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## Adventure Education as a Way to Strengthen a Child's Mental Resilience

Pedagogika przygody jako forma wzmacniania odporności psychicznej dziecka

### KEYWORDS

adventure education,  
outdoor education,  
childhood, mental  
resilience

### ABSTRACT

Various forms of outdoor education proposed by many pedagogists, psychologists and educators are ways to learn through experience in open space, outside the school classes which is. Not only the acquisition of knowledge, but also the development of motor skills, experiencing the capabilities of one's own body, and gaining social experience through shared activities are important aspects of a child's development. Crucial form in this field is also risky play and adventure education with its promoting and therapeutic potential. The aim of the article is to point out the meaning of adventure education for mental health promotion. The basic terms connected with the adventure education will be defined in the article. Moreover the arguments for adventure education role in the building of mental resilience in children will be discussed. The Circle of Courage Model as conceptualization of adventure education meaning in positive growth of children will be presented. Moreover the Sandra Prince-Embury conception of resiliency will be attached to clarify the building of personal resources in children. Education when taking into consideration mental health promotion in children need innovations, getting international and interdisciplinary experiences (ex. history, philosophy) what will be underlined in the article.

## SŁOWA KLUCZE ABSTRAKT

pedagogika  
przygody, *outdoor*  
*education*,  
dzieciństwo,  
odporność  
psychiczna

Różne formy *outdoor education* są drogą nauki przez doświadczenie poza murami sali szkolnej, w otwartej przestrzeni, proponowaną przez wielu pedagogów, psychologów i nauczycieli. Nie tylko nabywanie wiedzy, ale i rozwijanie sprawności ruchowych, doświadczenie możliwości własnego ciała, jak i zdobywanie doświadczeń społecznych we wspólnych aktywnościach to istotne aspekty rozwoju dziecka. Znaczącym obszarem w zakresie tego nurtu jest również zabawa związana z ryzykiem (*risky play*) oraz edukacja przez przygodę (*adventure education*), która posiada też wymiar profilaktyczny i terapeutyczny. Celem artykułu jest wskazanie znaczenia pedagogiki przygody dla promocji zdrowia psychicznego. W tekście zostaną zdefiniowane podstawowe pojęcia dotyczące wybranych form *outdoor education*. Ponadto omówione będą argumenty wskazujące wagę pedagogiki przygody dla budowania zasobów odporności psychicznej dziecka. Jako model wspierający rozumienie tych relacji zostanie przedstawione koło dzielności – propozycja konceptualizacji znaczenia przygody dla formowania się zasobów osobowych dziecka (*positive growth*). Jako wyjaśnienie procesu budowania odporności psychicznej (*resiliency*) zostanie wskazana propozycja Sandry Prince-Embury. Zarówno edukacja, jak i wspieranie zdrowia psychicznego dzieci wymagają innowacji i czerpania z doświadczeń nie tylko innych dyscyplin (filozofia, historia), ale i z dobrych praktyk międzynarodowych.

## Education, Experience and Development in Open Space

Outdoor Education, Experiential Learning, Enviromental Education, Erlebnispädagogik or Adventure Education are terms describing pedagogical suggestions which underly action, learning in exposition to physical, psychological and social challenges (Michl, 2011).<sup>1</sup> Outdoor education as a general term involved the educational classess (biology, history, geography) on the one hand and sport activities (climbing, tramping, camping) on the second hand. Outdoor education is defined as activities for ecology, physical and interpersonal development in children (Koszalka-Silaska, 2019). Contact with nature enables the development and exersices of many functions in more natural circumstances than closed space of the school class. Education in open space brings many profits to young people. Research on effectivity of this educational form show its positive impact on the cognitive development (knowledge), on the social development(cooperation and problem solving in the group) and on the personal development (responsibility, school motivation and self-esteem)

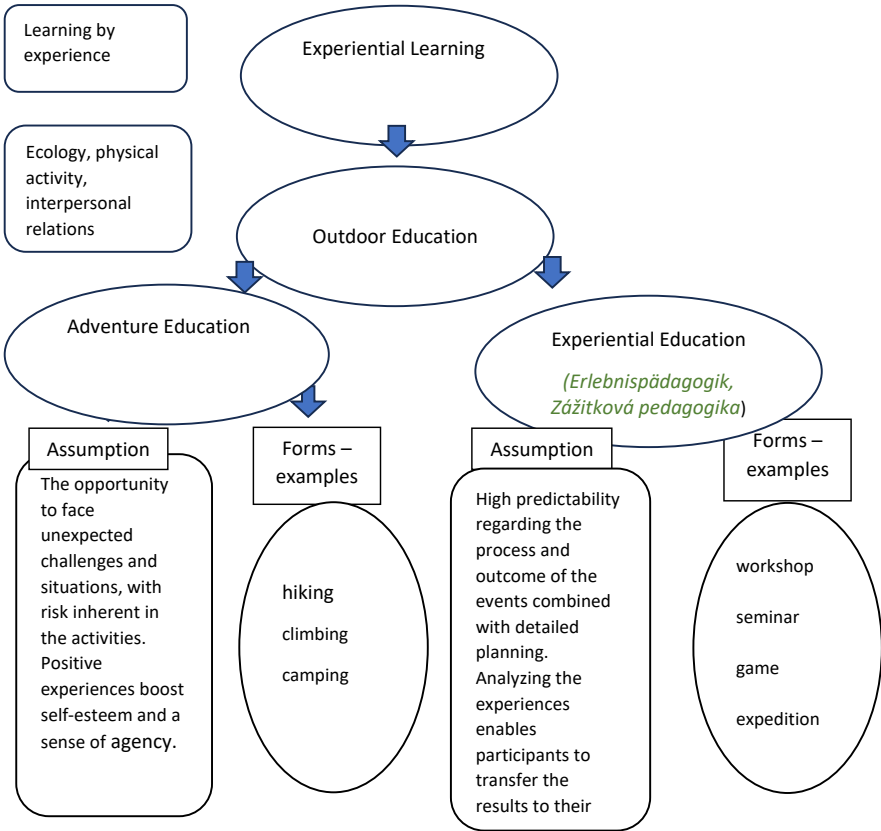
1 Detailed terminological analyses can be found in: Koszałka-Silaska, 2019.

(Michalak & Parczewska, 2022). In the teachers' opinion this form of education presents such advantages as freedom, greater self-efficacy in pupils action, rising their motivation and interest for phenomena in the biological (Parczewska, 2019) and social environment. Nature learning via outdoor education is especially valuable, enables not only knowledge but also acquisition of the health-promoting behavior (Bałachowicz & Tuszyńska, 2015).

Young people education in the natural conditions is promoted by the presumption that children are the part of nature and they find connections with it spontaneously on the natural way (Barratt Hacking et al., 2020). Staying in nature encourages children to ask questions about structure and function of the surrounding world, develops their tendency to explore and to experiment in the environment. International comparisons show, that classes in the open space, outside the school building are very often not included in the school curriculum, but rather undertaken spontaneously by teachers. Summary of research on outdoor education in Australia and Finland show that Finnish teachers are allowed to organize creative outdoor activities near the school more often, whereas Australian experience in this field were connected rather with camps held away from the school (Kokkonen et al., 2026). In turn, the educational philosophy *Come Rain or Shine* in Swedish preschool education illustrates how children acquire knowledge about the world of plants and animals, about nature conservation and about survival skills, by spending time outdoors in all weather conditions (Adamczewski & Nagae, 2022).

For the purposes of this article, I propose a preliminary classification of key concepts relevant to pedagogical activities with children and youth conducted in open space outside the classroom.

Figure 1. *Orientational Concepts – Interdependencies*



**Similarity of Goals Between Adventure Education and Experiential Education**

- All classes and activities take place in a natural setting, offering opportunities to improve physical fitness (e.g., in a forest environment) and look after one's health, while also allowing one to step away from civilization. Engaging in activities amidst nature fosters reflection.
- Participating in adventures and experiences involves physical activity, improves motor skills and coordination, and fosters familiarity with the surrounding space..
- Participation in the activities impact development of personal competencies (e.g., self-control, a sense of agency, decision-making) and social skills (e.g., cooperation, communication). It benefits participants' mental health by helping them overcome their fears and build greater trust in themselves and the world around them.

(Author's own elaboration based on: Gilbertson et al., 2006; Koszałka-Silska, 2019; Michl, 2011; Palamer-Kabacińska, 2012).

The proposed conceptual systematization is certainly imperfect, yet it represents an attempt undertaken for the purposes of this article. Scholarly debate regarding terminology is ongoing; however, in defense of any potential shortcomings, one might cite the view of Waław Sonelski – a researcher in this field – that the precise definition and differentiation of related concepts (such as outdoor education and adventure education) is, in essence, a pseudo-problem (Leśny, 2014).

In the Polish context, adventure education is considered as a combination of methods drawn from outdoor education, adventure education, and experiential education – all falling within the realm of experiential learning (Palamer-Kabacińska, 2012). So called “Green schools” serve as a Polish example; many of them incorporate elements of adventure education (e.g., tracking games) or experiential education (e.g., integration workshops at the start of the school year). In the Polish context, the juxtaposition of adventure education and Harcerstwo (Polish scouting) holds a significant place. While scout instructors perceive many similarities regarding principles and methods of both pedagogical ideas, a fundamental difference lies in the objectives of the activities: in adventure-based activities, goals may be determined by the group *ad hoc*, whereas in Harcerstwo, they are predefined in accordance with the organization's aims and ideals (Palamer-Kabacińska, 2022).

Because the etymology of “adventure education” is rooted in the word *to venture* – which, among other meanings, signifies “taking a risk” (Kokkonen et al., 2026) – “risky play” could be considered also as a significant form within this field. This activity involving a certain degree of risk is defined as exciting, free play characterized by uncertainty regarding the outcome and the possibility of sustaining physical injury (Sandseter, 2009). Risky play involves climbing, fast movement, the use of dangerous tools, or balancing. It is crucial for children's physical development, self-confidence, mental resilience, and learning to manage risk (Parczewska, 2024). The environment for a child's spontaneous mobility during play, proposed in the model by Marketta Kytä, comprises four patterns.

These are: 1) Cell – a term describing a space where a child finds no opportunities for free, active play due to the prohibitions and restrictions imposed on them. Activity is possible only with the permission of adults. 2) A Wasteland (unused land) is an environment offering few opportunities for active play, providing neither challenges nor encouragement for a child. 3) Bullerby (a noisy village) is a place full of physical challenges that motivate children to engage with them; it is rich in stimuli and exploration opportunities. 4) Glasshouse – a space offering many potentially attractive opportunities for active play, yet inaccessible to the child due to a lack of access (Kytä, 2004). The contrasting concepts of “Bullerby” (the name of the village from Astrid Lindgren's *The Six Bullerby Children*) and “Cell” serve as metaphors for pedagogical approaches illustrating the idea of risky play. The traditional approach favors adult's control and

risk minimization through instructions and prohibitions imposed on children – such as “*I am not allowed to climb trees*”. In contrast, risky play allows the child to make decision and encounter situation involving moderate risk, fostering a sense of agency: “*I can climb branches that aren’t dry and are thicker than my leg*” (Sandseter, 2009, cited in Parczewska, 2024, p. 140). Play involving risk is often considered as potentially dangerous when playground safety standards are discussed. However an element of risk is always present in developmental activities (such as the play of young animals as practice for life skills; Huizinga, 2022). By confrontation with stimulating environmental challenges, a child not only hones their skills but also learns to gauge their own capabilities (Sandseter, 2009).

Adventure education – grounded in the ideas of Plato, Goethe, Rousseau, and the Scouting (regarding youth upbringing) emerged in the 1930s as a concept proposed by the German educator Kurt Hahn (Palamer-Kabacińska, 2012). In this context, adventure is understood as an “unusual, exciting experience with an uncertain outcome, accompanied by a subjective sense of risk” (Brendtro & Strother, 2007, p. 2; author’s translation). The most common forms of activities offered to children include camping, field games, climbing, and hiking. Adventure education is based on the Kolb Model, which describes the principles of experiential learning (Kolb & Kolb, 2022). The cycle comprises four stages:

- Experience (Action): The group participates in an activity, such as an outdoor game or an expedition.
- Reflection (Observation): Participants discuss the events, experiences, emotions, and personal insights with the leader.
- Theory (Conceptualization): Conclusions are drawn based on observations, general principles are formulated, and an understanding of the mechanisms governing group behavior is reached.
- Application (Experiment): Participants test the new knowledge and behavioral strategies in both their daily lives and subsequent adventure activities.

An example of the model’s application is a proposal for outdoor sport activities in youth (Mantorska & Leśny, 2016).

Experiencing challenges and learning to overcome difficulties activate processes that foster healthy personal development (positive growth). The basic premise of adventure education is that facing challenges, engaging in adventures, and overcoming moderate levels of stress have a toughening and strengthening effect (Beightol et al., 2012; Neill & Dias, 2001). Reports on the effects of adventure education demonstrate significant benefits for children and youth in physical, psychological, social, and educational domains (Ewert, 1983; Brendtro & Strother, 2007). The benefits gained by participants could be categorized into those relating to personal development and those concerning social relationships. Firstly, taking on challenges and effectively

managing risks strengthens the sense of agency and self-confidence. Moreover such experience enhances self-awareness, a sense of responsibility, and self-esteem. Secondly, in physical activities, (such as games or camping trips) children improve their motor skills and coordination, overcome personal limitations (such as fatigue or fear), learn problem-solving and when achieving success they foster optimism. Thirdly, through interactions with others, young people acquire skills in cooperation and group leadership, as well as the ability to respect social feedback and the needs of others (Ewert, 1983; Brendtro & Strother, 2007).

### Adventure Education and Mental Resilience

Research findings on the developmental outcomes of adventure education highlight its role in building children’s psychological resilience. To illustrate these relationships, the Circle of Courage Model – proposed by the positive psychology to explain the process of developing a child’s individual resources (Brendtro et al., 2005) – will be used. Mental resilience is understood in the model as an individual inner strength that enables one to overcome difficulties and adapt to the challenges. Contemporary preventive interventions based on this model aim to develop the biopsychological mechanisms that serve as a natural resource for coping with stress (Trzebińska, 2008). This American approach integrates insights from three areas regarding child and adolescent development: the child-rearing practices of North American tribal cultures, contemporary findings from developmental psychology, and the expertise of child and adolescent psychotherapists (Brendtro et al., 2005; Neill & Dias, 2001).

Figure 2. *The Circle of Courage*



(Author’s own elaboration based on Brendtro et al., 2005).

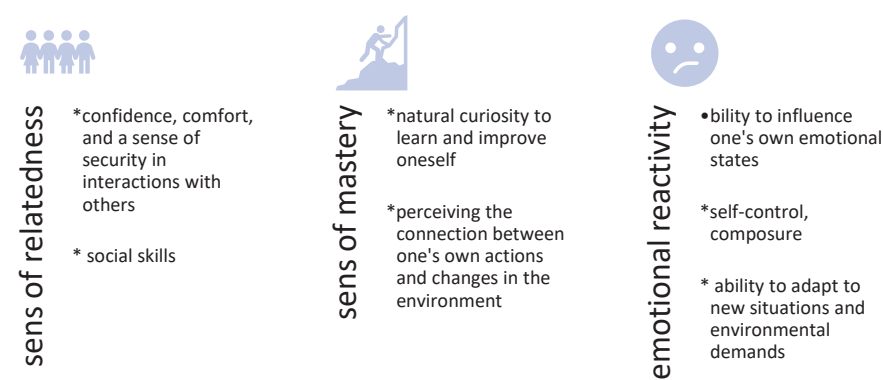
The model presents a circle composed of four quadrants in different colors (red, yellow, black, and white), representing the four human races and the four elements: fire, wind, earth, and water. This figure of The Circle of Courage illustrates the contexts of the biological and social macrosystems in which a child's development unfolds, as well as the more immediate microsystems: family, peer groups, the community, and school (Bronfenbrenner, 1979). A child's inner strength is fostered by meeting universal needs such as belonging, mastery, independence, and generosity (Brendtro et al., 2005; Longhurst et al., 2011). The model's authors posit that when a child's needs are met within their immediate environments it results in personal growth and positive mental health development.

**The need for belonging** – primary and fundamental to healthy development – involves relationships with others in the family, at preschool, in the neighborhood, or among peers. Being with others, coupled with trust in their support, fosters a sense of security in the world. A connection to one's group serves as a source of inner strength. The next need important for personal growth is **the need for mastery** – striving to be skilled, whether at building with blocks, playing ball, or mastering the multiplication table. The sense of being capable and performing tasks well ultimately builds self-esteem. **The need for independence** becomes clearly evident in a child's development from the age of two. To be autonomous, making one's own decisions and independently carrying out simple actions – is a crucial aspect of a sense of agency and self-reliance. The last element is **generosity** – to share with someone or to help another person. Initial expressions of this might include hugging someone who is crying, bringing one's mother a glass of juice, or helping a classmate with math homework.

All four components of a child's inner strength in The Circle of Courage take on various forms in practice; depending on the stage of development, they become increasingly complex and conscious.

Concepts of mental resilience incorporate aspects described above in the Circle of Courage. A three-component model proposed by Sandy Prince-Embury (2006) can be cited as an example of a model similar in basic ideas to the Circle of Courage. The researcher defines mental resilience as personal resources that facilitate adaptation to challenges and difficulties (Grzegorzewska, 2013). The author analyzes resilience in the face of stress and adversities, highlighting the factors that help a child overcome them: a sense of belonging, competence, and the ability to regulate one's own emotions. Here, resilience is understood in a multifaceted way, comprising three groups of personal (within-child) competencies that are crucial for adaptation in stressful situations.

Figure 3. *Three-Factor Model of Resilience*



(Author’s own elaboration based on: Prince-Embury, 2006).

A **sense of relatedness** encompasses a set of social skills regarding how one experiences social interactions and acts within them. Central to this concept are comfort and a sense of well-being in dealings with others. A sense of relatedness stems from a child’s experiences of receiving support and care from loved ones, as well as the confidence that help is available; over the course of a lifetime, it evolves into the capacity to support others in need (Prince-Embury, 2006). A **sense of mastery** is the drive to increasingly master a skill – the effort to perform a task better and better. It is rooted in a child’s expectation that their actions yield results, as well as a sense of competence and effectiveness. A high level of mastery suggests the child will adapt well to stressful situations during late childhood; it is also associated with good behavioral control and academic achievement (Grzegorzewska, 2013). **Emotional reactivity** is understood as an indicator of the tendency to become overly aroused in stressful situations, low frustration tolerance, and the potential for behavioral problems (Rothbart & Derryberry, 1981, cited in Grzegorzewska, 2013). This factor falls within the scope of self-regulation, which develops with age, in the process of socialization. A key aspect here is respecting environmental demands and the needs of others. Psychological well-being is associated with a low level of reactivity combined with the ability to modulate emotional states (e.g. calming down, relaxation).

The aspects presented in both model (which are crucial for developing a child’s sense of competence and mental resilience) can also be found in the practice of adventure education (Table 1).

Table 1. *Personal Resources Developed in the Child*

| Circle of Courage<br>(Main factors) | Mental resiliency<br>(Main factors) | Adventure education<br>(Action examples)                                                                                                                                                                                                                                                          |
|-------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Belonging                           | Sense of Relatedness                | Group activity with outcome dependent on cooperation (e.g., a joint treasure hunt or pitching a tent).                                                                                                                                                                                            |
| Mastery                             | Sense of Mastery                    | Getting accustomed to a new form of movement (e.g., jumping, climbing), refining skills, and practicing through engaging games and activities.                                                                                                                                                    |
| Independence                        |                                     | The opportunity to undertake increasingly challenging activities, becoming accustomed to controlled risk, and the ability to independently assess one's own capabilities.                                                                                                                         |
| Generosity                          | Sense of Relatedness                | Cooperation, a friendly group atmosphere, and giving and receiving help (e.g., assistance in crossing a stream).                                                                                                                                                                                  |
|                                     | Emotional Reactivity                | Engaging game and cooperation with others help temper excessive emotional arousal (e.g., „we need to move this branch together, calmly”), while observational learning occurs through the example set by peers (“ I see friends aren't getting agitated. It encourages me to calm down as well”). |

(Author's own elaboration based on: Brendtro et al., 2005; Longhurst et al., 2011; Prince-Embury, 2006).

The factors cited in both models bear similar or identical names and define comparable competencies. Educational activities promoting their development can be found in many forms of adventure education.

## Development of Mental Resilience – Mechanisms

To explain the principle of “*the personal growth through challenges*,” one can draw a parallel with the immunizing effect of a vaccine. This concept posits that experiencing adventures and challenges, as well as confronting moderate levels of stress, serves to build resilience (Brendtro & Strother, 2007).

In this interpretation, it is important to understand the phenomenon of stress and its types: distress is the experience of unpleasant emotions (such as fear or terror),

whereas eustress is positive arousal (excitement and curiosity). Naturally, taking risk entails an uncertain outcome, so the frustration associated with failure can give rise to negative emotions. However, adventure education also offers exposure to eustress and challenges that do not place an excessive burden on the young person. The educational and developmental function lies not only in experiencing an exciting adventure but, above all, in internalizing the lesson that a problem can be solved and a difficulty overcome. Such situations, associated with success, lay the foundation for how young people will cope with challenges in the future. Embarking on adventures and facing challenges also fosters a sense of closeness with peers and provides group support. Thus, successfully meeting a challenge boosts self-confidence and a sense of personal agency.

The challenge model (Garmezy et al., 1984) is the another argument supporting the idea that confronting adversity fosters mental resilience. According to this perspective, a moderate level of risk experienced by a child enables the development of a coping repertoire for the future. Learning to overcome adversities from childhood makes it easier to cope with future challenges later in life. When confronting a child with difficulties, it is important to strike the right balance. Overprotectiveness in adults can result in a child having no exposure to risky situations, thereby depriving them of the opportunity to practice overcoming obstacles and dealing with frustration. Conversely, a lack of care and attention from adults can lead to the child becoming overwhelmed and disturbed in development.

Pointing out the significance of a child's confrontation to situation of moderate risk, researchers identify areas impacted (with the potential for development) These undoubtedly include social competence, a sense of agency, self-regulation skills, and optimism – attributes regarded as buffers against the development of psychopathology and as important protective factors for mental health (Grotberg, 2000; Prince-Embury, 2006; Sikorska, 2016). The development of these factors is stimulated by environmental conditions and the educational situations created for the child. Open spaces, risky play, and adventure-based education all provide favorable conditions for practicing the skills needed to cope with unusual challenges or unexpected situations. Educational approaches that offer non-standard forms of learning (open space, physical activity, and the child's own direct experience) are increasingly becoming popular alternatives in both upbringing (e.g., forest kindergartens) and schooling (e.g., Waldorf kindergarten and school). According to some contemporary studies, open space and outdoor activities are often perceived as less comfortable (or even threatening) by young people who prefer activities in the virtual world (Michaelson et al., 2020, cited in Michalak & Parczewska, 2022). Thus, for some, outdoor education can serve as a bridge between the enclosed space of the classroom or the safety of a child's room and the social world and natural environment. In the real world alongside potential

dangers, fascinating experiences and pleasant moments await, thereby playing a protective role for the well-being of children who spend their time in the virtual world.

## Summary

Supporting children in their development offers the opportunity to invite them to engage in activities that foster their all-round growth. Exposure to controlled risk – such as risky play or adventure education – can be effective, when some principles are taken into consideration: 1) tasks for children and young people should relate to real-life situations so that the solutions can be replicated independently later, 2) learning must be tailored to the child's physical, social, and cultural needs, 3) within the group, efforts should be made to foster empathy, which alleviates the stress experienced by children; 4) a positive atmosphere in the group develops children's communication and social skills (Hopkins, 1985). In addition to play-based activities, discussing them is also important. Reflection on one's own actions and emotions is what links adventure education (Hopkins, 1985) with experiential education (Koszalka-Silska, 2019).

Discussing past experience and how difficulties were overcome with children should serve as a comparison or metaphor for the changes and challenges they may face in the future. (e.g., 1. *If I was afraid to jump across the stream but succeeded on the fourth try, maybe I'll try to make up with Tomek again. It might just work.* 2. *I didn't have the strength to carry my backpack anymore. Marek helped me. There is always someone to help.*)

A comparison of basic principles and goals of various culturally and historically diverse pedagogical approaches reveals certain shared aspirations among adults regarding a child's development. The desire to foster independence, self-confidence, and the hope of successfully overcoming everyday challenges is evident both in the child-rearing practices of North American Indians and in the approaches of educators and therapists working with young people in the twenty-first century. The similarity between the premises of the Circle of Courage, the 3-Factor Model of mental resilience, and the goals of adventure education may serve as evidence of this.

Due to its significant preventive and therapeutic potential, adventure education is also used as a way of supporting the mental health of children and adolescents. Adventure therapy is an eclectic approach that incorporates elements of cognitive-behavioral, systemic, existential, and psychodynamic therapies. This therapy offers adventure-based activities to young people and adults – including those with behavioral and emotional disorders, addicted and those at risk of maladjustment – enabling them to experience situations that lead to positive changes in their lives (Bowen & Neill, 2013). Examples of adventure therapy include a Canadian wilderness summer camp

for youth with cancer, supervised by therapists (Epstein, 2004); a series of full-day excursions featuring a climbing course as part of an American anti-bullying program (Beightol et al., 2012); and Wilderness Adventure Therapy (WAT) (Crisp & Hinch, 2004) for children with emotional and behavioral disorders, eating disorders, and anxiety disorders, as well as those dealing with bereavement and post-traumatic stress disorder (Bettmann et al., 2016). Scout camps were used for therapeutic purposes by the Institute of Pediatrics at the Medical Academy in Kraków to treat children with psychosomatic disorders coming from alcohol affected families. A reduction in psychosomatic symptoms (such as bedwetting, stuttering, and tics), improved well-being, and increased resilience and stress tolerance were observed among the young participants (Dropowa et al., 1988). The “Soar Higher” project, addressed to residents of the St. Brother Albert Youth Socioterapy Center in Szczecin, encompassed integration and therapeutic activities as well as outdoor pursuits such as water sports and climbing. The project resulted in enhanced social competencies among participants (including cooperation, team leadership, the conscious building and maintenance of relationships, and helping others) as well as individual growth (the ability to discuss one's own emotions and difficulties, resolve conflicts, and develop creative thinking) (Łubkowska et al., 2014). The effectiveness of adventure therapy has been examined internationally in several meta-analyses. These studies confirmed a reduction in the severity of clinical symptoms, an increase in social skills, and improved well-being among participants.<sup>2</sup>

#### Conclusions:

1. Exposing a child to a situation involving a low, controlled level of risk can serve to strengthen important personal resources (such as social competence, a sense of agency, and self-regulation skills) that are vital for overcoming difficulties. It fosters the development of psychological resilience including a sense of belonging, competence, and emotional control (Prince-Embury, 2006).
2. The engaging and challenging situations of adventure education can encourage children to exert effort and overcome their weaknesses, while also fostering courage and strengthening their mental resilience. Incorporating elements of risky play and adventure education into preschool and school curricula will certainly help build children's inner strength.
3. Successfully handling a less demanding situation builds resilience and prepares one to face higher levels of risk. In the face of modern-day challenges, attempting to resolve difficult situations – rather than giving up – is crucial for the mental health of children and young people.

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2 Chosen metaanalyses in Sikorska, 2017.

4. Successfully meeting a challenge brings joy, boosts self-esteem, and instills hope that future stressors can also be overcome. The positive emotions of pride or relief following success alleviate the discomfort experienced earlier (such as anxiety about the outcome). The benefits gained through nature-based activities and sports can transfer to family or school situations for children and young people.

Adventure education is certainly an attractive and effective approach, not only for stimulating the development of mental resilience in children and young people, but also for strengthening or rebuilding that resilience when needed.

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