and effectively managed their use of technology at home. These families had high awareness of the effects of technology usage and the need to manage it at home. Their behaviour towards technology was strategic, reflective and purposeful. Many of them consciously gave up certain technologies completely. Those families used comprehensive strategies, combining the management of time, content, technology and other aspects. They declared that the implemented strategies had brought them individual and collective peace. They saw the advantages

of reducing the fear of uncontrolled technology usage, having a better organised family life, and spending more valuable and conscious time together, including physical activities in the open air. They deepened their relationships by focusing on the 'here and now'. The effect of these strategies was better communication in the family. Face-to-face model was preferred. Some even described this strategy as 'putting on the family', or placing the family at the centre, instead of technology. As a result of the rules, they felt orderly, calm and more joyous every day. Thus, the subjective and objective digital well-being of these families was very high. This was the result of introducing a thoughtful strategy and applying it consistently by taking into account four main aspects of management: time spent using technology, the technology itself (infrastructure, devices), the content, and the use/reception mode.

#### Media technology strategies in homes

The effective strategies identified were consistently integrated and adapted to the specific family. Successful families carried out continuous self-observation and dialogue, responding to challenges e.g. the growing age of children, and introducing necessary changes, also through trial and error.

The first type of strategy concerned the management of time spent with technology, which cannot be equated with the implementation of screen time rules, as this also applied to non-screen technologies, e.g. traditional radio, and the reception of digital media content but without contact with the screen, e.g. audio books played to children who do not use the devices themselves. Technology time management was predominantly implemented for children, as well as some adults.

The most common method was to determine the amount of time spent daily on a particular device, one application or all technologies, or a certain amount of screen time to be divided between the smartphone, tablet and computer. Sometime, time was measured in episodes, e.g. one fairy tale per day.

The limit could be set for a specific point in time or period, such as selected days of the week, e.g. media could only be used on weekends, or specific situations, e.g. technology could only be used when a parent had to do something important. There were also other time restrictions, such as the prohibition of using technology during mealtimes, an order to turn off all equipment one hour before bedtime or having Sunday as a 'detox day' when the whole family does not use the Internet. These rules also applied to adults.

The second type of strategy was to limit certain types of content or communication at home. This mainly applied to children, with minor exceptions. The basic strategy was to eliminate inappropriate content, e.g. adverts or videos, by installing parental protection. In order to do so, restrictions were used on Wi-Fi routers or applications on particular devices. Parents chose the specific content that their children could watch. They used different criteria to define the quality of the content, from the universal values presented to the subject matter, narration and type of editing.

Other content strategies were applied for the adults themselves. These included elimination of content of social media or not familiarising oneself with certain content on certain devices, e.g. social media entries on smartphones, limiting oneself to emergency calls during family time, or not using instant messaging. Adults sometimes declared reducing the number of applications to several necessary ones.

The third type of strategy concerned technological infrastructure and devices. The main manifestation of this strategy was the lack of selected technologies in homes, e.g. the total absence of TV sets, game consoles, tablets. Alternatively, families could choose versions with limited functionalities for children, such as functionally restricted mobile phones. This strategy also included banning the presence of media devices in selected rooms in the house (mainly bedrooms) or not using them at home in certain situations, e.g. by parents in the presence of children. Adults also differentiated between large and small mobile devices by deliberately using a laptop instead of a smartphone. The latter, due to its portability, can easily be carried around the house with its user, which makes it difficult to restrict its use. Placing smartphones in a specific location in the house, e.g. near the front door or in a so-called 'smartphone box' was implemented.

The fourth type of strategy concerned the use/reception mode, which refers to applying tailor-made, complex strategies for the family. For example, not only did children have a fixed number of fairy tales selected by parents that they could watch on a given day, but they must also be displayed on a large screen. Another key factor was the choice and evaluation of the content, which usually meant getting to know the content together with the child. In active and effective families, a continuous process of joint selection, reception/use and discussion was observed.

#### Conclusion

The study introduces new knowledge about the four categories of Polish families in terms of their propensity to implement media management strategies in their homes. It also identifies the main types of strategies implemented by effective families.

The study shows that reducing technology in families is a difficult challenge that few have managed to overcome. A number of respondents believed that technology should be limited, but they didn't act on this, both in terms of themselves and their children. Many families were not aware of the problem or didn't know how to manage technology usage. Families that made an effort often failed and only a limited group succeeded effectively.

The effectiveness of media technology management strategies stems from the family's adoption of the principles<sup>21</sup>. Family strategies are similar to official recommendations of 'media-free time together', 'media-free locations', 'ongoing communication'

<sup>&</sup>lt;sup>21</sup> L. Veldhuis, A. van Grieken, C.M. Renders, R.A. Hira Sing, H. Raat, *Parenting style, the home environment...* 

and 'positive parenting'<sup>22</sup>, the selection of content<sup>23</sup>, as well as 'participatory learning'<sup>24</sup>. The effectiveness of the successful families was partly down to a policy that integrated restrictions on content, viewing times and durations, equipment, applications and the mode of use. This method definitely fits into the co-viewing mediation model. Furthermore, parents limiting themselves and following the rules alongside their children increased the chances of a strategy being effective<sup>25</sup>.

Previous studies on the effects of ineffective management have been confirmed. The decrease in the quality of communication and the weakening of relationships in the context of using technology was confirmed. Families still used similar arguments in favour of the wrong approach, including the fear of digital exclusion<sup>26</sup>, but there were also paradoxical arguments, such as adults who are tired because of technology at work no longer having the strength to spend time in non-mediated ways.

However, the subjective digital well-being of families who did not manage media technologies or did so inefficiently remained relatively good. Technology allows for the integration of the family. Users appreciated the convenience, speed, flexibility of communication, and easy entertainment. Problems arise when the number of devices and the frequency of their use increases. The sustainable use of technology is about balancing their use and non-use in different dimensions and contexts, which is currently a major challenge for families. The challenge of technological self-limitation provoked respondents to reflect on the current state and, sometimes, the future. In this way, many admitted that their participation turned out to be an 'eye opener' that stimulated positive change.

A matter that remains unexamined is the extent to which the implementation of media management strategies in families contributes to reducing the negative impact of media technology overuse on one's physical health, e.g. being overweight or having metabolic syndrome or hypertension, and mental health, e.g. addictions, depression, drug abuse, aggression, as well as school and job performance. The assumption to conduct longitudinal research in order to understand the impact of the media remains valid.

The research indicates the need for preventive measures and interventions in families in order to counteract the harmful effects of media technologies. This applies to educational and political activities, including public health policy and technological innovation. The ability to manage the use of media technologies is a key component of media literacy. For academics and practitioners, the challenge of raising awareness remains, as well as educating and supporting families to help maintain a sense of balance

<sup>&</sup>lt;sup>22</sup> American Academy of Paediatrics....

<sup>&</sup>lt;sup>23</sup> A. Sigman, *Time for a view on screen time*, "Archives of Disease in Childhood" 2012, No. 11, pp. 935–942.

<sup>&</sup>lt;sup>24</sup> L.S. Clark, Parental mediation theory...

 $<sup>^{25}\,</sup>$  E.g. N.S. Hawi, M.S. Rupert, Impact of e-discipline on children's screen time, "Cyberpsychology, Behaviour, and Social Networking" 2015, No. 6, pp. 337–342.

<sup>&</sup>lt;sup>26</sup> A. Sigman, Time for a view on screen time...

and well-being without losing the potential offered by new technologies. Normative approaches have great cognitive but also practical value in this case, leading to offering solutions to the real and difficult problems of modern families.

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