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Abstract

The purpose of this review is to evaluate the literature on whole school approaches to increasing resilience in pupils. This is pertinent with the increase in children and young people's mental health needs creating extra pressure on schools to foster young people's ability to withstand stress and adversity. Whilst previous reviews have considered the ways in which schools support their pupils, the extent to which resilience has been reliably measured has varied. Recently, several validated resilience measures have been developed which allows for potentially more robust research to take place. This systematic review therefore summarises and critiques the literature exploring whole school approaches to resilience development only where a validated measure has been used. Eleven studies were reviewed and demonstrate that there is a trend between school factors and pupil resilience. The importance of supportive relationships with both peers and staff in school is highlighted in several studies as well as the positive effect of including a robust health promoting school's agenda situated within local communities. However, the number of limitations identified within the current literature suggests that this review is not able to offer clear recommendations to schools. This review will, however, be helpful to schools, local authorities and the government in allowing them to take more of a critical stance in understanding resilience within a school context.

Keywords: resilience, school, education, socio-ecological theory

Introduction

Mental health of children and young people

Ten percent of children and adolescents are reported to have difficulties that would meet criteria for mental health diagnosis (Children's Society, 2008) leading to increasing demands on children's mental health services at a time of gradual "dis-investment" in children's services (NHS Benchmarking Network, 2013). The disparity between need and resources has led to a renewed focus on preventing distress rather than the reactive use of resources (Mental Health Taskforce, 2016). One way to reduce distress is to increase access to environments that increase young people's resilience. For many young people, school can be such an environment. With the government recently explicitly outlining schools' responsibility to promote resilience (Department for Education, 2016), this review will explore the evidence that schools can increase young people's resources in a way that might be associated with resilience.

Resilience

The construct of resilience is multifaceted (Kaplan, 2013) and the definition of resilience remains open to debate. Windle (2011) conducted a synthesis of over 270 papers to clarify a definition:

Resilience is the process of effectively negotiating, adapting to, or managing significant sources of stress or trauma. Assets and resources within the individual, their life and environment facilitate this capacity for adaptation and 'bouncing back' in the face of adversity (p.163).

However, difficulties remain in the conceptualisation and measurement of resilience: Luthar et al., (2000) summarise problems with both the understanding and measurement of resilience. For example, measuring internal versus environmental attributes that protect against adversity, in addition to measuring adversity and well-being after experiencing adversity, in a consistent and meaningful way.

Conceptualising and measuring the multiple elements outlined is complex and would ideally involve large samples and longitudinal research. A developmental understanding is also crucial to understanding resilience because the age at which adversity happens could affect young people differently and have consequences on subsequent developmental tasks.

Resilience theories

Research in resilience spans the last 50 years. Historically, resilience described individual factors such as having an internal locus of control (Werner & Smith, 1982). Over time, researchers began focusing on the “developmental *and* situational mechanisms involved in protective processes” (Rutter, 1987, p. 2) placing greater importance on the interaction between individuals and their environment.

Bronfenbrenner (1979) established a model of human development, which focused on the synergy between the systems surrounding a child as central to their development. Lerner (2006) demonstrated the importance of interactions between the systems around a person, and the way in which these interactions can adapt under stress, highlighting the link between ecological models of human development and resilience. A socio-ecological theory of resilience was thus developed describing the process by which children have the capacity to access and use both internal and external resources (such as social, cultural, physical and natural resources) to maintain their wellbeing (Ungar, et al., 2013).

The principles highlighted by Ungar et al. (2013) promote the importance of wider, cultural approaches to minimising risk as well as ensuring the relevance and availability of appropriate resources.

The role of schools

School was my haven, my solace, the alternate universe I stepped into most days with relief. School counteracted the trauma of the rest of my life (Henderson, 2013, p. 22).

Schools are a significant part of children's ecological system, with an excess of 90 percent of children in developing countries accessing education (OECD, 2014). The role of schools in promoting resilience is particularly important for children from disadvantaged communities (Song, et al., 2013).

School based interventions

Although programmes exist within schools for vulnerable children, whole-school approaches may be a more effective way in which to promote resilience by providing all pupils with access to support systems. Whole-school approaches refer to school initiatives, programmes or cultures intended to increase resilience in all pupils. This may be a specific programme such as the Health Promoting Schools approach, (WHO, 2017) or a broader cultural approach incorporated through staff training (such as Read et al., 2015). The Health Promoting Schools, for example, is

a programme that integrates school and community to promote and protect health. The programme could include weaving health agendas into the curriculum, making changes to the physical environment, providing access to health services, implementation of health policies and specific structures which integrate the school and community. The UK in recent years has introduced three large initiatives for whole school interventions that attempt to increase health and well-being for their pupils. These are the National Healthy Schools Programme (NHSP), introduced in 1999, the Social and Emotional Aspects of Learning (SEAL), rolled out in 2004, and the Targeted Mental Health in Schools (TaMHS) running between 2008 and 2011.

Previous reviews

Theron (2016) published a synthesis of research to determine how school ecologies facilitate resilience development. This review identified the importance of teachers who champion resilience and of whole-school resilience support. Theron found teachers with warm relationships with pupils, clear, consistent and achievable expectations, who facilitated pupil mastery skills and created an effective classroom environment were likely to promote individual pupil resources associated with resilience.

Theron highlighted the extent to which some research articles infer resilience promoting practice, without explicitly defining and/or measuring resilience.

Resilience measures

In line with the difficulties in defining resilience outlined above, Naglieri et al., (2013) considered the complexity of measuring resilience:

“Resilience is an outcome, rather than a psychological construct in and of itself that can be defined and, perhaps, measured. This has led to efforts to identify variables that lead to, and therefore can be used to predict, resilience rather than measuring it directly”. (p. 242).

As argued earlier when defining resilience, the above understanding would suggest that measuring resilience can involve measuring protective factors or resources, rather than only measuring wellbeing outcomes following adversity.

Conversely, Walsh et al., (2010) discuss measuring outcomes following adversity, as opposed to measuring resources. From considering many papers, the authors summarise that there have been multiple ways of measuring outcomes across research - most frequently emotion regulation, academic achievement and social competence..

Despite the complexity in measuring resilience, several resilience measurement scales, for both adults and children, do exist. A methodological review argued that many require further validation (Windle et al., 2011).

This paper will consider the role of socio-ecological approaches in schools in building protective factors associated with resilience, as opposed to outcome-focused approaches as outlined by Walsh et al. (2010). The limitations of this will be considered.

Scope

There are currently no published reviews which solely include research into school approaches that measures impact using validated measures of resilience. As many measures have been developed, it appears timely to explore the socio-ecological theories with potentially more robust measurement.

The aim of this review is to determine whether schools affect resilience in pupils, when external and internal resources/ protective factors associated with resilience are explicitly measured, whilst considering the challenges with both defining and measuring this complex construct. By reviewing this research, the effectiveness of whole school approaches can be considered using standardised measures, and can potentially guide implementation of resilience improving approaches.

Methodology

Measures

A search was conducted to determine the existing measures which have been tested for reliability and validity. Twenty-seven measures of resilience were identified. As this review considers only measures which claim to be specific measures of resilience resources, not of outcomes after adversity, 7 outcome measures were excluded leaving 15 relevant measures.

A further literature search was then completed using PsychInfo, Medline, ERIC (EBSCO), CINAHL and Teacher Reference Centre databases. Each of the fifteen measures were searched in turn and added to the term AND school* OR classroom* OR education* OR teach*.

721 papers were screened by title. Relevant papers were then screened by abstracts. The remaining 29 papers after initial exclusion were screened for relevance according to inclusion criteria to include pupils of statutory age attending schools, offering a whole school approach aimed at promoting resilience measured by one of the resilience measures. All study designs were included. Reference lists were checked for additional papers. Eleven papers remained after exclusion for review. The eleven papers used 5 of the original resiliency measures, listed in Table 1. Only published and peer reviewed papers were included in this initial review.

Table 1: Resilience measures used in the reviewed studies.

Measure	Authors
Child & Youth Resilience Measure (CYRM)	Ungar & Liebenberg, 2011
California Healthy Kids Survey- The Student Resiliency Survey (SRS)	Sun & Stewart, 2007
California Healthy Kids Survey- The Resilience Youth Development Module (RDYM)	Constantine & Benard, 2001; Constantine, Benard, & Diaz, 1999; WestEd, 2004; 2009
Resilience Questionnaire for Middle-adolescents in a Township School (R-MATS)	Mampane, 2010
The Resilience Scale (RS)	Wagnild & Young, 1993

Quality criteria

Criteria used when considering the quality of both quantitative and qualitative research was taken from the Standard Quality Assessment Criteria for Evaluating Primary Research Papers (Kmet et al., 2004), due to its application to a variety of research designs.

Results

Of the eleven papers, six used questionnaires from the California Health Kids Survey (SRS), three used the Child & Youth Resilience Measure-28 (CYRM) one used the Resilience Questionnaire for Middle-adolescents in a Township School (R-MATS) and one The Resiliency Scale (RS). None of the identified studies were conducted in the United Kingdom. Summaries of each paper can be found in Table 2.

Table 2: Summary of papers included in the review.

Authors & date	Country	Research aim	Sample	Study design and method	Measures	Findings
1) Stewart & Sun (2004)	Australia	Hypothesise that family, school and community based social support will significantly influence resiliency and perceptions of health.	20 primary schools 2580 pupils Age 8, 10 & 12	Cross-sectional Quantitative	Modified California Healthy Kids Questionnaire (the Student Resiliency Survey) Peer Support Scale	Home, school and community based adult and peer support all have significant effects on resiliency Teacher support and school based peer support demonstrated to have significant effects on resilience scores
2) Stewart, Sun, Patterson, Lemerle &	Australia	To explore the role of the Health Promoting Schools approach on the	20 primary schools	Cross-sectional	Pupils: Modified California Healthy Kids Questionnaire (the	HPS has significant effects on student resilience, protective factors and school environment

Hardie (2004)		development of resilience.	3146 pupils Age 8, 10 & 12 Pupils, care givers 1103 school staff	Quantitative	Student Resiliency Survey) Care givers: Parent/Care-provider Survey School staff: HPS Audit Checklist & Staff Survey	The communication and cooperation, self-esteem, empathy, and goals and aspirations elements of the resiliency component contributed to these differences between the levels of HPS and resilience scores High HPS schools also had higher protective factor scores, including once controlled for many confounding variables Staff with positive views of own schools HPS were more likely to have pupils with a positive view of their resilience Students view of their own resilience is dependent on protective factors and school environment
3) Johnson & Lazarus, (2008)	South Africa	To understand mental health needs of specific population, their strengths, the support they are offered and the role of the HPS framework in promoting well-being.	7 high schools. 4 historically disadvantaged (HDS), 3 historically advantage (HAS). 472 pupils Age 12-18+ 1 guidance teacher/school psychologist from each school.	Cross-sectional Mixed-methods	California Healthy Kids Survey (CHKS)-RYDM Interview schedule-focus groups with students The MindMatters HPS Questionnaire.	Some risk behaviours differed between HDS and HAS schools. Less than 50% of students in either HDS or HAS scored high for external assets in school (caring relationships, high expectations and meaningful participation). HDS scored higher than HAS. More pupils at HDS scored high on school connectedness. Pupils views of school support included being unclear whether teachers cared, could be trusted, or may be judgemental.

						HDS reported to not have the policies in place to address any of areas in HPS questionnaire. HAS had policies for all.
4) Sharkey, You & Schnoebele n, (2008)	America	To examine the validity of the RYDM and a proposed model of school assets, resilience and school engagement. Hypothesis: school assets would have a stronger protective role for children with low levels of family assets.	Calibration sample (n=10,000) Validation sample (n=10,000) 7 th , 9 th , 11 th grade pupils.	Cross-sectional Quantitative	California Healthy Kids Survey (CHKS)-RYDM	School assets found to be important for all pupils, not just those with low family assets. School assets may have more of an impact on internal resilience of pupils with low family assets. Internal resilience had a mediational role between school assets and school engagement.
5) Mampane & Bouwer (2011)	South Africa	To investigate the contribution of school to the resilience of grade 9 pupils.	2 secondary schools 291 pupils were surveyed and 16 the selected	Cross-sectional Mixed-methods	Resilience Questionnaire for Middle-adolescents in a Township School (R-MATS) Focus groups-Interactive Qualitative Analysis (IQA)	Resilient pupils perceived school environment and adolescence as primary drivers of positive future goals. Less resilient pupils perceived socialisation as the only primary driver and emphasised parental roles.
6) Catro-Olivo et al. (2013)		Propose a model of resiliency building which includes predominately environmental factors as opposed	Pupils who demonstrated engaging in anti-social behaviour in the RSYD as part of	Cross-sectional Quantitative	California Healthy Kids Survey (CHKS)-RYDM	Results discuss the ecological model better explains resiliency building in school. Argues that schools should have an ecological approach to resilience building

		to a narrower (not ecological) model of resilience and maladaptive behaviours.	the California Healthy Kids Survey. Californian pupils in year 2—5-2007. (n=667,610) 7 th , 9 th , 11 th grade pupils.			and violence prevention including community-school links.
7) Lee & Stewart, (2013)	Australia	Exploring the extent to which the HPS model using a resilience intervention can improve resilience.	Twenty schools (ten intervention, ten controls) in Australia, matched for school size, location and socio-economic status. Pupils aged 8,10 and 12 and their parents and school staff	Quasi-experimental Quantitative	Combined version of California Healthy Kids Survey and Perception of Peer Support Scale.	HPS interventions significantly changed the difference in resiliency scores between the two groups No significant difference in school connection HPS intervention, family connection, school connection, autonomy experience and peer support all significant predictors of explaining resilience
8) Jones & Lafreniere, (2014)	Bahamas	Explored the role of the primary microsystems in the promotion of social development.	103 Bahamian pupils. Aged 13-17 years	Cross-sectional Quantitative	Child and Youth Resilience Measure (CYRM) Bahamian Youth Risk Behaviour Inventory	Increased school involvement and positivity correlated with higher resilience scores. School engagement was not a significant predictor of resilience in the final model proposed. When school involvement was included with parental and non-parental

					Adapted New General Self-Efficacy Scale	relationships and extra-curricular activities, it predicted resilience significantly. However, when self-efficacy was added, it was no longer significant. More social competent pupils are more likely involved in school, but school engagement is less of a predictor of resilience when pupils have a positive adult relationship and perceived self-efficacy.
					Adapted New General Self-Efficacy Scale	
					Adapted Parent-Adolescent Communication Scale	
9) Theron, Liebenberg & Malindi, (2014)	South Africa	Investigated whether schools which promote and focus on children's rights facilitate resilience in their pupils.	951 pupils Aged 13-19 years	Cross-sectional Mixed-methods	Pathways to Resilience Youth Measure: included scales measuring risk, resources, school experience and resilience. Those considered to be 'resilient' were invited to complete 'drawing and writing' activities to illustrate what they had found helpful to positive adjustment	Pupils who reported to consider school environment as supportive and respectful had higher resiliency scores Overall results of quantitative analysis suggested rights-based schools facilitated resilience Qualitative analysis demonstrated the importance of teacher and pupils' interactions in creating a respectful school environment Teachers encouraging agency and future plans were identified as being particularly important
10) Read, Aldridge, Ala'I, Fraser & Fozdar, (2015)	Australia	Due to increasing diversity in this specific school, senior staff wanted to understand the process of improving the	122 pupils	Uncontrolled pre-post study Quantitative	What is happening in school? (WHITS) survey Student agency scale (SAS) which includes the Resiliency Scale	Statistically significant improvements in student scores of teacher support, affirming diversity and reporting and seeking help, although effect sizes are small

		school climate and investigate the influence this could have on wellbeing, resilience and identity.			(Wagnild & Young, 1993)	Significant improvements in wellbeing, resilience, self-anchoring and moral identify
11) Liebenberg et al. (2016)	Canada, New Zealand, South Africa	Explores how school ecologies can moderate the relationship between resilience and risk. Specifically explores the role of respect and empowerment in schools as protective factors.	2387 pupils. 1209 boys (age 11-20) 1175 girls (age 11-19) 2 groups of youths in each country; 1 using formal services and one not. South African pupils were part of comparison group.	Cross-sectional Quantitative	Pathways to Resilience Measure (PRYM) which includes the CYRM. Questionnaires regarding family risks, community risks, school experience.	Canada: Negative relationship between peer support and limited parental/caregiver warmth moderated by experiences of respectful schooling. New Zealand: Negative relationship between educational resources and limited parental affection moderated by empowering school experiences. South Africa: Negative relationship between educational resources and community risks moderate by experiences of respectful schooling.

Summary of findings

This review explored if whole school factors affect resilience resources in pupils., Lee and Stewart (2013⁷) and Stewart et al. (2004²) concluded that the whole school approach of the HPS agenda does improve resilience. Johnson and Lazarus (2008³) demonstrated how the extent to which schools can commit to the Health Promoting Schools agenda could depend on availability of resources. This HPS research would have been strengthened if it could have been compared to a second intervention in schools matched for levels of additional support provided.

Read et al. (2015¹⁰) reported benefits from a school programme to improve the school climate and well-being of pupils. Being respectful of children's rights has also been found to be associated with fostering resilience in schools both when staff access specific training to improve this (Read et al., 2015¹⁰) and by pupils (Liebenberg et al., 2016¹¹; Theron et al., 2014⁹).

School may have a greater importance for pupils from families with lower levels of support (Sharkey et al., 2008⁴; Liebenberg et al., 2016¹¹). Several papers highlight the importance of pupils' positive relationships with school staff (Stewart et al., 2004²; Stewart & Sun, 2004¹; Theron et al., 2014⁹) as well as positive peer relationships (Stewart & Sun, 2004¹; Liebenberg et al., 2016¹¹). The physical environment was also identified as an important factor in fostering resilience (Johnson & Lazarus, 2008³; Stewart et al., 2004²; Mampane & Bouwer, 2011⁵). However, all conclusions should be treated with caution due to many methodological factors discussed below.

Due to the lack of UK studies reviewing whole school approaches and resilience, a further search was made of NHSP, SEAL and TaHMS evaluations reported on government websites and in the 'grey' literature. Several reports had been commissioned to report the results of the

above initiatives. These generally showed disappointing results for improvements in pupil emotional (or resilience) outcomes. For example, Arthur et al. (2001) for the National Centre for Social Research found that in the two year timeframe of their evaluation of NHSP there were no significant changes in pupil knowledge, attitude or behaviour associated with the health themes of the programme. Generally however, schools and teachers welcomed the programme as they thought it gave them focus to evaluate their schools' approach to a health curriculum. There were some whole school changes mentioned in the review including greater focus on anti-bullying and collaboration with outside agencies.

Equally, an evaluation of the TaHMS project showed that there was a measureable improvement in primary children's behavioural difficulties following implementation of TaMHS, but not in their emotional difficulties – again this was in the context of clear school changes such as in better links with outside agencies. (Wolpert, Humphrey, Belsky and Deighton, 2013). Most relevant to this review was that none of the evaluations carried out on UK programmes used any published measure of resiliency.

Discussion

Research to test the effectiveness of schools in resilience promotion would ideally be based on robust definitions of resilience, would be longitudinal and would measure both individual pupil characteristics in addition to characteristics of school. Measures of community and family resources, and baseline measures of well-being would also be needed. In a follow-up stage, measures of adversity would be completed and the initial well-being measures repeated. This type of research would go some way to enable a comparison of resilience for pupils who have and have not faced adversity. Whilst this research would still be problematic, it demonstrates how far resilience research needs to develop for clear answers to the question of whether schools can develop pupils' resilience.

There are differences and commonalities in the way in which the resilience measures in this review conceptualise resilience. The SRS, RDYM and CRYM include both internal and external resources whereas the R-MATS and RS focus more on individual characteristics. These discrepancies lead to questions about the comparability of resilience resource measurements.

Similarly, there are differences in the theories used in resilience measures. For example, the RDYM sees resilience as an internal quality that reaches its potential with the help of external resources, whereas the CRYM has a broader socio-ecological approach by considering community and cultural resources to be more directly linked to resilience.

Whilst the measures focusing on resources share some commonalities in theoretical underpinning, there are differences in the way resources are considered. The CRYM and RMATS both highlight the importance of cultural specificity within resilience and include questions which are specifically tailored towards the studied population. Cultural bias may have played a role in some of the papers above. Stewart and Sun (2004¹) for example used the SRS (a measure developed in California) in research regarding Indigenous communities in Australia.

The term 'resilience' implies the presence of adversity, however, the definition of adversity is inconsistent. Mampane & Bouwer (2011⁵), Theron et al. (2014⁹) and Johnson and Lazarus (2008³) comment on the factors present within communities to describe adversity. Catro-Olivo et al. (2013⁶) inferred adversity through antisocial behaviour whereas Liebenberg et al. (2016¹¹) differentiated participants by whether they had used 'formal services' or not. Other inferences of adversity included having access to drinking water via a village pump (Jones & Lafreniere, 2014⁸) and living in a community with a high number of single parent families (Stewart & Sun, 2004¹). There is little consideration of resources within these

communities which may increase resilience, such the availability of extended family, for example.

None of the papers in this review took place in the UK and therefore the generalisability of the results to the UK culture is questionable. Education systems across countries will vary considerably and changes in certain types of school culture may be more relevant to one country than another. This variability would suggest that questionnaires which take into account school and community resources prior to implementing new programmes, (such as the CRYMS and RMATS), may be more sensitive to local 'ecologies' and more likely to be sensitive to change. This may be as relevant within as well as between countries, due to the differences in inner-city and rural schools in the UK, for example.

Nine of the 11 studies included in this review use a cross-sectional research design which does not enable causation to be determined. Theron et al. (2014⁹) and Mampane and Bouwer (2011⁵) did have comparison groups in their studies which strengthens the argument that independent variables may impact dependent variables, but causation still cannot be determined. Lee & Stewart's (2013⁷) use of a control group potentially provides more robust research findings and matching the schools allowed for greater control of potential confounding variables. Whilst Read et al. (2015¹⁰) compared resiliency scores pre and post intervention, without a control group it is difficult to attribute improvements to the intervention alone. The mixed-methods methodologies adopted by Theron et al. (2014⁹) and Mampane and Bouwer (2011⁵) added depth to the quantitative findings. A possible problem with the HPS research is that the same data may have been used multiple times.

Castro-Olivo et al. (2013⁶) found that a socio-ecological model approach to resilience was stronger than a narrower model. This is supported by research which found protective and promotive factors in school to be important for all pupils, not just those 'at risk' (Sharkey et al.,

2008⁴). However, when the papers are considered collectively, a socio—ecology approach is not fully supported, predominately due to poor validity and reliability of the measures and the lack of consistency of the conceptualisation of resilience.

A key strength of these papers is the use of a measure of resilience, rather than it being only inferred. Large participant numbers have been used, particularly in the HPS projects. Completing research in township schools (Mampane & Bouwer, 2011⁵) and in a school where specific cultural challenges had been identified (Read et al., 2015¹⁰) demonstrates the extent to which research is being used to carefully consider these groups. This is both important and commendable.

Conclusion

This review does suggest some early promise that resiliency resources can be promoted within a school's nurturing environment, but the lack of consistency in resilience theory, definition, measurement and robust research mean any conclusions are tentative.

Where there are improvements in young people's resiliency resources, this is associated with extra investment (such as the Health Schools Promotion approach). Other findings indicate that normal good practice in schools could be beneficial for resilience promotion – such as having positive relationships between staff and pupils, and being respectful of diversity and the rights of children.

The lack of UK studies that quantitatively measure resilience in evaluating new programmes is disappointing as increasing both pupil and school community resilience is often cited as an aim for the three recent government programmes. Generally, measurements of programmes appears to be retrospective with no clear thought being given to what and how improvements

will be measured. In the future, the use of resiliency measures that also explore positive school changes in a quantitative way may be a useful addition to the use of individual pupil questionnaires. These measures may capture some of the changes that schools report anecdotally, but which are not matched by the pupil data. It is possible that schools need to have a stable period of a change in culture before a change in their pupils becomes apparent.

A further problem is that changes in government often mean a change in focus and priorities for apportioning limited funds. These funds may also be devolved to schools and local authorities meaning that there can be large differences between areas in how new policies are implemented and evaluated. It is clear that the government has recognised a ‘crisis’ for mental health within the child and adolescent population and is targeting investment in this area. What is less clear, however, is whether new implementations are based on any lessons learned from previous programmes – including the use of planning for robust measurement. One can question the validity of rolling out new programmes such as ‘Mental Health First Aid’ when previous government programmes have not been fully evaluated for their long term benefits and sustainability (DoH&SC/ DfE, 2018). Whilst the government outlining schools’ responsibility for the promotion of resilience is no doubt well intended, there is little robust research suggesting how this can be achieved. Without an evidence base, it appears ambitious for schools to be able to fulfil their responsibilities in improving pupil well-being and resilience. Considerable culturally specific and longitudinal research is required to increase the understanding of resilience measurement, followed by significant investment in schools’ resources to increase our understanding of their impact. Evaluations need to be clearly planned for with clear targets and measurement for change from the intervention. Without this, it could be argued that schools are uninformed about how to meet government

expectations, and governments will be uninformed about their effectiveness in changing pupils' outcomes.

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