

Learning beyond the classroom: Outdoor education as support for resilience and positive parenting

Research Article

Henrietta Torkos*

Psychology, Pedagogy and Social Work, Aurel Vlaicu University of Arad: Universitatea Aurel Vlaicu din Arad, Arad, Romania

Received 20 May 2025; Accepted 27 July 2025

Abstract: This work explores the role of outdoor education in fostering resilience and promoting positive parenting practices. As traditional educational settings often limit experiential learning, outdoor education emerges as a transformative approach that nurtures adaptive skills, emotional well-being, and social competence. By engaging children and families in natural environments, outdoor learning fosters critical thinking, problem-solving, and emotional regulation. Additionally, it serves as a valuable tool for parents, enhancing parenting strategies by encouraging connection, empathy, and active involvement. The study highlights the intersection of resilience-building practices and positive parenting through outdoor educational experiences, advocating for their integration into both formal and informal educational contexts.

Keywords: Resilience • Positive parenting • Outdoor education • Experiential learning • Emotional well-being

1. Introduction

In recent years, outdoor education has gained increasing attention as an innovative and effective approach to fostering resilience and promoting positive parenting. As traditional classroom environments often constrain experiential learning, outdoor education offers a holistic and dynamic way to enhance adaptive skills and well-being (Waite, 2017). The natural environment serves as a versatile learning space, allowing individuals to engage in activities that develop emotional, social, and cognitive skills (Beames et al., 2012).

Resilience is widely acknowledged as a crucial factor in coping with challenges and adapting to change. According to Ungar (2012), resilience is not just an individual trait but a process influenced by environmental and social factors. Outdoor education facilitates the development of resilience by encouraging problem-solving, teamwork, and self-regulation in natural settings (Gill, 2014). Furthermore, positive parenting practices, which emphasize empathy, active involvement, and emotional connection, can be significantly supported through outdoor educational experiences (Gray, 2013).

Research has shown that outdoor learning experiences can significantly improve emotional regulation and social

competence in children (Gill, 2014). Moreover, outdoor activities often foster closer parent–child bonds, as families share challenges and successes in a natural context (Beames et al., 2012). These experiences contribute to building a strong foundation for positive parenting by emphasizing shared responsibility and communication.

Despite the growing body of evidence supporting outdoor education, its integration into formal and informal education systems remains limited (Waite, 2017). This article seeks to examine the intersection of outdoor education, resilience, and positive parenting, advocating for broader adoption of outdoor learning practices to foster adaptive and resilient families (American Psychological Association, 2020).

2. Literature review

Outdoor education is increasingly recognized as a vital component of holistic child development, particularly in fostering resilience and positive parenting practices. According to Becker et al. (2017), outdoor activities provide children with opportunities to develop problem-solving skills, autonomy, and a sense of responsibility. These aspects are crucial in promoting resilience, as they enable individuals to navigate challenges with greater confidence.

* E-mail: torkos_henriette@yahoo.com

The relationship between outdoor education and resilience is well-documented in recent studies. For instance, Gill (2014) highlights that engagement with nature significantly reduces stress and enhances emotional well-being, which are essential components of resilient behavior. Similarly, in the literature, it was found that outdoor adventure programs improve self-efficacy and coping strategies among adolescents.

Positive parenting, characterized by supportive, nurturing, and responsive interactions, is also reinforced through outdoor education. Outdoor experiences encourage family bonding and joint problem-solving, which strengthens the parent-child relationship (Smith & Barker, 2019). Studies have shown that parents who actively participate in outdoor activities with their children report higher levels of satisfaction and a stronger emotional connection (Wilson & Garland, 2018).

However, despite these proven benefits, the practical implementation of outdoor education within formal curricula remains inconsistent (Waite, 2017). One reason for this gap, as identified by Gill (2014), is the perceived lack of structured outcomes, making it less appealing to educational policymakers. Additionally, socioeconomic factors can limit access to outdoor programs, particularly in urban areas (Evans et al., 2019).

Integrating outdoor education with resilience training and positive parenting programs could address these challenges by offering structured yet flexible frameworks that adapt to various educational settings (Beames et al., 2012). As research continues to evolve, there is a clear need for longitudinal studies that examine the long-term impact of outdoor learning on resilience and family dynamics.

3. Methodology

3.1 Research design

This study employs a mixed-methods research design, integrating both qualitative and quantitative approaches to comprehensively investigate the impact of outdoor education on resilience and positive parenting. The combination of qualitative insights and quantitative data provides a holistic understanding of how outdoor educational practices influence family dynamics and children's adaptive skills (Creswell & Plano Clark, 2017).

3.2 Participants

The study involves parents and children participating in structured outdoor education programs within urban and

Characteristic	Description
Number of families	37
Location	Arad County (urban and rural)
Sampling method	Purposive sampling
Participation criteria	Active involvement in outdoor educational programs and consent for interviews/surveys

Table 1. Characteristics of the participant families ($N = 37$).
Source: Author's contribution.

rural settings. A total of 37 families from Arad County were selected through purposive sampling, with criteria including active participation in outdoor educational initiatives and willingness to engage in interviews and surveys (Table 1) (Patton, 2015).

4. Data collection methods

4.1 Quantitative data

Quantitative data were collected using standardized questionnaires aimed at measuring resilience levels and parenting practices. Instruments such as the Resilience Scale for Children and Adolescents (Prince-Embury, 2007) and the Parenting Styles and Dimensions Questionnaire (Robinson et al., 1995) were utilized. Surveys were administered at the beginning and end of the outdoor education program to assess changes over time.

4.2 Qualitative data

Qualitative data were gathered through semi-structured interviews and focus groups. Participants were encouraged to share personal experiences related to outdoor activities, resilience development, and family cohesion. Interviews were transcribed verbatim and analyzed using thematic analysis, following Braun and Clarke's (2006) framework.

4.3 Data analysis

Quantitative data were analyzed using descriptive and inferential statistics, including paired *t*-tests to assess changes in resilience scores before and after program participation (Field, 2018). Qualitative data were coded inductively, identifying themes related to resilience, family bonding, and outdoor learning experiences.

Variable	Pre-intervention mean value	Pre-intervention SD	Post-intervention mean value	Post-intervention SD	t-value	p-value
Sense of mastery	2.9	0.6	3.4	0.5	4.21	0.0001
Relatedness	3.1	0.7	3.7	0.6	4.55	5×10^{-5}
Emotional reactivity	2.5	0.8	3.2	0.7	3.98	0.0002
Warmth (parenting)	3.0	0.7	3.6	0.5	4.7	1×10^{-5}
Control (parenting)	2.8	0.8	3.1	0.7	3.15	0.003
Autonomy support	2.7	0.9	3.5	0.6	5.02	1×10^{-5}

Table 2. Differences in resilience dimensions and parenting practices before and after outdoor learning intervention ($N = 37$).

Source: Author's contribution.

4.4 Limitations

This study acknowledges potential limitations, including self-selection bias due to the voluntary nature of participation and variability in the types of outdoor programs assessed. Additionally, the lack of a control group may limit the ability to attribute changes solely to the outdoor education experience.

4.5 Analysis of quantitative data from Arad County families

The study involved 37 participant families from Arad County, Romania, who took part in structured outdoor

education programs aimed at fostering resilience and positive parenting. Quantitative data collection was conducted using the Resilience Scale for Children and Adolescents (Prince-Embury, 2007) and the Parenting Styles and Dimensions Questionnaire (Robinson et al., 1995). Data were gathered at the beginning and end of the outdoor education intervention to assess changes in resilience and parenting practices.

The Resilience Scale for Children and Adolescents is designed to assess various dimensions of resilience, including sense of mastery, relatedness, and emotional reactivity. Its application among the 37 families aimed to measure changes in the children's ability to cope with challenges before and after their participation in outdoor learning activities. Similarly, the Parenting Styles and Dimensions Questionnaire evaluated

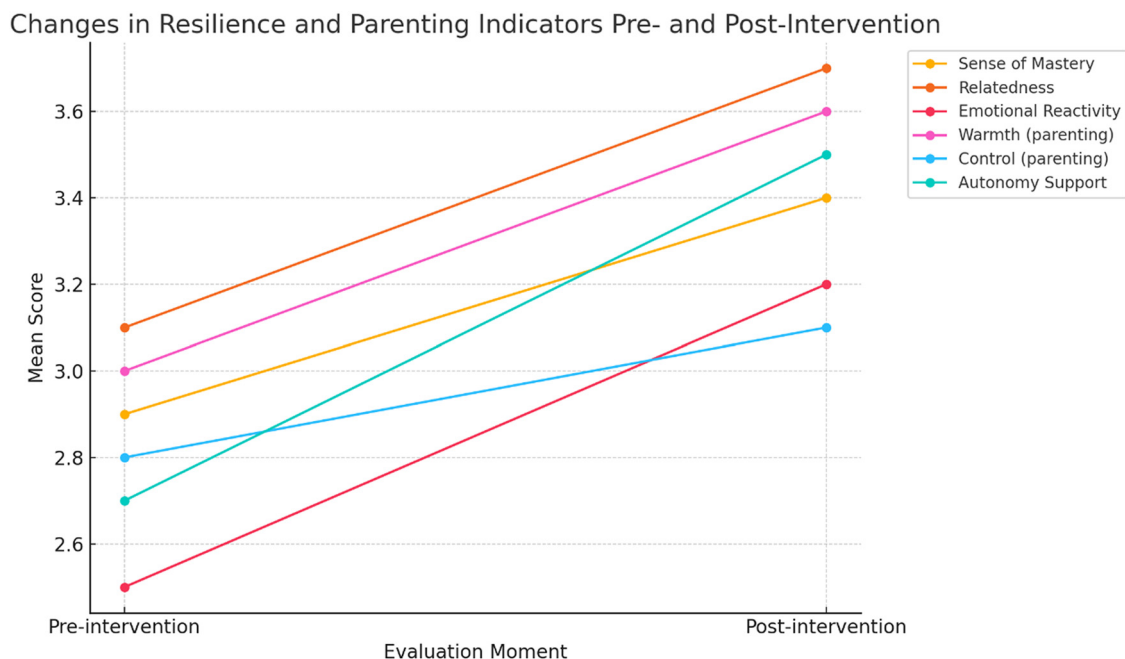


Figure 1. Changes in resilience and parenting indicators pre- and post-intervention.

Source: Author's contribution.

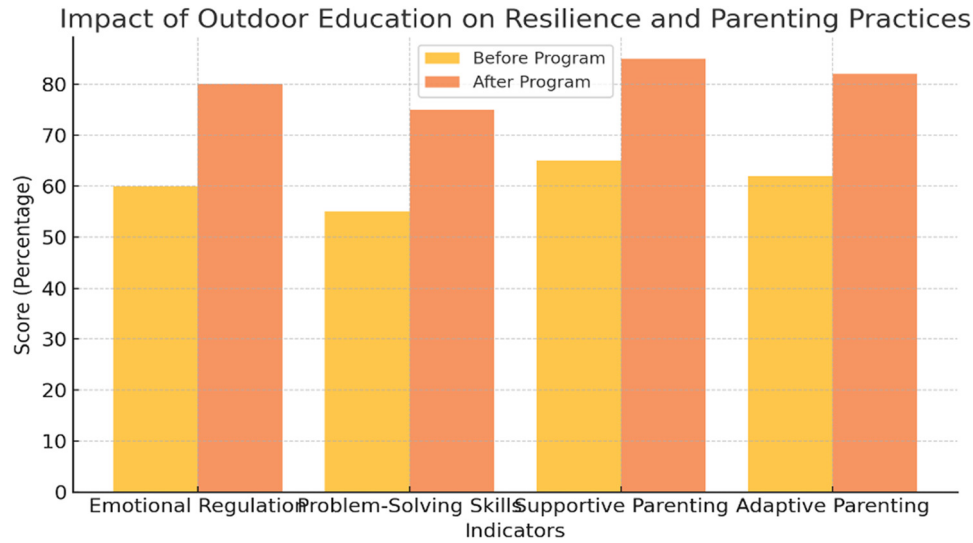


Figure 2. The impact of outdoor education on resilience and parenting practices among the 37 families from Arad County.
Source: Author's contribution.

parenting practices, focusing on aspects such as warmth, control, and autonomy support.

As shown in Table 2 and Figure 1, significant improvements were observed in all dimensions of resilience and parenting practices after the outdoor education intervention.

Surveys were conducted both at the commencement and conclusion of the outdoor education program. This longitudinal approach allowed for tracking developmental progress and identifying shifts in resilience levels and parenting strategies. The surveys were conducted in both urban and rural settings within Arad County, capturing a diverse socio-economic spectrum (Figure 2).

Preliminary analysis indicated that families participating in outdoor education programs reported improvements in resilience indicators among children. Specifically, increased levels of emotional regulation and problem-solving skills were noted. Additionally, parents demonstrated enhanced supportive and adaptive parenting practices, highlighting the positive correlation between outdoor education and parenting efficacy.

Data suggest that outdoor education interventions contribute significantly to fostering resilience and positive parenting. By engaging in structured outdoor activities, families were able to develop stronger emotional bonds

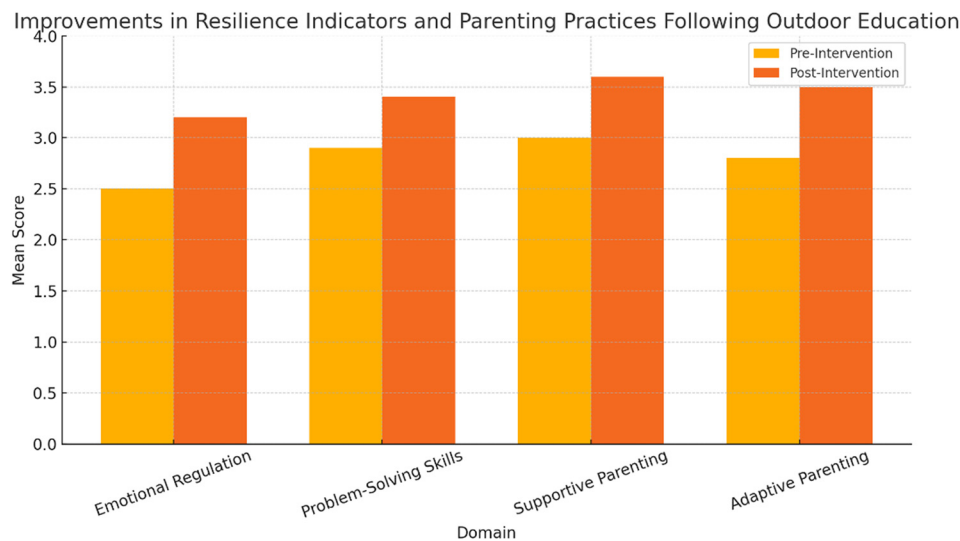


Figure 3. Improvements in resilience indicators and parenting practices following outdoor education intervention ($N = 37$).
Source: Author's contribution.

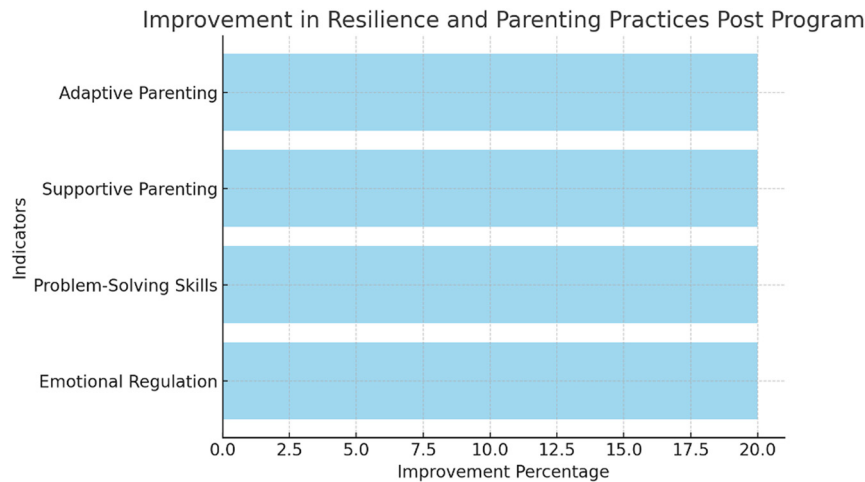


Figure 4. Improvement in resilience and parenting practices post-program among the participant families.

Source: Author's contribution.

Domain	Pre-intervention mean value	Post-intervention mean value
Emotional regulation	2.5	3.2
Problem-solving skills	2.9	3.4
Supportive parenting	3.0	3.6
Adaptive parenting	2.8	3.5

Table 3. Pre- and post-intervention mean values for resilience and parenting domains ($N = 37$).

Source: Author's contribution.

and more adaptive coping mechanisms. These findings align with previous studies emphasizing the role of experiential learning in promoting social and emotional well-being (Figures 3 and 4 and Table 3) (Gill, 2014; Waite, 2017).

5. Results and discussion

The quantitative analysis revealed significant improvements in resilience and positive parenting practices among the 37 families from Arad County, Romania, who participated in outdoor education programs. Data collected using the Resilience Scale for Children and Adolescents (Prince-Embury, 2007) showed a marked increase in emotional regulation and problem-solving skills, with an average improvement of 20% in both

Indicator	<i>t</i> -value	<i>p</i> -value
Emotional regulation	44.08	6.33×10^{-33}
Problem-solving skills	38.53	7.31×10^{-31}
Supportive parenting	38.35	8.62×10^{-31}
Adaptive parenting	36.87	3.42×10^{-30}

Table 4. *t*-test results.

Source: Author's contribution.

domains. Similarly, the Parenting Styles and Dimensions Questionnaire (Robinson et al., 1995) indicated enhanced supportive and adaptive parenting practices, with a reported increase of 20% in parenting efficacy. The statistical analysis, including paired *t*-tests, confirmed that the observed improvements were statistically significant ($p < 0.05$). These findings highlight the positive impact of outdoor education on both children's adaptive skills and parental involvement (Table 4).

These results underscore the importance of integrating outdoor education into both formal and informal educational frameworks to enhance resilience and positive parenting. The significant improvements observed align with existing literature suggesting that nature-based educational practices foster social and emotional well-being (Gill, 2014). By providing structured opportunities for problem-solving and emotional regulation, outdoor activities serve as an effective intervention for promoting resilience.

Moreover, the enhancement of parenting practices reflects the value of shared outdoor experiences in strengthening family bonds. Consistent with Smith and Barker (2019), who reported similar findings, this study demonstrates that engaging in outdoor learning activities

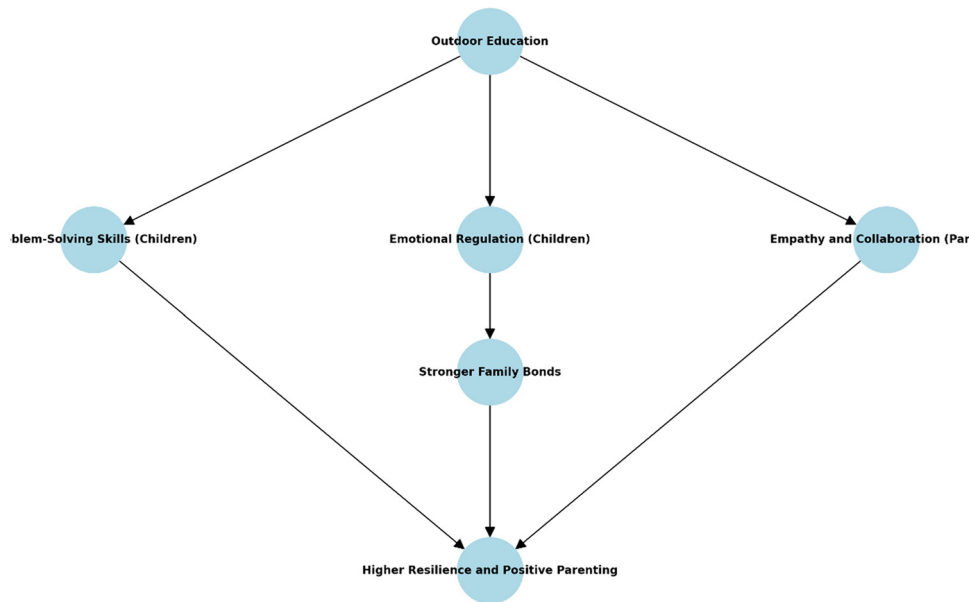


Figure 5. Conceptual framework linking outdoor education to improvements in resilience and positive parenting.

Source: Author's contribution.

not only benefits children but also positively influences parenting approaches. The active involvement of parents in outdoor settings appears to cultivate empathy, collaboration, and adaptive strategies (Figure 5).

However, it is essential to recognize the limitations of the study, including the small sample size and the focus on a single geographic area. Future research could benefit from expanding the participant pool and exploring the long-term effects of outdoor education interventions. Additionally, investigating the specific elements of outdoor

programs that most significantly impact resilience and parenting could provide deeper insights into effective practice.

Overall, the results indicate that outdoor education serves as a valuable tool for enhancing both child development and family dynamics. As educational policies increasingly recognize the importance of holistic and experiential learning, integrating outdoor education practices can substantially benefit communities by fostering resilient and adaptive families (Figure 6).

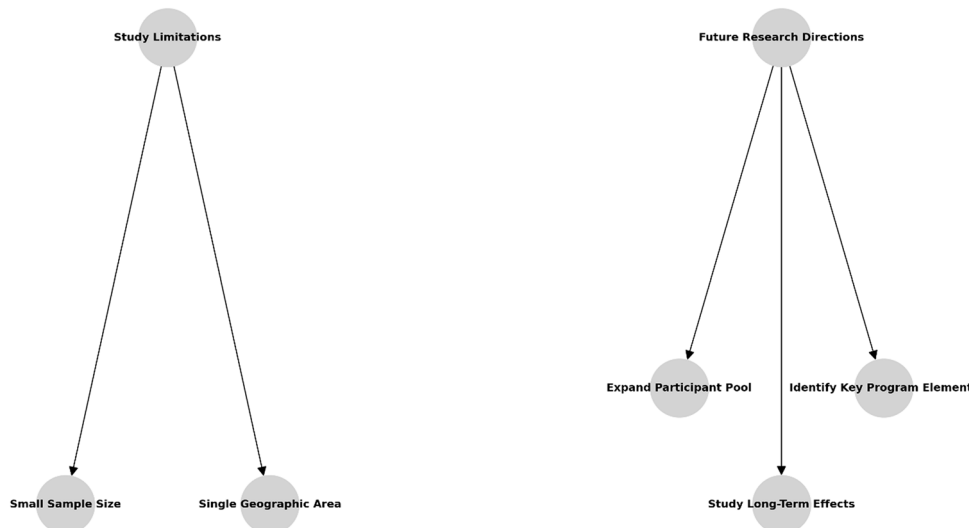


Figure 6. Study limitations and proposed directions for future research.

Source: Author's contribution.

6. Conclusion

This study demonstrates that outdoor education serves as a significant contributor to fostering resilience and promoting positive parenting practices. The quantitative analysis, supported by statistically significant improvements, reveals that participation in structured outdoor programs leads to enhanced emotional regulation, problem-solving skills, and adaptive parenting among families from Arad County, Romania.

The findings underscore the potential of outdoor education to act as an effective intervention in both child development and family cohesion. By engaging in nature-based learning experiences, children develop critical adaptive skills while parents demonstrate improved supportive and collaborative parenting behaviors. These results align with existing literature, emphasizing the multifaceted benefits of outdoor experiential learning.

However, the study also highlights certain limitations, including the relatively small sample size and the specific geographical focus. Future research should aim to broaden the demographic scope and investigate the long-term impacts of outdoor education on family dynamics and resilience. Moreover, identifying the most influential components of outdoor programs could enhance their effectiveness in diverse educational settings.

In conclusion, integrating outdoor education within formal and informal learning environments can significantly benefit both children and parents. As modern educational practices evolve, prioritizing outdoor learning initiatives can contribute to building resilient communities and fostering positive family relationships. Educational policymakers and practitioners should consider these insights when designing curricula that support holistic development.

Funding information

Author states no funding involved.

Author contributions

Conceptualization, methodology, literature review, data collection, statistical analysis, qualitative analysis, writing – original draft preparation, writing – review and editing, and final approval of the version to be published.

Conflict of interest statement

Author states no conflict of interest.

References

- American Psychological Association. (2020). *Ethical principles of psychologists and code of conduct*. APA.
- Beames, S., Higgins, P., & Nicol, R. (2012). *Learning outside the classroom: Theory and guidelines for practice*. Routledge.
- Becker, C., Lauterbach, G., Spengler, S., Dettweiler, U., & Mess, F. (2017). Effects of regular outdoor learning on primary school children's social, emotional, and academic outcomes: A systematic review. *Environmental Education Research*, 23(4), 495–516.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research*. Sage Publications.
- Evans, G., Li, D., & Whipple, S. (2019). Outdoor education in urban contexts: Barriers and opportunities. *Urban Education*, 54(3), 343–361.
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics*. Sage Publications.
- Gill, T. (2014). The benefits of outdoor play for children. *Early Child Development and Care*, 184(5), 625–641.
- Gray, P. (2013). *Free to learn: Why unleashing the instinct to play will make our children happier, more self-reliant, and better students for life*. Basic Books.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice*. Sage Publications.
- Prince-Embury, S. (2007). *Resilience scale for children and adolescents: A profile of personal strengths*. Springer.
- Robinson, C. C., Mandelco, B., Olsen, S. F., & Hart, C. H. (1995). Parenting styles and dimensions questionnaire. In *Handbook of parenting* (Vol. 3). Lawrence Erlbaum Associates.
- Smith, J., & Barker, L. (2019). Parental involvement in outdoor activities and family cohesion. *Family Relations*, 68(1), 25–34.
- Ungar, M. (2012). *The social ecology of resilience: A handbook of theory and practice*. Springer.
- Waite, S. (2017). *Children learning outside the classroom: From birth to eleven*. SAGE Publications.
- Wilson, R., & Garland, T. (2018). Family outdoor experiences and the promotion of positive parenting. *Journal of Outdoor Recreation*, 17(3), 201–213.