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Developing the Emotion Regulation Skills of Autistic Pupils in Education Settings

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Thesis for the degree of Doctorate in Educational Psychology

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Abstract

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Emotion regulation describes an individual's ability to understand what emotions they are feeling, and then to moderate how and when they express them (Gross, 1998). Developing emotion regulation skills is increasingly recognised as important for supporting positive engagement in learning (Boekaerts, 2011), however, research has indicated that some autistic people are more likely to have difficulties developing these skills (Mazefsky et al., 2012). In England, emotional development forms part of the National Curriculum from the Department for Education (2019), meaning there is an expectation that schools will be able to support all children to develop their emotion regulation skills. Yet very little is known about what approaches or interventions schools are using in practice to support emotion regulation development, in particular, for autistic children and young people.

A systematic literature review (Chapter 2) was conducted to explore what approaches schools have used to support autistic children and young people to develop their emotion regulation skills. The findings highlighted a lack of school-led research in this area, as only one out of eight included studies explored an intervention actively embedded into the school's curriculum. The research was discussed through a critical lens which supports the neurodiversity movement, and critiques considered the inclusiveness of the interventions being developed alongside the extent to which autistic voices were represented within the literature.

To address the lack of school-led research on this topic, a nested case study (Chapter 3) aimed to explain how Hill House School, a residential special school, supports autistic young people to develop their emotion regulation skills. Staff reflections (n = 50), observations (n = 8), and semi-structured interviews with staff members (n = 9), centred around four young people, were analysed using reflexive thematic analysis. Four main themes were generated: (1) evolutionary ethos, (2) reciprocal relationships, (3) communication: attuning, asking and adapting, and (4) everyone expresses emotions every day. Overall, interpersonal factors were considered by Hill House School staff to be foundational to supporting the development of autistic young people's emotion regulation skills.

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Research Thesis: Declaration of Authorship

Print name: Joanne Louise Bennett

Title of thesis: Developing the Emotion Regulation Skills of Autistic Pupils in Education Settings

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission

Signature: Date: 25/05/2022

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Thank you to my thesis supervisors, Hanna Kovshoff and Sarah Parsons for providing support, reassurance, help and advice. Your passion and dedication to ACoRNS is remarkable and I am proud to be part of an organisation which is so devoted to helping improve the educational experience for autistic children and young people. I'm also grateful to the wider ACoRNS team for creating a supportive and collaborative space; thank you for celebrating my achievements and offering words of wisdom when needed.

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Abbreviations

ACoRNS ....Autism Community Research Network @Southampton

EHCP....................................Education, Health and Care Plan

HHS......................................Hill House School

Ofsted..................................Office for Standards in Education

RAP-A-ASD...........................Resourceful Adolescent Program – Autism Spectrum Disorder

SCERTS................................Social Communication, Emotion Regulation and Transactional Support

SEND...................................Special Educational Needs and Disabilities

SLR......................................Systematic Literature Review

QuADS ....Quality Assessment with Diverse Studies

UK.......................................United Kingdom

Chapter 1   Introduction

This thesis is focused on understanding how education settings support autistic pupils to develop their emotion regulation skills. A systematic literature review (Chapter 2) aimed to consolidate what the literature indicates schools are doing in practice to develop autistic pupils' emotion regulation skills. A case study (Chapter 3) sought to provide an in-depth account of one independent residential special school's whole-school approach to developing emotion regulation skills.

1.1   Research Context

1.1.1   Autism Community Research Network @Southampton (ACoRNS)

This project was undertaken within the Autism Community Research Network @Southampton (ACoRNS), a research-practice partnership between academics and students at the University of Southampton and local schools and colleges (Parsons & Kovshoff, 2019). ACoRNS' overall aim is to improve the educational experiences of autistic children and young people through research that centres on autistic voices and experiences using collaborative, creative and participatory methods, to influence educational practice. I was inspired and enthused by the research that was, and is, being conducted collaboratively by ACoRNS researchers, autistic people, families, and education settings (see https://acorns-soton.org.uk/).

Within this thesis, I have used identity-first ('autistic person') language, as opposed to person-first language ('person with autism') to reflect the preferences of the autistic community in the UK (Kenny et al., 2016). More generally, my language choices aim to promote a strengths-based approach to understanding and researching autism; Bottema-Beutel et al., (2021, p.20) provide a useful summary of potentially ableist terms and suggested alternatives. These language choices are supported by Hill House School, alongside being reflective of my views, and that of ACoRNS (Parsons & Kovshoff, 2020). However, we recognise that identity and how this is conveyed through language is personal, and therefore also respect others' preferences where these are known.

1.1.2   Hill House School (HHS)

An early discussion around my research interests coincided with Hill House School (HHS), an independent residential special school and ACoRNS partner school, expressing an interest in researching whole school changes they had been making to support their pupils to develop their

emotion regulation skills. The pupils at HHS are autistic children and young people with moderate-severe learning disabilities, and many use Alternative and Augmentative Communication methods. HHS had begun embedding the Zones of Regulation Curriculum (Kuypers, 2011) across the whole school and were interested in exploring the impact of this, and seeking feedback about what was going well and how their practice could be developed further. Following an initial discussion about the desired outcomes, what I could offer, and how we could co-produce the research, we agreed to work together.

An important ethical consideration was how to gain assent from the young people participating in the project, following parent/carer consent. Initially, I prepared a visual assent form with the intention that it would be adapted to meet each young person's communication needs and then completed with a familiar adult. However, from discussion with the research coordinators who knew the young people well, it was determined that due to the young people's developmental stage they would not be able to make an informed decision about their participation in the project. This would therefore make gaining verbal or visual assent tokenistic. Therefore, during the observations, I valued the support of staff who were well attuned to the young people to infer whether or not the young people were comfortable with my presence in their environment. It was agreed that I would end an observation immediately if myself or a staff member thought that any young person (whether they were participating in the project or not) was communicating discomfort. Although I was unable to gain explicit informed assent from the young people, and there is therefore an element of risk that they may not have wanted to participate, the research coordinators and I agreed that for this project, this was the most ethical procedure.

Throughout the project, decisions regarding how information will be shared has been agreed collaboratively by the research coordinators at HHS and myself. We agreed that in the thesis and dissemination materials the young people and staff involved would remain anonymous through the use of pseudonyms. I gave the research coordinators at HHS the option to remain anonymous, or to be named, as I wanted to openly reflect the collaborative nature of the project and to thank them for their contribution. Three out of four research coordinators provided written consent to be named (Appendix A). From the outset, it was agreed that HHS would be explicitly named within this project (Appendix A). This recognises the collaborative partnership between HHS and ACoRNS and enables public acknowledgement of the contribution of the HHS community to this research. As mentioned, I have been considerate of my language choices when writing this thesis as I wanted to reflect the views and ethos of HHS and ACoRNS, as well as myself. Over the past few years, the senior leadership team at HHS have been reviewing and altering the language used by staff and on documentation to be more personal and respectful. For example, rather than referring to a pupil's 'house base', staff refer to their 'home'. This stemmed from the 'language

that cares' glossary, developed by children and young people working with The Adolescent and Children's Trust (2019). Consequently, HHS have an in house-glossary under development, and I have used terminology from this where appropriate.

1.1.3   My Values as a Researcher

Reflecting on my motivation for wanting to work with ACoRNS, before becoming a Trainee Educational Psychologist, I worked with autistic children and young people in a range of contexts, including charities, sports programmes, a local authority and a residential special school. I had several experiences where I noticed that autistic voices were not being sought or, if they were, they were not listened to. I recognised my responsibility to ensure that I adapted my communication with young people I worked with so that it was accessible and inclusive, and to seek and respond to their views. However, I also wanted to be part of wider societal change, which resulted in opting to train to become an Educational Psychologist. I, therefore, felt that my values and views fitted with those of ACoRNS and my supervisors (the co-directors of ACoRNS), which I anticipated would provide a strong foundation from which to begin a thesis project.

Knowing that autistic young people with complex needs living in residential special schools are particularly underrepresented in research (Pellicano et al., 2014), I felt that this was an opportunity to work with HHS to promote inclusion within research. I was eager to work with HHS specifically as I had previously worked as an assistant psychologist at another residential school within the same organisation. Although I was an outsider to HHS, knowledge of a similar context meant I had experience working with autistic children and young people who require a high level of support, and an understanding of how the residential school system worked. Furthermore, in my assistant psychologist role, I was involved in supporting colleagues as they implemented a whole school approach to developing emotion regulation. I observed the positive impact on the pupils' lives as they learnt alternative ways to express how they were feeling and what they needed at that moment. I was, therefore, passionate about exploring how schools are supporting autistic pupils to develop their emotion regulation skills.

1.1.4   Impact of the Coronavirus Pandemic

This project was initiated and has been conducted within the context of the global coronavirus pandemic, which in the UK involved several national lockdowns. Consequently, when this project was submitted to the ethics committee in February 2021, it was designed to be carried out entirely remotely, so that it could continue irrespective of the changing rules and restrictions. This was possible, in part, due to HHS having been involved in projects with ACoRNS during the

pandemic, meaning they had a clear understanding of the research process and requirements. I am grateful for their commitment throughout the project and that, as it developed, they were able to bring additional people into the project team to support the demands.

A particular challenge was that the social distancing restrictions meant we had to select the most viable methodological options within logistical constraints, rather than selecting the most valuable options. For example, direct observations of the young people were the preferred method initially, but this was not viable when the ethics proposal was being written and, therefore, we planned for indirect observations instead. Flexibility was important within this national context and as the project progressed and restrictions eased, enabling visitors to the school, ethics amendments were submitted to include direct observations. Fortunately, I was able to spend three days at HHS conducting direct observations of the pupils and interviewing staff, however, this also required flexibility as visits had to be rearranged due to a coronavirus outbreak at the school on the originally planned dates.

Having limited in-person time at HHS restricted my ability to build relationships with the pupils and staff. I primarily engaged with the school's project coordinators via video call; this worked well as it was time-efficient for us all. I was particularly concerned about the possible impact of my limited visibility on recruitment, and, therefore, a lot of thought went into the best way to communicate with parents and staff. The project coordinators agreed to telephone parents/carers of pupils who met the inclusion criteria, as they already had a well-developed relationship with parents/carers alongside knowledge of the project. For staff, I created a pre-recorded video presentation introducing myself and the project. I hoped that enabling staff to see my face and hear my voice would aid rapport building, albeit virtually, particularly for those volunteering to participate in the interviews. Based on participant recruitment and feedback from the project coordinators, these recruitment methods were received well.

1.2   Systematic Literature Review

Cameron (2006, p.293) described that one of the distinctive factors of the educational psychology profession is the use of "information from the research and theoretical database in psychology to recommend *evidence-based* strategies for change". As a Trainee Educational Psychologist, I have been involved with many pieces of casework where difficulties with emotion regulation have been identified as a barrier to a pupil's engagement in learning. However, beyond being able to share practices between schools and from my anecdotal experiences, I reflected that I had limited awareness of the research evidence that could contribute to these discussions.

I viewed this review as a valuable opportunity to increase my understanding of emotion regulation and to consolidate the literature in this area. In keeping with how important I believe it is for autistic pupils to be included in education, and for their voices to be heard, I decided it was beneficial to consider these elements within the review. The review identified an absence of evidence conducted through research-practice partnerships; therefore, the empirical project sought to contribute novel research to this evidence base, using a school-based, participatory approach.

1.3   My Experience of Participatory Research

The Equality Act (2010) and the SEND Code of Practice: 0 to 25 Years (Department for Education & Department of Health and Social Care, 2015) emphasise the importance of children having a voice in decisions about their lives, and they place the responsibility on schools and services to remove barriers to accessing equal opportunities, particularly for children and young people with special educational needs. Children's right to express their views and to have these listened to is underpinned by Article 12 of the United Nations Conventions on the Rights of the Child (see Lundy, 2007). Therefore, it is the responsibility of researchers to enable children and young people to have a voice within the research which intends to have an impact on them. However, in the research literature, autistic people, particularly those who also have learning disabilities and communication difficulties, are considerably underrepresented (Fayette & Bond, 2018; Russell et al., 2019). This suggests that researchers need to develop creative methods to remove barriers to the participation of these young people in research. ACoRNS was developed to enable researchers and education settings to collaboratively address these challenges (Parsons & Kovshoff, 2019). Therefore, in establishing our partnership, the intention was always for HHS and me to conduct a piece of participatory research together.

However, an area of personal development has been my understanding of what constitutes 'participatory' research. Brown (2021) conceptualises participatory research as that which seeks to hand over some responsibility within the research process to all those involved, rather than the researchers holding all the power or making all the decisions. This responsibility can be shared to varying extents, with the most equitable being 'co-production' which Redman et al., (2021, p.1) describe as "a sharing of power, with stakeholders and researchers working together". Overall, participatory research is principle-driven, so that the research can be designed and flexibly adapted to suit the research context (Hickey, 2018). There is an acknowledgement that complexities can arise, but that collaborative problem-solving is what helps to expand the boundaries of research (Seale et al., 2015).

Considering what participation might look like in practice, several models have been developed. Hart (2008) established a 'Ladder of Participation' (Figure 1), which described the levels of decision-making agency, control, and power that can be shared with children and young people by researchers. Working upwards from the bottom of the ladder, each level involves more power-sharing and, in theory, more participation. Having seen this model early in the research process, and knowing that autistic children and young people, particularly those with complex needs, are usually excluded from research (Pellicano et al., 2014), I wanted to develop a project where the young people's participation was as high on Hart's ladder as possible.

Figure 1

Illustration of Hart's (2008) Ladder of Participation
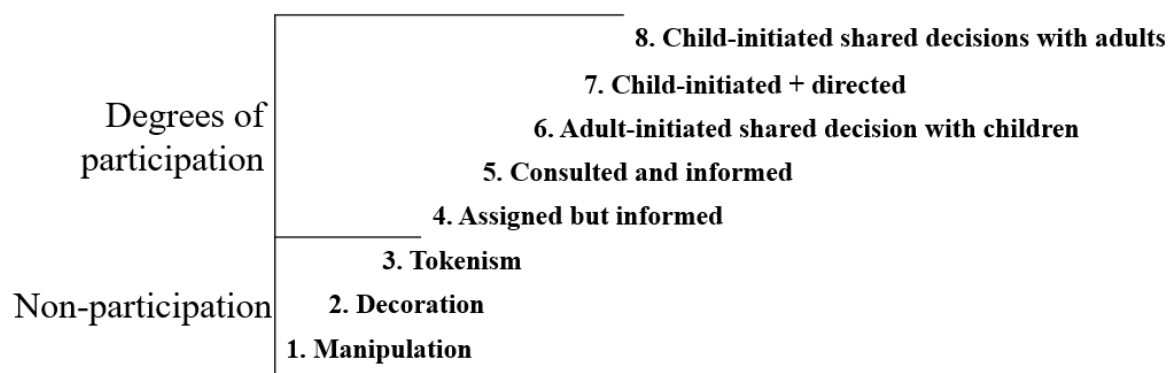
Therefore, aiming for rung six of eight ('adult-initiated shared decision with children'), I initially designed a toolbox of activities, including a treasure hunt and a sorting task, for school staff to complete with the pupils to explore their experiences and opinions about the support they were receiving to develop their emotion regulation skills. Once we had recruited the four young people, I met with the project coordinators to discuss how the activities needed to be individualised to suit each pupil. However, through our discussion we established that these activities would not be accessible for the young people due to the language demands, and therefore observing them in the classroom and their home would provide a better representation of their experiences. As restrictions were easing and direct observations became possible, I completed an ethics amendment to change our methods. Although we agreed this was the best decision for the young people, I had concerns that from a methodological standpoint, this was a less participatory approach based on Hart's (2008) model.

Through supervision, discussion with peers, and further reading, I continued to develop my understanding of participatory research. I particularly valued the participation model developed by the New Economic Foundation (Slay & Stephens, 2013), which provided simplified descriptors of 'doing to', 'doing for', and 'doing with'. What took me time to understand, is that different

levels of participation are valuable and appropriate at different times, in different contexts and for different people. For example, whilst planning the project I was eager to value the ideas of the project coordinators and I was, therefore, reluctant to contribute my ideas. However, my supervisors supported me to realise that I was de-valuing the knowledge and experience that I brought to the process, and that to form a reciprocal partnership we both (myself and the project coordinators) needed to share our strengths whilst being open about our limitations (Redman et al., 2021).

Although a key limitation of the empirical project is the level of participation that the young people had, I was reassured knowing that within the context and boundaries of this project, the decisions made were ethical and in the best interest of the young people. This was possible due to working in partnership *with* the project coordinators at HHS.

1.4   Dissemination Plan

This thesis comprises two research papers which have been written in line with the target journals' word limit. I am intending to submit the systematic literature review (Chapter 2) to *Educational Psychology in Practice* and the empirical study (Chapter 3) to *Emotional and Behavioural Difficulties*. Both journals are peer-reviewed and have the option to publish open access, which was an important consideration as education professionals are the primary audience and they may not have access to subscription-based journals.

Additionally, the empirical project findings will be shared with the staff team at HHS via a pre-recorded presentation and a one-page summary. I will continue to collaborate with the HHS project coordinators regarding potential additional dissemination avenues both within and beyond their organisation, and they will have the opportunity to review and contribute to all dissemination materials. A summary of this research will be available on the HHS (https://www.cambiangroup.com/specialist-education/our-schools/autism-schools/hill-house-school/research-collaboration/), and the ACoRNS website (https://acorns-soton.org.uk/).

Chapter 2 Developing the emotion regulation skills of autistic pupils in education settings: A systematic literature review

2.1 Abstract

Being able to moderate the intensity and expression of our emotions is necessary for successful engagement in learning; however, research has indicated that some autistic people are more likely to have difficulties developing emotion regulation skills. In England, there is an expectation that schools will be able to support the emotional development of all children. This systematic literature review explored what approaches schools have used to support autistic pupils to develop their emotion regulation skills. Eight studies, employing seven interventions, met the inclusion criteria and were critically appraised and synthesised. However, only one intervention was already embedded into the school's curriculum, highlighting the lack of school-led research in this area. The research has been discussed through a critical lens which supports the neurodiversity movement, and critiques considered the inclusiveness of the interventions being developed and the extent to which autistic voices were represented within the literature.

2.2 Introduction

In England, the National Curriculum from the Department for Education requires schools to support pupils to develop their understanding and self-management of emotions. Specifically, by the end of primary school at age 11, children are expected to be aware of the "scale of emotions that all humans experience in relation to different experiences and situations" and be able to "judge whether what they are feeling and how they are behaving is appropriate and proportionate" (Department for Education, 2019, p.32). Understanding what emotions we are feeling, and being able to influence how and when we express them, is known as emotion regulation (Gross, 1998, p.271). In the classroom, emotion regulation has been defined by Boekaerts (2011) as a pupil's capacity to maintain their energy for learning, whilst modifying emotions that interfere with the pursuit of their learning goals. If a pupil is unable to influence the intensity and duration of their emotions then this can negatively impact learning and social functioning (Boekaerts, 2011).

2.2.1 Emotion Regulation and Autism

Autistic people experience differences related to social communication, sensory sensitivities, repetitive behaviours and intense interests (American Psychiatric Association, 2013). Although emotion regulation is not referred to within the diagnostic criteria for autism, research has indicated that this is an area of difficulty for many autistic people (Cai et al., 2018; Cibralic et al., 2019; Mazefsky et al., 2012) and that for some individuals, these difficulties can result in increased social and behavioural difficulties over time (Berkovits et al., 2017). Samson et al. (2014) explored possible links between emotion regulation and the core features of autism and found that more repetitive behaviours seemed to indicate greater challenges with emotion regulation. There is not yet a clear explanation for this, but suggestions included that individuals engaging in a lot of repetitive behaviours may find it hard to inhibit them to enable focus on emotional regulation, or that the repetitive behaviours were a method of regulating their emotions (Samson et al., 2014).

For autistic people who experience difficulties with emotion regulation, this may present as behaviours such as meltdowns or self-injurious behaviours, in the absence of alternative regulation strategies (Samson et al., 2015). In mainstream classrooms, research reporting teachers' perceptions indicated that autistic children aged six to 10 exhibited more difficulties with emotion regulation (as demonstrated by meltdowns, frustration and rapid mood changes) compared to non-autistic peers, and that over half (of 28 autistic pupils) were not meeting their academic potential (Ashburner et al., 2010). The proposed link was that the emotion regulation difficulties were impacting the children's attention for learning, and therefore their academic attainment.

Compared to the general population, Conner et al. (2021) concluded that autistic children and young people were four times more likely than neurotypical children to be rated by their parents as having clinically elevated levels of emotion regulation difficulties. This increased to seven times more likely for autistic children and young people who were in a psychiatric inpatient setting. However, Wieckowski et al. (2020) suggested that gender differences require further exploration, as their findings indicated that autistic females experienced significantly more difficulties with emotion regulation than autistic males.

2.2.2 Developing Emotion Regulation Skills

In light of these findings, some autistic children and young people will likely require additional support to develop their emotion regulation skills. To meet the demands of the National Curriculum, it is therefore important that education settings in England are implementing

effective support. However, there is no current research available which provides a clear picture of what schools are doing to support the development of autistic pupils' emotion regulation skills; this systematic literature review aims to address this gap in the literature.

There are resources available to support autistic pupils in the development of emotion regulation skills, as researchers (often in the United States of America) have designed targeted programmes. For example, The Zones of Regulation Curriculum (The Zones; Kuypers, 2011) was designed for neurodivergent learners, to develop their emotion regulation skills, alongside executive functioning and sensory integration skills; three components of self-regulation. The Zones can be delivered on an individual, group or whole class basis. Another example is the SCERTS Model, which focuses on the development of Social Communication, Emotional Regulation, and Transactional Support, and was designed to be embedded within everyday classroom activities (Prizant et al., 2006). The SCERTS Model was developed specifically for autistic people and those with related disabilities.

Aside from targeted programmes, support can be provided in an unstructured way through day-to-day interactions. Boekaerts (2011) outlines how teachers can support efficient emotion regulation through having predictable daily routines, encouraging pupils to talk about their emotions, modelling how they manage emotions, and responding to pupils' emotion regulation strategies in an accepting and supportive manner. These methods, and programmes such as The Zones and SCERTS, can be used with all pupils. This aligns with the UK Department for Education's drive for inclusive education, described as when all pupils, neurodivergent and neurotypical, are taught together in a mainstream classroom most of the time (Schuelka, 2018). However, research into what makes an effective school-based socio-emotional intervention has been inconclusive, due to the variety of delivery methods (Hassani and Schwab, 2021). Alongside seeking to embed approaches and interventions that are inclusive, schools should work towards taking an individualised and strengths-based approach to educating autistic pupils (see the Good Autism Practice Report, Guldberg et al., 2019). However, little is known about whether a strengths-based approach has been applied in the development and application of approaches to emotion regulation, and so this is something that will be explored further.

2.2.3   Theoretical Standpoint

An inclusive and strengths-based approach to education aligns with the social model of disability, which highlights that whilst physical, sensory, intellectual or psychological differences can result in functional limitations or impairments, these should only be considered a disability if society fails to provide the necessary adaptions to include them (Oliver, 2013). This, therefore, centres

barriers to inclusion as context-based, rather than within the individual, meaning it is a school's responsibility to adapt their environment and teaching practices to ensure all children have access to the same opportunities (Hegarty, 1991). This is in contrast to the medical model of disability, which has dominated the discourse around autism in both research and practice (Robertson, 2010). This model outlines that people are disabled because of their impairments or differences, and medical treatments, and therefore seeks to 'fix' the difference. This framing of disability or difference has resulted in a deficit-focused narrative around autism as the difficulties are located within autistic people and the onus is on them to change to fit into their environment rather than the other way around (Dinishak, 2016; Milton, 2014).

Increasingly, autistic advocates and their allies are opposing the medical model perspective of autism, due to the resulting dehumanisation and stigmatisation of autistic people (e.g., Botha et al., 2021, Kapp, 2019). Instead, the social model has given rise to the neurodiversity movement which advocates for the acceptance and valuing of human diversity, particularly for individuals whose brains develop differently (i.e., neurodivergent people), in a similar way to society's acceptance that people have differing genders, races, religion, ethnicities or sexual orientations (Nicolaidis, 2012). The neurodiversity movement (see Milton, 2020, for a brief history) also emphasizes the importance of the voices and lived experiences of autistic people informing practice and related research, and research questions (Gillespie-Lynch et al., 2017; McLaren, 2014).

In particular, the view that autistic people should change and conform to neurotypical behaviours is being challenged, as interventions with this focus (alongside cure-oriented organisations, legislations, and research) are creating and maintaining stigma towards autistic people, and therefore sustaining marginalisation from society (Gillespie-Lynch et al., 2017). Camarata (2022) argues that researchers would benefit from guidance on how to ethically research interventions for autistic people, whilst maintaining a position of promoting societal acceptance of diversity. Furthermore, the voices of autistic pupils are rarely heard or sought when making decisions about the interventions they engage in, making this a key area for development within research and practice (Hassani and Schwab, 2021). The critical lens adopted for this systematic review will, therefore, reflect the inclusive stance of the social model and neurodiversity movement.

2.2.4   Research Questions

This systematic literature review (SLR) was designed to address the primary question:

> What are schools doing to support autistic children and young people to develop their emotion regulation skills?

Secondary questions were:

   a. How inclusive are the approaches being used?
   b. To what extent are autistic voices represented within this literature?

2.3   Methodology

I conducted this SLR using the ten-stage process described by Boland et al. (2017): (1) planning the review, (2) performing scoping searches, identifying the review question and writing a protocol, (3) literature searching, (4) screening titles and abstracts, (5) obtaining papers, (6) selecting full-text papers, (7) data extraction, (8) quality assessment, (9) analysis and synthesis, (10) writing up, editing and disseminating.

In stage two the scoping searches explored how schools support emotion regulation development, using four search engines: 'Delphis' (accessible via the University of Southampton library), 'Google Scholar', EThOS and Dissertation and Theses Global (PROQUEST). The search was then narrowed to focus on autistic children and young people and the resulting specific systematic literature research question was developed using the SPICE framework (Booth, 2006), which informed the search strategy.

2.3.1   Search Strategy

Table 1 shows the search strategy, and the inclusion and exclusion criteria. Three databases relevant to psychology and education research were selected: PsycINFO, Web of Science (Core Collection) and ERIC (Education Resources Information Centre). The search strategy was reviewed and refined with the support of the project supervisors and a librarian at the University of Southampton, and then adjusted to suit each database (shown in appendix B).

Table 1

Systematic Search Strategy

	SPICE Framework	Question Element	Search Strategy	Inclusion Criteria	Exclusion Criteria
Search with AND	**Setting**	Education settings	school* OR nurser* OR kindergarten OR class*	The study must take place within an education setting (i.e., nursery or school).	Studies were conducted within a home or community context. Studies conducted outside of an education setting (e.g., they are transported to a venue outside school). Studies were conducted outside mandatory school hours (e.g., before or after school clubs).
	Population	Children and young people (up to 19)	child* OR "young person*" OR "young people*" OR adolescen* OR teen*	Children and young people (up to and including age 19).	Individuals were aged 20 and over.

SPICE Framework	Question Element	Search Strategy	Inclusion Criteria	Exclusion Criteria
	Autistic	Autis* OR "autism spectrum disorder*" OR "autism spectrum condition*" OR Asperger* OR ASD OR ASC	Autism diagnosis.	
Intervention	Any	interven* OR program* OR curricul* OR pedagog* OR train*	Any adaptation to practice (e.g., changes to pedagogy, the curriculum, or the environment) or targeted support (e.g., implementation of an intervention or programme, or training). No restriction on who deliverers/implements the adaptation/support (e.g., school staff or external professionals).	Adaptations or support exclusively aim to develop the adults' emotion regulation skills.
Comparison				

SPICE Framework	Question Element	Search Strategy	Inclusion Criteria	Exclusion Criteria
Evaluation	Emotion regulation skills	"emotion* regulat*" OR "emotion* coping" OR "emotion* dysregulat*"	Must explicitly state that developing the child/young person's emotional regulation skills is part of the aim.	

The literature search was conducted on 24 August 2021 and repeated on 23 March 2022 and 18 July 2022. No restrictions were applied regarding publication date, geographical origin or peer-review. The language of publication was restricted to English only. Books, literature reviews and book or article reviews were excluded. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Page et al., 2021) process, shown in Figure 2, was used to filter the identified records. The rationale for excluding papers during full-text screening is shown in Figure 2, with more detail given in Appendix C. Eight reports were identified for inclusion in this review. A fellow Trainee Educational Psychologist independently replicated the literature search, abstract/title screening, removal of duplicates, and full-text screening; they obtained the same eight reports.

Figure 2

PRISMA Flow Diagram (Page et al., 2021)
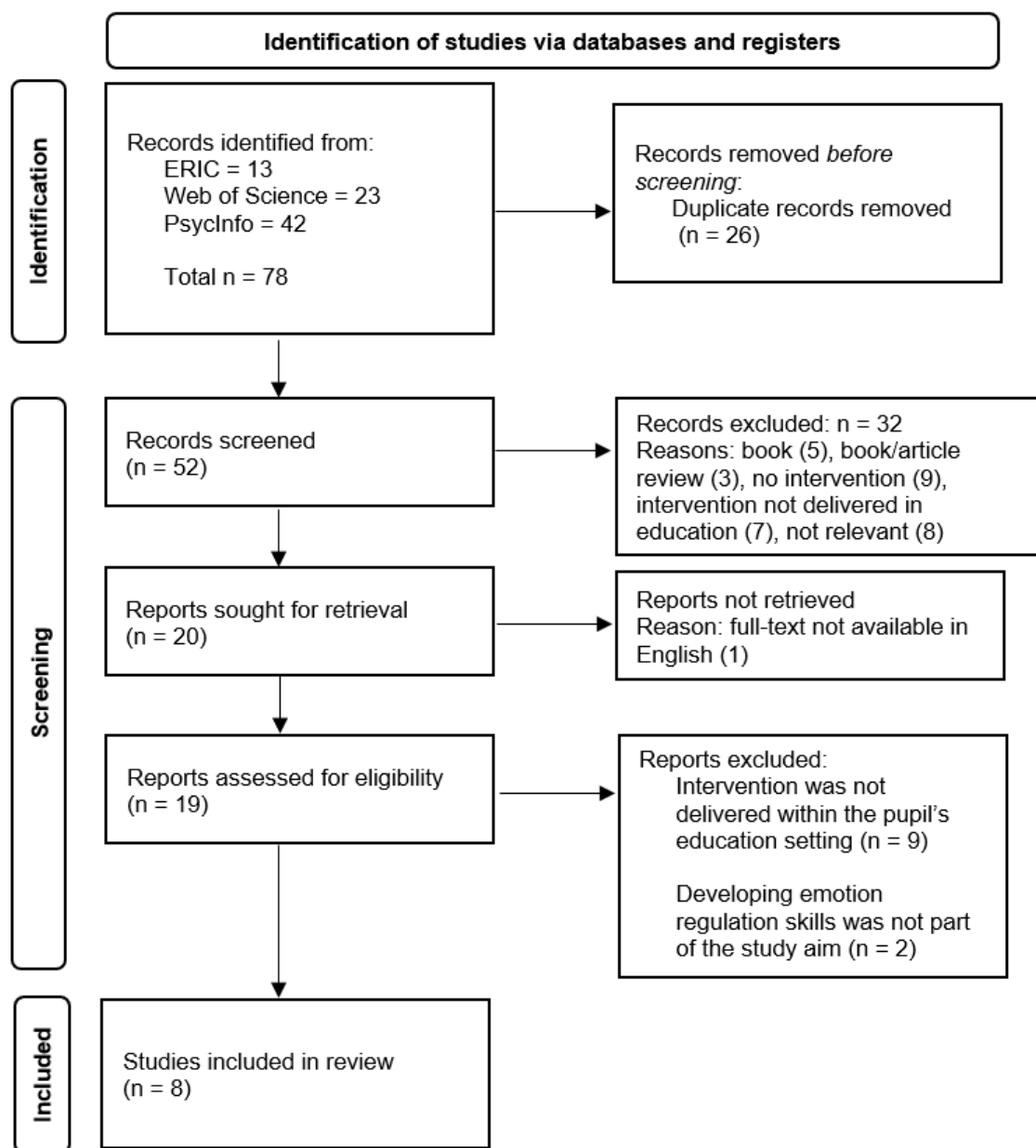
2.3.2 Quality Assessment

Of the eight reports, six were papers published in peer-reviewed journals (Beaumont et al., 2015; Einfeld et al., 2018; Fage et al., 2019; Mackay et al., 2017; Morgan et al., 2018; Parent et al., 2016) and two were unpublished Doctoral theses (Lee, 2020; Pierman, 2020). The published papers were quality assessed using the Quality Assessment with Diverse Studies (QuADS) tool (Harrison et al., 2021) as this enabled the comparison of studies using qualitative and/or quantitative methods. Overall, the published studies were deemed to be of at least good quality. In particular, all were rated highly for their use of appropriate study designs and data collection tools relating to the research questions. However, four (excluding Fage et al., 2019 and Parent et al., 2016)

scored low on providing evidence that research stakeholders were considered in the research design or conduct (QuADS question 12); I considered the participating autistic pupils as the main stakeholders as they were the recipients of the interventions. As the QuADS was developed for peer-reviewed papers, I quality assessed the theses using the National Institute for Health and Care Excellence (2014) checklist for grey literature and both were deemed to be of high quality. See Appendix D for quality assessment data.

To increase the reliability of the review, a fellow Trainee Educational Psychologist extracted data from, and quality assessed all eight papers. In the QuADS, the paper is scored zero to three for each of the 13 questions. When the outcomes were compared, there were differences in around half of the individual question scores. Items with a difference of two points or more were resolved through discussion. Considering the consistency across questions, the most variation occurred on question one (theoretical or conceptual underpinning to the research) and question 12 (evidence that the research stakeholders have been considered in research design or conduct). We determined that our interpretations of the criteria had resulted in differing scores, and in retrospect, we should have discussed our understanding of the tool before using it independently. I individually reviewed the items where there was one point difference. For the theses, all differences were compared, and they were related to oversights by the reviewers, likely due to the length of the reports. Overall, I am confident that the findings for each study are credible due to suitably rigorous designs and methodologies, and that all warrant inclusion within this literature review.

2.3.3   Synthesis

A narrative synthesis was used to provide an overview of the identified literature on the approaches schools have used to support autistic pupils to develop their emotion regulation skills. This SLR did not intend to draw conclusions about the effectiveness of specific interventions (see Granville, 2020 for an SLR on this topic); instead, this analysis provides a conceptual lens on how approaches to emotion regulation relate to inclusive education practices and the inclusion of autistic voices in this research. From this point, studies will be referred to by their allocated number in Table 2.

2.4   Results

Table 2 provides the key characteristics of the eight included reports. Four studies were conducted in the USA (studies 4, 6, 7, 8), three in Australia (studies 1, 2, 5) and one in France (study 3). They involved at least 95 different schools, though studies 3 and 5 did not specify how

many schools were involved. The type of school was varied, including mainstream schools, inclusion classrooms (i.e., a mainstream classroom for pupils with and without learning differences), satellite classes (i.e., a classroom in a mainstream school, run by a special school), and a private therapeutic school. A total of 419 autistic pupils participated. Between studies, this ranged from two autistic pupils (study 7) to 197 pupils (study 6). The age range was 3-years to 17-years. Seven studies reported participants' sex: 334 were male and 56 were female; study 3 did not provide this information.

Table 2

Overview of Included Studies and Their Key Characteristics.

#	Study	Study design	Autistic participants	Age	School setting	Adaptation	Delivery	Implemented by	Training	Emotion regulation construct measured
1	Beaumont et al. (2015)	Non-randomised control trial	69	7 – 12	Mainstream schools	Secret Agent Society social skills program: A multimedia, manualised CBT-based programme	Weekly group (n = 3) 10 x 90 minutes or 20 x 45 minutes	School staff	Yes	Parent and teacher-rated emotion regulation and social skills Pupil knowledge of emotion regulation strategies
2	Einfeld et al. (2018)	Non-randomised waitlist-control trial	84	8 - 14	15 specialist primary and high school satellite classes	Secret Agent Society social skills program: A multimedia, manualised CBT-based programme	Weekly group 9 x 90 minutes	Teachers	Yes	Parent and teacher-rated emotion regulation and social skills Pupil knowledge of emotion regulation strategies

#	Study	Study design	Autistic participants	Age	School setting	Adaptation	Delivery	Implemented by	Training	Emotion regulation construct measured
3	Fage et al. (2019)	Participatory cross-syndrome comparisons	29	12 - 17	Special-education classrooms in mainstream secondary schools	Tablet-based application. Pupils identify their emotion and intensity, then access a co-regulation strategy	Available 1 hour per week 3 months	School staff	Yes	Pupil's emotional word fluency and emotional awareness
4	(Lee, 2020)	ABAB single case	2	7 and 9	General education inclusion classroom	Mindfulness-based intervention	Daily, individual 5 – 7 minutes (25 – 28 sessions)	Researcher	No	Researcher observations of behaviour in the classroom
5	Mackay et al. (2017)	Mixed methods randomised control trial	29	10 – 13	Not specified	Resourceful Adolescent Program – Autism Spectrum Disorder (RAP-A-ASD): strength-focused resilience intervention	Weekly, individual 11 x 50 minutes	Post-graduate psychology student	Yes	Parent and teacher-rated behaviour and coping self-efficacy

#	Study	Study design	Autistic participants	Age	School setting	Adaptation	Delivery	Implemented by	Training	Emotion regulation construct measured
6	Morgan et al. (2018)	Cluster randomised trial	197	4 - 8	60 general education and special education schools	Classroom Social, Communication, Emotion Regulation, and Transactional Support (SCERTS) Intervention (CSI).	Integrated into the curriculum	School staff	Yes	Researcher observations of emotion regulation
7	Parent et al. (2016)	Single subject, nonconcurrent multiple baseline	2	12 and 16	Private therapeutic school	Intervention using Cognitive Behavioural Therapy and behaviour-analytic techniques.	Weekly, individual 13 x 15-20 minutes	Researchers	Yes	Teacher and researcher observations of aggression and use of coping skills
8	Pierman (2020)	Mixed methods comparative case study	7	3 - 5	3 inclusion classrooms	Dance to Learn: dance lessons promoting motor, cognitive and social-emotional development.	Whole class	Ballet company	Yes	Parent, teacher and researcher ratings and observations of socio-emotional behaviours

2.4.1   Summary of Findings

No clear conclusions can be drawn from the collective findings of the eight studies due to the diversity of the interventions and the assessment tools used. However, findings can be broadly considered from four perspectives: the pupil, parents, teachers, and researchers.

Measures directly involving the pupils indicated some development of emotion regulation skills. In studies 1 and 2, the pupils demonstrated a significantly greater knowledge of emotion regulation strategies after receiving the Secret Agent Society programme. In study 3, pupils demonstrated a significantly better emotional vocabulary after accessing the tablet-based application for three months. In study 5, the pupils self-reported a significant change in their behaviour after the RAP-A-ASD intervention; however, this change was also reported by the control group.

Outcomes from parent and teacher-reported ratings were not consistent within or across studies. In study 1, teachers reported a significant improvement in emotion and social regulation skills, whereas parent scores were not significantly increased. The opposite occurred in study 2; teacher measures reported no change in emotion and social regulation skills, whereas parents reported a significant improvement. Notably, studies 1 and 2 both explored the Secret Agent Society programme and despite the variation in findings immediately after the intervention, at follow up parents and teachers reported a significant improvement in both studies. In study 5, parents reported that after the RAP-A-ASD intervention, their children demonstrated significantly better emotion coping skills, but this change was not reported by school staff; neither parents nor teachers noted a change in the pupil's behaviour. No significant statistical change in emotion regulation development was reported on the parent or teacher survey after the Dance to Learn programme (study 8).

In three studies the researchers used quantitative observational methods, of which two reported a decline in undesired behaviour in the classroom, indicating that following a mindfulness-based (study 4) and cognitive behavioural therapy-based intervention (study 7), the pupils had improved their emotion regulation skills. Conversely, study 6 reported no significant difference in emotion regulation between pre- and post-SCERTS intervention.

Interviews were used in two studies, and both reported positive outcomes. Study 8 collectively analysed the researchers' qualitative observations and interviews with the classroom teachers and dance teachers and reported themes indicating that following Dance to Learn, the pupils' successful socio-emotional behaviours had increased, and they were better able to control

responses to strong emotions. Analysis of interviews with participants combined with written responses from parents and teachers in study 5 similarly reported positive outcomes, suggesting the RAP-A-ASD intervention had supported the development of emotion regulation skills, such as coping with and managing emotions.

2.5   Discussion

This review aimed to explore what approaches have been used in schools to support autistic pupils to develop their emotion regulation skills, with a particular focus on considering how inclusive these approaches were and to what extent autistic voices were represented. Eight papers met the inclusion criteria and they presented seven different adaptations to practice, all of which were specific interventions. From a methodological standpoint, the included studies were of good quality, indicating that their findings and conclusions were reliable.

Nonetheless, only one intervention (Dance to Learn; study 8) out of eight was actively embedded into the participating school's curriculum, with the other interventions introduced for the research. Therefore, this review was unable to document what approaches schools have been using, highlighting a major lack of research that considers school-led approaches to embedding emotion regulation skill development in everyday practices. However, this is unlikely to be because schools are not providing this support, but rather due to the known disconnect between educational research and practice (Parsons et al., 2013). This is detrimental to those autistic pupils who require support with developing their emotion regulation skills as school staff who are seeking to provide support by adapting their practice or implementing interventions, or other professionals who are providing advice, do not have a sufficient evidence base to draw from.

2.5.1   How Inclusive Are the Approaches Being Used?

Reflecting upon how inclusive the approaches to supporting emotion regulation were within this research enables consideration of how future research can seek to increase autistic pupils' inclusion in the classroom. In the research, researchers primarily utilised targeted interventions, as opposed to universal approaches which are inclusive of the whole class, such as adaptations to teaching practices, teaching content, or the learning environment (Boekaerts, 2011; Boekaerts & Pekrun, 2015). Six out of eight interventions involved an adult working with autistic pupils on an individual, or small group basis. This is similar to Olsson and Nilholm's (2022) findings, whereby autistic pupils were centred as the agents of change (i.e., *they* need to learn new skills and change *their* behaviour). When approaches aiming to change the individual are used in isolation they reinforce a deficit-focused, medical model view of autism as this implies a continued desire for

autistic people to behave in a neurotypical way, rather than accepting natural human variation (Mitchell & Snyder, 2015). However, when interventions are an opportunity for the pupil to develop skills that they want to develop, within a context where school staff are adapting their practice and the environment is altered to better support the pupil, this is a more inclusive use of targeted intervention approaches.

Conversely, two interventions were delivered within a whole class context. The SCERTS Model (study 6) was designed to be embedded into everyday educational activities, meaning that with practice, trained school staff were able to implement the approach up to 25 hours per week. All school staff working with participating children were invited to the training, and as the model was applied to the classroom setting, rather than with particular individuals, all pupils had access to the approach. A combination of multiple staff using the approach, for the majority of the school day, across the academic year, provided numerous opportunities for pupils to develop and generalise their skills over time. Alternatively, the Dance to Learn programme (study 8) was delivered once per week, over 10 weeks to whole classes including neurotypical and neurodivergent pupils. This enabled all children to benefit from the approach and to consolidate or develop their skills. Pierman (2020) emphasised partnership working between the school and the ballet company as supportive factors, both regarding organising the logistics of the programme, but also within the sessions so that individual support could be offered to pupils as required. Compared to the other studies, these approaches offer a more inclusive way to develop emotion regulation skills, as whole class interventions enable opportunities for all pupils to develop their knowledge and skills, not just those who have been identified as requiring additional support (Harlacher et al., 2006).

2.5.1.1   To What Extent Are Autistic Voices Represented Within This Literature?

This question has been considered in two ways: how have autistic people been included in the research, and to what extent are their voices represented. Considering the former, participants across all studies were recruited based on having an autism diagnosis, aside from study 4 which also included pupils presenting with characteristics representative of autism (they have not been included in this review). However, it is well understood that autistic individuals do not have the same strengths, difficulties and support needs as each other (Guldberg et al., 2019). Therefore, it should not be assumed that all autistic individuals have difficulties developing emotion regulation skills. One explanation for the lack of consideration of participants as individuals is the reductionist approach that is commonplace in much intervention research, as this makes human behaviour easier to study and categorise. However, for autistic people, this research approach has led to deficit-based assumptions and the expectation that all autistic people would benefit from

the same interventions and support (Guldberg, 2017; Milton, 2014). As an example, McLaren (2014) explored autistic adults' experiences as recipients of social skills training programmes and concluded that there had been limited consideration of their individual strengths, opinions, and autonomy.

Importantly, the neurodiversity moment does not reject the notion that interventions can be beneficial for autistic people. Ne'eman (2021) argued that interventions which lead to the reduction of harmful behaviours (i.e., self-injury) or personal distress are helpful, whereas interventions aiming to suppress autistic traits so that the individual appears non-autistic is unethical and likely harmful. However, across the studies, there was limited contemplation of whether their particular approach would benefit, or be appropriate for, each individual. Moreover, beyond seeking pupil assent to participate (which many studies did), there was little consideration for ensuring the autistic pupils were making an informed decision regarding if they wanted to engage in developing those particular skills, in the way being offered, at that time.

Secondly, considering to what extent autistic voices have been represented across the studies, the level of participation of autistic pupils in the research, beyond being recipients of the interventions, was limited. Although several studies used tasks or self-report measures to determine if the pupils' knowledge and skills had developed (studies 1, 2, 3 and 5), judgements regarding the delivery, feasibility and acceptability of the interventions were primarily based on data provided by parents, teachers, and researchers. For the studies that did seek the pupils' views, study 4 used a rating scale pre- and post-intervention and the pupils rated it highly for fairness, importance and enjoyment. Alternatively, study 7 conducted interviews with the pupils, who reported positive outcomes. This demonstrates that there are straightforward ways to seek autistic pupils' views of interventions within research, although researchers need to be mindful that more creative methods may be required to ensure all pupils can share their views in a way that is accessible and comfortable for them (e.g., minimising language demands). Considering how the pupils' voices are conveyed is also important, for example, study 5 appeared to overstate the pupils' views in favour of the intervention; the authors wrote that "10% of participants […] liked the way in which interactive activities were used" (p.3467) when, in actuality, this reflected the view of only one participant.

It is often assumed that autistic people cannot be self-reflective, and that other people are better able to judge what is best for them, but this is an unjustified assumption which hinders the development of autistic individuals' autonomy (Späth & Jongsma, 2020). Therefore, the responsibility lies with researchers to enable the active participation of autistic people through

creative methods and approaches so that their voices can be heard and these dominant views can be challenged (Moyse, 2021).

2.5.2 Developing Sustainable Support for Emotion Regulation

An important consideration within education research is feasibility and sustainability. As specified by the search criteria, all interventions were conducted in schools, indicating they are feasible within that context. However, schools are complex systems, and many factors may influence sustainability. A literature review considering public health interventions (e.g., healthy eating, physical activity) in schools in the UK concluded that facilitating factors included support from senior leadership, an observable positive impact on students, staff confidence and staff belief that the intervention was valuable (Herlitz et al., 2020). They identified that barriers included needing to prioritise directing time and resources towards educational outcomes, limited resources (e.g., funding, time), staff turnover and a lack of ongoing training.

Across the studies, four interventions were delivered by external professionals. This included a researcher with personal experience of mindfulness (study 4), post-graduate psychology students trained to deliver RAP-A-ASD (study 5) and researchers who were trained therapists (study 7). Having specifically trained individuals deliver the intervention ensures fidelity during the research; however, this does not indicate how sustainable or scalable an intervention would be for the school long-term outside of the context of the research (Kasari & Smith, 2013). In study 8, the Dance to Learn programme was delivered by qualified ballet teachers and it was made clear that only trained, licensed professionals would be able to deliver this programme in the future and that there would be a cost to this (payable by the school or external funders), limiting the generalisability and accessibility of this intervention.

Conversely, the other interventions (studies 1, 2, 3 and 6) trained school staff to deliver the intervention; this enables the programmes to be evaluated in context, as they are intended to be implemented in the long term. However, the delivery method and quantity of training varied from an 18-hour training session (study 2) to watching a 3.5-hour DVD (study 1). Additionally, studies 1 and 2 both provided school staff with the opportunity for weekly supervision, whilst in study 6 school staff were offered coaching between two and four times per month. It was unclear in all cases if additional support was part of the recommended intervention format, or if this was to ensure fidelity within the research. But, as Kasari and Smith (2013) argued, sustainability is not guaranteed once researchers withdraw as further challenges may arise between the intervention implementation and the school context.

2.5.3   Emotion Regulation: Conceptual and Methodological Challenges

There were several conceptual and methodological challenges to navigate in this review. From the included papers, researchers had not sought to develop emotion regulation skills in isolation but rather as one part of an intervention to develop other skills (e.g., social skills, behaviour). This is logical, as emotion regulation is closely interlinked with self-regulation (e.g., Kuypers, 2011) and socio-emotional development (e.g., Prizant et al., 2006). Nevertheless, this overlap in constructs has likely contributed to the ongoing lack of conceptual clarity in the literature around emotion regulation as an independent construct, and how it can be developed and appropriately measured (Cai et al., 2018).

Across the eight studies, a variety of assessment methods were utilised, including activities with pupils, questionnaires (pupil, parent and teacher), and observations. A strength of these studies is that six (75%) used more than one measure of emotion regulation, and five studies (62.5%) used more than one informant (i.e., self-report and informant report). Due to the multidimensional nature of emotion regulation, using several measures completed by multiple informants is recommended as best practice (Weiss et al., 2014). This also suggests methodological progress within emotion regulation studies, as Weiss et al. (2014) found only 50% of studies in their literature review used more than one measure, and only 25% used more than one informant to measure the emotion regulation skills of autistic individuals.

However, the questionnaires chosen to assess emotion regulation skills were not designed to measure emotion regulation exclusively, with the relevant questions often being embedded within a measure capturing multiple constructs (e.g., social skills). Ne'eman (2021) has recognised how challenging it is to develop outcome measures when a disability, such as autism, is defined by behaviour and describes how this has often led to measures focusing on the reduction of diagnostic traits. To address this fundamental weakness, Ne'eman (2021) has called for the revision of existing outcome measures, or the development of new ones, and recommends that this process includes autistic people and consideration of the neurodiversity perspective.

2.5.4   Strengths, Limitations and Future Research

The robustness of this review was strengthened in several ways. Peer review was utilised for the literature search, screening, data extraction and quality assessment processes, and advice was sought from more experienced others during supervision and through a University of Southampton librarian. The inclusion of grey literature enabled consideration of the most recently available research, which may not yet have been published (Hoffecker, 2021). Also, the protocol was pre-registered on Open Science Framework to aid transparency (https://osf.io/gc32z/).

However, the remit of this review may be limited due to the terms used within the search strategy. I focused on 'emotion regulation' as this was the core concept to be explored, however, this term is often encompassed within 'self-regulation' (e.g., Kuypers, 2011) and therefore relevant literature may have been missed. This decision was made as the use of 'self-regulation' was too broad for this review, as it typically incorporates other constructs (e.g., executive functioning, sensory integration), but this remains a limitation of this review.

As England's Department for Education encourages education professionals to practise in an evidence-informed way (Coldwell et al., 2017), and as emotional development is a mandatory part of the National Curriculum, research regarding how schools can support autistic pupils to develop these skills is much needed. To address the identified gap between research and practice, a helpful starting point for future research would be to explore the practices that schools already have in place. This should focus not only on specific interventions but in line with the social model of disability, should consider what adaptations to the environment and/or teaching practices are being made.

Research must be conducted collaboratively, as when "best practices" are developed by researchers alone, they can be inaccessible to school staff due to limited time, resources and training (Kasari & Smith, 2013). Furthermore, when researchers conduct education research in isolation, this overlooks the knowledge and expertise of education professionals. As Guldberg (2017) outlines, to be most fruitful, educational research needs to locate practitioner knowledge as equal to researcher knowledge, and this needs to be combined with the views of autistic people and their families. Keates (2022, p.2) states that "it is vital to engage autistic people in *their* needs", and this must be done in a way that is accessible and agreeable to each autistic individual.

2.6   Conclusions

This review aimed to explore what approaches have been used in schools to support autistic pupils to develop their emotion regulation skills. However, due to a gap between educational research and practice, the available literature was not representative of embedded school practices. This is a barrier to education professionals being able to provide evidence-informed support for autistic pupils to develop their emotion regulation skills. This review has identified that there is a need for greater prioritisation of autistic pupils' voices, both in the development of interventions and within the research process as a whole. On-going consideration about how interventions can provide opportunities for skill development, whilst accepting neurodiversity, is important. Future research would benefit from using a research-practice partnership approach to

develop the evidence base in a way that is meaningful for autistic pupils and education professionals.

Chapter 3   Developing the emotion regulation skills of autistic pupils in education settings: A case study of a residential special school

3.1   Abstract

Emotion regulation skills enable individuals to manage how they express their emotions; however, many autistic people experience difficulties developing these skills. Therefore, this nested case study aimed to explain how Hill House School, a residential special school, supports autistic young people to develop emotion regulation skills. Staff reflections (n = 50), observations (n = 8), and semi-structured interviews with staff members (n = 9), centred around four young people, were analysed using reflexive thematic analysis. Four main themes were generated: (1) evolutionary ethos, (2) reciprocal relationships, (3) communication: attuning, asking and adapting, and (4) everyone expresses emotions every day. Overall, interpersonal factors were considered by Hill House School staff to be foundational to supporting the development of autistic young people's emotion regulation skills. Recommendations for practice and future research were considered.

3.2   Introduction

Autism research has typically been undertaken from a behaviourist perspective (Milton, 2014). For example, emotion regulation research has focused mainly on reducing socially undesirable behaviours, such as aggression and self-injurious behaviours (Hattier et al., 2011), or addressing co-occurring mental health conditions (Lai et al., 2019). Indeed, Mazefsky et al. (2012) commented that autistic people are more likely than neurotypical people to have difficulties with emotion regulation and proposed that difficulties with developing emotion regulation skills may be a contributing factor to the high prevalence of co-occurring mental health conditions observed in autistic people (see also Cai et al., 2018, and Cibralic et al., 2019). However, this focus has resulted in predominantly deficit-focused narratives about autistic people, without considering the communicative function of their emotionally driven behaviours, or promoting individual autonomy, understanding, and skill development (Späth & Jongsma, 2020).

Emotion regulation has been defined as "how individuals influence which emotions they have, when they have them, and how they experience and express them" (Gross, 1998, p.271). Gross (1998) describes emotions as the result of an interaction between a person and a situation which

attracts their attention due to the situation holding a particular meaning; the result is an emotion response. Through the modal model, Gross (1998) proposes that the generation of emotions can be pro-actively regulated via four methods: (1) the selection of situations we put ourselves in; (2) changing the physical environment; (3) monitoring what we give attention to; and (4) by altering the meaning given to a situation. After an emotion has been generated, regulation can occur via a fifth method, response modulation, which involves the individual directly altering their physiological, experiential or behavioural response. Crucially, emotion regulation is not solely about down-regulating emotions, but can also include up-regulating emotions (Langston, 1994).

Emotion regulation is key to a child's ability to interact with others and their environment (Berkovits et al., 2017), and to engage in learning (Prizant et al., 2006). Therefore, it is beneficial to consider what support is available to aid the development of these skills, especially given that emotion regulation may be an area of difficulty for some autistic people (Mazefsky et al., 2012). My systematic literature review (Chapter 2) explored 'what are schools doing to support autistic children and young people to develop their emotion regulation skills?' and identified that there is a lack of research considering school-led approaches, with no research currently available from the UK. The research instead focused on the development of emotion regulation interventions which can be delivered in schools. Six out of eight studies used individual or small group targeted interventions, suggesting greater consideration could be given to inclusive interventions, adaptations to practice and environmental changes. Furthermore, in these studies, the pupils were chosen to access the interventions primarily due to having a diagnosis of autism, rather than consideration of their individual strengths and difficulties.

In considering what interventions are beneficial for autistic people, Milton (2014, p.12) concludes that "it depends on the child, what you are trying to teach and why, the environment one is in and the skills, expertise and personal style of teachers and parents". This is supported by the findings of a commission to consider the future of care and clinical research in autism, in which Lord et al. (2022) supported a personalised approach to intervention, focused on an individual's strengths, difficulties, and context. Consequently, there is considerable value in taking a highly contextualised approach to understanding what may be beneficial for autistic young people in developing their emotion regulation skills.

In a review for the Department of Education, Lenehan (2017) reported that in England around 6000 children and young people attended a residential special school as they required specialist, individualised support which could not be provided in their local community. Many were children and young people with autism, communication difficulties and severe learning difficulties. However, challenging behaviour was identified as a significant factor contributing to the need for

a high level of support across the day and night (Lenehan, 2017). It is therefore likely that autistic children and young people in residential special schools are experiencing significant challenges with emotion regulation and may benefit most from support to develop these skills. Consequently, residential special schools are uniquely placed to provide holistic opportunities for emotion regulation development across their waking-day curriculum, to support the well-being and outcomes of their children and young people. From a research perspective, they offer a unique opportunity to consider the practices that may help or hinder autistic young people in their development and application of emotion regulation skills.

This study was initiated by Hill House School (HHS), an independent residential special school in the South of England interested in co-producing research about their approach to developing the emotion regulation skills of their pupils. HHS are partners of the Autism Community Research Network @Southampton (ACoRNS), a research-practice partnership which uses collaborative, creative and participatory methods to improve the educational experience of autistic children and young people (see Parsons & Kovshoff, 2019 for more details).

Emotion regulation development is a strategic priority for HHS, as evidenced through the implementation of various linked practices over the past several years. For example, HHS has used the Transporters resources in assemblies to teach their pupils to understand and recognise facial expressions; these are short videos involving characters that are animated vehicles with real human faces (Changing Media Development, 2006). Transporters has been evaluated with autistic children aged four to eight and deemed to be effective for improving emotion recognition (Golan et al., 2010; Young & Posselt, 2012).

HHS also introduced the concept of taking 'clever actions', which is an in-house term for a helpful emotion regulation strategy. For example, if someone is feeling frustrated, going for a walk might be a 'clever action'. In Spring 2020, HHS introduced The Zones of Regulation (The Zones; Kuypers, 2011) as a whole-school approach to supporting the development of self-regulation. The Zones is designed to develop three components of self-regulation: sensory processing, executive functioning, and emotion regulation skills. Pupils are taught to identify which of the four coloured 'Zones' they are in and to develop a range of tools that they can use to regulate this.

These initiatives illustrate that HHS provides a rich context in which to understand the factors that may be effective for supporting the development of emotion regulation of autistic pupils who require a high level of support. Crucially, this study was not interested in evaluating individual programmes in isolation but, rather, in looking more holistically across them to learn where the strengths and challenges may lie for developing and improving practice.

Consequently, the primary research question was:

How are the emotion regulation skills of autistic young people being developed within a residential special school?

The secondary research questions were:

• How is the support for emotion regulation individualised for each young person?

• What facilitators support emotion regulation development for autistic young people?

• What are the barriers to supporting emotion regulation development for autistic young people?

3.3 Methodology

3.3.1 The Research Context

Hill House School (HHS) is an independent residential special school for autistic children and young people with moderate-severe learning disabilities. The school has capacity for 31 pupils between the ages of 11 and 19. Recent inspections by the Office for Standards in Education (Ofsted) graded HHS 'outstanding', indicating that they provide the highest quality of education (Inspection of Hill House School, 2020) and care (Inspection Report Children's Home, 2021).

In the context of HHS being an ACoRNS partner, this project was co-produced between the project team at the University of Southampton, and project coordinators from HHS, including the Vice Principal and Head of Education, the Head of Care, the Behaviour Support Team Manager and the Assistant Psychologist. This involved "a sharing of power, with stakeholders and researchers working together to develop the agenda, design and implement the research, and interpret, disseminate, and implement the findings" (Redman et al., 2021, p.1).

Ethical approval was obtained from the University of Southampton School of Psychology Ethics Committee in February 2021 (reference: 62801). Three ethics amendments were submitted and approved during the project, reflecting the co-produced, emergent design of the study. Consent was gained to explicitly name HHS and three out of four research partners during the dissemination of the research (Appendix A).

3.3.2   Design

Based on Thomas' (2016) case study framework, the project aimed to consider facilitators and barriers to implementing support around developing emotion regulation skills (explanatory), to inform the next steps for developing practice (instrumental). A nested case study was utilised (Thomas, 2016), which centred HHS as the overall case to be studied, whilst enabling insight into the bespoke support for four young people within this context. Their experiences were considered through indirect and direct observations, alongside interviews with members of staff who know the young people well. Having the staff members as participants was important to enable accurate interpretation and representation of the young people's experiences, as I had no prior relationship with them. Furthermore, the staff were able to provide additional context and detail about changes to practice over time. Three methods were utilised as methodological triangulation is seen to provide fuller, richer accounts of human experiences (Cohen et al., 2011).

My contributions to this project are in line with my critical realist beliefs that there is an objective reality, but an individual's perspectives and interpretations of it are mediated by their experiences (Danermark et al., 2001). Epistemologically, a contextualist approach was taken, recognising that knowledge cannot be disconnected from the knower (Braun & Clarke, 2022), and therefore a reflexive approach was applied to consider how my values and practices have influenced all elements of this project.

3.3.3   Participant Recruitment

A purposeful sampling method was used, with research coordinators at HHS deciding which pupils would be invited to participate in the study. All pupils at the school are autistic, have moderate-severe learning disabilities, and require a high level of support; an Education, Health and Care Plan (EHCP) is required to attend HHS. Inclusion criteria required that the pupils were aged 11 to 17, attended the education provision and were in residential care at HHS. Once a pupil had been identified as a potential participant, parents/carers received an initial telephone call from a research coordinator at HHS to explain the project, and if they expressed an interest, they were provided with the information sheet (Appendix E) and consent form (Appendix F). Five pupils were selected for inclusion, and parental consent was gained for four pupils (see Table 3). To maintain participant anonymity, pseudonyms were used.

Table 3

Young People Demographics

Young Person (Pseudonym)	Sex	Age
Amy	Female	14
Kylian	Male	15
Mateo	Male	13
Sameer	Male	12

Once parental consent was gained, key members of staff who work with each pupil regularly were invited to be involved in the project. They were shown a pre-recorded presentation introducing the research team and the project (https://drive.google.com/file/d/1TAs8eRzLFq-AbkhY4LWUQmtdLZENCjn6/view), and given an information sheet (Appendix G) and consent form (Appendix H). In total, 17 staff members consented to participate, including teachers, teaching assistants, a home manager, an assistant home manager, support workers and members of the therapy team. All staff members work across both the education and care elements of the school, therefore, when referring to staff participants no distinction will be made by job role.

During the project, parents and staff were informed of an extension to the data collection period (from August 2022 to December 2022) and a change of methodology (from the young people participating in activities to researcher observations), and reminded of their right to withdraw, via a letter (Appendices I and J). A debrief letter was provided to parents and staff on completion of the study (Appendix K).

3.3.4   Procedure

Data was generated between April and November 2021.

3.3.4.1   Indirect Observation of the Young People

For a designated two-week period, staff who worked with each pupil were asked to provide written responses to two questions, which asked: (1) what supported the young person to communicate and regulate their emotions, and (2) what challenges were experienced by either the young person or staff member. The prompt sheet is shown in Appendix L. This indirect form of observation sought to enable familiar adults to record their observations over a sustained period. Due to the written format, staff members from across the education, care and nights teams had the option to participate, within their working hours, and without placing additional demands on

the school (i.e., staffing cover was not required). The prompt sheets were stored in the pupil's files, which the staff updated often; therefore, this method of providing information about the pupils utilised typical setting practices.

3.3.4.2 Direct Observation of the Young People

Direct observation was used as it "enables practitioner researchers to learn directly from and with people whose perspectives are often neglected" (Hingley-Jones, 2016, p.108). I conducted observations alongside the Assistant Psychologist from HHS to enable investigator triangulation (Cohen et al., 2011). The young people had no prior relationship with the researcher, however, all had existing relationships with the Assistant Psychologist. An observation guide was created based on the SCERTS Model (Prizant et al., 2006), which prompted observers to make notes of facilitators and barriers across the three SCERTS domains: social communication, emotion regulation, and transactional support (Appendix M). The observations were conducted over three days; all pupils were observed in the classroom on one or two occasions, and Kylian and Sameer were additionally observed in their homes. The Assistant Psychologist and I wrote individual notes during each observation and then used these as the basis for a reflective discussion, which I audio-recorded and transcribed to form the data.

To seek assent from the pupils, at the beginning of each observation a social story was read by a familiar adult to inform the class/home that the observers would be in their environment. To ensure the observations remained ethical, it had been agreed that if the observers or key adults thought that any young person (whether they were participating in the project or not) was communicating discomfort with the researchers' presence then the observation would be ended immediately; this occurred on one occasion.

3.3.4.3 Semi-structured Interviews

To gain a deeper insight into the effectiveness of the support being provided for each pupil, semi-structured interviews were held with staff members who knew them well. This included two staff members for each young person: one from the care team and another from the education team. Interviews were conducted on an individual basis, in a quiet, private room within the school and lasted 20 to 30 minutes. I followed a topic guide (Appendix N), with the flexibility to ask additional questions in response to the participant's answers. Additionally, I conducted a semi-structured interview with one of the research coordinators from HHS. This followed a different topic guide (also shown in Appendix N), and the questions focused on a whole-school perspective, as opposed to individual pupils. I audio-recorded and then transcribed all interviews.

3.3.5   Data Analysis

Transcripts from the interviews (n = 9) and direct observations (n = 8), and written responses for the indirect observations (n = 50) were combined to form the dataset. I analysed the dataset using the six stages of reflexive thematic analysis, as outlined by Braun and Clarke (2022); Appendix O shows illustrations of my process. I engaged in familiarisation with the data (stage one) by transcribing manually, then listening to the audiotapes and reading the transcripts several times. I then generated initial codes (stage two) using the 'comments' function in Microsoft Word (Version 2108). Using an inductive approach, any element of data that may have been relevant to the research questions was coded. This created a large number of codes, many of which captured similar constructs. Therefore, in the second round of coding, I reduced the number of codes by merging those which were similar; this process was conducted by hand using paper-based codes. This second iteration of coding was inputted to NVivo (Version 1.6.1), and the evolution of codes was tracked using Microsoft Excel (Version 2108).

Then, I generated initial candidate themes (stage three) using a combination of arranging paper-based themes and developing electronic thematic maps on MindMup (n.d.). I developed and reviewed the candidate themes (stage four), with each reviewed in relation to the coded data items and then the entire data set, both of which were stored in NVivo. The next stage (five) was to refine, define and name the themes, which involved clarifying the central organising concept of each theme, checking for internal theme clarity and deciding upon theme names. As reflexive thematic analysis is an iterative method, the analysis continued throughout the writing phase (stage six).

There are different ways to consider how language is used to represent meaning. Hall (1997) outlines three approaches: meaning is located within the person (intentional), meaning is created within a social context (constructivist), or language conveys the true nature of reality (reflective). The language used within this dataset was analysed using a constructivist approach, recognising that language does not have a fixed meaning, but that it is constructed within an individual's social and cultural context. Therefore, it is important to acknowledge that this analysis was based on my interpretation (within my context) of the meaning the participants intended to convey (based on their context).

3.4   Results

Figure 3

Thematic Map Showing Four Themes and 12 Subthemes
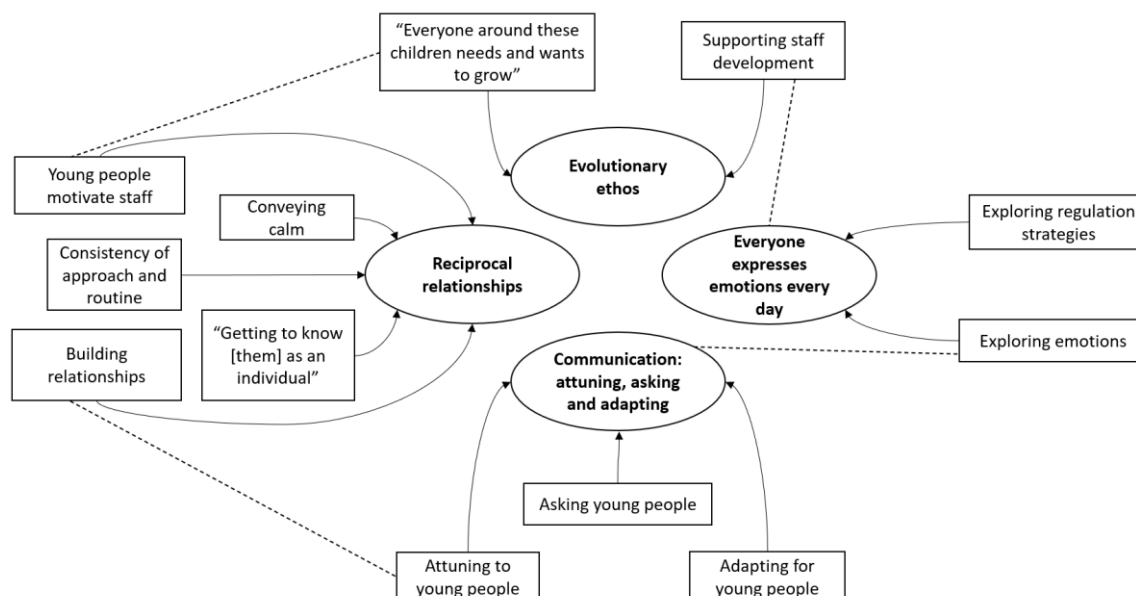
Illustrated in Figure 1 are the four themes, with subthemes, that were generated to explain how the emotion regulation skills of autistic young people are being developed within Hill House School: (1) *evolutionary ethos*, (2) *reciprocal relationships*, (3) *communication: attuning, asking and adapting*, and (4) *everyone expresses emotions every day*.

3.4.1   Theme 1: Evolutionary Ethos

The central organising concept of this theme is that evolution of practice is a core part of the school's ethos, at both individual and systemic levels. This is demonstrated through having staff who seek opportunities to develop their practice, alongside the school providing development opportunities for staff.

3.4.1.1   Subtheme A: "Everyone around these children needs and wants to grow"

Within the school, staff appear driven to develop their practice and to make changes which will have a positive impact on the young people. Several staff members explained that since the school has been focusing on emotional development, their everyday language has changed. For example, they have made comments such as *'you're in the Blue Zone and we need a clever action'* to *'a friend outside of work'* (Participant 1) or *'at home'* (Participant 8)*.* They described this as positive, with another staff member elaborating that:

> *[I] have developed better understanding of my own emotions [...] I feel more able to*
> *analyse how I'm feeling and the impact of that emotion on my students.* (Participant 8)

Participant 5 reflected that *'you have to kind of move with the times'*, as they considered how society's understanding of autism, and what constitutes best practice, has changed across their time working at the school. They also highlighted that the individual desire to progress should be underpinned by:

> *a school that wants to always [be] [...] moving forward [...] It's always [...] what can we*
> *do better? What [...] more opportunities can we give the children and how can we help*
> *them?* (Participant 5).

Staff also showed that they have ideas and suggestions for further development, with Participant 1 commenting that there could be greater *'consistency of Makaton [...] not all of us know all of them [signs for emotions] and not all of us use them every day'*, and that *'a [Zones of Regulation] refresher maybe every year [...] then we can keep up everyone's knowledge of it'* would be helpful. Several staff members approached the researchers after observations to request feedback, further indicating their desire to reflectively develop practice.

3.4.1.2   Subtheme B: Supporting staff development

Considering why there has been a focus on the development of the young people's emotion regulation skills, Participant 3 explained, *'There wasn't really an area of concern it was just an area that we knew that we could develop a lot more',* which indicates that the school aims to be proactive in making changes that work *'towards the best outcomes of the children'.* They had planned whole school training to introduce the Zones of Regulation, but this was disrupted by the coronavirus pandemic. However, the school *'just changed how we did it'*, by instead training smaller groups which enabled them to *'personalise the training to each of the homes and each of the [...] learning groups'.* An additional unexpected advantage of the situation was that due to a move to home learning, the care and education teams were *'working in the home so everyone was using the resources all together and learning from each other'*. Participant 1, who joined the school after The Zones of Regulation had initially been introduced, explained that they learnt vicariously by:

> *just copying everyone else as [...] they're amazing so just copying their use of it and*
> *learning off each other.*

In addition to bespoke training, support for staff development is available from the wider school network. Participant 3 spoke about sources of support for the Zones of Regulation initiative,

including *'excellent support from our senior leadership team'* and *'we had our psychology and behaviour support team to help [...] from a behaviour and emotional perspective as well'*. Participant 5 also mentioned that, in general, support is available through: *'supervision, through team meetings, through our training days'*.

3.4.2   Theme 2: Reciprocal relationships

This theme explored elements of the relationships between young people and staff which are considered important for ensuring that a secure base is created, from which learning can take place.

3.4.2.1   Subtheme A: Building relationships

Staff could see the value in taking time and effort to build positive, trusting relationships between themselves and young people for example: *'I think the key thing for any child that comes to a new home is about... just time and building that trust and understanding'* (Participant 5). Participant 4 reflected that *'it's taken building a relationship with [Amy]'* for them to understand her and know how best to support her.

Several staff made a connection between young people being better able to express and regulate their emotions within the context of a trusting relationship. For Sameer, *'as he developed that [...] relationship with us he feels much [more] confident and [...] better to say, "hey I'm not happy" or "I'm tired"'* (Participant 2). For Kylian, *'it's because of the trust and because he knows that he's able to communicate and he feels safe with us [...] now he is able to take a clever action'* (Participant 2), and for Mateo, *'the more we got to know him, the more he obviously was more relaxed with us'* (Participant 5).

However, there was also recognition that, as with all relationships, there can be difficulties. In this context, the main challenge mentioned was the confidence of staff in working with particular young people. For example, Participant 7 reflected that:

> *staff can [...] lack confidence about him because of [...] not being able to understand [...] what he's feeling and because he [...] presents with the same [...] facial expression no matter what he's feeling [...] if they don't know him that well or they've not built up that relationship.*

Equally, relationships that are not yet secure impact the young person:

> *if he can pick up that your body language and you're not secure working with him,*
>
> *again, you're going to see the other zones very, very quickly or he'll remain in that zone.*
>
> (Participant 5)

Several staff members mentioned that *'the coming and going of staff is a barrier'* (Participant 2), specifically when staff with whom the young people have built relationships end their employment at the setting, and also when staff had been absent in line with covid isolation guidance.

3.4.2.2   Subtheme B: Conveying calm

Staff working with all four young people commented on the importance of them conveying a sense of calm and positivity during their interactions. This is evident within the school as, following observation in Kylian's classroom, I described that the staff were *'dancing and smiling'*, *'all very relaxed',* and *'very positive, very warm, very […] light-hearted'*. Participant 8 advised that it is important when working with Kylian to *'keep it really positive and […] friendly and funny, if you can make him laugh even better'*. Similarly, Participant 2 care team said:

> *'is really important to our new staff to say be chill be calm […] it's really important your*
>
> *body language you are really chill and calm'.*

Alongside ensuring their personas radiate positivity and calmness, there are also specific ways in which staff communicated this. Many examples were given of verbal reassurance, for example, when '*Amy was saying Mama, Mama'*, Participant 4 reassured Amy that she would see her in '*two more sleeps'.* Actions also communicate calmness, for example, during an observation it was noticed that a staff member moved to sit closer to the young person as they were becoming unsettled, which seemed to communicate *'I'm here, I'm keeping you safe'* (Participant 3).

3.4.2.3   Subtheme C: Young people motivate staff

Many examples were given of progress that the young people have made with developing their emotion regulation skills:

> *her confidence in communicating her emotions and knowing what she wants and*
>
> *knowing what she needs […] it's amazing to see.* (Participant 3)

Seeing the young people progress was a motivating factor for the staff to continue to implement initiatives, as described here:

I think it's been a lot of work […] with the Transporters I think at the beginning people wasn't really sure about […] how useful that tool was gonna be but actually using it has proven that it helps them to understand emotions really well. (Participant 8)

This motivation is also captured within a comment from the Participant 3:

I think it's worked really well here because […] the team that are working around the children they're so committed to helping the children learn new strategies to help them express themselves and regulate their emotions

3.4.2.4   Subtheme D: Consistency of approach and routine

Consistency was a reoccurring theme, with it being viewed as important within the staff, between staff, and across settings. This consistency supported feelings of safety within relationships and contexts, which in turn promoted learning opportunities.

Several visual tools and resources were used to support the consistency of the routines and to provide clear indicators that activities were ending. This included timetables, visual schedules, and countdowns. Preparation for changes was also viewed as important, for example, Social Stories were used to inform the young people when the researchers visited their classrooms. However, Participant 2 recognised that routines can be detrimental if they are too rigid, describing Kylian's previous routine as being '*structure from [when] he woke up till he went to bed […] he hasn't got that free time [for] his thoughts, to his things what he likes and dislikes.*' To address this, they have worked to reduce the rigidity of the timetable to promote Kylian's autonomy.

Families were also included with the change in approach to supporting emotion regulation, to ensure consistency across contexts and to reinforce learning across and between contexts:

for children that go [to their family] home we've provided resources for them to take home […] members of the therapy and behaviour support team sat with the parents to go through the reflections with them and how they can use the zones resources at home […] because then you've got like a universal approach at school and at home […] we've heard a lot more now parents saying […] "oh at the weekend he was a little bit yellow zone and we did some belly breaths and that really helped bring him back to the Green Zone". (Participant 3)

3.4.2.5   Subtheme E: "getting to know [them] as an individual"

Understanding each young person as an individual included getting to know their strengths, what situations or stimuli they find difficult to manage, and how best to support them. Aside from spending time with them, staff used other methods such as reading background information, conducting observations, and discussions with parents and professionals to develop their insights.

Getting to know what the young people enjoy, and their strengths, provided a foundation for their learning and development. For example, it was helpful to know that Kylian had '*worked previously on zones of regulation and emotions'.* (Participant 8) at a previous setting. This also helped to prepare for managing potential difficulties, for example with Sameer, knowing about '*his enjoyment of technology and […] how it might be frustrating if he can't access it'* (Participant 2). The young people have opportunities to explore different activities and experiences to enable them to form opinions*; 'it's giving all the children these options of things to do and actually working out what they really like'* (Participant 5).

Knowing background information was important to aid understanding of behaviours and promoting empathy:

> it's very key for any child that moves into any of the homes here that we know about their past and […] their journey to get to us and what strategies they […] may have used before and what they could be used to and also learned behaviours that [they] may have. (Participant 5)

By knowing this information, staff could proactively adapt the environment to support them, for example, Mateo finds busy, messy environments challenging, therefore his class team *'keep the environment very clear for him'* (Participant 6).

Furthermore, knowing the individual enabled staff to make decisions regarding when the young person needed adult-led support, and when they could be supported to develop their skills more independently. During an observation, one of the young people became unsettled. Participant 2 described that previously staff would quickly intervene, however, because now *'we know him better and we know where […] the red line [is]'*, staff members waited and encouraged the young person to independently use emotion regulation strategies (they chose 'belly breaths'); the young person calmed quickly, and the staff member reflected that this was a successful learning opportunity.

3.4.3 Theme 3: Communication: attuning, asking and adapting

This theme highlights the importance of communication between young people and staff. This involved staff attuning to how the young people communicate so that they were understood, asking for and respecting their views, and staff adapting their communication to ensure it was accessible for each young person.

3.4.3.1 Subtheme A: Attuning to young people

This subtheme presents how the staff attuned to, and interpreted, what the young people were communicating about their emotions. For all four young people, staff described that they attune to non-verbal cues:

she's very expressive […] you can tell like from her face and her body language, from her actions. (Participant 4)

This indicated to staff how the young person might be feeling, for example, when Sameer is sad, he might be *'more sombre and quieter […] he might ask questions or […] be a bit more cuddly'* (Participant 1).

A few staff members acknowledged that sometimes it can be difficult to interpret what a young person might have communicated and how this can feel for them. For example, Amy uses limited verbal language, and Participant 4 shared:

I think a lot of her frustration can come from when she's with people that don't know her and don't understand her […] you need to know her to know how best to approach her in that moment, how best to communicate.

3.4.3.2 Subtheme B: Asking young people

As part of developing their emotion regulation skills, the young people are encouraged to have autonomy through having their views sought and respected. During the observations, the young people were regularly asked how they are feeling and to choose a 'clever action'. Sometimes this was verbal, for example, Sameer was asked '*"how are you?" and he said "happy"'* (Participant 3). Other times, this was visual, as during assembly the young people were asked to select which zone they are in, and then to choose a 'clever action' from visual options on the board. This has become a familiar part of the school day, with Participant 4 describing Amy as:

more confident […] previously she would go up (.) she'd think about it quite a lot (.) whereas now she will walk up to the board she knows which […] one she is in she knows what […] [will] help her calm

There were also several occasions where a young person was offered a choice, and when they declined, this was respected. For example, when a young person became unsettled during an observation, a member of staff asked the young person if they wanted to *'go outside'* or to have *'some deep pressure'* and the young person *'said "no" because [they] didn't need that'* (Participant 3)*. There was an understanding that the young people could make decisions in their own best interest:

> it's down to her to choose [...] if she asks to go for a walk that's because she needs to go
> for a walk [...] and yeah we trust that. (Participant 4).

3.4.3.3   Subtheme C: Adapting for young people

Due to the individual communication needs of each young person, the staff adapted their communication to ensure it was accessible, including using minimal language ('*staff had to reduce verbal input'*; Participant 8), repetition (e.g., *'she asked again for me to repeat'*; Participant 5) and allowing processing time (e.g., *'he will need a day to process'*; Participant 8). Adaptation also involved using multiple methods of communication, for example using Makaton to support verbal input; *'saying "two more sleeps" saying it [and] signing it'* (Participant 3) or developing personalised visual resources, '*I said would you like me to make you a countdown calendar she said yes'* (Participant 5).

Recently, the school have bought Talk Pads (n.d.) by SmartBox which are Alternative and Augmentative Communication devices. Alongside supporting general communication, the intention is that they support the young people to *'express [...] how they feel and then what they can do next'* (Participant 3). Many staff members spoke positively about the perceived usefulness of these devices, for example, *'the SmartBoxes are helping a lot'* (Participant 8). However, there was an acknowledgement that personalising the software, and staff and young people developing their use of it, will take time. For example, Sameer was seen to *'love the Smartbox'*, but '*he get[s] really distracted because he love[s] technology [...] it is more about how we support him and how we help him using the Smartbox'* (Participant 2).

3.4.4   Theme 4: Everyone expresses emotions every day

This theme explores how talking about, sharing, and regulating emotions has become part of daily interactions between young people and staff within the setting.

3.4.4.1 Subtheme A: Exploring emotions

This has included using the Transporters (Changing Media Development, 2006) intervention to develop the young people's ability to recognise and understand emotions and teach the young people to take 'clever actions' (i.e., to use helpful emotion regulation strategies). Most recently, they have adopted The Zones of Regulation curriculum (Kuypers, 2011), which was introduced:

> *through daily check-ins with the children [...] so they started to use zones check in slowly and then it was introduced into assembly and then we all started to use [it] in our language a lot more just throughout the day (.) then it was used in reflections so it's just been a gradual build-up.* (Participant 3)

Opportunities to explore emotions were provided across the waking day, as part of formal teaching (e.g., '*in assembly [...] morning and afternoon [...] we watch Transporters and we talk about the feelings in that programme and how they are explained and then [...] [the young people] pick their zones'*; Participant 1) and during everyday interactions. This involved direct approaches (e.g., asking *'how are you feeling? clever action?'*; Participant 2) and indirect approaches such as labelling (e.g., *'now you've had your clever action you seem to be in the green zone, I can see your smile'*; Participant 3).

As the approach towards emotions has been changing, staff realised that many of the young people did not feel able to express a range of emotions, with many always saying they felt 'happy' as they thought this was the expected answer to 'how are you feeling?'. For example, when he got upset, Sameer used to say *'crying is finished crying is finished'* and try to stop himself, and so staff have been working to validate and encourage open emotional expression, *'it's ok to feel sad it's ok if you're crying'* (Participant 2)*.* Furthermore, the staff reflected that previously they would avoid talking about emotions they perceived as difficult to manage. One frequently mentioned emotion was homesickness as, due to being a residential setting, the young people often miss their families. Participant 5 who works with Amy outlined that previously they would have tried to distract her from thinking about her family, whereas now they label and validate her emotions, using phrases such as *'you're homesick and that's OK to be homesick'* and '*let's look at photos'*, accompanied by reassurance, *'they love you'*.

3.4.4.2 Subtheme B: Exploring regulation strategies

The young people were able to access a range of activities, equipment and sensory input to support their emotion regulation. They could seek or request these, or staff may offer them.

Movement was recognised as a supportive strategy for all four young people, and this was built into their day (e.g., *'every Friday morning they'll start the day with football'*; Participant 3), as well as being facilitated on request. They all often choose a walk as their clever action; Amy *'enjoys going outside and having a walk'* (Participant 3). Related to this, being outside was also seen to be important, for example, Mateo's *'happy place'* is the *'adventure play [...] a woodland area'* (Participant 3) and Sameer was seen to enjoy using the trampoline and the swings on the playground during the observation.

Within the classrooms, there was *'a selection of different types of chairs [...] rocking chair, beanbags [...] a squishy sofa, hard chairs'* (Participant 3) for the young people to choose from as each provides different sensory feedback. Tactile input appeared to be soothing for the young people: during the observation, staff working with Amy were *'stroking her hand and squeezing her shoulder and she looked really happy and [...] relaxed'* (Participant 3). Kylian *'likes a lot of deep pressure and he will come and say "hugs" [...] or he wants "squeezes"'* (Participant 8). Integrated into the day, both at school and home, are the young people's favourite activities as these are seen to support emotion regulation.

Furthermore, young people were prompted to reflect, either visually or verbally, on how they were feeling, the action they chose to take, and its' success. This allowed young people and staff to learn what 'clever actions' each individual finds useful. Also, times where strategies have not been successful facilitated learning opportunities, for example teaching alternative strategies to use in the future (e.g., *'if we feel upset or we don't like the noise in the room we can go outside, or we can go for a walk'*; Participant 3).

3.5   Discussion

This nested case study aimed to explain how Hill House School, a residential special school, supports autistic young people to develop emotion regulation skills. The study was initiated by and co-produced with project coordinators at the school. Central to this project were four young people; the support they had received to promote their emotion regulation development was explored using indirect and direct observations, and semi-structured interviews with key staff members. The main themes that were developed from the data indicated that interpersonal factors (i.e., relationships and communication between staff and young people, and within the staff team) were foundational to supporting the young people's development.

 Building trusting relationships between the staff and pupils was crucial for supporting emotion regulation development within this context. By establishing secure relationships, the staff created a safe base from which the young people could explore and learn (Ainsworth, 1989). This linked

closely to how staff interacted with the pupils. Milton (2014) described the existence of a 'double empathy problem' to emphasise that in interactions between autistic and non-autistic people, non-autistic people also hold responsibilities as communication partners. HHS staff addressed this by *attuning* to all the ways their young people communicated, *asking* for the young people's opinions, and *adapting* how they communicated so that it was accessible. This aligned with the experiences of mothers of nonspeaking autistic children who had experienced that social connection can be sought and received in individual ways, beyond the universal (i.e., neurotypical) indicators of social interest such as eye contact (Jaswal et al., 2020).

The findings also showed that staff members prioritised getting to know, and understand each young person, as they established what support and approach may help the pupils to develop their emotion regulation skills. This is important because each autistic person will "perceive, communicate and interact with the world" differently (Guldberg et al., 2019, p.9), and additionally, this can vary across time and context (den Houting, 2019; Lord et al., 2022). Milton (2014) proposed that an educational environment which embeds the concept of neurodiversity (i.e., seeing autism as part of natural human variation) would involve understanding each individual, respectfully building relationships, and encouraging individuals to engage with their strengths and interests; all of these elements were reflected in the practices observed and represented in the data.

Furthermore, this occurred within a context where staff were willing and supported to develop their knowledge and practices; there was an *evolutionary ethos*. Focusing on emotion regulation, this included taking a whole school approach to utilising interventions (i.e., Transporters, The Zones of Regulation), and ensuring that all staff understood the purpose and content of these. Despite coronavirus restrictions preventing the intended delivery of whole school training on The Zones, adaptations were made, and the training was delivered to smaller staff groups. Examples where staff spontaneously used The Zones language in their personal life was evidence of the value they see in the approach. Finally, using emotional language and concepts, alongside regulating equipment and activities, have become embedded into day-to-day practices. One element of this was validating the emotions the young people experienced. Receiving validation from others is thought to reduce the frequency, intensity and duration that an individual experiences a negative emotion, whilst increasing the likelihood that they will share how they are feeling in future (Fruzzetti & Shenk, 2008).

Alongside facilitators of practice, this study sought to consider the barriers to supporting emotion regulation development so that HHS can address them. Discussions about barriers centred around the impact of the coronavirus pandemic, which since March 2020 has resulted in young people at

HHS experiencing significant changes in their lives. The most mentioned challenge was staffing, which was impacted by the requirement to self-isolate, resulting in unexpected (i.e., the young people could not be pre-informed) staff absences, and therefore the presence of unfamiliar staff members. This may have impacted the development of relationships and the consistency of approach and routine, both elements that were identified as supportive for developing emotion regulation skills.

3.5.1 Implications for Practice

This project has enabled HHS to gain an external perspective on their practice for supporting autistic young people to develop emotion regulation skills. This has enabled facilitators and barriers to be recognised that may have been less clear to those within the context, due to them being considered part of day-to-day practice. Therefore, for HHS the completion of this project is not an endpoint, but an opportunity for reflection and consideration of the next steps.

Overall, the findings indicated that the interpersonal elements of practice (i.e., relationships communication, use of emotional language) have provided the foundation from which the young people have been able to access targeted interventions to develop their emotion regulation skills. I want to acknowledge and emphasise that developing and embedding these foundations across a setting takes time, effort and commitment; it is not a trivial undertaking. This speaks to the connectedness of practice across HHS, and how as a whole they have worked to integrate them into practice. This research has shown that HHS is doing a good job of supporting the emotion regulation development of the four young people involved. However, the staff understand that this is an ongoing and dynamic area for development as each pupil requires bespoke support, and what this means in practice will likely change as they grow and develop. Furthermore, staff turnover and changes to senior leadership in the future may impact how prioritised and valued the development of emotion regulation skills is. Therefore, it is important to continue reinforcing and highlighting the good practices documented here, as they seem to create conditions that are supportive of the pupils' development.

Only a few suggestions were made by the staff about how their practice could be developed further (e.g., more Makaton training, a yearly refresher of The Zones), but the absence of these was not seen to be a barrier at present. I believe this is because as part of their *evolutionary ethos* there is an open dialogue between the staff and senior management at Hill House School, meaning that there are regular opportunities for concerns or ideas to be discussed and actioned.

This study has focused on practice within one context, but there is the potential for transferability of the findings to other contexts at the digression of the reader (Lincoln & Guba, 1985); this might be most relevant for, but should not be limited to, other residential special schools.

3.5.2 Strengths, Limitations and Future Research

This study has given a unique insight into how four autistic young people have been supported to develop emotion regulation skills within one residential special school. From a methodological standpoint, this study is an example of how through co-production with their setting, it is feasible for autistic young people being educated and living in residential special schools, who are typically under-represented in the literature, to be involved in research (Pellicano et al., 2014). However, a limitation of this study is the level of participation of the autistic young people as they did not have a direct role in the project. This was a decision made in the best interest of the young people who were participating; however, this does mean that the research was conducted by individuals without lived experience of autism (Nicolaidis, 2012). It is the responsibility of researchers to continue pushing the boundaries of research to make it more inclusive and accessible (Seale et al., 2015).

Future research should continue to use creative and inclusive research designs and methodologies, working in collaboration with autistic children and young people, and those who know them well. For example, research within the ACoRNS has used the digital stories methodology to gather and share autistic children and young people's views via creating a video (Parsons et al., 2020, 2021; Ward et al., (in publication)). Other research has involved a research group where autistic girls have designed resources to educate school staff on autism in girls (East, 2022), and the coproduction of a comic book to support autistic children's transition to secondary school (Kovshoff et al., 2022). Participatory approaches can also be extended across the research process, for example using discussions, research circles or Comic Strip Conversations to enable children and young people to collaboratively analyse the data with researchers (Seale et al., 2015).

More research is required to understand how autistic children and young people can be supported to develop emotion regulation skills, in both mainstream and specialist education settings. Following on from this project, it would be beneficial for future research to further explore the impact of contextual factors (e.g., environment, relationships) in supporting development, alongside targeted intervention programmes.

3.6   Conclusion

The findings from this in-depth, nested case study of a residential special school demonstrate that staff prioritised building relationships and getting to know their young people as individuals, to provide bespoke support to develop their emotion regulation skills. Therefore, the focus is not only on the application of specific intervention programmes, but on the context, culture, and relationships within the school that provide a foundation from which collaborative learning can occur.

Appendix A   Proof of Consent

Explicit consent was requested from project coordinators at Hill House School for the school, and for them as individuals to be named within the thesis. One project coordinator did not provide consent and therefore has been anonymised.

Hi Joanne,

I can confirm that we are happy, and consent to Hill House School being named in your thesis.

Kirsty Marsden

15.07.2022

Figure 4 *Proof of consent to name Hill House School*

To Joanne,

I consent to my name, Louisa Burden being used in your thesis.

[NAME] Louisa Burden
[DATE]   15.07.2022

Figure 5 *Proof of consent to name research coordinator (1)*

To Joanne,

I consent to my name, Kirsty Marsden, being used in your thesis.

Kirsty Marsden
15.07.2022

Figure 6 *Proof of consent to name research coordinator (2)*

To Joanne,

I consent to my name Alice Taylor being used in your thesis.

Alice Taylor
15/07/22

Figure 7 *Proof of consent to name research coordinator (3)*

Appendix B   Systematic Search Strategy

Table 4

Full Systematic Search Strategy for Each Database

Database	Interface	Search Strategy
PsychInfo	EBSCO	(TI (school* OR nurser* OR kindergarten OR class*) OR AB (school* OR nurser* OR kindergarten OR class*) OR DE (schools OR classrooms)) AND (TI (child* OR "young person*" OR "young people*" OR adolescen* OR teen*) OR AB (child* OR "young person*" OR "young people*" OR adolescen* OR teen*) OR DE (Students)) AND (TI (Autis* OR "autism spectrum disorder*" OR "autism spectrum condition*" OR Asperger* OR ASD OR ASC) OR AB (Autis* OR "autism spectrum disorder*" OR "autism spectrum condition*" OR Asperger* OR ASD OR ASC) OR DE ("Autism Spectrum Disorders")) AND (TI (interven* OR program* OR curricul* OR pedagog* OR train*) OR AB (interven* OR program* OR curricul* OR pedagog* OR train*) OR DE ("school based intervention" OR curriculum)) AND (TI ("emotion* regulat*" OR "emotion* coping" OR "emotion* dysregulat*") OR AB ("emotion* regulat*" OR "emotion* coping" OR "emotion* dysregulat*") OR DE ("Emotional Regulation"))
ERIC	ProQuest	(ti(school* OR nurser* OR kindergarten OR class*) OR ab(school* OR nurser* OR kindergarten OR class*) OR mainsubject("Preschool Education")) AND (ti(child* OR "young person*" OR "young people*" OR adolescen* OR teen*) OR ab(child* OR "young person*" OR "young people*" OR adolescen* OR teen*) OR mainsubject("Late Adolescents" OR "Early Adolescents" OR Adolescents OR Children OR Youth)) AND (ti(Autis* OR "autism spectrum disorder*" OR "autism spectrum condition*" OR Asperger* OR ASD OR ASC) OR ab(Autis* OR "autism spectrum disorder*" OR "autism spectrum condition*" OR Asperger* OR ASD OR ASC) OR mainsubject("Autism Spectrum Disorders")) AND (ti(interven* OR program* OR curricul* OR pedagog* OR train*) OR ab(interven* OR program* OR curricul* OR pedagog* OR train*)) AND (ti("emotion* regulat*" OR "emotion*

coping" OR "emotion* dysregulat*") OR ab("emotion* regulat*" OR "emotion* coping" OR "emotion* dysregulat*"))

Web of Science	WOS Core	((TI=(school* OR nurser* OR kindergarten OR class*)) OR AB=(school* OR nurser* OR kindergarten OR class*)) AND TI=(child* OR "young person*" OR "young people*" OR adolescen* OR teen*)) OR AB=(child* OR "young person*" OR "young people*" OR adolescen* OR teen*)) AND (TI=(Autis* OR "autism spectrum disorder*" OR "autism spectrum condition*" OR Asperger* OR ASD OR ASC)) OR AB=(Autis* OR "autism spectrum disorder*" OR "autism spectrum condition*" OR Asperger* OR ASD OR ASC) AND TI=(interven* OR program* OR curricul* OR pedagog* OR train*)) OR AB=(interven* OR program* OR curricul* OR pedagog* OR train*)) AND TI=("emotion* regulat*" OR "emotion* coping" OR "emotion* dysregulat*")) OR AB=("emotion* regulat*" OR "emotion* coping" OR "emotion* dysregulat*"))

Appendix C   Summary of Excluded Reports

Eleven records were all excluded during full-text screening for the reasons given in Table 5.

Table 5

Excluded Records and Rationale

Citation	Rationale for exclusion
Fujii et al. (2013)	Not conducted in the pupil's education setting: "with sessions taking place at a university clinic or an associated autism community clinic" (p.29).
Hample et al. (2020)	Developing emotion regulation skills were not part of the study's aim. Exclusion discussed and agreed with peer reviewer.
Hassenfeldt et al. (2015)	Not conducted in the pupil's education setting: the approach is intended to enable generalisation "outside of the clinic" (p.84).
Jesionowicz (2016)	Not conducted in the pupil's education setting: "the sessions were conducted in a room at a local community centre" (p.64).
Kurtz (2018)	Not conducted in the pupil's education setting: the intervention was delivered in a "designated office space" within the "Social Learning Centre" (p.35).
Macoun et al. (2021)	Developing emotion regulation skills were not part of the study's aim. Exclusion discussed and agreed with peer reviewer.
Marzouki et al. (2022)	Not conducted in the pupil's education setting: the intervention was delivered "at a local indoor swimming pool" (p.6).
Phung (2018)	Not conducted in the pupil's education setting: participants were required to go "to the university testing space" (p.36).
Stickney (2010)	Not conducted in the pupil's education setting: sessions were conducted at "Central Kentucky Riding for Hope", a nationally accredited riding centre (p.30).
Wood et al. (2009)	The intervention included "16 weekly sessions", however, "two meetings [were] scheduled at the child's school" (p.1610), indicating that the

	majority of the intervention was not conducted in the pupil's education setting.
Wood et al. (2014)	Not conducted in the pupil's education setting: sessions took place "at a university clinic or an associated autism community clinic" (p.2267).

Appendix D   Quality Assessment

D.1   Quality Assessment of Published Journal Articles

Table 6

Quality Assessment of Published Journal Articles Using the Quality Assessment with Diverse Studies (QuADS) Tool (Harrison et al., 2021)

Study	1. Theoretical or conceptual underpinning	2. Statement of research aim/s	3. Research setting and target population	4. Study design is appropriate	5. Appropriate sampling	6. Rationale for choice of data collection tools	7. Format and content of data collection tool	8. Description of the data collection procedure	9. Recruitment data provided	10. Justification for the analytic method selected	11. The method of analysis	12. Research stakeholders considered	13. Strengths and limitations
Beaumont et al. (2015)	3	3	2	3	2	3	3	3	2	2	3	1	2
Einfeld et al. (2018)	3	3	3	3	2	2	3	3	2	2	3	1	2

Study	1. Theoretical or conceptual underpinning	2. Statement of research aim/s	3. Research setting and target population	4. Study design is appropriate	5. Appropriate sampling	6. Rationale for choice of data collection tools	7. Format and content of data collection tool	8. Description of the data collection procedure	9. Recruitment data provided	10. Justification for the analytic method selected	11. The method of analysis	12. Research stakeholders considered	13. Strengths and limitations
Fage et al. (2019)	3	3	2	3	2	3	3	3	1	2	3	3	2
Mackay et al. (2017)	3	3	2	3	2	3	3	2	3	2	3	1	3
Morgan et al. (2018)	3	3	3	3	3	3	3	3	3	2	3	2	2
Parent et al. (2016)	2	3	3	3	2	0	3	2	0	0	2	3	2

D.2   Quality Assessment of Grey Literature

Table 7

Quality Assessment of Theses Using the National Institute for Health and Care Excellence's (2014)
Checklist for Grey Literature

		Lee (2020)	Pierman (2020)
Individual author	**Associated with a reputable organisation?**	Yes	Yes
	Professional qualifications or considerable experience?	Yes	Yes
	Produced/published other work (grey/black) in the field?	Yes	Yes
	Recognised expert, identified in other sources?	No	No
	Cited by others? (use Google Scholar as a quick check)	No	No
	Higher degree student under 'expert' supervision?	Yes	Yes
	Detailed reference list or bibliography?	Yes	Yes
Accuracy	**Does the item have a clearly stated aim or brief?**	Yes	Yes
	Does the item meet its aims?	Yes	Yes
	Does the item have a stated methodology?	Yes	Yes
	Has the item been peer-reviewed?	N/a	N/a
	Has the item been edited by a reputable authority?	N/a	N/a

	Is the item supported by authoritative, documented references or credible sources?	Yes	Yes
	Is the item representative of work in the field?	Yes	Yes
	If no, is it a valid counterbalance?	N/a	N/a
	Is any data collection explicit and appropriate for the research?	Yes	Yes
	If the item is secondary material (e.g. a policy brief of a technical report), does it provide an accurate, unbiased interpretation or analysis of the original document?	N/a	N/a
Coverage	**Are any limits to the item clearly stated?**	Yes	Yes
Objectivity	**Is the author's standpoint clear?**	Yes	Yes
	Does the work seem to be balanced in presentation?	Yes	Partly
Date	**Does the item have a clearly stated date related to the content?**	Yes	Yes
	If no date is given, but can be accurately ascertained, is there a valid reason for its absence?	N/a	N/a
	Has key contemporary material been included in the bibliography?	Yes	Yes
Significance	**Is the item meaningful (i.e. does it incorporate feasibility, utility and relevance)?**	Yes	Yes

Does it add context?	Yes	Yes
Does it enrich or add something unique to the research?	Yes	Yes
Does it strengthen or refute a current position?	Yes	Yes
Would the research area be lesser without it?	Yes	Yes
Is it integral, representative, typical?	Yes	Yes
Does it have impact (in the sense of influencing the work or behaviour of others)?	Yes	Yes
Comments (where the response was no, unclear, or partly)		Possible bias due to the authors' previous involvement in the programme.

Appendix E   Parent/Carer Information Sheet

Project Information for Parents / Carers: Developing Autistic Young Peoples' Emotional Regulation Skills: A Case Study of a Residential Special School

Project Team: Joanne Bennett, Dr Hanna Kovshoff & Professor Sarah Parsons

Your child is being invited to join a project exploring how Hill House School is helping their young people to learn to recognise their emotions and use helpful tools when they have strong emotions.

This document provides information about the project. If you are happy for your child to take part you will be asked to sign a consent form.

You can ask Joanne Bennett (J.Bennett@soton.ac.uk) any questions about the project.

What is the project about?
This is a project that Hill House School and the University of Southampton are doing together.

At Hill House School your child has been learning to recognise their emotions and use helpful tools when they have strong feelings (e.g., angry, sad, excited). We are interested in finding out how Hill House School is helping your child to learn these skills, so that they can celebrate what they do well and think about any areas where they could improve.

Why has my child been asked to take part?
You are being asked to take part because your child attends Hill House School and is age 17 or under.

What will happen if my child takes part?
If you agree that it is ok for your child to take part, they will be asked to complete two activities with a familiar member of staff at Hill House School. A treasure hunt and a talking mat activity will explore your child's understanding of emotions and helpful tools. The staff member who supports your child to do the activities will also take part in an interview with Joanne. All staff working with your child over a two-week period will also be asked to describe how they have seen your child recognising their emotions and using tools to help them.

Are there any benefits to my child taking part?
There may be no direct benefits to your child personally, but they will be Helping Hill House School to develop how they support all young people to learn to recognise their emotions and use helpful tools.

Are there any risks involved?
Not really, these activities are similar to ones your child usually does at Hill House School. Your child will be supported by a familiar member of staff at all times. Your child can choose if they want to do the activities, or not, and your child or the staff member can stop the activity at any time.

We will not use your name or the name of your child in anything we write about the project.

What information will be collected?
- the name of your child
- pictures of the activities your child does for this project
- a recorded interview with a staff member

- recordings of staff members describing how they have seen your child managing their emotions
- What staff say in their reflections/interview will be typed up and then the audio recording will be destroyed.

Will anyone else know your child has taken part?
These are the people who will know they have taken part:
- o Members of the research team
- o Members of staff at Hill House School

No one else will know your child has taken part. We will not include your name or their name in anything we write about the project.

Managers at the University of Southampton may ask to see the information we collect to make sure the researchers are keeping it safe.

All information will be stored securely on computers that are protected by a password.

Does my child have to take part?
No. This is your decision and we don't mind either way. If you decide it is ok for your child to take part, we will ask you to sign a consent form. Your child will still have the opportunity to decide if they want to take part in the activities and can say no.

What happens if I change my mind?
You can change your mind at any time up until the 6th August 2021, when data analysis begins, without giving a reason. Please just let Joanne Bennett (J.Bennett@soton.ac.uk) know.

What will happen to the results of the research?
We will write a summary of what we find out and send this to you, and also include this summary on our website [http://acornsnetwork.org.uk/]. The name of the school will appear in the summary, but your name and child's name will not be included.

Where can I get more information?
Please ask Joanne Bennett if you have any questions about the project: J.Bennett@soton.ac.uk, or you could talk to Kirsty Marsden or Louisa Burden at Hill House School.

What happens if there is a problem?
If you have any concerns about the project please speak to Joanne Bennett (project lead), or Kirsty Marsden or Louisa Burden at Hill House School.

If you are still unhappy or have a complaint, please contact the University of Southampton Research Integrity and Governance Manager (023 8059 5058, rgoinfo@soton.ac.uk).

Data Protection Privacy Notice
By law, The University of Southampton has to protect and use the information collected in this project in specific ways. This can sound very formal and complicated.

The main thing to know is that we treat any information very carefully. There is detailed information about this that we have to let you know, and this can be found on the next page.

Thank you very much for taking the time to read this.
Joanne, Hanna and Sarah

More details about Data Protection and Privacy that we have to tell you

- The University of Southampton carries out research with the greatest care and consideration.
- We have to have a good reason ('lawful basis') for asking for your personal information.
- The good reason is that we are doing research that we think other people might be interested in, and could help them.
- This means that when you agree to take part in a research study, we will only use information (data) about you in the ways that you have been told about in this project information sheet.
- We will not use your information for any other purpose.
- The University's policy about how we use information about you can be found on its website here: [https://www.southampton.ac.uk/legalservices/what-we-do/data-protection-and-foi.page] and there is more information about keeping your details private here: https://www.mrc.soton.ac.uk/web2/files/2013/04/privacy.pdf.
- Please ask the research team if you have any questions or are unclear what information is being collected about you.
- The University of Southampton is the 'Data Controller' for this study, which means that we are responsible for looking after your information and using it properly.
- The University of Southampton will keep information about you for 10 years after the study has finished. After this, any link between you and your information will be removed.
- If you have any questions about how your information (data) is used you can find more information here: [https://www.southampton.ac.uk/legalservices/what-we-do/data-protection-and-foi.page]
- If you need more help or information, please contact the University's Data Protection Officer by email: data.protection@soton.ac.uk.

Parent/Carer Information Sheet Version 2 (15/02/2021)   Ethics number: 62801

Appendix F   Parent/Carer Consent Form

Parent / Carer Consent Form:

Developing Autistic Young Peoples' Emotional Regulation Skills: A Case Study of a Residential Special School

Project Team: Joanne Bennett, Dr Hanna Kovshoff & Professor Sarah Parsons

Please <u>initial</u> the boxes if you agree with the statements:

Your initials go here

Statement	Initials
I have read and understood the information sheet (Version 2, 15/02/2021) and have had the opportunity to ask questions about the project.	
I agree to let <u>my child</u> take part in this project and agree for their data to be used for the purpose of this study.	
I understand my child's participation is voluntary and I may withdraw them at any time up until the 6th August 2021, when data analysis begins, for any reason, without their participation rights being affected.	
I understand that personal information collected about me and my child, such as our names, will not be shared beyond the project team.	
I understand that <u>my child</u> will not be directly identified in any reports of the research.	
I understand that Hill House Staff may take photographs of my child as part of the activities within this project. These will only be seen by the researcher and staff at Hill House School.	

Child's name_____

Child's age _____

Your contact phone number _____

Your email address _____

Your signature_____

Date_____

The researcher will fill in this section:

Name of researcher (print name) _____

Signature of researcher _____

Date_____

Parent/Carer Consent Form: (Version 2, 15/02/2021)   ERGO number: 62801

Appendix G   School Staff Information Sheet

STAFF INFORMATION SHEET

Study Title: Developing Autistic Young Peoples' Emotional Regulation Skills: A Case Study of a Residential Special School

Project Team: Joanne Bennett, Dr Hanna Kovshoff & Professor Sarah Parsons

You are being invited to take part in the above research study. This document provides information about the project, please read it in full. If you are happy to take part, you will be asked to sign a consent form. You can contact Joanne (the researcher) or Kirsty Marden at Hill House School if you have any questions.

What is the research about?
This project is being carried out in partnership between me (Joanne Bennett) and Hill House School. I am a Trainee Educational Psychologist at the University of Southampton; this project forms part of my doctoral thesis and also contributes to the work carried out by the Autism Community Research Network: Southampton (ACoRNS) research group, of which Hill House School is a partner. Throughout the project I will be supervised by Hanna Kovshoff and Sarah Parsons from the University of Southampton.

The project aims to explore how Hill House School is supporting their young people to develop their emotional regulation skills (i.e., to recognise their emotions and use helpful tools when they have strong feelings, such as angry, sad or excited). Information from this project will provide Hill House School with young people and staff's views about their practices so that they can celebrate their strengths and consider areas for development.

Why have I been asked to participate?
You have been asked to take part because you are scheduled to work with a young person whose parents/carers have consented to them being involved in this study, during these dates: [dates of two-week data collection period].

What will happen to me if I take part?
This project will run over a two-week period [dates of two-week data collection period]. During this time:
- You will be asked to complete a short, written reflection, each time you work with the participating young person. The aim of this is for you to share your observations of helpful and unhelpful strategies that you have noticed in relation to their emotional regulation. Specific prompt questions will be provided. All staff at Hill House School working with the young person during this time are being invited to participate.

The below elements of the project will only be undertaken by one staff member. The consent form will ask if you are happy to be considered for this further involvement.

- One staff member will work with the young person to complete two interactive activities. A treasure hunt and a talking mat activity will explore their understanding of emotions and supportive strategies. Before the activities, the researcher will telephone or meet virtually with the staff member to discuss the activities and answer any questions. After the activities, the staff member will send pictures of the activities to the researcher.
- This member of staff will also be asked to engage in a 30-45-minute semi-structured interview with the researcher to discuss the information the young person shared during the activities; this will be audio or video recorded. The interview will likely be held remotely, via Microsoft Teams. You will receive an email inviting you to a Microsoft Teams meeting and will need to click the joining URL to connect. The interview may be held in-person, if this is possible whilst complying with COVID-19 guidelines.

The researcher may visit Hill House School to observe the child completing the activities, but only if government, university and Hill House School's COVID-19 policies and risk assessments view this as appropriate.

Are there any benefits to taking part?
There are no direct benefits to you, but by participating you will be supporting Hill House School to develop their practice around supporting all young people to develop their emotional regulation skills.

Are there any risks involved?
No risks have been identified. Whilst recording reflections, completing activities for this project with the young person, or participating in an interview, you have the right to take a break or stop at any time, without giving a reason.

What data will be collected?
Your name, job title and contact information will be collected from the consent form; these will only be used to contact you, should we need to. They will not be used for any other purpose. Your name will be kept confidential, and any reports on the project will use a pseudonym to maintain your confidentiality.

Electronic data collected at Hill House School will be kept securely on their internal system, until it is transferred to the researcher. The researcher will be securely sent the electronic data and photographs/scans of hard data (i.e., young person's activities, written reflections) so they can be stored electronically. All electronic data possessed by the researcher will be stored on the university network, and on encrypted devices. Once they have been transcribed, the data will be deleted. Direct quotations from transcripts may be used in written reports of the project, but your name will not be used.

Will my participation be confidential?
Only members of the research team and responsible members of the University of Southampton may be given access to data about you for monitoring purposes and/or to carry out an audit of the study to ensure that the research is complying with applicable regulations. Individuals from regulatory authorities (people who check that we are carrying out the study correctly) may require access to your data. All of these people have a duty to keep your information, as a research participant, strictly confidential.

Your name will only be recorded on the consent form. Consent forms will be stored securely electronically, and the hard copies will be destroyed. Only the researcher and their supervisor will have access to these files.

Staff reflections as part of this project will be confidential within the team of Hill House School staff working with the young person. We ask that you do not read to each other's reflections, but equally we do not expect staff to be sharing information that they would withhold from their team.

During this project I will take notes and keep a research diary. Where necessary, I will use your first name only. When my notes and research diary are typed up, your name will be replaced with your pseudonym, and the physical copies will be destroyed.

Do I have to take part?
No, it is entirely up to you to decide whether or not you are happy to take part. If you decide you want to take part, you will need to sign a consent form to show you have agreed to participate.

What happens if I change my mind?
You have the right to change your mind and withdraw any time up until the 6th August 2021, when data analysis begins, without giving a reason and without your rights being affected.

During the project, whilst completing reflections or being interviewed, you may stop writing/ recording at any point.

You can withdraw by emailing me directly: J.Bennett@soton.ac.uk

What will happen to the results of the research?
The results of the research will be written up as a thesis project as part of the requirements of the Doctorate in Educational Psychology. The results may also be published in academic journals. Reports and publications will not include your name, a pseudonym will be used instead. Your personal details will remain strictly confidential.

Where can I get more information?
Please contact me (Joanne) at the university: J.Bennett@soton.ac.uk
You can also contact Hill House School via Kirsty Marsden (EMAIL ADDRESS REMOVED) or Louisa Burden (EMAIL ADDRESS REMOVED)

I am happy to discuss any part of the project and answer any questions via telephone or video call (via Microsoft Teams).

What happens if there is a problem?
If you have a concern about any aspect of this study, you should speak to Joanne, Kirsty Marsden or Louisa Burden.

If you are still unhappy or have a complaint about any aspect of this study, please contact the University of Southampton Research Integrity and Governance Manager (023 8059 5058, rgoinfo@soton.ac.uk).

Data Protection Privacy Notice
By law, the University of Southampton has to protect and use the information collected in this project in specific ways. This can sound very formal and complicated, but the main thing to know is that we treat any information carefully. There is detailed information about this, that we have to let you know, which can be found on the next page.

Thank you for taking the time to read this.
Joanne Bennett

More details about Data Protection and Privacy that we have to tell you

- The University of Southampton carries out research with the greatest care and consideration.
- We have to have a good reason ('lawful basis') for asking for your personal information.
- The good reason is that we are doing research that we think other people might be interested in, and could help them.
- This means that when you agree to take part in a research study, we will only use information (data) about you in the ways that you have been told about in this project information sheet.
- We will not use your information for any other purpose.
- The University's policy about how we use information about you can be found on its website here: [https://www.southampton.ac.uk/legalservices/what-we-do/data-protection-and-foi.page] and there is more information about keeping your details private here: https://www.mrc.soton.ac.uk/web2/files/2013/04/privacy.pdf .
- Please ask the research team if you have any questions or are unclear what information is being collected about you.
- The University of Southampton is the 'Data Controller' for this study, which means that we are responsible for looking after your information and using it properly.
- The University of Southampton will keep information about you for 10 years after the study has finished. After this, any link between you and your information will be removed.
- If you have any questions about how your information (data) is used you can find more information here: [https://www.southampton.ac.uk/legalservices/what-we-do/data-protection-and-foi.page]
- If you need more help or information, please contact the University's Data Protection Officer by email: data.protection@soton.ac.uk.

Thank you.

Appendix H   School Staff Consent Form

STAFF CONSENT FORM

Study title: Developing Autistic Young Peoples' Emotional Regulation Skills: A Case Study of a Residential Special School
Researcher name: Joanne Bennett

Your
initials
go here

Please <u>initial</u> the boxes if you agree with the statements:

↓

Statement	
I have read and understood the staff information sheet (Version 3, 20/04/2021) and have had the opportunity to ask questions about the study.	
I agree to take part in this research project and agree for my data to be used for the purpose of this study.	
I understand my participation is voluntary and I may withdraw at any time until the 6th August 2021, when data analysis begins, for any reason, without my participation rights being affected.	
I understand that if I withdraw from the study that it may not be possible to remove my data once my personal information is no longer linked to it.	
I understand that I will not be directly identified in any reports of the research.	
I understand that taking part in the study will involve completing written reflections.	
I consent for the researcher to additionally ask me to complete two activities with the young person and then to participate in a semi-structured interview. I understand that interviews will be audio recorded (if carried out in person) or video recorded (if carried out via Microsoft Teams). Interview recordings will be transcribed and then destroyed, for the purposes set out in the participation information sheet.	
I understand that personal information collected about me, such as my name, will not be shared beyond the study team.	
I understand that I may be quoted directly in reports of the research, but that I will not be directly identified (e.g., my name will not be used).	

Name of participant (print name)……………………………………………………………………

Contact email address……………………………………………………………….

Job title…………………………………………………………………………………….

Signature ………………………………………………………………….

Date…………………………………………………………………..

Name of researcher (print name)……………………………………………………………………

Signature of researcher ………………………………………………………………….

Date………………………………………………………………………………

Appendix I   Parent/Carer Update Letter

Project Update: Developing Autistic Young Peoples' Emotional Regulation Skills: A Case Study of a Residential Special School

Thank you for your on-going support with this project!

This letter is to update you with the progress of the project and to provide information about changes to the original timeline.

What has happened so far?

Staff working with your child have shared how they have seen them recognising their emotions and using strategies to help, over a two-week period.

Changes to the project:

We planned for this project to be completed by the 6th August 2021, however, it has taken longer than expected and we do not yet have all the information we would like. We are going to continue with the project and are now aiming to have finished collecting information by **31st December 2021.**

We are no longer going to ask the young people to complete activities for the project. Instead, due to the coronavirus restrictions being lifted, we would like spend time with your child at Hill House School to gain an understanding of how they communicate and manage their emotions, and how the staff and the environment support them to do so.

What will happen next?

- In the Autumn term, Joanne will visit Hill House to spend time with your child in education and in their home.
- Then, the interviews with staff members will be organised.

Are there any additional risks involved?

No, having additional adults in the environment is not uncommon at Hill House School. Your child will be supported by a familiar member of staff at all times.

During the visit, Joanne will leave if your child indicates that they are uncomfortable with her being there. Also, the staff member can ask Joanne to leave at any time if they feel that is in your child's best interest.

In relation to coronavirus, all visits will follow government guidelines and Hill House School's visitor risk assessments.

What additional information will be collected?

Joanne will write a record of her visit. This will not include your child's name.

What happens if I change my mind?

Because the project is being extended, you can now change your mind about your child's involvement any time up until the 31st December 2021, when data analysis begins, without giving a reason. Please just let Joanne Bennett (J.Bennett@soton.ac.uk) know.

What happens if there is a problem or I would like more information?

Please speak to Joanne Bennett (project lead), or Kirsty Marsden or Louisa Burden at Hill House School.

Thank you very much for taking the time to read this.

Joanne, Hanna and Sarah

Appendix J   School Staff Update Letter

Project Update: Developing Autistic Young Peoples' Emotional Regulation Skills: A Case Study of a Residential Special School

Thank you for your on-going support with this project!

This letter is to update you with the progress of the project and to provide information about changes to the original timeline.

What has happened so far?
Staff have shared how they have seen each participating young person recognising their emotions and using strategies to help, over a two-week period.

Changes to the project:
We planned for this project to be completed by the 6th August 2021, however, it has taken longer than expected and we do not yet have all the information we would like. We are going to continue with the project and are now aiming to have finished collecting information by **31st December 2021.**

We are no longer going to ask the young people to complete activities for the project. Instead, due to the coronavirus restrictions being lifted, we would like spend time with each young person at Hill House School to gain an understanding of how they communicate and manage their emotions, and how the staff and the environment support them to do so.

What will happen next?
- In the Autumn term, Joanne will visit Hill House to spend time with each young person in education and in their home.
- Interviews lasting around 30 minutes will be organised with one or two staff members per young person. You will only be asked if you said you were willing to be interviewed on the consent form.

Are there any additional risks involved?
No, having additional adults in the environment is not uncommon at Hill House School. The young people will be supported by a familiar member of staff at all times.

During the visit, Joanne will leave if the young person indicates they are uncomfortable with her being there. Also, you can ask Joanne to leave at any time if you feel this is in the young person's best interest.

In relation to coronavirus, all visits will follow government guidelines and Hill House School's visitor risk assessments.

What additional information will be collected?
Joanne will write a record of her visit. This will not include the young person's name or your name.

What happens if I change my mind?
Because the project is being extended, you can now change your mind about your involvement any time up until the 31st December 2021, when data analysis begins, without giving a reason. Please just let Joanne Bennett (J.Bennett@soton.ac.uk) know.

What happens if there is a problem or I would like more information?
Please speak to Joanne Bennett (project lead), or Kirsty Marsden or Louisa Burden at Hill House School.

Thank you very much for taking the time to read this.

Joanne, Hanna and Sarah

Staff Project Update Letter Version 1 (03/08/2021)   Ethics number: 62

Appendix K   Debrief Letter

Study title: Developing Autistic Young Peoples' Emotional Regulation Skills: A Case Study of a Residential Special School

Researcher: Joanne Bennett

This project has been conducted to explore how Hill House school is supporting its' young people to develop their emotional regulation skills. The aim of this project is to provide valuable insight for Hill House School into young people's and staff's views of their practice so that they can celebrate their successes and consider areas for development. The project will also provide a case study that will support other professionals to reflect on their practice in relation to supporting autistic young people to develop their emotional regulation skills.

Once again results of this study will not include your child's name or any other identifying characteristics. This research did not use deception. You may have a copy of this summary if you wish.

Once the project is complete, a summary of findings will be available on the ACoRNS website: http://acornsnetwork.org.uk/

If you have any further questions please contact me, Joanne Bennett, at J.Bennett@soton.ac.uk

Thank you for your participation in this research.

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the University of Southampton Research Integrity and Governance Manager (023 8059 5058, rgoinfo@soton.ac.uk).

Parent/Carer Debrief Form (Version 2, 15/02/2021)   **ERGO Number:** 62801

Appendix L   Indirect Observation Prompt Sheet

STAFF REFLECTION PROMPTS

Study title: Developing Autistic Young Peoples' Emotional Regulation Skills: A Case Study of a Residential Special School

Researcher name: Joanne Bennett

Staff Instructions:
- Having worked with [young person] today, please reflect on the below questions. You can do this by writing on one of the 'staff reflection' sheets.
- This should be short, ideally a maximum of 1-2 written pages.
- Please ensure to write your name, role, date and time.
- Please do not use any young people or staff's names, other than your own and the young person who has parent/carer consent to be involved in this study.
- Once completed, please place your reflection back in this folder.

Please note:
- Reflections are confidential within the project team and staff at Hill House School, however, in order to ensure data isn't misplaced, we ask that you don't read to other people's reflections.
- We don't want this project to impact your usual working day (e.g., going home on time, being available to support a young person). There will be no consequences if you are unable to provide a reflection.
- You can stop writing a reflection at any time, without giving a reason.

STAFF WRITTEN REFLECTION

Your name:

_____

Your role:

_____

Young person:

_____

Date:

_____

Time:

_____

Reflection questions

1. Describe anything you think has helped the young person to communicate and regulate their emotions today. This may include things the young person did themselves, strategies you offered them, or physical resources.

2. Please describe any challenges that the young person, or you as the supporting adult, experienced today whilst supporting them to communicate and regulate their emotions.

Please turn over if you need more space and write the question number.

Staff Reflection Prompts (Version 2, 20/04/2021)   **ERGO number**: 62801

Appendix M   Observation Guide

Table 8

Observation Guide

Area	Facilitators	Barriers
Social Communication		
• Development of spontaneous, functional communication		
• Emotional expression		
Secure and trusting relationships with children and adults		
Emotion Regulation		
Development of the ability to maintain a well-regulated emotional state to cope with everyday stress, and to be most available for learning and interacting		

Transactional Support

- The development and implementation of supports to help partners respond to the YP's needs and interests

- Modify and adapt the environment

- Provide tools to enhance learning (e.g., picture communication, written schedules, and sensory supports)

- Plans to provide educational and emotional support to families

Fostering teamwork among professionals

Appendix N   Interview Topic Guides

INTERVIEW TOPIC GUIDE (for staff)

Study title: Developing Autistic Young Peoples' Emotional Regulation Skills: A Case Study of a Residential Special School

Researcher name: Joanne Bennett

Hello and introductions. Outline that the interview is expected to last 30 – 45 minutes.

Researcher to provide reminders:
- Please make sure you are in a quiet space where you cannot be heard and will not be interrupted.
- Except for the young person involved in this project, please do not use the names of other young people or staff members.
- You can take a break, or end the interview at any point, with no consequences.

Topic Guide:
1. Can you outline your working relationship with the young person, including your role and how long you've known them?

2. When you were first getting to know them, can you describe how well you think they understood their emotions and how they communicated their emotions to others?

3. Do they understand or communicate their emotions differently now compared to when you first met them? Can you describe any progress you've seen them make?

4. Have there been any changes to the environment that you think has helped them to develop these skills?

5. Are there any barriers that you think are preventing them from continuing to develop these skills?

6. Is there anything else you would like to share?

Thank you for your time.

Reminders:
- You have the right to withdraw consent for this interview to be used at any time until the end of the project
- Confirm they have researcher contact email address

Note: If the participants ask to withdraw consent for the information to be used, confirm if they would also like their reflections to be withdrawn too.

INTERVIEW TOPIC GUIDE FOR PROJECT COLLABORATOR AT HHS

This will use the same format and reminders as above, but with the below questions.

1. My understanding is that Hill House School began to focus on supporting their students and staff to develop their emotion regulation knowledge and skills in early 2020. What led to this?

2. Once the need had been identified, what was the process for moving this forward at a whole school level?

3. During my observations I have seen a range of resources and strategies available to support the young people to communicate and manage their emotions, including [name those seen]. Can you describe any others?

4. From a whole-school perspective, what do you think has helped to facilitate progress in this area?

5. From a whole-school perspective, have there any barriers to making these progress in this area?

6. How do you see this work continuing to develop?

Interview Topic Guide (Version 3, 03/08/2021)   **ERGO number**: 62801

Appendix O   Thematic Analysis Process Illustrations

I conducted Reflexive Thematic Analysis following Braun and Clarke's (2022) six stages:

1. Familiarisation with the data

2. Generating initial codes

3. Generating initial candidate themes

4. Developing and reviewing themes

5. Refine, define and name themes

6. Analysis continued during the writing

The following pictures illustrate elements of my process.

Figure 8

Extract From an Interview Transcript (Stage 1)

> **TEP:** When he first joined (.) yeah(.) how well do you think he understood his emotions and how was he communicating them to you?
>
> **Care:** We noticed from the first time (.) obviously because we have that background and that knowledge from parents (.) when he is (.) when he was watching movies and sad it's like eh Frozen is his favourite movie and at some point one of the girls just got frozen (.) something like this (.) he was crying
>
> **TEP:** Ok
>
> **Care:** And he is very good with emotions (.) he he from the beginning he was really good showing us his emotions (.) but at some point he didn't understand that was a movie or a book and he got really (.) he is actually he has a really a lot of empathy (.) so because he feels that sadness and he was like sad at (.) from the beginning we start to work and we start to sit down like like in a family environment and sit next to him really gentle and we say to him that 'it was a movie (.) it is not real (.) you are fine (.) it's ok that you are crying' and again talking as (.) as with the other gentleman (.) as soon as he start to trust in us we just noticed that he is able now to watch a movie and he is completely fine (.) now for example is the Greatest Showman (.) obviously when he get fires and gets everything yeah (.) when he gets fire at the beginning he was like obviously "fire, fire, fire!" and you can see him on tears and really sad (.) now he actually he knows that is a movie and is not react (.) he is really clever (.) if you explain things he can understand that and he is very (.) his understanding is high functionality so as I have said if you explain to him that is a movie (.) sometimes at the beginning he was sad (.) when he went home and he came back the first day he was sad and say "London home, London home" and he was crying so we were more acting as (.) big brother if you know what I mean, like "mate, it's okay to feel sad, it's ok if you are crying" because he was like "crying is finished crying is finished" and I was saying to him "Sameer it's alright if you want to cry it's completely fine (.) it is fine", "London home will be in more sleeps" so until he realised that then he weren't going home and again we start to build that relationship with him he just start to going home come back (.) and he began to be more relaxed (.) more settled (.) joining to with his friends watching TV downstairs (.) doing activities when at the beginning he sit in his bedroom and he didn't want to talk with no one (.) he was like a bit sad and depressed 'oh I want to be with mum and dad'.
>
> **TEP:** Yeah understandable

Figure 9

Generating Initial Codes Using the 'Comments' Feature in Microsoft Word (Stage 2)

Figure 10

Numbering and Labelling Initial Codes to Enable Paper-based Working (Stage 2)

(MRef)

128. Strategies successfully supported emotion regulation **(MRef)**

129. Handover between staff: greeting the YP **(MRef)**

130. Staff offered YP choices **(MRef)**

131. Understanding YP's non-verbal communication (actions) **(MRef)**

132. Staff recognised the YP's behavioural communication of their emotions **(MRef)**

133. Staff offered YP choices **(MRef)**

134. Offering choices of sensory activities **(MRef)**

135. Successful use of regulation strategies **(MRef)**

136. Understanding YP's non-verbal communication (pointing, self-injurious behaviour) **(MRef)**

137. Recognising when YP is showing distress and offering supportive strategies **(MRef)**

138. Staff distracted YP with an alternative activity **(MRef)**

148. Identifying when YPs behaviour suggests their emotions are heightened **(SIE)**

149. Identifying possible triggers for YP becoming unsettled **(SIE)**

150. YPs behaviours that suggest low mood **(SIE)**

151. YPs behaviours that suggest they are in the red zone **(SIE)**

152. Staff need time to get to know the YP so they can recognise behavioural signs for different emotional zones **(SIE)**

153. It can be difficult to establish the cause of an emotional change **(SIE)**

154. Movement is helpful **(SIE)**

155. YP is better able to communicate what strategy they need **(SIE)**

156. YP now knows and trusts that if he asks for a strategy staff will support him to access it **(SIE)**

157. Repetition of talking about emotions every day in assembly **(SIE)**

158. YP has associated choosing an emotion with a preferred clever action **(SIE)**

Figure 11

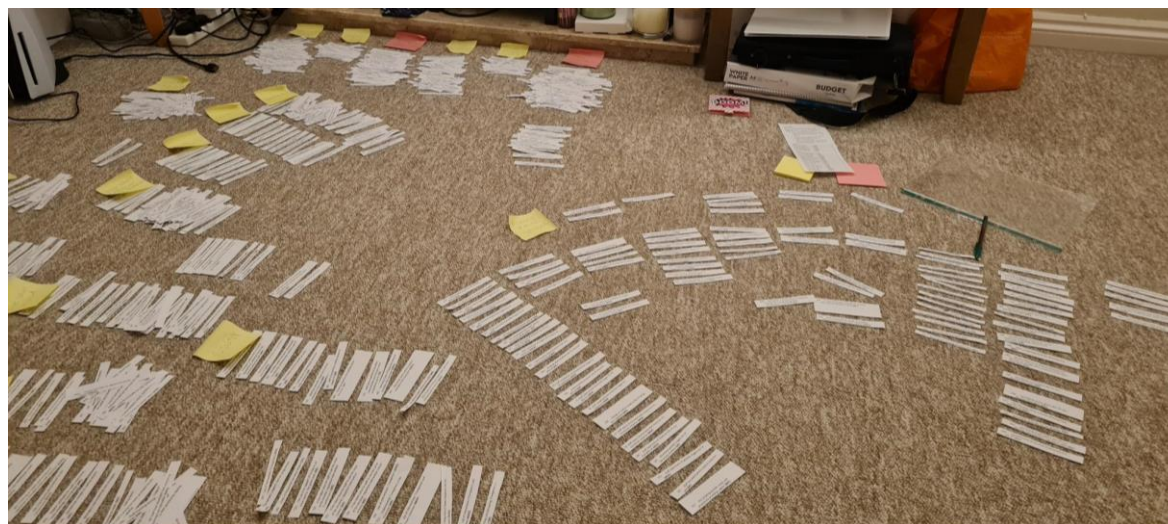*Merging Similar Initial Codes (Stage 2)*

Figure 12

Transferring Initial Codes Onto the Transcripts in NVivo (Stage 2)

| Codes		Search Project	
Name		Files	References
Benefits of developing ER for the YP		6	12
Change is a gradual process		0	0
Choices offered		11	27
Clear end to activities		6	9
Consistency is important		7	13
Culture of wanting to develop practice		7	21
Developing independent use of regulation strategies		9	10
Developing staff young people relationships		13	38
Direct teaching of ER concepts & language		11	19
Documentation reflecting current practice		3	6
Encourging empathy		2	5
Environmental adaptations		3	7
Favoured activities support emotion regulation		8	19
Going outside		4	6
'Having everyone on board at the same time'		2	8
Identifying areas young people can develop to support their emotion r		7	18
Identifying young people's strengths		5	14
Impact of covid		3	5

JB   63 Items

Figure 13

Generating Initial Candidate Themes (Stage 3)
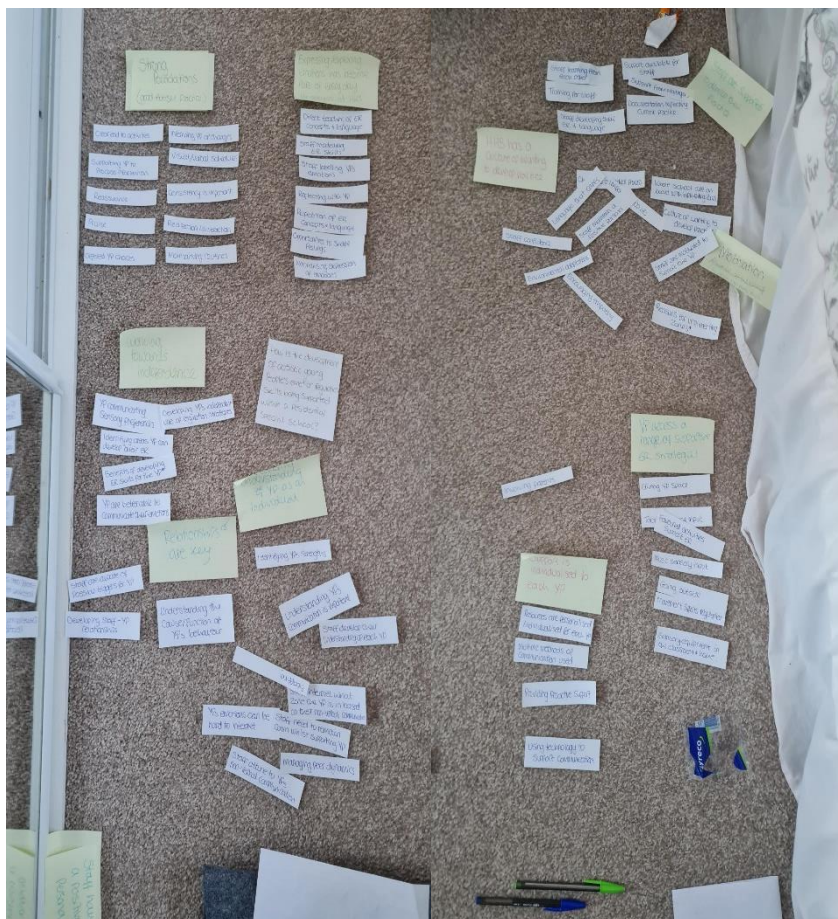
Figure 14

Developing and Refining Themes Using Mindmup (Stage 4)
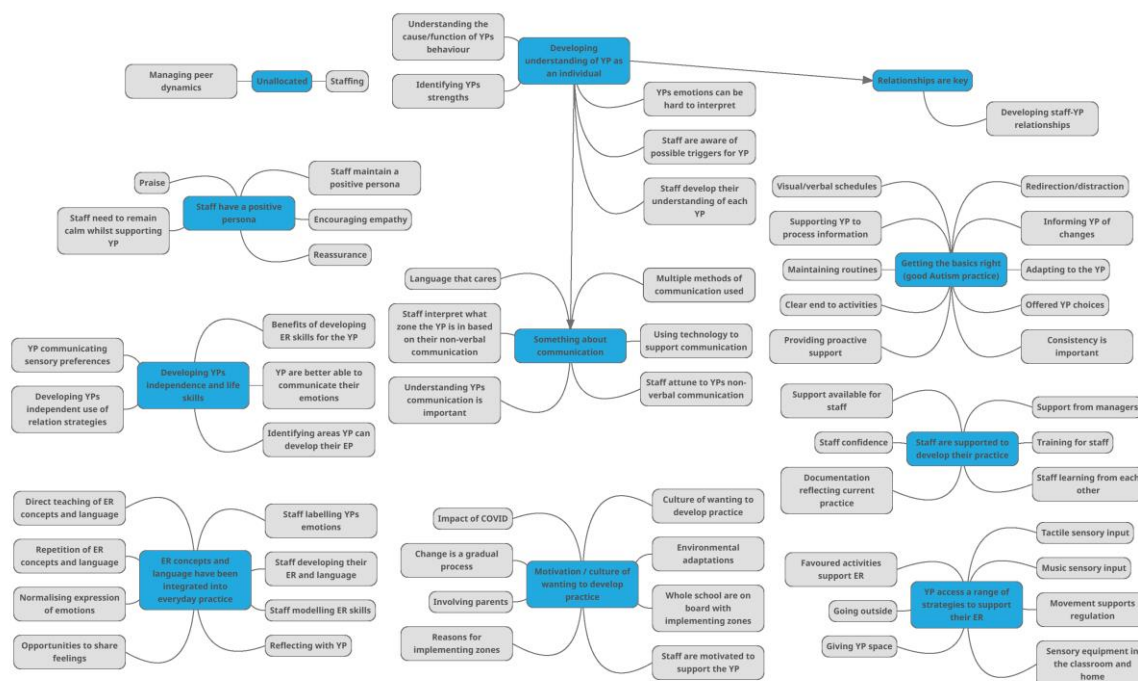
Figure 15

Refining and Defining Themes (Stage 5)

Theme	Subthemes	Theme description: • Central organising concept (what is it about) • What the boundary of the theme is • What is unique and specific to each theme • What each theme contributes to the overall analysis
1. Evolutionary ethos		This theme presents evolution as an important part of the school's ethos, both in terms of having staff who seek opportunities to develop and having a school which is proactive in providing development opportunities for staff.
	1a. "Everyone around these children needs and wants to grow"	This subtheme demonstrates that staff are seeking ways to develop their practice and to make changes that will have benefits for the young people. This includes staffs' suggestions for ways they could develop practice further.
	1b. Supporting staff development	This subtheme outlines ways in which staff have received support to develop their skills and knowledge. This includes any area of practice, not just relating to emotion regulation. It is inclusive of support that has been received, and that which is available to staff within HHS. Support can be from peers, managers, other professionals (e.g., behaviour support team, therapy team) and written documents.

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