

WHAT DO WE NEED TO TEACH NEW TEACHERS ABOUT CHILD MENTAL HEALTH?

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ABSTRACT

This paper introduces the context of mental health in education and the importance of the teacher being acknowledged as an essential component and contributor to the function of society (Bower, 2020). The paper suggests that the mental health crisis impacting children has implications for new teachers in meeting the demand in the current global climate. (Education Endowment Foundation (EEF), 2017; 2018); (Lortie-Forgues, 2021). It explores why the definition of mental health might be a problematic construct for teachers and considers whether the teacher has a significant role to play in mental health provision in schools beyond the wider community. It considers the role pathologization of behaviour plays in our approach to education and proposes that the approach teacher training takes towards critically reflecting on retributive discipline and restorative approaches in schools, subsequently supports teacher understanding of child mental health. It also looks at the current teacher training landscape and reforms and argues that policy makers and practice should be interdisciplinary with effective mental health knowledge.

The paper emphasises the importance of developing teacher understanding of the role of psychological awareness in supporting effective child mental health provision across the field of education and argues that new teachers have a part to play in this application through effective training to support the influx of demand. The paper proposes that critical considerations should be given to the potential application of interpersonal neurobiological research (Siegel, 2020), exploring concepts of the embodied brain through polyvagal theory (Porges, 2011). It touches upon developing new teacher understanding of trauma, (Van der Kolk, 2014) informed practice and transdisciplinary therapeutic approaches for practical use in schools. It considers the future of mental health knowledge in pre-service initial teacher training and proposes that such a focus will have a profound impact on making some headway in meeting child mental health needs.

The paper finishes by proposing that future research should look to develop a psychological, neurobiological, developmental sensitive approach to exploring child mental health and well-being within education and support the role of initial teacher training education (ITT/ITE) in creating confident new teachers with efficacy to meet the needs of child mental health in schools.

INTRODUCTION AND CONTEXT

The important and expansive role of the teacher is increasingly evident, particularly in light of the changing educational landscape and the global challenges of the pandemic, that have led to the emergence of rapid adaption to the new demands of the teaching and learning environment. (Pozo-Rico, Gilar-Corbí, Izquierdo and Castejón, 2020). The teacher is being acknowledged as an essential component and contributor to the function of society on a global scale. The global context of the purpose of education continues to be questioned, by not only those in the profession but by the general public (Bower, 2020). The health crisis, giving rise from Covid 19, has sparked many a debate and discussion interwoven with political ideology and produced an ongoing longing for evidence-based approaches, both within and outside educational spheres, to curricula and pedagogical effectiveness (Education Endowment Foundation (EEF), 2017; 2018); (Lortie-Forgues, 2021) and beyond to enquiries of whether mental health provisions are fit for purpose both in the wider community and within schools. It is strongly ascertained that the mental health crisis is apparent within the full scope of the population, affecting both children and adults with increasing economic cost. The World Health Organisation

has warned that mental health will be the biggest burden of disease in developed countries by 2030 (Alonso, 2012). The research continues to highlight the increasing problems in mental health (Brooks et al, 2020; Office for National Statistics, 2020; Pfefferbaum & North, 2020; Pierce et al., 2020; Taquet et al., 2020), and illuminates the implications for future mental health services and potential systemic organisation of the current model of provision (Holmes et al., 2020; Moreno et al., 2020; O'Connor et al., 2020). There is the impetus then, to look at provisions and interventions across differing sectors to mitigate against these unnerving predictions and attempt to curb the societal burdens and utilise the architecture of the systems we already have in place to support mental health services both within and outside education.

Hart and O'Reilly (2018) assert that teachers need to have basic knowledge of mental health; engaging with Child and Adolescent Mental Health Services (CAMHS) and collaborating to strengthen communication between the services and the schools, with services taking responsibility for identifying information exchange mechanisms to facilitate more effective mental health provisions for children. Their research suggests that services, although stretched and clearly strained, need to look at the organisational aspects of sharing practice between mental health interventions, the schools and the teachers themselves to develop effective provisions for prevention strategies. The research points towards the individual teachers' need, for a more confident and competent grasp of mental health knowledge (Shelemy, Harvey and Waite, 2019; Byrne et al, 2015).

Teachers are often the first point of contact to support poor mental health (Ford et al, 2008) and frequently are the first professional to encounter symptoms of children and young people who need identifying and referring to mental-health services (Lafee, 2013; Paternite & Johnston, 2005). This only highlights to the profession that teachers have an integral part to play in ensuring children's needs are met, beyond the expectations of teaching and learning. This reliance on teachers, further emphasises the importance of the education system in the United Kingdom, with teachers designated as key workers throughout the pandemic, dedicating their continued time and health towards children and their families. They have provided structure and safe spaces for the most vulnerable. Research supports the importance of these daily interactions between students and teachers that play a pivotal role beyond academic needs, impacting social and emotional development of our youth (Anderson-Butcher, 2006; Paternite & Johnston, 2005; Weyns et al., 2017).

New teachers in particular, are vulnerable to the wave of uncertainty and need that has engulfed education in the current climate of developing digital pedagogy (La Velle, Newman, Montgomery and Hyatt, 2020). With the ever-changing question as to the purpose of education and the teacher's role in supporting children beyond the sphere of educational attainments as a singular goal, it can be argued that new teachers need significant input throughout initial teacher training education to meet the required skills and competencies to allow them to be effective educators in their ever-expanding role. Kratt's (2019) critical examination of teacher perspectives on the mental health needs of students, explores the first educator mental health competency framework designed by Weston et al (2008); which attempts to create a framework that addresses teacher training needs within a tangible, integrated mental health curriculum. Kratt's research urges that there is a world-wide need for students struggling with mental health and argues that on a global level, it is imperative that all teachers need training on mental health to increase their competency level (Kratt, 2019).

This paper is a call for action for teachers to prioritise understanding child mental health from an educational perspective and unpick the key psychological elements, that go beyond competency frameworks, such as Weston (2008). It requires training providers to produce innovative and interdisciplinary ITT curricula to guide new teachers into the profession and maintain the necessary skills and knowledge in which to thrive and promote positive child mental health.

THE EVOLVING MENTAL HEALTH CRISIS AND IMPLICATIONS FOR NEW TEACHERS

The perception of mental health has evolved over time especially in terms of the implications for teachers interacting with children day to day. Mental health has always been a topic of paramount importance both within and outside of education. Although, the prevalence of discourse surrounding it seems to have expanded throughout the pandemic. Many have known the crisis in mental health existed for a long time before the spotlight undeniably shone on the illumination of the impact of Covid 19. The mental health of the UK's children and young people was found to be deteriorating even prior to the global pandemic; with health, educational, and social outcomes for children with mental health conditions worse than for previous cohorts (Pitchforth, Viner and Hargreaves, 2016).

Narrative of Lost Learning: Is it contributing to mental health problems in education?

The zeitgeist has found its way into the mental health arena with the potential for educational reforms and policies to become informed by relational approaches to child well-being. Carpenter's (2020) 'Recovery Curriculum' promotes a systematic, relational approach to re-engaging the spark for learning, answering as a response of the pandemic impact on the narrative of lost learning. A crafted framework of levers, highlight the importance of relationship, community, transparency of curriculum, metacognition, space to re-discover self and encourages planning opportunities for a child's voice to be heard and validated (Purser, 2020). The narrative of lost learning has been rife among media and has been spouted consistently throughout the pandemic. We need to be mindful of how this term 'lost learning', could promote a deficit model of fear and blame-based perception. This unconscious dialogue could potentially contribute and project anxiety, both directly and indirectly, onto children; delivered by a society that is undergoing instability and a crisis of hypervigilance to threat (Porges, 2017). This innate evolutionary human behaviour has been evidenced by neurobiological research that proposes this propensity for detecting threat in our surroundings, influencing an individual's autonomic nervous system, having a profound impact on our perception of the world, effectively strengthening vulnerabilities towards poorer mental health (Porges, 2011).

WHY MIGHT THE DEFINITION OF CHILD MENTAL HEALTH BE A PROBLEMATIC CONSTRUCT FOR NEW TEACHERS?

Like all professional members of society, teachers are not immune from the systemic models that pervade our cultural way of thinking. New teachers that are being trained to meet the learning needs of children, are faced with the necessity to extend beyond the imparting knowledge and become aware of the barriers to learning and ways of finding solutions to enable access the curriculum. Although mental health is often seen by teachers as an individual problem, focusing on interventions mirrored in research around inclusive practice and systems-based approaches, tend to be strongest in breaking down barriers to learning with regards to mental health. Fondren et al (2020) adds support through the lens of trauma informed systems, emphasising the importance of integrating interventions within school systems embedded into the structure of the organisation. Lean and Colucci (2010) makes a persuasive argument in exploring a grounded account of historical and current barriers to integrating mental health services and school life, illustrating the potential barriers to learning and the role school systems play in mitigating against these barriers (Fullan, 2010). Mental health implications in the classroom continue to be a significant challenge in education, especially in the current climate. However, if the new teachers, nay, all stakeholders are charged with the responsibility of working with children to meet their needs, do not have a clear understanding of what mental health is, then this vague construct can effectively bleed into our consciousness, muddying the intention and purpose of our support in schools and potentially influencing our positive intentions to help, which in turn may have a role in strengthening both systemic and individual biases.

How can new teachers understand the interaction between mental health and well-being?

Education has seemingly veered towards discussing mental health as an extension of well-being. It becomes apparent that the terms ‘mental health’ and ‘well-being’ are often applied interchangeably and are easily confused, or umbrella terms used to cover a wide range of areas depending on the given context of the needs and agenda of the individual. The (WHO) World Health Organisation (2018), discuss mental health in terms of the individual realising their potential and coping with the stressors of life with the ability to work productively, able to contribute towards their community. The mental health charity and organisation, Mind (2020) outlines the difference between mental health and mental wellbeing and goes further to suggest mental health goes beyond the individual to considerations within the community. Mind (2020) views mental health as a positive concept related to the social and emotional wellbeing of individuals and communities. Mental health therefore can be seen to have nuanced connotations to either be viewed as a positive term or to suggest negative deterioration of well-being, bringing up notion of mental illness. However, both Mind (2020) and The World Health Organization (WHO) (2018) defines mental health as not just the absence of mental disorder but as a state of well-being. Suggesting that having good mental health is more than just the absence of illness. This paper adopts a multi-dimensional perspective on wellbeing which embeds the differing domains of health - physical, psychological, social and emotional (Glazzard and Rose, 2019), that overlap and interrelate (Danby and Hamilton, 2016). Therefore, teachers could draw on these key definitions to look at good mental health as a state of overall wellbeing and in turn poor mental health, as a deterioration of mental wellness and in effect reducing well-being. Wellbeing can therefore be considered an incorporated component of mental health.

If teachers can frame mental health as a natural extension of the promotion of well-being, then as practitioners they can begin to take responsibility for strengthening their understanding of mental health to facilitate the reduction of distress of children in their classroom. Ultimately effecting engagement in learning and developing their ability to contribute to society. Teacher training providers can have an impact in consolidating education’s response to the mental health crisis by including the understanding of what mental health is and how teachers may use this to inform their practice. In essence, new teachers can realise that they have a bigger significant part to play in supporting child mental health that goes beyond referral to expert services (Hart and O’Reilly, 2018).

What are the challenges in understanding the interactions between mental health and the medical model of health and disorder?

There is a vast difference between discussing a child’s mental health in terms of well-being and positive preventative actions, compared with framing behaviour as a mental illness that is disordered. Framing may become problematic in contributing to the definition of mental health being intrinsically linked to ‘health’ itself. Although it can be viewed as positive to determine parity between health, psychological and psychiatric services and approaches, it has also led to numerous researchers raising significant issues and highlighting serious mis-conceptualisations that grounds all mental health provisions as inherently flawed based on the medical model of diagnosis (Szaaz, 2011; Vatz and Weinberg, 1994). Depending on the considered field of study’s approach, mental health could be explored under a number of constructed definitions and conceptual paradigms. Wasserman (2018) asks an important question, at what point mental distress stops being normal and becomes a problem? If we look to the largely held psychiatric medical model of mental disorder, it has frequently been criticised for pathologizing mental health in terms of considering presentation of behaviour as something broken and wrong within the child that requires fixing. The pathologizing of disorder, can reflect the parallels in line with education and its narrative of mental health (Szaaz, 2011). Wasserman (2018) argues that the application of this medical perspective of the human experience, over pathologizes the normal problems we face, and

increasingly defines and treats behaviour through a medicalised lens. Szaaz's (1965) rhetoric paradigm suggests that the language framework of mental health, entrenched in the psychiatric model of disease is highly medicalised in its approach and terminology, heavily criticising the training of psychologists and psychiatrists that are grounded in the medicalisation of suggested incurable illness that should be a pharmacologically managed treatment for the damaged parts of the individual experiencing mental health disorders. Szaaz (2011) continues to argue that the language of disorder is used for control. This assertion of language 'game playing', may be akin to some of the similar issues identified in social, emotional and behavioural needs and Special Educational Needs and Disability (SEND) provision.

The reasoning behind why new teachers may struggle with the problematic construct of mental health, is the field itself is still unsure of its definition and may be considered to be in an existential crisis in terms of the very foundation that psychology and psychiatry may be built upon. Kuhn (1970) argues that a paradigm is scientific as long as the tool is capable of solving the problem it defines. Therefore, when new teachers attempt to access the model to underpin applications of child mental health in education, it is a daunting concept to unpick the debate and discussions around the very thing that indisputably is a matter of global crisis. Teachers are highly invested in understanding behaviour to support teaching and learning in the classroom. Therefore, the field of psychology, where analysing the underlying root of behaviour is a fundamental concept, is a useful sector to explore for insight. Psychology is heavily influenced by the psychiatry, with diagnosis of mental health using two differing manuals with differing criteria and varied inter-rater reliability (American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders DSM-5, 2013; World Health Organization, ICD-11, 2019). As educators we can often implicitly trust in these diagnoses that are presented to us within schools and use it to determine our methods and approaches to interventions. However, it is important that we train teachers as critical practitioners, aware of the difficulties surrounding mental health diagnosis and criticism of the ethnocentric DSM-5 and medical deficit labelling ICD-11.

We continue to be removed from a universally accepted definition of mental disorder and therefore a criterion for behaviour attributes may not warrant the labels so readily diagnosed (De Block and Adriaens, 2013). This highlights explicitly the caution teachers should take in attaching labels to children, eliciting certain behaviours in themselves in the role as educator in schools. If teachers do accept the labelled diagnosis for mental health disorders attributed to individuals, it is imperative that they understand the limitations and scope of the meaning behind its origin and must critically consider how they will use this information to inform better choices in meeting children's needs within their classrooms.

Systemic Framing of Behaviour and Neurodiversity - Retributive versus Restorative Approaches

While psychological approaches within education do make allowances for individual differences and acknowledge systemic influences on behaviour, it could be criticised for not taking accountability for the architecture of the systems that individuals interact with. It is understandable then, that new teachers could easily fall into the trap of attributing blame and judging the individual's behaviour as an inherent character flaw or personality deficit. Framing neurodiverse behaviour in this way encourages utilising considerations of neuropsychological approaches as a more effective and positive way for teachers to approach supporting learning, behaviour and co-morbid vulnerabilities for children in their classrooms.

The thematic attribution of blame tends to arise around discussions of mental health and presentations of behaviour that is undesirable, which may become deemed as unacceptable. If teachers derive their understanding of mental health from the psychiatric medical model, that characterises poor mental health as a disorder or indirectly illness, diagnosed by the set criteria, they are likely to pathologize behaviour and utilise a different approach to teaching and learning, relying on retributive behaviour management strategies. However,

if teachers' approach 'inappropriate' behaviour with an aim to solve conflict and prevent harm by repairing ruptures in relationships, putting people over and above the need for assigning blame and dispensation of punishment (Wright, 1999), they would be drawing on restorative justice principles (Hopkins, 2003). Teachers looking to restorative justice to inform their practice, may be more likely to align with the interpersonal neurobiological perspective (Siegel, 2020), that views behaviour as underpinned by adaptive survival mechanisms that becomes attuned to threat and seeking ultimately safety, connecting with human beings through social engagement to calm the nervous system and access less maladaptive behaviours (Porges, 2011). Teachers considering these differing approaches to restorative or retributive practices, might be better able to critically reflect on the current behavioural approaches in their settings. They may begin to reflect upon models such as the 'Social Capital Window' that outlines the high to low ratio of pressure boundaries against support and nurture and considers punitive authoritarian where discipline is done 'to' the child in contrast to relational authoritative, where discipline is carried out 'with' the child (Wachtel, 1999). New teachers need to consider the importance of an explicit understanding of how child mental health vulnerabilities may manifest in the classroom with regards to behaviour and the potential implications of how this wider interdisciplinary understanding could shift thinking towards more effective behaviour 'management' approaches.

The desire to cling to answers from popularists in times of social change and crisis, allow charismatics to come to the forefront and proclaim the answers. A divisive figure, Katherine Birbalsingh, embraces the media acclaimed 'strictest school' title for Michaela Community School and is frequently cited in the media for her distinct philosophies on behaviour; whose motto is 'work hard, be kind'. An interesting promotional tag line when much of the policy and practice as outlined in the book 'Battle Hymn of the Tiger Teachers: the Michaela Way' (Birbalsingh, 2016), may be argued as anything but kind to the children within its walls. The arguable unintended motto that has stuck in the public mind's eye is their 'no excuses' positioning that is a bone of contention with many educational professionals. The culture appears to exist on an extrinsic system of compliance where child autonomy and regulation are not situated. The premise that children are not able to make their own decisions, argue for the central role of the teacher in determining how learning should unfold. Fauser (2020) states that the Michaela argument for the power of culture, disregards 'freedom to' and frames its ethos as 'freedom from', drawing parallels with Wachtel's (1999) concept of punitive authority. Children may not be viewed as agents of their own learning but as compliant beings who need to be disciplined to comply with adult authority. Research suggests that intrinsic motivation has stronger long-term impact on developing sustained deep behaviours that are grounded in our belief systems (Taylor et al, 2014; Chatzisarantis, 2006), rather than based on obedience to authority. We only need look to the infamous psychological experiments of (Milgram, 1963) and (Zimbardo, 1971; 1999) to see where power abused becomes a potential recipe for compliance influencing behavioural choices and mental ill health. The question for our new teachers is whether compliance is the main assumption in which we should base our practice upon. The discordance between the media rhetoric and the psychological research evidence base and education can undoubtedly create confusion for the new teacher, attempting to navigate the skills and knowledge basis for interacting with their students within the classroom.

The mantra of strict discipline and zero tolerance practices does call into question the intended meaning of authority and the mind it pays to child mental health. This appears reminiscent of the medical model's insistence within psychiatry to pathologize and fix broken individuals against an artificial diagnostic construct of what child behaviour and mental health should be, determined by the current 'authority' declaring prescribed dichotomies of good teaching and learning pedagogy. We may begin to question whether learning and teaching pedagogy is distinct from mental health or whether they should be considered to inform one another.

DOES THE CURRENT TEACHER TRAINING LANDSCAPE INFORM EFFECTIVE CHILD MENTAL HEALTH PROVISION?

The teacher training landscape is in a period of flux where new reforms are rapidly approaching the profession and forcing teacher training providers to take a hard look at how their curriculum frameworks are aligning with the current government guidelines, incoming regulations and call for reaccreditation. The ITT Market Review (2021) sparked a resounding cohesive response from the entire sector to urge rejection of the then proposed reforms that were confirmed as ploughing ahead in 2022 (albeit with a delayed time period). However, the short consultation period during a global pandemic and the continued expectation of embedding the ITT Core Content Framework (2019), along with the teacher Early Career Framework (2019), the Ofsted Education Inspection Framework (2019), focusing on curriculum focused expectations, and the new Initial Teacher Education (ITE) Inspection Framework (2020), has left the sector reeling from the onslaught of novel initiatives that needs time to evaluate effectiveness of impact on trainee teachers. With limited explicit reference to the impact on mental health, for both the teacher and the child, these new regulations have placed pressure on a sector that some may argue is driven by current political ideologies, grounded in the voices from a narrow field of professionals. Compared with the declaration that children's mental health and well-being is paramount and is very much on the agenda. Well intentioned guidance attempting to raise awareness of mental health in education, (DfE Transforming Mental Health Green Paper (2017), in addition to Brown's (2019) review of published policies and information on mental health and well-being provision in schools, can be argued as in stark contrast to the imagined goal for society and the actual operational actions day to day, failing to recognise meaning and significance of culture, diversity and difference (Cox and McDonald, 2018). This gap appears to be ignored or purposely overlooked feigning ignorance towards the overwhelming pressures this then puts on teachers and those on the ground in schools.

The question surrounding whether these new reforms and reaccreditation expectations will have a significant impact on new teacher understanding of mental health, remains to be seen. But teacher training providers do need to continue to ask the question as to whether new teachers are effectively trained to support the influx of demand in child mental health, regardless of the changing governmental expectations and political climate. Ultimately, if the political discourse of teacher training interacts effectively with mental health reforms, then it may be possible for psychological informed systems thinking that acknowledge the complexity of human experience and pathways to collective well-being (Kern, 2019), to become implemented to provide a greater probability of supporting mental health provision for children within education.

The raging mental health crisis objectively has significant implications for new teachers and their ability to contribute to the provision of child well-being and mental health in schools, prompting teacher training providers to consider their curriculum against this need whilst squaring the need to design under the various new frameworks. An excellent example of this ability to synthesise DfE framework requirements with due acknowledgement of the need to integrate new teacher understanding of child mental health, comes from the schools-based teacher training provider at The University of Buckingham, Faculty of Education. They recently reviewed their curriculum framework (2020) to emphasis the significance of well-being and shifting the teacher role to the heart of training at centre of their model, raising the status of mental health and placing the emphasis on the new teacher cultivating a professional identity and develop as reflective practitioners. Teacher training providers realise that new teachers need a curriculum informed by both educational and psychological pedagogies. Research supports the need for effective ITT curriculum design incorporating these goals. Weston (2008), effectively designed a curriculum with specific dispositions and domains of knowledge and skills, recommended for preservice and in service teacher training. Kratt (2019) found that teachers found this framework to be highly useful for effective teacher preparation and professional development training. Moreover, supporting studies suggest that there is minimal teacher training available that addresses concerns

regarding mental health in the classroom. (Ersoy & Deniz, 2016; Koller, Osterlind, Paris, & Weston, 2004). New teachers have been found to feel less competent attributed to a lack of formal education on mental health for pre-service teachers. Research throughout Australia, Canada (Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010; Whitley et al., 2012) and the United States (Weston, Anderson-Butcher, & Burke, 2008) has considered the different approaches globally and similar findings have been observed in teacher training for the United Kingdom. Kratt (2019) therefore, suggests that world-wide students are struggling with mental health and argues that on a global level, it is imperative that all teachers need training on mental health to increase their competency level.

WHAT ROLE DOES PSYCHOLOGY PLAY FOR NEW TEACHERS IN SUPPORTING CHILD MENTAL HEALTH?

The increase in child mental health problems is placing high demand on society in meeting complex needs to ensure effective interventions and prevention measures are in place for the next generation. It calls to question whose role it is to contribute accountability for mental health provision? When we consider the significant implications of child mental health impacting the growth of children into adult contributors to society, it is wholly apparent that all sectors and fields, including teaching, need to take early action intervention in tackling barriers, mitigating against poor mental health, acting as facilitators to promote positive mental well-being (Gee, Wilson and Clarke et al, 2021). This paper argues the role psychology can play in this endeavour, signposting interdisciplinary best practice across sectors, where education and psychology, inform new teachers in their understanding of underlying behaviours manifesting in their classroom and aid ways they can understand more deeply their role in supporting child mental health.

Research identifying training needs of teachers to enable support and education around mental health, found they wanted to provide early intervention without inhabiting the role of the therapist, with a strong need for resources that are practical, interactive and includes expert led training (Shelemy, Harvey and Waite, 2019). The argument that teachers should not be psychologists or therapists is fair when the demands of the role are already highly constricting. It can however be argued that every interaction is an intervention (Treisman, 2016), and therefore can be therapeutic in its essence, making it impossible for teachers to not be interventionists in their roles. Rothi, Leavey and Best (2008) found a growing expectation for teachers to become involved as tier one mental health professionals, with regards to early identification and referral. Ekornes (2015) emphasises teachers acting in the 'gate keeper' role through collaborative work with services, establishing appropriate pathways for CAMHS referrals (Gowers, Thomas and Deeley, 2004), therefore acting within the realms of child mental health supporter.

The weight of expectation does not necessarily match the competency. Teacher perceived inadequacy is repeated in the literature, urging teacher training to include mental health training within its programmes (Kratt, & Houdyshell, 2020; Speller, Byrne, Dewhirst et al, 2010; Ciganek, 2020; Ekornes, 2017; Bostock, Kitt and Kitt, 2011), framing that increasing teacher competency to include understanding of the key psychological and therapeutic capabilities, is conducive to constructing a better and more confident skilled teacher workforce. Where teachers access some of the key psychological tools and neurobiological ingredients (Siegel, 2020) that help them do their jobs more effectively, it facilitates learning and supporting child mental health. It becomes almost non-negotiable for teachers to psychologically upskill, whether it is so desired or not. If teachers are skilled when they inevitably face challenging situations, they can respond effectively utilising embedded tools from their training.

Is Mental Health First Aid and Senior Lead Training enough?

Mental Health First Aid (MHFA) and Senior Mental Health Lead (SMHL) training, sets the argument up as a precedent for skilling educators through a government sanctioned initiative. Grants have been made available for SMHL and schools are encouraged (non-compulsory) to engage with training to support better outcomes for child mental health. Numerous courses have sprung up due to this initiative as a direct response from the Transforming Children and Young People's Mental Health Provision in Schools: A Green Paper (DfE, 2017). Roberts-Holmes, Mayer, Jones and Lee (2018) evaluated Youth MHFA in Schools, highlighting that the training gave educators useable vocabulary and sustained improvement in confidence in putting skills into practice. Jorm et al (2010) looks specifically at teacher training in MHFA and found the increased knowledge, changed treatment beliefs and reduced stigma surrounding mental health, had positive effects on teacher behaviour and increased confidence in helping students, with a sustained effect after 6 months. It did however find that it had no effect on teachers' individual support on student mental health, suggesting that teacher confidence and teacher efficacy are two different aspects and effectiveness of interventions are somewhat subjective, depending on whether success is providing improvements in attitude or whether improving outcome for student mental health is paramount. Perhaps then, MHFA is a good start towards an effective public health intervention (Hadlaczky et al, 2014), combating and educating teachers in mental health knowledge. However, consideration of further complimentary and targeted training may be needed as current research lacks the power to detect primary outcome effects (Morgan et al, 2018). It suggests weight to the central argument of this paper that more is needed for new teachers, that extend beyond current training provisions, to increase likelihood of better outcomes for student mental health.

The paper now goes on to present research that suggest certain applications of psychological approaches towards child mental health, may be a highly effective way in applying therapeutic practices into education via the pathway of neurobiologically informed teacher training to support the provision of child mental health, improving outcomes for our youth and increasing teacher competencies.

INTERPERSONAL NEUROBIOLOGY

Why focus on interpersonal neurobiology?

The term 'consilience' (Wilson, 1998) alludes to the pursuit of common ground across independent knowledge disciplines, understanding the world from differing perspectives. Interpersonal Neurobiology (IPNB), beautifully and rigorously weaves a foundational scientific framework to support well-being, cultivating growth, health and flourishing both mentally and physically. Siegel (1999) coined the term 'interpersonal neurobiology' in an attempt to describe a consilient approach across seemingly disparate scientific fields, building a conceptual framework of the fundamental properties underlying the emergent nature of the mind. Siegel, Shore and Cozolino (2021) among many other leaders in the field of IPNB, bring together their vast understanding across disciplines to discuss applications to clinical practice. Siegel et al. (2021) highlights the distinct contribution towards practical applications of IPNB to education and mental health that corroborates conceptual framing of bringing together interdisciplinary work from psychology, biology, neuroscience and beyond into the world of education to benefit child mental health provisions. Thus, providing hope that new teachers can tap into this solidly grounded empirical based approach to providing tangible insights that can become interwoven in teacher training provision and inform effective practitioners. Siegel et al. (2021) suggests this common 'curriculum' can help us understand what the mind is and how a healthy mind can be constituted; effectively giving teachers a potential tool for supporting positive child mental health. He also proposes that mind training can improve integration and mental wellness with specific beneficial applications to education (Siegel et al, 2021; p8, p13).

Siegel (2020) explores the central role of integration as a key mechanism towards this goal in conjunction with the understanding in the importance of relationships both with an ‘inter’ and ‘inner’ focus exploring the internal world inside and between others. Siegel (2020) emphasises that the foundational notion of IPNB as not a specific way of ‘doing’ but invites exploration to extend towards targeted applications. Again, highlighting the draw for teachers to adopt this unique framework as a means to develop critical reflective thinking beyond the scope of educational pedagogy and the echo chamber of teaching perspectives.

How applicable is IPNB to teachers in supporting learning and child mental health provision?

It is imperative that to fully grasp the value of the key findings of IPNB research and applications to teacher training provision, care must be taken to deliver and embed the thinking in a sustainable way, integrated coherently into strong evidenced based educational pedagogy that grows and develops as new knowledge emerges. This thinking can draw parallels with the fundamental framework of IPNB itself that integration and differentiation is the ebb and flow of information processing that allows growth and flourishing. It stands to reason that to embrace such a framework, requires careful integration (linkages) and celebration of reflective differences (differentiation) between IPNB and education.

In seeking common ground across a range of sciences, Siegel (2021) defines a set of organising principles and signposts to his numerous publications that delve into specific applications of IPNB approaches (Siegel, 2010a; 2010b; 2012; 2017; 2020). Examples of mental emotional ‘disorders’ defined within psychiatry can re-frame mental suffering as being stuck in rigidity or dysregulated chaos and through linkage of differentiated parts of the complex system we can support facilitation of integration. Siegel (2021; pg 6) succinctly states that ‘mental health emerge (s) with impaired integration’ (of the embodied brain), emphasising that to support the development of a healthy mind, we need to be aware that it is not just the internal workings of the brain in the skull, but considered as an emergent embodied mind, shaped by interaction and the environment with potential to alter the brain structures within. Neuroshaping can be observed through use of neural imagining techniques that evidence biomarkers predicting risk for ‘neuropsychiatric disorders’ (Gilmore, Knickmeyer and Gao, 2018). These insights can be utilised by a range of professionals, including teachers and new teachers specifically in teacher training, to begin to understand the complex inner mental wellness of the individual, with relational importance of interaction between the teacher and the child. IPNB refutes the error of pathologizing an individual as inherently impaired but encourages a view of potential emergent health within the realm of a social environment, in which we as teachers, are tasked to nurture.

The Embodied Brain and the Nervous System - Polyvagal Theory and Beyond

The Polyvagal Theory (PVT) illuminates the neurobiological narrative of adaptive consequences of detecting risk on physiological state, social behaviour, psychological experience and health (Porges, 2017; p45). PVT explains the significance of physiological state as an intervening variable influencing interaction and behaviour with others (Porges, 1998). Building on the work of Darwin (1872) and James (1890), Porges drew on their seminal pieces to inform his thinking, illustrating a more complex concept of the autonomic nervous system against the backdrop of mammalian evolution and psychological frameworks. The model expands on previous understanding that when the autonomic nervous system (ANS) is in functional competition between the parasympathetic and sympathetic nervous systems, it increases or decreases activity of specific organs. James (1890) acknowledges the significance of befriending the nervous system and the direct applications to education, arguing that ‘the greatest thing then, in all education, is to make our nervous system our ally as opposed to our enemy’. PVT proposes a phylogenetically hierarchical regulatory system that places emphasis on the social, myelinated vagus to appraise the environment to regulate stressful physiological states with focus

given to behavioural mobilization as a physiological survival mechanism for stabilization through interoceptive visceral awareness and social interaction. Porges's (2017) research points out that facial expressions, speech and prosody (tone and rhythm of voice), play an important role in appraising threat and restoring our equilibrium. It is not difficult to make the leap to potential applications for teachers when the use of the voice and presentation of speech to foster learning, plays such a key role in the profession. It also gives rise to promotion of play pedagogy in which shifts from an ingrained and highly sensitive attunement to threat, that through play can be re-established in safety. The well-established defensive 'flight or fight' process is further expanded to include the 'freeze' response, for conditions of inescapable danger leading to immobilization and behavioural shutdown. The terms 'dorsal' vagal and 'ventral' vagal are used to describe the shift between shut down (dorsal) and a calm socially engaged state (ventral) (Dana, 2018). If teachers can identify triggers and notice the indicators of a child beginning to move down the autonomic ladder towards dorsal and engage a playful stance, facilitate physicality and restore safety to the situation, they may be able to catch the shift and gently nudge the child towards the ventral in order to illicit social engagement, calm and effectively access the ability to think critically for learning.

Establishing A Felt Sense of Safety – Feeling Safe

The concept of safety features heavily in PVT, being sure to differentiate that the absence of threat does not determine feeling safe and emphasising its criticality across a number of domains. The definition of safety is paramount to understand the importance of the overarching conceptual framework of PVT with regards to understanding the visceral sensitivity to the shifting neural regulations of autonomic state. Understanding of threat and felt sense of safety is dependent on physical and relational environmental cues, that inhibit or defend the circuits that promote health and trust. Neuroception, the term given to the neural processes that evaluate risk without awareness (Porges, 2003; 2004), is an important component of PVT that can be utilised by professionals to support co-regulation of state. Porges (2017; p47) points out that there is a 'bidirectional communication between bodily organs and the brain through the vagus nerves involved in regulating the autonomic nervous system'. This communication between the vagus and the embodied brain is key to understanding how PVT can be applicable in a therapeutic sense. If professionals (including new teachers), can acknowledge the necessary evolutionary adaptive responses to threat, we can begin to have compassion for the sometimes perceived 'maladaptive' behaviours exhibited by individuals and can adjust our response accordingly to foster safety, bringing the ANS back into a state of calm. Dana (2018) explored where we can go next from initial understanding of the ANS in service of survival. We can 'befriend' the system to map response patterns and track awareness to become PVT informed in our practices. Drawing on IPNB, teachers could become intentional in tune to their responses both internally within themselves (inter) and with the child in the classroom (intra) to successfully navigate the 'quest for safety and connection' (Dana, 2018; p15).

It calls to question whether our society's systemic architecture is designed with opportunities to 'experience safe environments and trusting relationships' (Porges, 2017; p44). If our systems are characterised by chronic threat-based evaluations triggering feelings of danger, it could magnify and exacerbate vulnerabilities to mental distress and have physical implications that interact in cyclically. The perspective branches away from the traditional learning model assumptions of modifying learned atypical behaviours and stresses that certain physiological states would not be associated with optimal social behaviour (Porges, 2017). For educators, this is an important message to the cultural and environmental implications on the school institutional design and speaks to the behavioural systems and inclusion practices to be informed by the PVT framework of raising the status of 'safety' in our schools. It also suggests to teachers that respect for children's differing physiological states as a determinant of the capabilities in the range of behaviour that can be expressed. Porges (2017) also proposes that safety is needed for creativity and the means to access the higher brain structures, crucial for learning and innovation to occur. If we reflect on the impact of the pandemic to society across numerous

domains, we can begin to appreciate how the very nature of assumed inherent safety must be rethought in light of this invisible threat and brings to mind the question of the impact of cost to human potential in living in an unsafe world?

Incorporating IPNB and PVT frameworks could provide teaching practitioners with the tools in which to support implementation of ‘neural exercises’ to improve regulation of the autonomic state, increase integration, switching on the social engagement system (Porges, 2009a, 2015a) and the feeling of safety, which provides the opportunity for therapeutic interactions (and therefore intervention and prevention) of poor mental health. In other words, new teachers could practically understand the mechanisms behind strategies for supporting a healthy mind and play a significant role in developing good child mental health provision.

TRAUMA AND ATTACHMENT INFORMED SENSITIVE PRACTICE

This paper argues that new teachers need to be trained in trauma informed practice through exposure to salient neuroscientific psychological research and its applications to the classroom and education (Anderson, Blitz and Saastamoinen, 2015; Venet, 2019; Chafoulceas et al, 2016; Delaney, 2020; Stokes and Brunzell, 2020; McIntyre et al, 2019; Dorado et al, 2016; Becker-Blease, 2017; Bell, Limberg and Robinson, 2013; Bath, 2008).

Firstly, teachers need to understand what trauma and attachment informed provision actually is and how it can support mental health provision in schools? New teachers should be able to differentiate between, what is sometimes known as ‘capital T’ trauma and ‘complex’, relational, developmental trauma, often referred to as C-PTSD, toxic stress (Shonkoff et al, 2012) or adverse childhood experiences (ACEs) (Felliti and Anda et al, 1998). The UK Trauma Council (Eth and Pynoss, 1984; Danese and McCrory, 2015) refers to trauma as extreme and intense distressing events beyond a person’s control that overwhelms ability to cope, resulting in lasting negative impact, whereas complex trauma is defined as frequent repeated experiences occurring during child development, where exposure can impact emotional, psychological, social and physical development. However, it is important for teachers to have clarity of understanding that trauma does not determine a fixed inevitable negative trajectory. McCrory and Viding (2015) uses contemporary neuroscience to evidence understanding of the connection between childhood trauma to everyday mental health through an unseen link of ‘latent vulnerability’, as an underlying indicator of risk, shaping the way we interact with the world around us. Research argues that complex trauma manifest in education in a multitude of ways, potentially significant in informing teacher understanding of supporting child mental health (Plumb, Bush and Kersevich, 2016).

Van der Kolk’s (2014) highly influential book ‘The Body Keeps the Score’, ventures that we are on the precipice of becoming a trauma conscious society, aware of the prevalence and increased vulnerabilities to psychiatric and neurological ‘disorders’ disrupting our lives with both the mental and economic costs (Fineberg et al. 2013). Van der Kolk (2014, pg 356; 351) states that it is the ‘most urgent public health issue’ and the ‘greatest hope for traumatized children is to schools.’ Van der Kolk (2014 pg 351) goes on to assert that ‘at best schools can function as islands of safety in a chaotic world’, echoing one of Siegel’s IPNB modelled terms of ‘chaos’ representing impairment to mental health (Siegel, 2020). The literature surrounding trauma highly supports that schools are therefore the place where children and teachers should foster reciprocity and a sense of feeling felt and being seen as a place of safety and predictability, not another potential traumatic trigger. It is important that teachers are aware of the interpersonal bridge of safety for co-regulation, that some children who suffer trauma or attachment issues in early life, may find reciprocal relationships too dangerous (Philips, Milim, Hughes, 2020). Therefore, paradoxically teachers demonstrating kindness and approachability, may be shunned by children who might perceive this as a signal of danger. Places, spaces and a felt sense of belonging research is contributing to our understanding of mitigating against trauma (Riley, Coates and Martinez, 2018), supporting containment through the prism of place and belonging as a dynamic concept, shaping experiences in schools.

Trauma and attachment research therefore emphasises constructivist theories and approaches, that suggest good mental health is created by our sense of self and argues that reality is constructed based on attachment theory's 'working internal model' outlining those early relational interactions with our caregivers, build secure and safe relationships and expected experiences in which we use to inform our predictions of how the world is perceived (Bowlby, 1969).

Although much of the research focuses on the individual teacher approach to trauma informed practice, strength is apparent in key literature that focuses on systems thinking, 'integrating' knowledge and skills with whole school tiered trauma informed systemic approaches, providing better outcomes for children (Ford et al, 2021; Dorado, 2016). Integration of the individual and of the systems to inform good mental health practices, once again echo the IPNB approach to supporting effective mental health provision. Teachers can look to create opportunities for learning and growth in children, where social situations take a restorative approach, epistemic trust is facilitated (Fonagy and Allison, 2014), co-regulation occurs for dysregulation and exclusions are limited in favour of a more inclusive and strengths based neurodiverse approach. All aspects of good quality first teaching and a systemic whole school approach that is underpinned by 'trauma' informed practices. However, whether this term is 'trauma, attachment, polyvagal, IPNB, psychologically informed', the outcome remains the same, a transdisciplinary approach to understanding the psychological and biological basis for child behaviour from early experiences and how teachers can implement effective ways to interact with child to promote positive mental health.

TRANSDISCIPLINARY THERAPEUTIC APPROACHES FOR PRACTICAL USE IN SCHOOLS

This paper takes an IPNB approach to explore transdisciplinary fields of study; psychology, biology, neuroscience, mathematics, anthropology, and sociology, interact to bring together a wealth of knowledge translated into a universally understood language framework (Siegel, 2020), applicable within an educational setting and accessible for teacher trainee practitioners for use. Thereupon, identified psychological therapeutic approaches taken from a research evidence base, can be utilised from an interactional intervention perspective (Treisman, 2016) for training teachers in supporting child mental health. It can be argued that the systems and research base is already in place for implementation, however, needs careful consideration as to which therapeutic approaches are needed to be drawn from. This paper argues that MHFA and SMHL is a stepping stone towards implementing mental health provision in schools (Morgan, Ross and Reavley, 2018) and proposes that training teachers at the pre-service level needs further targeted skills and knowledge, through teacher confidence building and directly impact on improving mental health outcomes. However, it can be argued that the invention of MHFA creates a problem of psychocentrism that normalises the psychiatric model rather than a 'benevolent' intervention model, it can be perceived as a governance of social control for division (DeFehr, 2016). This view plays into the pathologizing medical model of psychiatric diagnosing of disorder. Therefore, we need to be mindful that our well-intentioned interventions, avoid perpetuating unresolved conceptual problems in mental health.

This paper wishes to draw attention to the following research that supports identified therapeutic approaches for future research and consideration. In particular, Dyadic Developmental Practice DDP (Philips, Milim and Hughes, 2020; Hughes, Golding and Hudson, 2019; Bomber, Golding and Philips 2020), Social Neuroscience (Cozolino, 2013), Neurosequential Model in Education (NME) (Perry, 2009), Child - Mentalization Based Treatment (C-MBT) (Bateman and Fonagy, 2013; Twemlow, Fonagy and Sacco, 2005a), Internal Family Systems (IFS) (Swartz and Sweezy, 2019; Spiegel, 2017; Wark, Thomas and Peterson, 2001), Sensorimotor Psychotherapy & Embedded Relational Mindfulness (Ogden, Goldstein and Fisher, 2013; Ogden and Fisher, 2015; Ogden and Goldstein, 2017), Mindsight (Siegel, 2010), The Polyvagal Theory (Porges, 2018; Dana, 2018; 2020; Beauchaine, Gatzke-Kopp and Mead, 2017) Attachment (Bowlby, 1970; Ainsworth and Bell, 1970; Main,

2000) and Emotional Freedom Techniques (Clond, 2016; Stapleton et al, 2017; Gaesser, 2020). Future papers would critically analyse the research that suggests implementation would greatly support child mental health and gives strength to the argument that teacher training could potentially include understanding of a number of these therapeutic approaches to improve child mental health outcomes.

THE FUTURE OF MENTAL HEALTH KNOWLEDGE IN TEACHER TRAINING

The paper ends by proposing that future research should look to develop a psychological, neurobiological, developmental sensitive approach to exploring child mental health and well-being within education. It puts forward the idea that the development of a new conceptual framework of mental health in education will support the role of initial teacher training education (ITT/ITE) and aims to better support teacher training providers to create confident and competent new teachers with stronger mental health understanding, psychological skills and higher efficacy to meet the ever-increasing demands of children's educational and mental health needs.

In conclusion, linguistic frameworks in which mental health is defined, continues to be interchangeably used across differing fields and bound in differing conceptual ideas. Whether deemed poor mental health, trauma, attachment issues or psychological impairments, the transdisciplinary approach offers a contribution to clarity of insight into the psychological and biological basis for child behaviour and gives new teachers therapeutic opportunities through the power of interaction to be empowered agents of change in promoting positive child mental health.

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