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Outdoor Risky Play

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Introduction

Risky play has emerged as a topic of interest for researchers, parents, early childhood education and care (ECEC) practitioners/teachers and policymakers and authorities over the last twenty years. The reason for the emergence is manifold, but one point of departure might be the ambivalent wording of mixing the positive connotation of “play” with the more negative intuitive connotations attached to “risk.” Nevertheless, a growing body of research investigates various aspects of risk taking, including playful activities, indicating that the concept reflects an essential element of human life.

Subject

What is Risky Play?

Risky play shares some characteristics with various play types included in prior categorizations of play. For example, it could involve elements from locomotor[1] and physically activity play,[2] rough-and-tumble play,[2-4] as well as play with objects.[2] It also shares characteristics with deep play (confronting risks and fears and interfacing with mortality/death), exploratory play (exploration of the unknown) and mastery play (testing one´s own physical and psychic abilities).[5]

A common definition of risky play is: “thrilling and exciting forms of physical play that involve uncertainty and a risk of physical injury.”[6] Eight categories of risky play have been identified through observations and interviews with children and ECECs:[7-9] 1) Play with great heights – danger of injury from falling, such as all forms of climbing, jumping, hanging/dangling, or balancing from heights; 2) Play with high speed – uncontrolled speed and pace that can lead to a collision with something (or someone), for instance bicycling at high speeds, sledging (winter), sliding, running (uncontrollably); 3) Play with dangerous tools – that can lead to injuries, for instance axe, saw, knife, hammer, or ropes; 4) Play near dangerous elements – where you can fall into or from something, such as water or a fire pit, 5) Rough-and-tumble play – where children can harm each other, for instance wrestling, fighting, fencing with sticks; 6) Play where children go exploring alone, for instance without supervision and where there are no fences, such as in the woods; 7) Play with impact – children crashing into something repeatedly just for fun; and 8) Vicarious play – children experiencing thrill by watching other children (most often older) engaging in risk.

Research Context and Results

Initial research on children’s risky play was situated mainly within ECEC contexts (preschool, kindergarten, child care centers etc.). Smith,[10] Greenfield[11,12] and Stephenson[13] were early in pointing out how children sought risk in their play, how staff handled the risk in children’s play and what benefits this kind of play might have for children. Building on this research, Sandseter[6-8] explored the phenomena of four to six-year-old children’s risky play and how it can be defined and categorized. Kleppe et al.[9,14] identified such play among even younger children, down to one year old. Overall, the existing research shows that children between the ages of one and six years are engaged in risky play in some way and on a level that suits their individual competence and courage. Studies of older children (six to fourteen-year-olds) show that they also enjoy being engaged in risky play and wish for more freedom and challenging play environments.[15]

Both observations and interviews reveal that children’s emotional experiences in risky play range from pure exhilaration, through exhilaration and fear at the same time (exhilaration bordering fear), to pure fear. This ambiguous feeling is probably what makes this type of play attractive to children.[6,13,16] The highly aroused feeling children have when engaging in risky play is expressed by joyful, happy and enthusiastic facial expressions, children looking ecstatic and verbal expressions, such as laughing, shrieking, showing their exhilaration and expressions of fearful joy.[13,17] However, these typical expressions are individual and suggested to be partly related to age, as young

children’s risky play might appear subtler and less exhilarated.[9] Regardless of age or level of expressed arousal, such activity seems to be repetitive and induce deep engagement.[17,18] The existing research is mainly descriptive and less is documented regarding actual benefits of risky play.

The concept of risky play is studied in various countries within Europe, in North America and Australia, indicating some cross-cultural commonalities of this type of play.[19,20] Nevertheless, there are indications that both attitudes towards- and practical management of risk in children’s play and everyday life are largely influenced by culture. Studies from central Africa describe common child-rearing practices with risk levels that would be unacceptable in present Western contexts, such as eight-month-old infants playing with knives, and helping to chop tinder for the household fire,[21] or two-year-olds independently roaming the village and the surrounding forests and fields.[22] However, comparative studies also indicate variations between Western countries. New, Mardell and Robinson[23] compared Norwegian, Swedish, Danish, Italian and American ECEC teachers and found that European teachers were less worried about children’s risk-taking than are their American colleagues. Similarly, Little, Sandseter and Wyver[24] found that Scandinavian, and particularly Norwegian ECEC practitioners, were more liberal towards children’s risky play than practitioners in Australia. Sandseter et al. also found that southern European countries were more risk-averse to children´s play than northern European countries.[25] Explanations might be found in different theoretical-pedagogical approaches,[26] but are also rooted in cultural beliefs and values, often related to a varying emphasis on outdoor play and learning between countries.[23,27]

Regardless of cultural context, play appears to be an ideal context to develop the ability to assess and handle risk, where the pretend- or nonliteral aspect allows the players to test out behaviour, situations or actions without the severe real-life consequences. With this as a backdrop, researchers have argued that the ability to handle risk has been a favourable evolutionary trait and that adventurous risky play can reduce children´s risk for developing anxiety.[28,29] Additionally, risky play experiences have been positively associated with children’s risk management skills,[30] and with several positive health effects among children.[31] From a different angle, there are indications of negative effects from children being overly protected; that curbing risky play and autonomy may increase the likelihood of anxiety, both in childhood[32,33] and into adolescence and adulthood.[28,34-38]

Despite the well-documented benefits and interest among children in engaging in risky play, there are indications that this type of play is being restricted in ECEC settings.[39,40] There are several

reasons for this, including ECEC practitioners' perceptions, attitudes and practices, which often are influenced by societal factors, not least parents' opinions.[41,24] Although some research indicates that ECEC practitioners allow children to test their abilities, thereby developing necessary skills to cope with real-life challenges,[24,42-45] practitioners face an obvious balancing act between the potential short- and long-term benefits of such play and the possibility of injuries. This balancing act is not an easy task, and it is understandable that both ECEC practitioners and parents want to avoid injuries. However, the general decrease in children's opportunities for risk-taking in play,[46,47] might have wider negative consequences. First, it is already documented that an increased safety focus has resulted in more restricted freedom of movement, and in more boring playgrounds.[40,48-54] Second, albeit less documented, there is a worry that this lack of play opportunities might result in negative long-term consequences such as reduced well-being, excessive risk taking or, on the other hand, increased anxiety.[28,32] In many ways, the growing research on children's risky play and its possible benefits might be seen as a reaction to the safety discourse.

Key Research Questions and Gaps

Most research on risky play is based on the assumption that engagement in risky play in childhood promotes physical activity, contributes to well-being and protects against anxiety, faulty decisions and/or excessive risk taking later in life. However, since most studies consist of small samples and/or lack the appropriate longitudinal design, randomization and control groups, they are not designed to properly address this assumption. Not least, this assumption is difficult to test empirically. There are obvious ethical issues with conducting studies designed to let children take risks (with the potential for injury), while restricting children from playing freely and thereby assessing the long-term effects of play deprivation would be equally problematic. Creative methods such as Kretch and Adolph's[55,56] experiments with the visual cliff (allowing children to cross narrow bridges without the real possibility of falling) should be further developed, suggestively with virtual reality (VR) as a promising methodological field. For example, Sandseter et al.[57] aim to examine children's development of risk management skills through risky play in VR. However, transferability of results from laboratory conditions or controlled environments to real life contexts might be a challenge. There are also challenges in finding appropriate ways of measuring long term effects of risky play, considering appropriate measures in adolescence and/or adulthood, and finally, to have comparable control groups. The limited studies examining how regulatory documents influence practices show that educators sometimes contravene or

challenge regulations to support children's risky play.[58,59,60,61] Therefore, rules and regulations might have less impact than expected and should be investigated more concretely. Lastly, a few studies suggest that children with disabilities experience fewer opportunities for risky play, even if one can assume the same benefits as for normal developing children[62,63,64]. Such perspectives should be investigated further.

Implications for Parents, Services and Policy

The existing research base could be used to guide both parents and ECEC practitioners in how to appropriately support children engaged in risky play. The best available evidence suggests that allowing children a certain level of autonomy strengthens children's self-awareness and ability to self-regulate and reduces the likelihood of anxiety – present and later in life.

ECEC owners, playground developers and policymakers should include knowledge of risky play in the development of play environments.[65] Research suggests versatile, complex and flexible play environments to accommodate children's diverse interests, varied competence and risk tolerance.

References

1. Sawyers JK. The preschool playground: Developing skills through outdoor play. *Journal of Physical Education, Recreation & Dance*. 1994;65(6):31-33. doi:10.1080/07303084.1994.10606937
2. Smith PK. Play. Types and functions in human development. In: Ellis BJ, Bjorklund DF, eds. *Origins of the social mind Evolutionary psychology and child development*. Guilford, 2005;271-291.
3. Blurton Jones N. Rough-and-tumble play among nursery school children. In: Bruner JS, Jolly A, Sylva K, eds. *Play: It's role in development and evolution*. Penguin Books, 1976;352-363.
4. Humphreys AP, Smith PK. Rough and tumble, friendship, and dominance in schoolchildren: Evidence for continuity and change with age. *Child Development*. 1987;58:201-212. doi:10.2307/1130302
5. Hughes B, Sturrock G. *Playtypes: Speculations and possibilities*. London Centre for Playwork, Education and Training; 2006.
6. Sandseter EBH. Scaryfunny: A qualitative study of risky play among preschool children [Doctoral thesis]. Norwegian University of Science and Technology, 2010.

7. Sandseter EBH. Categorizing risky play - How can we identify risk-taking in children's play? *European Early Childhood Education Research Journal*. 2007;15(2):237-252. doi:10.1080/13502930701321733
8. Sandseter EBH. Characteristics of risky play. *Journal of Adventure Education and Outdoor Learning*. 2009;9(1):3-21. doi:10.1080/14729670802702762
9. Kleppe R, Melhuish E, Sandseter EBH. Identifying and characterizing risky play in the age one-to-three years. *European Early Childhood Education Research Journal.* 2017;25(3):370-385. doi:10.1080/1350293X.2017.1308163
10. Smith SJ. *Risk and our pedagogical relation to children: On playground and beyond.* New York: State University of New York Press; 1998.
11. Greenfield C. Outdoor play - The case of risks and challenges in children's learning and development. *Safekids News.* 2003;(21):5.
12. Greenfield C. 'Can run, play on bikes, jump the zoom slide, and play on the swings': Exploring the value of outdoor play. *Australian Journal of Early Childhood*. 2004;29(2):1-5.
13. Stephenson A. Physical risk-taking: Dangerous or endangered? *Early Years*. 2003;23(1):35-43. doi:10.1080/0957514032000045573
14. Kleppe R. One-to-three-year-olds' risky play in early childhood education and care [Doctoral thesis]. Oslo Metropolitan University. 2018.
15. Jerebine A, Fitton-Davies K, Lander N, et al. "All the fun stuff, the teachers say, 'that's dangerous!'" Hearing from children on safety and risk in active play in schools: a systematic review. *International Journal of Behavioral Nutrition and Physical Activity*. 2022;19(1):72. doi.org/10.1186/s12966-022-01305-0
16. Coster D, Gleave J. Give us a go! Children and young people's views on play and risk-taking. 2008. http://playday.gn.apc.org/resources/research/2008-research/. Accessed April 30, 2019.
17. Sandseter EBH. Children's expressions of exhilaration and fear in risky play. *Contemporary Issues in Early Childhood*. 2009;10(2):92-106. doi:10.2304/ciec.2009.10.2.92
18. Sutton-Smith B. *The ambiguity of play*. Cambridge, Massachusetts: Harvard University Press; 1997.
19. Little H. Young children's physical risk-taking behaviour during outdoor play: The influence of individual, social and environmental factors [Doctoral thesis]. Macquarie University. 2010.

20. Sandseter EBH, Little H, Ball D, et al. Risk and safety in outdoor play. In: Waller T, Ärlemalm-Hagsér E, Sandseter EBH, et al, eds. *The SAGE Handbook of Outdoor Play and Learning*. SAGE Publications; 2017.
21. Hewlett BS. *Intimate fathers: The nature and context of Aka Pygmy paternal infant care*. Ann Arbor: University of Michigan Press; 1991.
22. Gottlieb A. *The afterlife is where we come from: The culture of infancy in West Africa*. Chicago: University of Chicago Press; 2004.
23. New RS, Mardell B, Robinson D. Early childhood education as risky business: Going beyond what's "safe" to discovering what's possible. *Early Childhood Research and Practice*. 2005;7(2):1-21.
24. Little H, Sandseter EBH, Wyver S. Early childhood teachers' beliefs about children's risky play in Australia and Norway. *Contemporary Issues in Early Childhood.* 2012;13(4):300-316. doi:10.2304/ciec.2012.13.4.300
25. Sandseter EBH, Cordovil R, Hagen TL, & Lopes F. Barriers for Outdoor Play in Early Childhood Education and Care (ECEC) Institutions: Perception of Risk in Children's Play among European Parents and ECEC Practitioners. *Child Care in Practice*. 2020;26(2):111-129. doi:10.1080/13575279.2019.1685461
26. Sandseter EBH, Little H, Wyver S. Does theory and pedagogy have an impact on provisions for outdoor learning? A comparison of approaches in Australia and Norway. *Journal of Adventure Education and Outdoor Learning.* 2012;12(3):167-182. doi:10.1080/14729679.2012.699800
27. Guldberg H. *Reclaiming childhood. Freedom and play in an age of fear.* Oxon: Routledge; 2009.
28. Sandseter EBH, Kennair LEO. Children's risky play from an evolutionary perspective: The anti-phobic effects of thrilling experiences. *Evolutionary Psychology*. 2011;9(2):257-284. doi:10.1177/147470491100900212
29. Dodd, HF, Lester, KJ. Adventurous play as a mechanism for reducing risk for childhood anxiety: a conceptual model. *Clinical Child and Family Psychology Review*. 2021;24(1):164-181. doi:10.1007/s10567-020-00338-w
30. Lavrysen A, Bertrands E, Leyssen L, et al. Risky play at school. Facilitating risk perception and competence in young children. *European Early Childhood Education Research Journal.*

2015;25(1):89-105. doi:10.1080/1350293X.2015.1102412

31. Brussoni M, Gibbons R, Gray C, et al. What is the relationship between risky outdoor play and health in children? A systematic review. *International Journal of Environmental Research and Public Health*. 2015;12(6):6423-6454. doi:10.3390/ijerph120606423
32. Affrunti NW, Ginsburg GS. Maternal overcontrol and child anxiety: the mediating role of perceived competence. *Child Psychiatry and Human Development*. 2012;43(1):102-112. doi:10.1007/s10578-011-0248-z
33. Bayer JK, Hastings PD, Sanson AV, et al. Predicting mid-childhood internalising symptoms: a longitudinal community study. *International Journal of Mental Health Promotion.* 2010;12(1):5-17. doi:10.1080/14623730.2010.9721802
34. Segrin C, Woszidlo A, Givertz M, et al. The association between overparenting, parent-child communication, and entitlement and adaptive traits in adult children. *Family Relations*. 2012;61(2):237-252. doi:10.1111/j.1741-3729.2011.00689.x
35. Segrin C, Woszidlo A, Givertz M, et al. Parent and child traits associated with overparenting. *Journal of Social and Clinical Psychology*. 2013;32(6):569-595. doi:10.1521/jscp.2013.32.6.569
36. LeMoyne T, Buchanan T. Does “hovering” matter? Helicopter parenting and its effect on well-being. *Sociological Spectrum.* 2011;31(4):399-418. doi:10.1080/02732173.2011.574038
37. Schiffrin HH, Liss M, Miles-McLean H, et al. Helping or hovering? the effects of helicopter parenting on college students’ well-being. *Journal of Child and Family Studies.* 2013;23(3):548-557. doi:10.1007/s10826-013-9716-3
38. Perry NB, Dollar JM, Calkins SD, et al. Childhood self-regulation as a mechanism through which early overcontrolling parenting is associated with adjustment in preadolescence. *Developmental Psychology*. 2018;54(8):1542-1554. doi:10.1037/dev0000536
39. Ball D, Gill T, Spiegal B. Managing risk in play provision: Implementation guide. Play England for the Play Safety Forum. 2012.
40. Sandseter EBH, Sando OJ. "We Don’t Allow Children to Climb Trees": How a focus on safety affects Norwegian children’s play in early-childhood education and care settings. *American Journal of Play*. 2016;8(2):178-200.

41. Little H, Eager D. Risk, challenge and safety: implications for play quality and playground design. *European Early Childhood Education Research Journal.* 2010;18(4):497-513. doi:10.1080/1350293X.2010.525949

42. Greatorex P. Risk and play: Play providers' experience and views on adventurous play. 2008. http://playday.gn.apc.org/resources/research/2008-research/. Accessed April 30, 2019.

43. Sandseter EBH. Restrictive safety or unsafe freedom? Norwegian ECEC practitioners' perceptions and practices concerning children's risky play. *Childcare in Practice*. 2012;18(1):83-101. doi:10.1080/13575279.2011.621889

44. Little H, Wyver S, Gibson F. The influence of play context and adult attitudes on young children's physical risk-taking during outdoor play. *European Early Childhood Education Research Journal.* 2011;19(1):113-131. doi:10.1080/1350293X.2011.548959

45. Kleppe R. Characteristics of staff–child interaction in 1–3-year-olds' risky play in early childhood education and care. *Early Child Development and Care*. 2017;188(10):1487-501. doi:10.1080/03004430.2016.1273909

46. UN Committee on the Rights of the Child General comment No. 17 on the right of the child to rest, leisure, play, recreational activities, cultural life and the arts (art. 31). UN Committee on the Rights of the Child: United Nations; 2013.

47. Ball DJ, Ball-King L. *Public safety and risk assessment.* London/New York: Routledge; 2011.

48. Wyver S, Bundy A, Naughton G, et al. Safe outdoor play for young children: Paradoxes and consequences. In: Howard S, ed. *Proceedings of the AARE International Education Research Conference: AARE*; 2010.

49. Wyver S, Tranter P, Naughton G, et al. Ten ways to restrict children's freedom to play: the problem of surplus safety. *Contemporary Issues in Early Childhood.* 2010;11(3):263-277. doi:10.2304/ciec.2010.11.3.263

50. Brussoni M, Olsen LL, Pike I, et al. Risky play and children's safety: Balancing priorities for optimal child development. *International Journal of Environmental Research and Public Health.* 2012;9(9):3134-3148. doi:10.3390/ijerph9093134

51. Ball DJ. *Playgrounds - Risks, benefits and choices.* London: Health and Safety Executive (HSE) contract research report, Middlesex University; 2002.

52. Herrington S, Nicholls J. Outdoor play spaces in Canada: The safety dance of standards as policy. *Critical Social Policy*. 2007;27(1):128-38. doi:10.1177/0261018307072210

53. Spiegal B, Gill TR, Harbottle H, Ball DJ. Children's play space and safety management: Rethinking the role of play equipment standards. *SAGE Open.* 2014;4(1):1-11. doi:10.1177/2158244014522075

54. Gill T. The evolution of policy on risk management in outdoor play. In: Waller T, Ärlemalm-Hagsér E, Sandseter EBH, et al, eds. *The SAGE Handbook of Outdoor Play and Learning London*. UK: SAGE Publications; 2017.

55. Kretch KS, Adolph KE. No bridge too high: Infants decide whether to cross based on the probability of falling not the severity of the potential fall. *Developmental Science*. 2013;16(3):336-351. doi:10.1111/desc.12045

56. Adolph KE, Kretch KS. Infants on the edge: Beyond the visual cliff. In: Slater A, Quinn P, eds. *Developmental psychology: Revisiting the classic studies.* London: SAGE Publishing; 2012:36.

57. Sandseter EBH, Sando OJ, Lorås H, et al. Virtual Risk Management—Exploring Effects of Childhood Risk Experiences through Innovative Methods (ViRMa) for Primary School Children in Norway: Study Protocol for the ViRMa Project. *JMIR Research Protocols*. 2023;12:e45857. doi:10.2196/45857

58. Blanchet-Cohen N, Elliot E. Young children and educators engagement and learning outdoors: a basis for rights-based programming. *Early Education and Development*. 2011;22(5):757–777. doi:10.1080/10409289.2011.596460

59. Gull C, Goldstein S, Rosengarten T. Early childhood educators' perspective on tree climbing. *International Journal of Early Childhood Environmental Education*. 2020;8(1).

60. Hanrahan V, Aspden K, McLaughlin T. Playing safe: Factors that enable, or challenge teachers to support safe risk-taking for young children as they transition into, or within an early childhood setting. *He Kupu (The Word)*. 2019;6(1):1-12. https://www.hekupu.ac.nz/article/playing-safe-factors-enable-or-challenge-teachers-support-safe-risk-taking-young-children

61. Cooke M, Francisco S. the practice architectures that enable and constrain educators' risk-taking practices in high quality early childhood education. *Early Childhood Education Journal*. 2020;49:1073-1086. doi:10.1007/s10643-020-01112-x

62. Stillianesis S, Spencer G, Villeneuve M, et al. Parents' perspectives on managing risk in play for children with developmental disabilities. *Disability & Society*. 2022;37(8):1272-1292. doi:10.1080/09687599.2021.1874298

63. Grady-Dominguez P, Ragen J, Sterman J, et al. Expectations and assumptions: examining the influence of staff culture on a novel school-based intervention to enable risky play for children with disabilities. *International Journal of Environmental Research and Public Health.* 2021;18(3):1008. doi:10.3390/ijerph18031008

64. Beetham K S, Sterman J, Bundy AC, et al. Lower parent tolerance of risk in play for children with disability than typically developing children. *International Journal of Play.* 2019;8(2):174-185. doi:10.1080/21594937.2019.1643980

65. Dietze B, Kashin D. Building capacity to support outdoor play in early childhood education. In: Tremblay RE, Boivin M, Peters RDeV, eds. Brussoni M, topic ed. *Encyclopedia on Early Childhood Development* [online]. http://www.child-encyclopedia.com/outdoor-play/according-experts/building-capacity-support-outdoor-play-early-childhood-education. Published May 2019. Accessed May 2, 2019.