Children with Emotional and Behavioral Difficulties and ICT

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1   What Are Emotional and Behavioural Difficulties?

To start, it is vital to acknowledge that emotional and behavioural difficulties (EBD, also referred to as disorders or disabilities) cover a wide range of behavioural patterns and psychosocial problems of a child, such as aggression, anxiety, hyperactivity and more. Therefore, EBD are often hard to distinguish from other disabilities, partly because disabilities are often correlated and refer to the same child, impacting his or her functioning. Additionally, there are still discussions on the criteria and diagnoses, as well as arguments to include EBD among other disabilities, particularly within the school system. The latter also varies substantially among legal systems in different countries (Brigham, et al. 2021; Kaufman, 2015; Kauffman, Landrum, 2009; 2013).

EBD cover a wide range of behaviours that are challenging for the school environment and educational professionals, but also cause distress and disadvantage for the child who experiences them. Depending on the undertaken perspective, scholars may focus on the behaviours of children with EBD, the emotional and psychological problems they experience, or all those aspects, also using the holistic approach focussed on the social environment of a child. Generally, in the educational context, pupils with EBD demonstrate behaviours that are problematic in a school environment (e.g. being off-task) or openly disruptive (an actively negative

interference with the learning activities). This frequently results in lower academic achievements or drop-outs (Didion, Toste, Wehby, 2020; Mulcahy, Krezmien, Maccini, 2014) that multiply the existing problems through the mechanisms of a vicious circle (one problem reinforcing another). Also, longitudinal studies indicate that EBD may heighten the risk of social maladjustment (including delinquency and substance abuse), which may persist into adulthood (Indris, Barlow, Doland, 2019). Hence, early intervention to prevent this at school age is crucial.

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For this chapter, it is beneficial to quote a classic and widely used typology provided by T. Achenbach (1978) that defines two main groups of disorders, namely externalizing and internalizing disorders, both of which fall under the umbrella of EBD (Table 1.).

Depending on the diagnostic criteria, the estimate of EBD prevalence is between 3% to 9% in the general population (for both internalizing and externalizing disorders) (Mooij, Smeets, 2009).

It is vital for those working with children with EBD to recognise that emotional and behavioural difficulties are sometimes wrongly interpreted as a phenomenon that is only connected with individual characteristics, while a more systemic approach also covering social and family factors is needed. Those factors, particularly when negative, e.g. family or peer violence or aspects of the curriculum (and teacher-student relationship), may influence the occurrence of EBD (Didion, Toste, Wehby, 2020; Mooij, Smeets, 2009).

Pupils with EBD attend both special and mainstream education schools. Many studies have shown that teachers, particularly from mainstream education, assess their ability to support the needs of children with EBD as lower in comparison to their ability to support the needs of children in other special education subgroups. Moreover, a lack of adequate support for students with EBD, particularly in the early stages when challenging behaviours first occur, may amplify these difficulties (Mooij, Smeets, 2009).

Table 1   Typology of disorders according to T. Achenbach (1978)

Externalizing disorders	Internalizing disorders
→ Aggression → Antisocial behaviour → Defiance → Impulsivity → Hyperactivity	→ Withdrawal → Anxiety → Depression → Low self-esteem → Obsessive and compulsive behaviour

3–9%

of the general population
face emotional and behavioural
difficulties

2 Students with Emotional and Behavioural Difficulties and the Internet

The literature exploring the specifics of the digital risks and opportunities for children with EBD is rather scarce and often focused on specific subpopulations in the particular national and social context. Still, some valuable data can be used as a basis to formulate evidence-based generalizations covering students with EBD and their life in the digital environment (Williams, et al., 2006).

The EBD group seems to be a subgroup that is profoundly affected by digital inequality, which is usually understood in this case not as a lack of hardware, software or Internet access but rather as lower digital skills and a lack of ability to take full advantage of the digital environment (Van Dijk, 2020; Zhang, Livingstone, 2019).

The crucial problem linked to digital inequalities in the case of children with EBD seems to be related to their environment, which is not supporting the development of digital skills. As a result, this makes young people from this group more prone to digital risks.

Recent studies suggest that in the case of many children from disadvantaged groups, not only those with emotional and behavioural disorders, digital skills may be negatively affected by the fact that these children are (and perceive themselves as) discriminated against. What is important here is that this discrimination may be experienced both online and offline. In this context also a kind of vicious circle may appear. It may mean that a young person is discriminated against and labelled as incapable. Afterwards, by inhabiting this label they believe they are less capable and competent in using technology. This in turn may reduce confidence and lower self-esteem. A result such belief may lead to demotivation to engage with the digital world. Young people who feel discriminated against seem to develop digital skills slower and achieve lower levels of digital abilities, probably because other risk factors for the impairment of digital skills (e.g. those connected to a family environment) have a stronger effect in their case (Mascheroni, et al., 2022). Still, this preliminary finding needs to be confirmed in the future since relations between EBD, discrimination and health risk behaviours seem more complicated and are not easy to interpret (Martin-Storey, Benner, 2019).

discrimination, a label of being less capable

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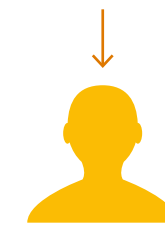
perception of lesser abilities and competence in the use of technology

↓

lower confidence and reduced self-esteem

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demotivation to engage with the digital world

3   Risks and Opportunities

Generally, describing specific risks and opportunities is a difficult task in the case of children with EBD. This is mostly because there is a wide range of individuals with radically different problems (e.g. externalized or internalized disorders that are additionally represented with different levels of severity) under the umbrella of 'EBD'. This means that digital risks and problems are not qualitatively specific but universal, yet digital/Internet risks and opportunities may arise more frequently in this group. In numerous instances, especially when there is no empirical data, this implies that we have to draw conclusions from conceptualizations, which results in a higher risk of speculation. However, since this information is necessary to support effective media education in children with EBD, this uncertainty cannot be fully avoided.

Specific Risks

Children and adolescents with EBD experience a higher risk of mental health and sexual health problems. Many adolescents now, including young people with EBD, present help-seeking behaviours, especially looking for information and support online. Topics of particular interest include those concerning interpersonal relations, stress, eating disorders, weight, depression and anxiety concerning the future (Suzuki, Calzo, 2004). This trend seems to be increasing since the amount of online information and potential Internet sources are more and more available, particularly on mobile devices when access is mostly not supervised by parents, especially in older children.

Research shows that adolescents are reluctant to share important health concerns directly with professionals (e.g. school councillors) or adults in general (Ackard, Neumark-Sztainer, 2001). They instead turn to their peers and prefer online settings, where a certain level of privacy and confidentiality can be ensured. Two main sources are used by young people in terms of seeking this type of information: peer forums / social networking sites and materials prepared by health professionals. In both cases, there are possible risks that the information obtained (and implemented) will not be accurate. In the first case, young people with EBD may access online forums or threads where people with similar problems gather and often exchange information that may not be credible and helpful.

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Additionally, even credible materials may be and often are prepared using language that is too difficult to understand for young users (Grohol, Slimowicz, Granda, 2014).

Two further important risk phenomena that should be described in the context of EBD children are cyberbullying and problematic internet use. Although these two risks are not exclusively linked to EBD children, young people with EBD may be more often engaged in them.

Cyberbullying is repeated hostile behaviour including abuse of power with the use of Internet tools. As such, it is a digital version of so-called traditional bullying, which is defined similarly but based on face-to-face violence (such as physical or verbal actions against someone or exclusion – so-called relational bullying) (Olweus, Limber, 2018). Cyberbullying may be perpetrated in numerous forms such as flaming, harassment, denigration, impersonation (theft of online identity), outing and trickery (revealing secrets online), exclusion or cyberstalking (Willard, 2007). Children with EBD are more likely (similarly to other special needs students) to engage in peer cyber/bullying in all roles: perpetrators, victims and bully-victims. However, it should be underlined that emotional and behavioural difficulties may both be a risk factor for cyberbullying and its consequences (Schultze-Krumbholz, et al., 2012).

The crucial mechanism that may be involved in EBD children is their relatively lower social skills (also present in the digital environment) and the character of their emotional reactions, which may lead to greater victimization and perpetration or both. It is also more difficult for those children to receive help and defend themselves or resolve peer conflicts (Pereira, Lavoie, 2018). Since bullying and cyberbullying often overlap in individuals and are to some extent stable over

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Forms of cyberbullying

!#?*#!

→ flaming
→ harassment
→ denigration
→ impersonation (theft of online identity)

→ outing and trickery (revealing secrets online)
→ exclusion
→ cyberstalking

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time (Camacho et al., 2022), this may significantly increase the risk of EBD in children, who often experience other problems in parallel – for example, related to their family situation (Poulou, 2015).

Problematic (excessive) internet use (sometimes referred to as Internet addiction) is commonly defined as the inability to control one's own usage of the Internet, which causes a syndrome of psychological and social problems (Spada, 2014). Usage of the Internet in a problematic way is often associated with mental health and social problems (including those that are conceptually part of EBD). The issue here is whether those problems are an effect of problematic internet use or a factor that pushes young people to use the internet that way, or both. The causal relationships are hard to establish here (Boniel-Nissim, Sasson, 2018; Restrepo, et al., 2020). In EBD children, problematic internet use may be both a way to cope with experienced emotions and to address problems with establishing peer contacts, which are easier to establish online.

Specific Opportunities

In this section, a few main areas where ICT may be beneficial for young people with EBD have been enumerated.

The first is connected to learning motivation, which is often impaired in this group for various reasons. As such, ICT-based learning may facilitate engagement in learning through self-competition, improved competence and self-esteem (Williams, Jamali, Nicholas, 2005). The more advanced example of such measures may be so-called applied games that are defined as educational applications, which combine serious content through teaching, learning, communication and providing information with the engaging and entertaining aspects of video games. In the case of EBD children, such games may be used as attractive measures to develop social and emotional competencies (e.g. seeking help or establishing peer relations). These games may also directly address the risk problems defined above, namely cyberbullying and problematic internet use (e.g., Calvo-Morata, et al., 2020).

Additionally, the Internet may help EBD children establish positive peer contact in social media or other online groups focused on specific interests (e.g. music, sport, art). However, the risk here is that such online interaction will act as a replacement for traditional relations and will bring more problems in the long term.

Presented before as a risk, the strong need of EBD children to seek help, supportive contact and information online is also, under favourable circumstances, a great advantage. Since the Internet provides opportunities for anonymous browsing for information and sometimes for the use of professional and semi-professional help, it can be a valuable tool for achieving support that would (in some cases) not be achieved otherwise. This is partially backed up by research (Prescott, Hanley, Ujhelyi, 2017), which also shows the need

to prepare young people for being critical and cautious when receiving emotional or informational support.

EBD children may also receive a better education when their parents are supported through online groups. Such groups (similar to traditional face-to-face groups) can be a great source of valuable information and emotional support, including in crisis situations (DeHoff, et al., 2016). At the same time, we should remember that unreliable or even potentially harmful advice can be shared in such groups (Mertan, et al., 2021). Similar measures also seem beneficial for professionals working with children with individual educational needs in general (Billingsley, Israel, Smith, 2011).

Summary of Key Opportunities

→ engagement in learning through self-competition

→ serious games as attractive measures to develop social and emotional competencies

→ positive peer contacts in social media or other online groups focused on specific interests

→ anonymous browsing for information and use of professional and semi-professional help

→ a source of valuable information and emotional support for parents

4   Recommendations

Many scholars formulate general aims for supporting young people with EBD (Didion, Toste, Wehby, 2020; Mooij, Smeets, 2009). They could be briefly summarized in the following points:

- **Adjusting classroom activities in a way that matches EBD children's competencies** (this should be done based on preliminary evaluation of those competences),

- **Building engagement** (e.g, by organizing creative digital activities linked to the topic of interest),

- **Building responsibility and self-regulation in EBD children** (e.g. by establishing together online safety rules),

- **Building a supportive student-teacher and peer environment** (online contact with a teacher during, for instance, homework activities or using platforms, which allow for online peer cooperation are good examples here),

- **Constant contact with parents/carers of EBD children** (e.g. through the digital diary, to ensure exchange of information and actual co-operation of a school and home environment).

All of these aims can be fulfilled thanks to ICT measures used properly from an educational perspective. Thus, using ICT in this way (and particularly the Internet) may be a leading recommendation. Based on the literature, the following recommendations can be formulated for media education concerning EBD children:

- **Two main risk behaviours that should be included in the curricula for this group are cyberbullying and problematic Internet use.** Both of these risks seem to occur more frequently in this group and may bring more psychosocial consequences at the same time. When providing any preventive measures, it is advisable to not only focus on those two phenomena but also on their counterparts, namely prosocial and positive contacts online (as opposed to cyberbullying) and the positive usage of the Internet (as opposed to problematic Internet use). It is also important that those problems be addressed holistically. For example, it is vital to cope with cyberbullying in the context of the entire peer situation of a young person (e.g. taking into account involvement in traditional bullying). Focusing only on online peer relations would oversimplify the problem and reduce the chances to provide effective support.

- EBD children may seek help online concerning the psychosocial problems they encounter. **The main focus should be placed on their ability to find reliable sources and to recognize those sources and pieces of information that may be harmful when implemented.** On the Internet, there are plenty of sites offering health information or support groups where one can find information that is inaccurate. From an educational perspective, education professionals may disseminate addresses where reliable content can be found among members of the school community and also provide such addresses directly to individuals in need. Additionally, some educational activities concerning information skills may be beneficial. However, the main issue here is to provide content that is well-embedded in the real life and problems of EBD children to encourage their motivation to take part. Furthermore, well-designed media education activities should be focused on debriefing fake news and disinformation. In the educational materials for this specific group, it would be advisable to focus on sample content that may be particularly hurtful when it is not reliable (e.g. content on mental health issues that may include information that is dangerous when implemented). It is also advisable to build the habit of checking online advice against other sources (e.g. a school counsellor). Moreover, such activities should be accompanied by health literacy education that helps young people understand their problems and assess the quality of the health advice and social support they receive in online and offline settings.

- As the education of EBD children is a challenging task, **it is advisable to organize good quality practical information on supporting EBD children and share it online.** But it is even more important to organize online support groups for parents and teachers (and both groups together), where there is room for exchanging practices and support. Such groups may be organized on national, regional and school level.

Building Engagement by Organizing Creative Digital Activities

To use visualization tools with them is a must, because you can achieve an agreement with kids for example when a child doesn't want to write, you can agree that firstly he or she can do some exercises using different digital tools or in the app and after that he or she will write few words or sentences on the paper. Or other example: a child doesn't want to read, but he or she has a great motivation to play with words in various interactive apps, such as Scratch, CoSpaces and Interland for sure.

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The Importance of School–Home Cooperation in Building Digital Citizenship Skills

Teaching children with such needs how to be safe on the internet involves a lot of conversations in school, at home, and constant repetition of information in various ways and situations.

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5 Emerging Issues – New Trends

The big and widely discussed trend is Artificial Intelligence (AI) used in educational activities. It seems that the potential advantages are numerous in special education in general (Hopcan, et al., 2022). Among them, one can list personalized education and feedback, the easy preparation of personalized educational materials and active student engagement. These pros, although beneficial in all educational contexts, may be especially beneficial in the case of EBD children, who need individualization to a great extent. Still, it is important that an educational rather than a technological approach should be used wisely here. In practice, it is less important what the technology can do than how its usage is tailored to the needs of children with EBD.
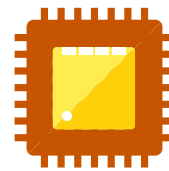
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6 Lessons from Emergency Remote Education

There is no systematic wide-scale evidence of how COVID-19-related remote education targeted specifically EBD children. Still, there are some micro-conclusions from this time that may be useful for using ICT in supporting EBD children. For example, Polish studies (Pyżalski, Walter, 2022) have shown that for some children with internalizing problems, online communication (when they do not have to switch the camera on) may be very encouraging and can motivate them to be active in verbal conversations. This suggests that teachers might use online communication as an alternative or parallel way to initiate or maintain good contact with EBD students, e.g. while providing individual support when a student is preparing homework or providing advice on peer relations.

For some children with internalizing problems, online communication (when they do not have to switch the camera on) may be very encouraging and can motivate them to be active in verbal conversations.

7   Further Reading

It is important to refer to some quality resources on cyberbullying intervention. One address worth visiting is cyberbullying.org, which offers a wide variety of useful materials. One can find there the latest research data, educational materials for young people and practical guides on how to tackle cyberbullying in schools. Most of the tips are universal and may be implemented to support EBD children.

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