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Framing Childhood Resilience Through Bronfenbrenner's Ecological Systems Theory: A Discussion Paper

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ABSTRACT

Bronfenbrenner's ecological systems theory (1979) conceptualises children's development as a process of bi-directional and reciprocal relationships between a developing individual and those in surrounding environments, including teachers, parents, mass media and neighbouring communities. Using Bronfenbrenner's ecological systems theory, this paper will argue that resilience can be taught during childhood, from the complex social interactions that children have with parents to the interactions they have in school. First, there will be a focus on how resilience emerges from children's individual personality traits and emotional intelligence. Bi-directional and reciprocal relationships will be addressed by focusing on the effects of parental abandonment on children's attachment styles, as well as parent-focused interventions. Following this, the role of teachers and school-based interventions (SBIs) will be explored as sources for bolstering resilience among children. Alternative perspectives on resilience pathways, including meaning-oriented approaches and those that recognise the impact of broader influences beyond the microsystem (e.g., culture and media), will also be addressed in this paper. Finally, implications of resilience research for play-based approaches and educational psychologists will be discussed.

KEYWORDS

Bronfenbrenner's ecological systems theory, microsystem, childhood resilience, interventions

1. Introduction

When individuals are faced with adversity—from various life experiences, learning activities and social interactions—some individuals are able to recover positively from these challenges, whilst others struggle to overcome setbacks (Masten et al., 1990). In particular, childhood represents a key developmental period where sociologists, psychologists, educators, and clinicians can determine future health trajectories and social skills from the ways in which children think about issues and respond to them (Pawlina & Stanford, 2011; Southwick et al., 2016). Resilience can be defined as an individual's ability to positively adapt to negative circumstances where normal functioning has been disrupted and which may lead to undesirable outcomes (Luthar & Cicchetti, 2000; Masten et al., 1990). By teaching resilience at earlier stages of life, children can be safeguarded against such undesirable outcomes, including externalising problems (e.g., aggression and rule-breaking) and other profound mental illnesses (Irfan Arif & Mirza, 2017; Zolkoski & Bullock, 2012). Furthermore, numerous studies have demonstrated that children with more resilient parents and resilient teachers are able to experience personal growth and development in both home and school settings, compared to children with less resilient role models (Bîrneanu, 2014; Hoffman, 2010; Kourkoutas



et al., 2015; Nolan et al., 2014; Twum-Antwi et al., 2020).

Bronfenbrenner's ecological theory conceptualises children's development as a process of bi-directional and reciprocal relationships (represented below by the arrows) between a developing individual and those within their immediate environment (i.e., parents and teachers within the microsystem) (Bronfenbrenner, 1979). Figure 1.0 illustrates Bronfenbrenner's framework, consisting of the following levels: 'the individual level' (i.e., the child); the microsystem in which the children's immediate relationships develop with families and teachers; the mesosystem where children interact with local communities; the exosystem including social services and neighbours; and finally, the macrosystem consisting of influences from culture and media on children's development (Vélez-Agosto et al., 2017).

For the purposes of this discussion paper, the microsystem will be explored in the context of childhood resilience, seeing as this system has a continuous direct impact on young people's learning opportunities, activities, and behaviours (Darling, 2007; Harney, 2007).

Figure 1. Bronfenbrenner's Ecological Theory of Human Development (Vélez-Agosto et al., 2017, *p.902*)



Using Bronfenbrenner's framework, this discussion paper will argue that resilience can be taught during childhood, through the complex, social interactions that children have with parents and teachers within the microsystem. First, there will be a focus on how resilience emerges from children's individual personality traits and emotional intelligence (McCrimmon et al., 2018; Oshio et al., 2018). Next, the bi-directional and reciprocal relationships will be addressed by focusing on the effects of parental abandonment on children's attachment styles, as well as parent-focused interventions (Bîrneanu, 2014; Sandler et al., 2015). Following this, the role of teachers and school-based interventions (SBIs) will be explored as sources for bolstering resilience among children (Kourkoutas et al., 2015; Nolan et al., 2014). Alternative perspectives on resilience pathways, including meaning-oriented approaches and those that recognise the impact of broader influences beyond the microsystem (e.g., culture and media), will also be addressed in this paper (Kelley et al., 2017; Vélez-Agosto et al., 2017). Finally, implications of resilience research for play-based approaches and educational psychologists will be discussed (Alvord & Grados, 2005; Toland & Carrigan, 2011).

2. Risk and protective factors

Despite numerous evolving conceptualisations of resilience, Southwick et al. (2014) suggest that resilience can be defined depending on the context. This may mean that children who can adapt well in



school following adversity may not do as well in their personal relationships. Furthermore, pathways to resilience involve an interplay of risk factors and protective factors (Herrman et al., 2011). For example, risk factors, which can be defined as aspects that contribute towards a higher likelihood of negative outcomes and increase the susceptibility of children relapsing (i.e., facing more or similar adverse experiences) following adversity, such as isolation, neglect, and relationship difficulties (Goldstein & Brooks, 2012). Therefore, protective factors which increase the likelihood of positive outcomes being maintained and sustained in the long-term, such as family cohesion and the motivation to adapt, are important in determining a child's ability to learn and grow from setbacks (Masten & Barnes, 2018). Moreover, prevention research goes beyond identifying risk and protective factors and instead suggests that targeted interventions have the potential to buffer the negative impact of adversity on children because they enhance access to and experience of factors including stable relationships (Robinson, 2000). Therefore, this discussion paper endeavours to utilise Bronfenbrenner's framework to study children's behaviours and interactions through the interrelationship of individual development, contextual variability, and individual differences. In doing so, researchers can ascertain how adversity may affect children's resilience and how they can be best supported through the social relationships they form.

3. Resilience can be taught through personality traits

3.1 Big Five traits and emotional intelligence

This section will explore the 'individual level (refer to Figure 1.0), by exploring the role of children's personality traits and emotional intelligence in shaping resilience. Prior research has suggested that children's personality traits can be thought of as a five-factor structure: openness, conscientiousness, extraversion, agreeableness, and neuroticism. These traits determine the trajectory of children's developmental outcomes, including high levels of self-control, motivation towards accomplishments, and strong emotional stability, and act as a source for resilience pathways (Sapienza & Masten, 2011; Shiner & Masten, 2012; Oshio et al., 2018). For instance, a meta-analysis revealed that the population correlation coefficients with resilience were positive for conscientiousness and extraversion, compared to neuroticism which was negatively correlated with resilience (Oshio et al., 2018). One possible explanation for the negative association between resilience and neuroticism may be linked to adversity negatively impacting personality development, which leads to increased risk of impairments across emotional regulatory capacities and cognitive executive functions. This is important in the context of resilience, as poor emotion regulation may lead to negative experiences, particularly in relation to fostering resilience during childhood. Moreover, the positive associations between consciousness and extraversion with resilience may pertain to better mindsets being adopted by children, alongside better relationships with other children and adults. In building such supportive networks, young people are equipped with appropriate skills to communicate and discuss emotional issues with others, improving upon resilient attitudes.

Turning to research on emotional intelligence enables a better understanding of how children can manage stress more effectively, communicate with others, and avoid conflict, improving upon how researchers conceptualise the ways in which children respond to challenging situations and build resilience. For example, McCrimmon et al. (2018) investigated the associations between emotional intelligence and resilience among children with attention-deficit hyperactivity disorder and high-functioning autism spectrum disorder using self-reported measures (e.g., statements assessing participants' support from others and impairments from emotional situations). Both clinical groups yielded significant correlations between three emotional intelligence factors: intrapersonal skills, ad-aptability, and support of others.



Therefore, to further equip children with stronger emotional functioning, meaning making of traumatic experiences through self-realisation and reflection are important avenues in shaping resilience. In advocating such experiences and exercises, intrapersonal skills, adaptability in various challenging situations and fostering supportive environments, can be enhanced.

3.2 Considering meaning-oriented approaches to resilience

Research on meaning-oriented approaches and self-realisation can provides insights into how children can learn and subsequently adopt self-help techniques to become more resilient (Ryff, 2014). For example, Chan et al. (2006) proposed a strength-focused and meaning-oriented approach to resilience and transformation (SMART), where post-traumatic growth and cognitive reappraisal were emphasised. Specifically, through reflective learning and discussions, participants were reminded of past achievements (i.e., overcoming problems during schoolwork and handling emotional issues rationally) to help them overcome their present trauma (e.g., parental conflict, neglect, and abuse), with the aim to improve upon skills including self-esteem and confidence (Chan et al., 2006). Kelley and Pransky (2013) offered an alternative view on realising resilience, where a shift in higher levels of consciousness enable an individual's mind to become clear, allowing them to construct a new reality that does not involve previous painful memories. This can be better understood through the metaphor of the sun and clouds, where resilience (i.e., the sun) becomes obscured by personal thinking (i.e., the clouds), and that resilience is always available whenever these personal thoughts clear. The shift in higher levels of consciousness can be achieved through creative interventions, including mindfulness and meditation (Kelly & Pransky, 2013), but these had yet to be validated by the researchers.

In a later study, high-risk adolescents (e.g., adolescents that are associated with school failure and gang affiliation) received ten lessons running 60-90 minutes on improving insightful and creative thinking (i.e., problem-solving skills) using stories, games, and metaphors (Kelley et al., 2017). Findings reported a significant reduction in risky behaviours and a significantly larger improvement in overall resilience in high-risk participants when compared to low-risk participants (Kelley et al., 2017). To improve upon the research design, future studies could examine the effects of such lessons longitudinally (e.g., three months, then six months follow-up) between high-risk and low-risk populations. However, it is unclear whether these effects are meaningful in other aspects of children's lives, as improvements in resilience were only reported following a short period of time and therefore the findings lack generalisability. Meaning-oriented approaches can be used as learning opportunities for children to reframe prior challenges and trauma, improving resilience for children affected by such adverse experiences. Next, the context in which traumatic experiences emerge (specifically in dysfunctional families) will be discussed, with a particular focus on how family cohesion can be better strengthened to support children through adversity.

4. Resilience can be taught through family relationships

4.1 Adverse childhood experiences and familial issues

Adverse childhood experiences (ACEs)—specifically parental abandonment through divorce and neglect—will be discussed here, as they point towards occasions in which children are deprived of opportunities to develop positive attachments with caregivers (Woods-Jaeger et al., 2018). Bîrneanu (2014) explored attachment styles among foster parents and the resilience of foster children and found high insecure attachment patterns and low levels of self-esteem. A possible explanation for these findings may be attributed to children previously experiencing disruptive relationships, where they faced increased risks for psychopathological issues in later life (Auersperg et al., 2019; Becher et al., 2019). Thus, such issues with attachment and self-esteem can have subsequent, negative



consequences on children's peer relationships in social situations, as well as existing family relationships, where issues including lack of trust and lack of communication when future emotional problems arise, may also occur.

An investigation focusing on long-term mental health outcomes of parental divorce found that resilience, rejection sensitivity, and childhood trauma fully mediated the association between parental divorce and increased levels of anxiety and depression (Schaan & Vögele, 2016). Similarly, Auersperg et al. (2019) found that children whose parents divorce face higher risks of developing various mental health issues. Mitigating high levels of childhood trauma and fostering positive relations would involve supporting both parents and children through targeted interventions at early stages of ACEs. Child socialisation theory suggests that children attain good coping skills through consistent, warm, and positive relations with their caregivers (Armstrong et al., 2005; Barber, 1997). Recent research has suggested that improving parents' wellbeing in the home environment (i.e., reducing feelings of stress and being overwhelmed) has positive effects for children's psychosocial development (Twum-Antwi et al., 2020). Therefore, to attain secure parent-child attachments, parent-focused interventions may play a role in fostering resilience during childhood, which will be discussed next.

4.2 Parent-focused interventions

Structured parent-focused interventions and techniques can target the consequences of ACEs and capitalise on strengthening protective factors within families. Parental monitoring is one technique which has been used to reflect firm and consistent behavioural control by tracking children's activities and behaviour via diaries or similar note-taking, thus preventing negative behaviour patterns and activities (e.g., substance abuse) emerging during childhood and adolescence (Kerns et al., 2001; Nash et al., 2011; Noltemeyer & Bush, 2013). Importantly, prior research has noted that parental monitoring may not be effective, particularly in cases where parents themselves were not monitored as children, and therefore lack belief in the efficacy of tracking children's activities and behaviours (Dishion & McMahon, 1998).

Furthermore, parent-focused interventions have illustrated that a range of parenting behaviours can be strengthened in the long-term, including effective discipline and better school involvement (Sandler et al., 2015). For example, two parent-focused programmes found positive short-term changes after eleven months, with improvements in parent-child attachments, as well as higher self-esteem, educational aspirations, and decreases in distress, in the six-year follow-up (Sandler et al., 2015). A recent study suggested that researchers can strengthen existing parent-focused interventions, by incorporating informal practices (e.g., support groups and cafes), enabling families to discuss their issues in a nurturing environment and improving resilience among youth (Woods-Jaeger et al., 2018). Evidently, parents play a crucial role in fostering resilience among children, and parent programmes can provide support for families that are struggling with adversity, conflict, and problematic behaviours. Next, drawing upon research from schools, there will be a focus on how teachers foster resilience, as well as the type of mindsets children can develop and adopt to combat academic challenges and emotional issues.

5. Resilience can be taught through schools

5.1 The role of teachers and growth mindsets

Teachers play an integral part in instilling skills (including the motivation to succeed) in children, enabling them to combat study pressures and stress whilst also lowering problematic behaviours (Benard, 1991). For example, a review article suggested that effective educators have a lifelong impact



on students, as instilling hope and resilience can help children feel empowered about their own education and lead them to greater success (Brooks & Goldstein, 2008). This was further supported in a qualitative study by Nolan et al. (2014), in which teachers were interviewed on their perceptions of resilience, their role in fostering resilience, and strategies adopted to foster resilience. During the interviews, teachers reported seven key strategies used in classrooms to foster resilience: working with feelings; fostering belonging; developing self-regulation; learning from mistakes and problem solving; using play; building relationships, and positive reinforcement. When teachers play an active role in promoting social and emotional learning (SEL), they enable children to become more capable of expressing their feelings and emotions to peers and adults. Expressing emotions openly is important for children when they are faced with challenges, and the type of mindset children choose to adopt plays a key role in determining how they can enhance their own learning and personal growth (Dweck, 2017). Implementing such practices at earlier stages of life may serve as an important protective mechanism against the emergence of serious psychopathological issues and also empower young people to openly share their feelings 'in the moment', thus improving opportunities to become resilient in later stages of childhood and improving children's self-reflection skills.

Links between resilience and mindsets have been widely discussed in literature, with one study suggesting that shifting mindsets can lead to greater resiliency and better problem-solving skills (Pawlina & Stanford, 2011). When children adopt a growth mindset, they believe they have the potential to change, therefore preparing young people to face challenges resiliently (Dweck, 2017). In Pawlina & Stanford's study (2011), self-talk was one of the strategies that teachers taught pre-schoolers, with a specific focus on how making mistakes actually reflects opportunities to learn and exerting effort is normal during the process of combatting problems. Furthermore, a study conducted by Zeng et al. (2016) showed that when students develop high levels of growth mindsets, higher psychological well-being and school engagement are predicted because of the enhancement of resilience.

Whilst investigating the impact of growth mindsets on children's outcomes, considering teachers' perspectives on growth mindsets may also be important. For instance, a study by Boylan et al. (2018), it was identified that there is little guidance and support provided to early childhood teachers to implement effective teaching and learning on mindsets. As suggested by Yeager and Dweck (2012), nurturing growth mindsets in education requires more than self-esteem boosting and trait labelling. Thus, for teachers to utilise evidence-based research, there is a need for specialised training and support to help teachers improve academic outcomes and wellbeing among students. In doing so, resilience can be better fostered in school classrooms, where children have positive role models and figures to discuss existing and new issues related to academic work and progress, as well as social issues, with respect to peers and extracurriculars. Techniques adopted by teachers that focus on SEL, self-talk, and the adoption of a growth mindset enable children to develop strong problem-solving skills in schools. Next, school-based interventions will be explored with a focus on improving par-ent-teacher relationships and improving wellbeing outcomes.

5.2 School-based interventions (SBIs)

Pathological issues and problem behaviours, otherwise referred to as possible risk factors for children to develop more resilient behaviours, can be prevented and treated through SBIs. Kourkoutas et al. (2015) investigated how to best support children with special educational needs (SEN) by implementing an action-research programme that involved focus group meetings for teachers and parents to discuss children's problems and progress. Indeed, investigating high-risk populations, such as children with SEN, may be vital in understanding how the process of resilience may vary, due to



developmental issues, compared to typically developing children. Findings from the programme revealed that parents gained a better understanding of children's psychosocial difficulties through active discussions with other families, as well as understanding how class dynamics may influence children's behaviours. By engaging in reflective practice, parents and teachers were able to learn about key skills including conflict resolution, self-confidence, and critical thinking, all of which are crucial in teaching and encouraging children to become more resilient. Therefore, recognising children's challenging behaviours involves active commitment and involvement from both parents and teachers, as relationships can be improved with children through nurturing, positive environments.

In another study, the implementation of an intervention programme was evaluated with a focus on fostering academic resilience for at-risk-of-failure secondary school students (Irfan Arif & Mirza, 2017). This programme was effective in encouraging teachers to appreciate students' successes and provide support during task learning processes (Irfan Arif & Mirza, 2017). Despite these positive short-term findings, the effects of SBIs in the long-term are just as important to consider. For instance, in a review of universal resilience-focused school interventions, Dray et al. (2017) only found short-term reductions in depressive and anxiety symptoms, following cognitive-behaviour therapy-based approaches (e.g., role-playing, journaling, and meditation). Therefore, improving SBIs may involve establishing different types of protective factors, like family cohesion, effective teaching, and parent and teacher focus groups, all of which aim to attain a broad range of positive mental health outcomes among children, including better academic achievement, successful peer relationships, and decreases in negative affect (Dunning et al., 2019). Evidently, SBIs have the potential to promote resilience among children by providing specific support to parents and teachers. Moving from the microsystem to factors in the macrosystem, media and culture will be discussed next as broader influences in shaping and teaching children resilience.

5.3 Considering influences from the macrosystem

So far, children's social interactions and resilience pathways within its immediate environment have been addressed in this paper, with reference to family relationships, teachers, and schools. Yet support from larger, broader sociocultural influences, including culture and media, can also help children overcome adversity, as emphasis is placed on both individuals and communities, rather than children's individual traits alone (Clauss-Ehlers et al., 2006; Darling, 2007; Harney, 2007). For example, children's media use was explored by O'Neill (2015), who highlighted that the Internet is a transformative technology through which children develop social relationships and is crucial in teaching children about becoming responsible citizens. Drawing parallels to resilience research, children may turn to online social support groups to communicate their problems with others, while also developing skills including conflict resolution and self-efficacy. Moreover, Vélez-Agosto et al. (2017) illustrated that culture is observed as part of daily routines and practices in families (e.g., learning about family heritage), and school settings (e.g., learning about countries and foreign languages). Such factors (i.e., heritage) may be relevant for children recovering from adversity and for youth to develop better resilience, as shared cultural values and the recognition of different cultural backgrounds may enable young people to develop better beliefs, values and morality towards others. Taken together, debating whether media and culture, which usually exist in the macrosystem, should be embedded within the microsystem as important bidirectional influences may serve as important considerations for future research. Following this section, practical implications from resilience research for interventions, including play-based approaches, and for educational psychologists will be addressed.



6. Practical implications for play-based approaches and practice 6.1 Play-based approaches

What are the practical implications of teaching children resilience for creative interventions and practice? As discussed earlier, targeted prevention programmes play a key role in fostering resilience during childhood and, more importantly, shaping children's development. Play-based approaches act as protective factor for resilience, as children are provided with opportunities to learn through discovery, whilst developing skills in exploration, curiosity, creativity, and imagination (Garrett, 2014). For example, free play is when children are offered real-life play situations (e.g., having a conversation with neighbours), developing key skills such as negotiation and compromise. One of the key implications of free play is that therapists can observe and change maladaptive behaviours among children (as discussed previously, this may mean being affiliated with gangs or having aggressive tendencies), while they are engaged in fun activities within group settings (Alvord & Grados, 2005). Therefore, as children develop problem-solving skills associated with negotiation and compromise, they become more proficient in recognising, understanding, and resolving complex issues during adversity.

More recently, storytelling is being advocated as a tool for teaching children resilience through the use of reflective questions on how characters are affected by the actions and behaviours of others and how this is linked to the reader's own actions and consequences (Tillott et al., 2021). While this research requires further validation, future play-based approaches should focus on discussing sensitive themes (e.g., divorce and bullying) to teach children about negative situations and resolutions to problems, embedding self-reflection and critical thinking as key skills. In discussing such themes, one key ethical consideration would be the degree of risk in which such activities could induce further psychological distress. Therefore, to maximise benefits and to minimise harm, the British Psychological Society Code of Ethics proposes conducting a five-stage risk assessment, prior to conducting research, where risks are identified, potential harms are established, the scale of the risk is evaluated, the findings are documented, and finally assessing the magnitude of harm and how it can be changed if harm arises (Oates et al., 2021).

6.2 The role of educational psychologists

As previously discussed, play-based approaches have the potential to instil skills including curiosity and creativity, which are much needed for overcoming adversity. Another crucial consideration involves understanding how resilience research might affect educational psychologists' service delivery, specifically in aiming to understand how practitioners can encompass more empirical research and children's voices in services. Research suggests that educational psychologists need to improve upon making schools more aware of their role in promoting protective factors for children to thrive following adversity, due to reports of children not reaching their full potential, following ACEs (Scottish Executive Currie Report, 2002; Toland & Carrigan, 2011; Liebenberg et al., 2016). This may include adopting strategies such as parent-practitioner focus groups to improve parental involvement in children's activities, as well as implementing children's views in their own resilience and recovery processes. Moreover, by considering the voices and views of children whilst they overcome ACEs and other adversities, children are more inclined to be positively engaged in their own recovery, utilising skills such as leadership and reflection in this process.

Notably, Theron and Donald (2013) suggested that psychologists must educate clients and their families on resilience being more than merely identifying risk and protective factors and instead emphasise that resilience pathways are constantly evolving, as children go through various challenges across different developmental milestones. By educating families on the possible changes that occur



during resilience, they will be better placed in understanding children's abilities to express themselves and communicate issues, and thus be able to support them through recovery following adversity. Overall, educational psychologists could play a key role in building positive and empowering relationships within children's families and schools. However, better guidelines and regulations must be developed by such practitioners to embed the opinions of children (i.e., service users), their parents and teachers (i.e., microsystem), and other relevant bodies that may aid children during resilience (i.e., exosystem and macrosystem such as local authorities and communities). Moreover, by strengthening children's individual abilities (e.g., self-esteem), psychologists can help young people reach a better understanding of their own resilience pathways and recovery processes.

7. Can resilience be 'taught'? : the dark side of resilience

Despite the plethora of evidence suggesting that resilience can be taught and cultivated during childhood, the question remains whether it *should* be taught. For example, it may be important to consider contexts where resilience may be maladaptive, particularly when it masks vulnerability or prevents effective action to address risk (Mahdiani & Ungar, 2021). Whilst aiming to protect children in families or in schools, there may be cases where risks experienced by children fail to be recognised by support networks or the wrong risks are acknowledged. Therefore, educational psychologists should develop and adopt appropriate risk assessment protocols, specifically incorporating the views of children, families, and schools to better understand children's needs and how these can be met through accessible support. Furthermore, when families have high expectations for change following ACEs, they could place further pressure on children, and this can lead to further negative outcomes including low self-esteem and psychopathological issues, such as depression and anxiety (Mahdiani & Ungar, 2021; Polivy & Herman, 2000). Future studies should therefore explore the potential longterm psychological effects of adopting such attitudes and the extent to which it hinders or detriments resilience during childhood.

8. Conclusion

To conclude, resilience can be cultivated and fostered during childhood through the personality traits and emotional intelligence a child cultivates and develops at the 'individual level'; through effective parenting and secure attachments; and finally, through effective external support from educational psychologists. Research from the Big Five personality traits and emotional intelligence demonstrates that children require specific abilities and attributes to overcome challenges and solve problems successfully following adversity. Furthermore, strengthening parenting skills and family relationships may involve embedding parent-focused interventions such as parental monitoring, which can foster resilience among children with an overarching aim of eradicating problematic behaviours and encouraging more openness in communicating emotional issues. Similarly, school-based interventions, including self-talk strategies, can help children express their emotions more effectively when they face challenges in schoolwork or among peers, thus enabling them to become more resilient individuals in a school setting. A further exploration of storytelling as a viable technique would be beneficial in understanding how best placed teachers are in fostering resilience and whether specialised training is required to support the development of resilience-based behaviours among children.

Overall, children can be taught resilience through the direct, social relationships that they have with parents and teachers within the microsystem, as part of Bronfenbrenner's framework, and this resilience can be further strengthened through targeted interventions and support from educational psychologists. Importantly, practitioners and researchers must aim to educate families about resilience, focusing particularly on the process not being time bound and varying from child to child. Finally,



incorporating perspectives from children, families, and schools can improve the authenticity of future research, by developing a holistic approach towards encouraging resilient attitudes and behaviours among youth.

References

- Alvord, M. K., & Grados, J. J. (2005). Enhancing resilience in children: a proactive approach. Professional Psychology: Research and Practice, 36(3), 238–245. <u>https://doi.org/10.1037/0735-7028.36.3.238</u>
- Armstrong, M. I., Birnie-Lefcovitch, S., & Ungar, M. T. (2005). Pathways between social support, family well being, quality of parenting, and child resilience: what we know. *Journal of Child and Family Studies*, 14(2), 269–281. <u>https://doi.org/10.1007/s10826-005-5054-4</u>
- Auersperg, F., Vlasak, T., Ponocny, I., & Barth, A. (2019). Long-term effects of parental divorce on mental health A meta-analysis. *Journal of Psychiatric Research*, 119, 107–115. <u>https://doi.org/10.1016/j.jpsychires.2019.09.011</u>
- Barber, B. K. (1997). Introduction: adolescent socialization in context-the role of connection, regulation, and autonomy in the family. *Journal of Adolescent Research*, 12(1), 5–11. <u>https://doi.org/10.1177/0743554897121002</u>
- Becher, E. H., Kim, H., Cronin, S. E., Deenanath, V., McGuire, J. K., McCann, E. M., & Powell, S. (2019). Positive parenting and parental conflict: contributions to resilient coparenting during divorce. *Family Relations*, 68(1), 150–164. <u>https://doi.org/10.1111/fare.12349</u>
- Benard, B. (1991). Fostering resiliency in kids: protective factors in the family, school, and community. <u>https://eric.ed.gov/?id=ed335781</u>
- Bîrneanu, A. G. (2014). The resilience of foster children: The influence and the importance of their attachment. *Revista de Asistență Socială*, (4), 85-100.
- Boylan, F., Barblett, L., & Knaus, M. (2018). Early childhood teachers' perspectives of growth mindset: developing agency in children. Australasian Journal of Early Childhood, 43(3), 16–24. <u>https://doi.org/10.23965/AJEC.43.3.02</u>
- Bronfenbrenner, U. (1979). Ecology of human development. Harvard University Press.
- Brooks, R., & Goldstein, S. (2008). The mindset of teachers capable of fostering resilience in students. Canadian Journal of School Psychology, 23(1), 114–126. <u>https://doi.org/10.1177/0829573508316597</u>
- Chan, C. L. W., Chan, T. H. Y., & Ng, S. M. (2006). The strength-focused and meaning-oriented approach to resilience and transformation (SMART): A body-mind-spirit approach to trauma management. *Social Work in Health Care*, 43(2–3), 9–36. <u>https://doi.org/10.1300/J010v43n02_03</u>
- Clauss-Ehlers, C. S., Yang, Y.-T. T., & Chen, W.-C. J. (2006). Resilience from childhood stressors: the role of cultural resilience, ethnic identity, and gender identity. *Journal of Infant, Child, and Adolescent Psychotherapy*, 5(1), 124–138. https://doi.org/10.2513/s15289168jicap0501_7
- Darling, N. (2007). Ecological systems theory: the person in the center of the circles. *Research in Human Development*, 4(3–4), 203–217. <u>https://doi.org/10.1080/15427600701663023</u>
- Dishion, T. J., & McMahon, R. J. (1998). Parental monitoring and the prevention of child and adolescent problem behavior: a conceptual and empirical formulation. *Clinical Child and Family Psychology Review*, 1(1), 61–75.<u>https://doi.org/10.1023/A:1021800432380</u>
- Dray, J., Bowman, J., Campbell, E., Freund, M., Wolfenden, L., Hodder, R. K., McElwaine, K., Tremain, D., Bartlem, K., Bailey, J., Small, T., Palazzi, K., Oldmeadow, C., & Wiggers, J. (2017). Systematic review of universal resilience-focused interventions targeting child and adolescent mental health in the school setting. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56(10), 813–824. <u>https://doi.org/10.1016/j.jaac.2017.07.780</u>
- Dunning, D. L., Griffiths, K., Kuyken, W., Crane, C., Foulkes, L., Parker, J., & Dalgleish, T. (2019). Research Review: The effects of mindfulness-based interventions on cognition and mental health in children and adolescents – a meta-analysis of randomized controlled trials. *Journal of Child Psychology and Psychiatry*, 60(3), 244–258. <u>https://doi.org/10.1111/jcpp.12980</u>
- Dweck, C. S. (2017). The journey to children's mindsets—and beyond. *Child Development Perspectives*, *11*(2), 139–144. https://doi.org/10.1111/cdep.12225



- Garrett, M. (2014). Play-based interventions and resilience in children. International Journal of Psychology and Counselling, 6(10), 133–137. <u>https://doi.org/10.5897/IJPC2014.0283</u>
- Goldstein, S., & Brooks, R. B. (2012). Handbook of resilience in children. Springer. <u>http://ebookcentral.proquest.com/</u> <u>lib/cam/detail.action?docID=971585</u>
- Harney, P. A. (2007). Resilience processes in context. *Journal of Aggression, Maltreatment & Trauma, 14*(3), 73–87. https://doi.org/10.1300/J146v14n03_05
- Herrman, H., Stewart, D. E., Diaz-Granados, N., Berger, E. L., Jackson, B., & Yuen, T. (2011). What is resilience? *The Canadian Journal of Psychiatry*, 56(5), 258–265. <u>https://doi.org/10.1177/070674371105600504</u>
- Hoffman, D. M. (2010). Risky investments: parenting and the production of the 'resilient child'. *Health, Risk & Society*, 12(4), 385–394. <u>https://doi.org/10.1080/13698571003789716</u>
- Irfan Arif, M., & Mirza, M. S. (2017). Effectiveness of an intervention program in fostering academic resilience of students at risk of failure at secondary school level. *Bulletin of Education and Research*, 39(1), 251–264. <u>https://ezp. lib.cam.ac.uk/login?url=https://www.proquest.com/scholarly-journals/effectiveness-intervention-program-fostering/ docview/1944194594/se-2?accountid=9851</u>
- Kelley, T. M., & Pransky, J. (2013). Principles for realizing resilience: a new view of trauma and inner resilience. *Journal of Traumatic Stress Disorders & Treatment*, 2(1), 1-9. <u>https://doi.org/10.4172/2324-8947.1000102</u>
- Kelley, T. M., Alexander, J. R., & Pransky, J. (2017). Drawing-out resilience in children and high-risk adolescents via exposing them to three psycho-spiritual principles. *Journal of Child and Adolescent Behavior*, 5(2), 1-8. <u>https://doi.org/10.4172/2375-4494.1000343</u>
- Kerns, K. A., Aspelmeier, J. E., Gentzler, A. L., & Grabill, C. M. (2001). Parent-child attachment and monitoring in middle childhood. Journal of Family Psychology: JFP: Journal of the Division of Family Psychology of the American Psychological Association (Division 43), 15(1), 69–81. <u>https://doi.org/10.1037//0893-3200.15.1.69</u>
- Kourkoutas, E., Eleftherakis, T. G., Vitalaki, E., & Hart, A. (2015). Family-school-professionals partnerships: an action research program to enhance the social, emotional, and academic resilience of children at risk. *Journal of Education* and Learning, 4(3), 112–122. <u>http://dx.doi.org/10.5539/jel.v4n3p112</u>
- Liebenberg, L., Theron, L., Sanders, J., Munford, R., van Rensburg, A., Rothmann, S., & Ungar, M. (2016). Bolstering resilience through teacher-student interaction: Lessons for school psychologists. *School Psychology International*, 37(2), 140–154. <u>https://doi.org/10.1177/0143034315614689</u>
- Luthar, S. S., & Cicchetti, D. (2000). The construct of resilience: implications for interventions and social policies. *Development and psychopathology*, 12(4), 857–885. <u>https://doi.org/10.1017/s0954579400004156</u>
- Mahdiani, H., & Ungar, M. (2021). The dark side of resilience. Adversity and Resilience Science, 2(3), 147–155. <u>https://doi.org/10.1007/s42844-021-00031-z</u>
- Masten, A. S., & Barnes, A. J. (2018). Resilience in children: developmental perspectives. *Children*, 5(7), 98. <u>https://doi.org/10.3390/children5070098</u>
- Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2(4), 425–444. <u>https://doi.org/10.1017/ S0954579400005812</u>
- McCrimmon, A. W., Climie, E. A., & Huynh, S. (2018). The relation between emotional intelligence and resilience in at-risk populations. *Developmental Neurorehabilitation*, 21(5), 326–335. <u>https://doi.org/10.1080/17518423.2017.13</u> <u>87873</u>
- Nash, J. K., Mujanovic, E., & Winfree, L. T. (2011). Protective effects of parental monitoring on offending in victimized youth in Bosnia and Herzegovina. *Child & Youth Services*, 32(3), 224–242. <u>https://doi.org/10.1080/014593</u> 5X.2011.605313
- Nolan, A., Taket, A., & Stagnitti, K. (2014). Supporting resilience in early years classrooms: the role of the teacher. *Teachers and Teaching*, 20(5), 595–608. <u>https://doi.org/10.1080/13540602.2014.937955</u>
- Noltemeyer, A. L., & Bush, K. R. (2013). Adversity and resilience: A synthesis of international research. School Psychology International, 34(5), 474–487. <u>https://doi.org/10.1177/0143034312472758</u>



- Oates, J., Carpenter, D., Fisher, M., Goodson, S., Hannah, B., Kwiatowski, R., Prutton, K., Reeves, D., & Wainwright, T. (2021). BPS Code of Human Research Ethics. British Psychological Society.
- O'Neill, B. (2015). Ecological perspectives and children's use of the Internet: exploring micro to macro level analysis. *Estonian Journal of Education*, 3(2), 32–53. <u>https://doi.org/10.12697/eha.2015.3.2.02b</u>
- Oshio, A., Taku, K., Hirano, M., & Saeed, G. (2018). Resilience and Big Five personality traits: A meta-analysis. *Person-ality and Individual Differences*, 127, 54–60. <u>https://doi.org/10.1016/j.paid.2018.01.048</u>
- Pawlina, S., & Stanford, C. (2011). Preschoolers grow their brains: shifting mindsets for greater resiliency and better problem solving. *YC Young Children*, 66(5), 30–35.
- Polivy, J., & Herman, C. P. (2000). The false-hope syndrome: unfulfilled expectations of self-change. *Current Directions in Psychological Science*, 9(4), 128–131. <u>https://doi.org/10.1111/1467-8721.00076</u>
- Robinson, J. L. (2000). Are there implications for prevention research from studies of resilience? *Child Development*, 71(3), 570–572. <u>https://doi.org/10.1111/1467-8624.00167</u>
- Ryff, C. D. (2014). Self-realisation and meaning making in the face of adversity: A eudaimonic approach to human resilience. *Journal of Psychology in Africa*, 24(1), 1–12. <u>https://doi.org/10.1080/14330237.2014.904098</u>
- Sandler, I., Ingram, A., Wolchik, S., Tein, J.-Y., & Winslow, E. (2015). Long-term effects of parenting-focused preventive interventions to promote resilience of children and adolescents. *Child Development Perspectives*, 9(3), 164–171. <u>https://doi.org/10.1111/cdep.12126</u>
- Sapienza, J. K., & Masten, A. S. (2011). Understanding and promoting resilience in children and youth. Current Opinion in Psychiatry, 24(4), 267–273. <u>https://doi.org/10.1097/YCO.0b013e32834776a8</u>
- Scottish Executive. (2002). *Review of provision of educational psychology services in Scotland* (The Currie Report). Edinburgh: Scottish Executive.
- Shiner, R. L., & Masten, A. S. (2012). Childhood personality as a harbinger of competence and resilience in adulthood. Development and Psychopathology, 24(2), 507–528. <u>https://doi.org/10.1017/S0954579412000120</u>
- Southwick, S. M., Bonanno, G. A., Masten, A. S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: interdisciplinary perspectives. *European Journal of Psychotraumatology*, 5(1), 25338. <u>https://doi.org/10.3402/ejpt.v5.25338</u>
- Southwick, S. M., Sippel, L., Krystal, J., Charney, D., Mayes, L., & Pietrzak, R. (2016). Why are some individuals more resilient than others: The role of social support. *World Psychiatry*, 15(1), 77–79. <u>https://doi.org/10.1002/wps.20282</u>
- Theron, L. C., & Donald, D. R. (2013). Educational psychology and resilience in developing contexts: a rejoinder to Toland and Carrigan (2011). School Psychology International, 34(1), 51–66. <u>https://doi.org/10.1177/0143034311425579</u>
- Tillott, S., Weatherby-Fell, N., Pearson, P., & Neumann, M. M. (2021). Using storytelling to unpack resilience theory in accordance with an internationally recognised resilience framework with primary school children. *Journal of Psy*chologists and Counsellors in Schools, 1–12. <u>https://doi.org/10.1017/jgc.2021.5</u>
- Toland, J., & Carrigan, D. (2011). Educational psychology and resilience: New concept, new opportunities. School Psychology International, 32(1), 95–106. <u>https://doi.org/10.1177/0143034310397284</u>
- Twum-Antwi, A., Jefferies, P., & Ungar, M. (2020). Promoting child and youth resilience by strengthening home and school environments: A literature review. *International Journal of School & Educational Psychology*, 8(2), 78–89. <u>https://doi.org/10.1080/21683603.2019.1660284</u>
- Vélez-Agosto, N. M., Soto-Crespo, J. G., Vizcarrondo-Oppenheimer, M., Vega-Molina, S., & García Coll, C. (2017). Bronfenbrenner's bioecological theory revision: moving culture from the macro into the micro. *Perspectives on Psychological Science*, 12(5), 900–910. <u>https://doi.org/10.1177/1745691617704397</u>
- Woods-Jaeger, B. A., Cho, B., Sexton, C. C., Slagel, L., & Goggin, K. (2018). Promoting resilience: breaking the intergenerational cycle of adverse childhood experiences. *Health Education & Behavior*, 45(5), 772–780. <u>https://doi.org/10.1177/1090198117752785</u>
- Yeager, D. S., & Dweck, C. S. (2012). Mindsets the promote resilience: when students believe that personal characteristics can be developed. *Educational Psychologist*, 47(4), 302–314. <u>https://doi.org/10.1080/00461520.2012.722805</u>



- Zeng, G., Hou, H., & Peng, K. (2016). Effect of growth mindset on school engagement and psychological well-being of Chinese primary and middle school students: the mediating role of resilience. *Frontiers in Psychology*, 7, 1873, 1-8. <u>https://doi.org/10.3389/fpsyg.2016.01873</u>
- Zolkoski, S. M., & Bullock, L. M. (2012). Resilience in children and youth: A review. *Children and Youth Services Review*, 34(12), 2295–2303. <u>https://doi.org/10.1016/j.childyouth.2012.08.009</u>