Parents as mediators of children’s media (ab)use: An elementary-school-based programme to prevent problematic media use as precursor of internet and gaming addiction

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Abstract

OBJECTIVES: Considering that problematic use of screen media during childhood is a common risk factor for a large number of negative health outcomes, with internet and video game addiction recently being added to the list (Mölle, 2012), we describe the concept of MEDIA PROTECT, an intervention targeting parents aiming to reduce children’s problematic media use which is running in the formative phase at an elementary school in Hanover, Germany. We present results of our RCT evaluated program targeting mainly children (Kleimann et. al., 2008), and describe how these findings led to an adapted intervention concept that uses a triangle of approaches to support parents. Providing a developmentally appropriate media education for their children: Information on media effects, pedagogical assistance to limit and control their children’s media use, and technical support for installing protection software.

DESIGN: The evaluated intervention was a four-year longitudinal control group study with 1,859 elementary school children (third- to fifth-grade; baseline, n = 113; treatment, n = 942; control, n = 54).

MAIN OUTCOME MEASURES: Media availability and exposure, leisure time and social behavior, perceived parent education and guidance (general/media), socio demographic parameters. Students’ IQ, subjective self-image, classroom climate, social integration. Parents’ socio demographic parameters, educational achievement, media equipment and exposure (self/child) and their children’s leisure time behavior.

RESULTS: Analyses on the effectiveness showed a short-term (up to intervention times), and a slight increase in screen time for mathematics. Implementation of the program was difficult and greatly reduced especially for the third treatment (5th grade). A significant longer-term reduction in bedtime media ownership was reported, though not in media usage times. To improve long-term effects, a shift to lower age-groups and more focus on indirect parent-mediated changes, plus the inclusion of a currently running formative phase in 2013/12 prior to RCT evaluation are the improvements and adaptations we derived from these results.

Introduction

It is one of the major challenges for parents today to follow a path of age-appropriate media use in the family. This path ideally runs from protecting small children from any kind of screen media exposure (American Academy of Pediatrics, 2011) to limiting time and content and promoting family time (secondly, a single use of youths into taking on their own responsibility for a limited, skilled and critically informed use. As media routines in the family show high stability over time (Mölle 2012) and are difficult to change once they are established, and longer usage times are associated with higher problematic content (Hancox, Milne, & Poulton, 2004; Möllé, 2012) a crucial point for intervention is the time children enter school. For German kindergarten children, television is still a key source of content, but entering school time school-related computer and internet use leads to a fast increase in usage times and problematic content of use. This poses a particular challenge to media education in the family, with children routinely using computers for other than the intended educational purposes in the home, and reaching usage times of several hours per day for screen media and a high proportion of problematic content such as media with age ratings of 16 or above (Mölle 2012; Feerabend, Karg, & Rathgeb, 2011). Knowledge about the support needs and advisory requirements of different groups of parents provide a basis for effective target-group specific parent counselling in media education (Bleckmann, 2006).

Methods Berlin intervention

On all measurement occasions a paper-pencil interview is conducted within the class room setting concerning media availability and exposure, leisure time and social behavior, perceived parental education and guidance (general/media), as well as socio demographic parameters. Standardized psychological tests serve as assess students IQ (CFT 20), academic self-image, classroom climate and social integration (PEEES 3-4). Additionally, all students’ body weight and height is taken at the time of the interview. The first measurement occasion was the start of the study and the third measurement occasion regarding socio demographic parameters, educational achievement, media equipment and exposure (self/child) as well as their children’s leisure time behavior. A teacher questionnaire is used to evaluate class characteristics, school performance and work habits at all measurement occasions.

Results Berlin intervention

The intervention consisted of 12-lesson primary teaching units in both 3rd and 4th grade, administered by trained teachers in the class context with accompanying print materials on the topic of problematic but adequate media use (a small textbook and a media use contract to be signed in 3rd grade, a 4-page textbook in 4th grade) plus a parent evening. Intervention in 5th grade was a context in which participating classes competed for a prize awarded for the best creative transformation of media topics (Flyer, school magazine, event).

First analyses on the effectiveness of the intervention program show reduced bedtime media ownership (TV, GC, PC) and media exposure (time and content) for children in the 20 intervention schools at T3, compared to children in the control group (Figure 1, Figure 2).

Regarding school achievement, a higher percentage of children improving their grades in the intervention group can be found at T3. Structural analytical data for T3 shows significant relations of gender (male), personality variables (lower empathy and higher impulsiveness), a high degree of daily media exposure (content and time) and problematic social behavior (measured by school violence). (Kleimann et. al., 2008). For T5, a significant reduction in bedtime media equipment, but no overall reduction in screen media usage times was found (Kleimann, 2011).

Conceptional development and description of MEDIA PROTECT

Analysis of the data from the Berlin Longitudinal Media Study (BLM, Möllé 2012), of the intervention described above formed a part, showed active media education (parents limiting children’s media use-time and contentwise, taking interest in children’s media activities) to be a central mediator of children’s media use (figure 3) which was not adequately addressed in the above intervention. At the same time, parents as a target group pose a great challenge regarding the rate of participation in interventions. BLM study therefore showed a number of factors to be associated with video game dependency. Game dependence (use playing video games in reaction to real-life disappointment or failure), playing MMPGs (Massively Multiplayer Online Role Playing Games) are risk factors, social support in the family group and even more markedly familyally, are important protective factors. The formative phase of MEDIA PROTECT is carried out by two trained professionals from "return – Fachstelle für exzessiven Medienkonsum" at an elementary school in Hanover region during the 2012/13 school year. Currently, analyses of answers to a first written questionnaire administered to all parents in November 2013 is being carried out, with a focus on documenting different parental support needs and advisory requirements.

Figure 1: Bedroom Media Equipment (Games Console) by group and measurement occasion

Figure 2: Media Exposure (Time spent on playing Computer Games) by group and meas.-occasion

Figure 3: Factors influencing problematic use of screen media.

Figure 4: MEDIA PROTECT concept

References

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