



LEEDS
BECKETT
UNIVERSITY

Citation:

Quarmby, T and Sandford, R and Hooper, O and Gray, S (2023) Co-producing strategies for enacting trauma-aware pedagogies with pre-service physical education teachers. *Physical Education and Sport Pedagogy*. pp. 1-14. ISSN 1740-8989 DOI: <https://doi.org/10.1080/17408989.2023.2194905>

Link to Leeds Beckett Repository record:

<https://eprints.leedsbeckett.ac.uk/id/eprint/9473/>

Document Version:

Article (Published Version)

Creative Commons: Attribution-Noncommercial-No Derivative Works 4.0

© 2023 The Author(s)

The aim of the Leeds Beckett Repository is to provide open access to our research, as required by funder policies and permitted by publishers and copyright law.

The Leeds Beckett repository holds a wide range of publications, each of which has been checked for copyright and the relevant embargo period has been applied by the Research Services team.

We operate on a standard take-down policy. If you are the author or publisher of an output and you would like it removed from the repository, please [contact us](#) and we will investigate on a case-by-case basis.

Each thesis in the repository has been cleared where necessary by the author for third party copyright. If you would like a thesis to be removed from the repository or believe there is an issue with copyright, please contact us on openaccess@leedsbeckett.ac.uk and we will investigate on a case-by-case basis.

Co-producing strategies for enacting trauma-aware pedagogies with pre-service physical education teachers

Thomas Quarmby ^a, Rachel Sandford ^b, Oliver Hooper ^b and Shirley Gray ^c

^aCarnegie School of Sport, Leeds Beckett University, Leeds, UK; ^bSchool of Sport, Exercise and Health Sciences, Loughborough University, Loughborough, UK; ^cMoray House School of Education and Sport, Edinburgh University, Edinburgh, UK

ABSTRACT

Background: In Physical Education (PE), trauma may manifest in a range of different actions/behaviours (e.g. small fouls escalating into physical conflict, students refusing to be part of a team, and struggling to adhere to the rules of the game). Without knowledge of the effects of trauma, teachers often defer to punitive responses, which exacerbate rather than mediate the needs of trauma-affected youth. It is therefore critical that prospective physical educators can enact trauma-aware practices to better support their learning and development.

Purpose: The aim of this novel paper was to reflect on the principles underpinning trauma-aware pedagogies and, from this, co-create tangible strategies that could be employed by future PE teachers to better support all students, but especially those who have experienced trauma.

Methods: We worked with three distinct groups of pre-service PE teachers ($n = 22$) from a range of different institutions, delivering a total of 12 hours of online workshops (2 × 2-hour sessions per group). The workshops were designed to support pre-service PE teachers in becoming trauma-aware and were grounded in the principles of trauma-aware pedagogies, namely: (1) ensuring safety and wellbeing, (2) establishing routines and structures, (3) developing and sustaining positive relationships that foster a sense of belonging, (4) facilitating and responding to youth voice and, (5) promoting strengths and self-belief. Through a range of academic content, individual activities and group tasks, participants were invited to consider, in conversation with us (as the workshop leaders) and each other, how these principles could be enacted in practice during various 'PE moments' (e.g. transitions into PE, getting changed, responding to incidents). Audio recordings of the workshops were transcribed, and along with copies of the online 'chats', were thematically analysed.



Findings: The workshops led to the co-creation of a host of tangible strategies – things that could be done to enact trauma-aware pedagogies in PE. While the strategies are noted here in relation to specific principles, we are not suggesting that these are in any way rigid categorisations. Rather, strategies are associated with principles reflecting how these were framed by pre-service teachers during the workshops. Each of the individual strategies is subsequently explored in relation to the relevant principle. For instance, strategies associated with the principle of 'establishing routines and structures' included: (1)

ARTICLE HISTORY

Received 19 August 2022
Accepted 9 March 2023

KEYWORDS

Physical education; trauma; adverse childhood experiences; pedagogy; strategies; co-creation

CONTACT Thomas Quarmby  t.quarmby@leedsbeckett.ac.uk  @DrTomQ

© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

being predictable, (2) ensuring consistent transitions within and between PE lessons, and (3) forewarning of changes.

Conclusions: This novel paper provides a range of strategies that could be used by both future and current teachers to enact trauma-aware pedagogies in PE. We argue that these strategies are reflective of 'good pedagogy' more broadly – and would benefit all students – but especially those who have been impacted by trauma. However, there remains a need to consider the context of the school, the students, and broader cultures when implementing these within practice.

Introduction

Internationally, there is growing recognition of the impact of trauma on children and young people's education and broader life outcomes (Howard 2021). Indeed, given its increasing prevalence, trauma is now recognised as a significant issue, impacting individual health and wellbeing on a global scale (UNESCO 2019). Moreover, no social or cultural group is immune from the impact of trauma; it impacts *all* communities regardless of demographics (Felitti et al. 1998; Howard 2021). Trauma is described as an experience that overwhelms a person's capacity to cope and a distinction is often made between single incident trauma (which results from a discrete event such as a car crash) and complex trauma (which involves repeated or ongoing interpersonal threats) (Courtois and Ford 2009). Most childhood trauma results from the latter and involves the repeated relational harm that stems from *adverse childhood experiences* (ACEs) – a range of stressful events that children and young people (up to the age of 18) have been exposed to whilst growing up (Felitti et al. 1998; Smith 2018). Typically, these included three specific kinds of adversity: (1) abuse – e.g. physical, emotional, and sexual abuse, (2) neglect – e.g. physical, and emotional neglect and, (3) household dysfunction – e.g. parental separation, domestic violence, substance misuse, mental illness, and incarceration of a family member. While these ACEs are frequently associated with the household, Smith (2018) identified additional ACEs that have implications for health including: facing racism, witnessing community violence, living in an unsafe neighbourhood, being bullied, experiencing foster care or suffering the death of a parent, as well as having a lack of food, being exposed to consistent parental arguments, holding low socio-economic status, showing poor academic performance, having limited social capital, and being rejected by peers.

Experiencing any individual ACE may trigger a young person's stress response. However, if a child experiences multiple ACEs over time, those exposures can result in *toxic stress* – the prolonged activation of the stress response, whereby the body fails to fully recover (Franke 2014). While some stress is to be expected and indeed helpful for normal growth and development, toxic stress differs in that there is a lack of caregiver support, reassurance, or emotional attachments, which would normally buffer the effects, and help return the body to its baseline function. Ultimately, this results in trauma, and can lead to long term impacts on the brain and body.

A 2014 United Kingdom (UK) study on ACEs showed that 47% of people experienced at least one ACE with 9% of the population having 4+ ACEs (Bellis et al. 2014). More recent figures from the National Society for the Prevention of Cruelty to Children (NSPCC 2022) estimate that around 1 in 20 children in the UK have been sexually abused, 1 in 14 children have been physically abused, and 1 in 15 have been emotionally abused. Moreover, 1 in 10 children have been neglected (NSPCC 2022). Many young people of school age are therefore vulnerable to ACEs, toxic stress, and thus trauma, including refugees, asylum-seekers, care-experienced young people, children in youth justice services, gender non-binary youth, and young people with disabilities (Avery et al. 2022; UNESCO 2019). Moreover, the COVID-19 global pandemic has spotlighted historic health, educational and social inequities and further exacerbated pre-existing inequalities (Sonu, Marvin, and Moore 2021), with many countries reporting increasing cases of domestic violence along

with rises in parental alcohol consumption (Save the Children 2020). In addition, lockdowns saw the closure of schools, which in some cases may have deprived vulnerable children of a place of safety and security, resulting in them being placed at higher risk of exposure to adverse experiences such as violence and abuse (Van Lancker and Parolin 2020).

Implications of experiencing trauma

Due to the harmful impact of toxic stress on the developing nervous system, children who experience ACEs, and consequently childhood trauma, are at risk of observable changes in brain architecture and delays in social, emotional, physical, and cognitive development (Howard 2021). As a result of trauma, children and young people are more likely to have a lower threshold for high intensity emotion, which can cause them to become hypo-aroused (dissociated, withdrawn, or shut down) or hyper-aroused (distracted, panicked, or enraged) – referred to as a narrow window of tolerance (Siegel 1999). Importantly, both states of hypo- and hyper-arousal interfere with children's ability to regulate emotions and reduce their capacity to concentrate, process information and store knowledge (Brunzell, Stokes, and Waters 2016).

In physical education (PE) – a space where the effects of trauma may be exacerbated due to the public nature of participation and the centrality of the body (see Quarmbly et al. 2022 for a detailed overview) – trauma may manifest in a range of different actions/behaviours. This might include small fouls escalating into physical conflict, students refusing to be part of a team and struggling to adhere to the rules of the game, and/or demonstrating an inability to handle pressure situations during competition (Bergholz, Stafford, and D'Andrea 2016). Importantly, students' responses to trauma can vary and, while some outward reactions may cause problems, it is important to remember that they start out as functional attempts to manage and survive in harsh or terrifying environments (O'Toole 2022). Moreover, the events that lead to trauma may be experienced very differently by different people, depending on how the individual interprets and assigns meaning to the event (Substance Abuse and Mental Health Services Administration [SAMHSA] 2014). O'Toole (2022) suggests that there is no uniform or universal relationship between an adversity and a response; each adversity is a singular experience and responses vary depending on a myriad of factors including individual characteristics (e.g. age, personality, and prior history of trauma), environment (e.g. school, and personal support), and experience (e.g. relationship to the offender) (see also Ellison and Walton-Fisette 2022). Despite this, their (re)actions often prompt others to view them as being 'off task' or defiant (Ellison et al. 2020). Hence, without knowledge of the effects of trauma, teachers (at a micro level) often defer to punitive responses, which can lead to and/or include suspensions and exclusions (at a macro/school level). This can exacerbate rather than mediate the needs of trauma-affected youth. As such, there are growing international calls for teachers to become trauma-aware and recognise that patterns of distress and troubling behaviour will likely emerge as a student's way of surviving threats and adversities (Brown et al. 2022; O'Toole 2022).

Schools are crucially positioned to support the needs of children and young people who have experienced trauma (UNESCO 2019) and the subject of PE – through the type of relational encounters that it affords – even more so. Indeed, previous research has explored the ways in which PE teachers attempt to support, for example, pupils' social and emotional needs, build positive relationships, and develop pro-social behaviours (see for example, Hellison 2011; Hemphill, Martinen, and Richards 2022; Wright, Li, and Ding 2007). Building on this work, scholars have recently focused their attention on the need for trauma-informed approaches in PE (e.g. Ellison et al. 2020; Sutherland and Parker 2020). Given this recent focus, it is critical that prospective physical educators both understand the impact of ACEs, toxic stress and trauma on children and young people's growth and development and are prepared to enact trauma-aware practices to support them (Brown et al. 2022). The aim of this novel paper was therefore to reflect on the principles underpinning trauma-aware pedagogies and, from this, co-create tangible strategies that could be employed by future PE teachers to better support all students, but especially those who have experienced trauma.

Methodology

This paper emerged from an innovative programme of work designed to support pre-service PE teachers in the UK in becoming trauma-aware within their practice. More specifically, it extends our earlier work in this area on evidence-informed principles for trauma-aware pedagogies in PE (Quarmby et al. 2022). We have previously acknowledged that adopting trauma-aware pedagogies may be a challenging and often time-consuming process for teachers who are required to learn and integrate new beliefs and practices. We have therefore suggested that a first step may be to engage prospective PE teachers with content knowledge about the impact of trauma and pedagogical content knowledge to use within PE to cater to trauma-affected youth. Furthermore, given that pre-service teachers are likely to be placed in schools for relatively short periods of time, with limited professional learning opportunities related to trauma in these contexts (Reddig and VanLone 2022), engaging in trauma-related professional learning could positively impact their confidence to work with trauma-affected youth (Brown et al. 2022) and better support their pedagogical practice as they transition from pre- to in-service teacher roles.

We therefore worked with three distinct groups of pre-service teachers ($n = 22$) from a range of different institutions, delivering a total of 12 hours of online workshops (2×2 -hour sessions per group). At the time of the workshops, the COVID-19 pandemic had led to significant lockdown measures within the UK (as elsewhere), which necessitated that all sessions were delivered online as opposed to in-person. That said, using this method to engage with participants was not only reflective of a growing approach to conducting research online but also had the added benefit of extending the reach of the workshops to a broader range of participants within the UK and beyond (Howlett 2022). We therefore employed Microsoft Teams to facilitate the workshops, with participants being encouraged to use their device camera as well as the ‘chat’ function to engage during sessions, in addition to using online tools such as Padlet for interactive tasks.

Participants and sampling

As noted above, learning whilst on placement can be challenging for pre-service teachers – especially when they enter schools where there may be many students who have experienced trauma. However, it also provides a unique opportunity. For instance, delivering online workshops to support their knowledge of and attitudes towards trauma and trauma-aware pedagogies allows them to connect their learning to their current school-based learning and experience, which is a key feature of trauma-aware programmes delivered more broadly in initial teacher education (Kearns and Hart 2017). Hence, pre-service PE teachers were recruited via personal networks, by engaging with existing Physical Education Teacher Education (PETE) programmes, and through social media (e.g. Twitter). The workshops were open to anyone who was a ‘pre-service PE teacher’, and most of the individuals who attended were female ($n = 18$), self-identified as white ($n = 20$), and were predominantly aged under 25 ($n = 19$). The vast majority of those involved in the workshops were either on a 4-year undergraduate teacher training programme that led to qualified teacher status or were on a 1-year Postgraduate Certificate in Education (PGCE) programme from universities in the UK. In addition, we had one participant join from a pre-service teacher programme in Australia.

Participatory workshops

The workshops – delivered between May and August 2021 – were designed to support pre-service PE teachers in becoming trauma-aware and were grounded in the principles of trauma-aware pedagogies, namely: (1) ensuring safety and wellbeing, (2) establishing routines and structures, (3) developing and sustaining positive relationships that foster a sense of belonging, (4) facilitating and responding to youth voice and, (5) promoting strengths and self-belief (Quarmby et al.

2022). In *workshop one*, pre-service PE teachers explored their understanding of trauma, its impacts on young people and how it might manifest in PE. To do this, the workshop provided pre-service teachers with an opportunity to engage with academic content – drawing on our previous research findings – about ACEs, toxic stress, trauma, and the ways in which these might affect pupils' experiences in PE. They also examined the underpinning theoretical frameworks that support trauma-aware practice in schools broadly (e.g. SAMHSA 2014), and in PE specifically. Pre-service teachers explored these through a range of individual activities and group tasks, that enabled them to identify and reflect on what they already knew about trauma and how it shapes pupils' engagement with school, as well as within PE. At the end of the first workshop, participants were given an optional 'homework task' and encouraged to imagine what a 'good' or 'bad' PE experience might 'look like' for a pupil affected by trauma. This could be completed individually or as a group using any preferred format (e.g. writing, drawing, digital means) and was included to help pre-service teachers begin to think about tangible things that could be done (strategies) to support positive experiences.

Given that trauma-aware pedagogies are inherently strengths-based, the workshops aimed to emulate this approach and start by recognising the knowledge participants brought with them into the sessions – identifying what participants knew, had experienced, and/or could create, rather than focusing on the gaps in their knowledge. Hence, we purposely invited pre-service teachers to engage in the workshops since they were practising in schools and may have had the opportunity to experience working with trauma-affected youth. The workshops were designed to allow us (the authors) to work with pre-service teachers to co-create tangible strategies that could be used in PE contexts. We use the term co-creation here to emphasise the active role we (the authors) played in the workshop discussions and the construction of the final list of strategies.

In *workshop two* (undertaken at least one week after the first workshop) pre-service teachers were supported to critically reflect on their learning from the first workshop, their own practice, and the five principles of trauma-aware pedagogies developed in our previous work (Quarmby et al. 2022). They were then invited to discuss, in conversation with us (as workshop leaders) and with each other, their reflections from the homework task along with how these principles could be enacted in practice during various 'PE moments' (e.g. transitions into PE, getting changed, setting up kit, responding to incidents, interacting with students). These discussions drew on different knowledge bases including those of the pre-service teachers and ourselves (who have experience of working with trauma-affected youth in different contexts). To do this, break-out rooms were used within Microsoft Teams whereby we (the authors) acted as facilitators, inviting, sharing, and listening to stories from different individuals to generate ideas (Smith, Williams, and Bone 2023). Given the sensitive nature of the topic, efforts were made to ensure the online workshops were a 'safe space' whereby participants could share their experiences and reactions without fear of judgement. To do this, we offered frequent 'check-ins', provided opportunities for participants to 'opt-out', and were available before and after each workshop for pre-service PE teachers to discuss any issues or raise concerns.

Data collection and analysis

Ethical approval was granted by the lead author's host institution. As noted above, to support data collection, key questions, and discussion points/tasks were built into the workshops to generate conversation/dialogue between the researchers and pre-service PE teachers (e.g. discussing 'PE moments'). These conversations allowed for the exploration of relevant topics as they emerged – like within a semi-structured interview (Sparkes and Smith 2014). The conversation/dialogue generated by the questions/discussion points in each of the workshops was recorded using the Microsoft Teams record function, and subsequently converted into an audio file for transcription. In addition, text from the Microsoft Teams 'chat' function was transferred to a Microsoft Word file, along with screen shots of Padlets and any GIFs¹ used within them to record the thoughts and ideas of participants. All audio file transcripts, and copies of the 'chats' were made anonymous to protect the identity of the participants.

The resulting data were then analysed using an inductive and deductive thematic analysis (Braun and Clarke 2006). For instance, all authors read the transcribed texts and the supporting Word files containing copies of the ‘chats’ multiple times, before each author independently coded the data. The authors then met to collate the codes into potential themes, at which point a thematic table was generated. The themes were identified in both an inductive (‘bottom up’) way – whereby the themes identified were strongly linked to the data themselves – and a deductive (theoretical or ‘top down’) manner – whereby the data (in this case explicit strategies) were explored in relation to the five principles of trauma-aware pedagogies: (1) ensuring safety and wellbeing, (2) establishing routines and structures, (3) developing and sustaining positive relationships that foster a sense of belonging, (4) facilitating and responding to youth voice and, (5) promoting strengths and self-belief (Quarmby et al. 2022). To further support the co-creation of the strategies, following the analysis of the data by the authors, the initial strategies were included in a draft table (aligned to the five key principles of trauma-aware pedagogy) and shared with the participants for further comment, reflection, and refinement. This served as a form of member reflections (Smith and McGannon 2018, 108) and, rather than aiming to verify results, it provided an opportunity for us to work with participants to develop a ‘more meticulous, robust, and intellectually enriched understanding of the research’. In this sense, participants were encouraged to reflect on the draft table of strategies and offer additional suggestions or contradictions.

Findings and discussion

The aforementioned analysis led to the co-creation of a final table – derived from the data – which contained the overarching principle, the name of the strategy and an example of what it could ‘look like’ in practice (see Table 1). Each of these tangible strategies – things that could be done to enact trauma-aware pedagogies in PE – is explored in more detail below in relation to the wider literature. At this point, it is important to note that while the strategies are noted here in relation to specific principles, we are not suggesting that these are in any way rigid categorisations. Just as the principles were presented as interconnected in our original work (Quarmby et al. 2022), we would again emphasise the relevance of these strategies to multiple principles. However, the strategies presented below are aligned to specific principles reflecting how these were framed by pre-service teachers during the workshops. For instance, when discussing a particular principle in the workshops (e.g. safety and wellbeing), pre-service teachers identified specific strategies that they thought could be used to enact that principle, before moving on to consider strategies associated with other principles.

Ensuring safety and wellbeing

Creating a space where students feel physically and emotionally safe is not necessarily easy, given that many teachers will not be aware of the adversities that students have faced. That said, pre-service teachers in this study generated a range of strategies that could be used to help students feel safe and thus support their wellbeing. For instance, some spoke of creating opportunities for students to take a break from lessons when they began to feel overwhelmed, including the use of *keywords*, *timeouts*, and *designated safe spaces*:

Establish a safe place or a keyword where pupils can go or use when they are feeling overwhelmed, which seems like kind of a simple thing to do, but it’s so like, you could easily put that into your lesson and then make everyone feel a lot more comfortable in it I suppose (Alexandra, Group 1)

When I did my primary school placement, I had one class that had a lot of pupils that kind of needed that safe space, so we had a kind of an area in the classroom that was like they could go and sit, if they just needed a bit of a timeout (Erica, Group 1)

These strategies are also reflected in other work around trauma-aware practices in PE. For instance, Ellison and Walton-Fisette (2022) have noted that when a student becomes triggered during a

Table 1. Example strategies for enacting trauma-aware pedagogies.

Overarching principle	Strategy	Example
Ensuring safety and wellbeing	Keywords	Provide students with a pre-agreed keyword that can be used when they are feeling overwhelmed and need to take time out
	Safe spaces	Identify designated safe spaces within the lesson/broader PE landscape that students can go to when they are feeling overwhelmed
	Timeouts	Allow students to take short 3–5-minute timeouts from an activity to calm down and ready themselves to re-join the activity
	Choice of role	Identify a range of active and non-active roles – associated with the activity – which students could choose to take (e.g. acting as a coach providing feedback to peers)
	Choice of activity	Where feasible, work with students to identify a range of activities that they could choose to take part in during the term
	Choice of groups	When possible, try to provide students with the opportunity to choose who they work with in group-based activities in PE
	Providing PE kit	Ensure students have access to PE kit that is stored (and washed) at school and that there is a space for them to collect and return this that is not overtly visible to all
	Attending in PE kit	Allow students to come to school in their PE kit ready for the lesson
	Changing room talk	Encourage only positive talk in the changing rooms – if students comment on bodies, encourage these to be positive comments
Developing positive relationships and belonging	Taking an interest	Ask students about their life beyond school – e.g. what sports, activities, hobbies are they interested in and why
	Checking-in	Try to find time to regularly check in with students and ask how they are – this does not need to happen in a PE lesson, it could be as you pass in the corridor
	Restorative conversations	When things go wrong (e.g. a behavioural outburst), ask students to explain what they have done, the effect it has on them, and those around them – making them aware of their actions
	No shouting policy	Adopting a whole-school policy whereby teachers actively try to avoid shouting at students when there are behavioural issues
	Centrally agreed script	When there are behavioural issues, follow a script instead of shouting, that asks what happened, why it happened and what is the impact of the behaviour
Establishing routines and structures	Being predictable	Greet and welcome students in the same place, same time, each lesson so they know what happens and where on a regular basis
	Consistent transitions	This could involve a whole-school approach to how students transition from one lesson to another with a consistent means of lining up/entering spaces
	Forewarning of changes	If the usual routine is going to change, try to provide as much notice as possible to support students to prepare for something different
Facilitating and responding to youth voice	Active listening	Avoid jumping in when a student is speaking, allow them the time and space to express themselves and share their thoughts and feelings before offering comment
	Anonymous responses	Use an empty box as a space where students can write comments/feedback that they can post anonymously
	Post-it notes	Have post-it notes ready before/after each lesson for students to reflect on what could be done to enhance the lesson – these could then be placed on a designated space/wall
	Traffic light cards	Provide students with a red, yellow, and green card that they can use to inform the teacher about how <i>they</i> are feeling and whether <i>they</i> understand the task
Promoting strengths and self-belief	Supporting pupils to be model performers	Invite students to be model performers by allowing them to demonstrate an activity/movement that they feel confident and competent in
	Incremental challenges	Enable students to feel success by setting small, incremental challenges that they can master and build upon

lesson, and cannot self-regulate their emotions, a designated space within the class could be used by students to rest, reflect, and recover. However, it is also worth considering that when a student is taking a timeout, they might be further supported by having something to help them during that

time (e.g. ‘breathing exercises or “calm boxes”’, the latter of which contains items of choice – like stress balls – that can help them to relax).

In addition, several strategies were generated that focused on the notion of choice. While Fallot and Harris (2009) have suggested that choice is a key principle in its own right, it was seen here as something that could provide students with a degree of autonomy, provide a sense of control that may normally be absent, and make them feel more at ease. This included offering the *choice of roles*, *choice of activity* and *choice of working groups* within PE lessons. For instance:

... we are also aware pupils who experience trauma tend to not be in control of the situation or whatever goes on, so one of the things I noted down there, and could make a significant difference (is to) give them a sense of choice and control in the lesson ... they can choose what sort of activity, or you can set up stations, that’s giving them a sense of control, giving them some choice and I think that could potentially add to a safe environment (Edie, Group 1)

Finally, during all three workshops there was a recognition that the changing room could present an obstacle for those young people who have experienced trauma – particularly physical abuse. As such, several strategies were created that sought to address this and further contribute to feeling safe and well. These included *providing PE kit* for students, allowing students to *attend school in their PE kit* and the use of *positive changing room talk*:

The first two schools that I was in, they came in kit, this is the only school I’ve been in, where they’ve come and they’ve got to get changed and yeah it really does (make a difference) ... I wish they could come in kit all of the time (Kyle, Group 2)

We made this rule that there was only positive talk allowed in the changing rooms amongst the girls, and the boys, (so) if they were to be commenting on somebody else’s body, it had to be a positive comment only (Iris, Group 3)

While it is important that PE kit does not become a barrier to participation in PE, the provision of kit for students with challenging home lives is not without its difficulties. For instance, Quarmby, Sandford, and Elliot (2019) noted that providing kit for students could be stigmatising, being seen by peers as a physical marker that identifies young people as ‘different’ or ‘other’. As such, providing kit as a strategy to help ensure safety and wellbeing needs to be carefully considered before being implemented in practice.

Developing and sustaining positive relationships that foster a sense of belonging

While students who have experienced trauma may have difficulty trusting adults, arguably, the single most important factor that supports children and young people to heal from trauma is positive relationships with significant others (Treisman 2017; UNESCO 2019). As such, identifying strategies that could be used to develop relationships is vital. Like similar studies (e.g. Ellison and Walton-Fisette 2022; Walton-Fisette 2020) a group of strategies identified here by our participants focused on the notion of care. To help demonstrate care and thus build positive relationships, Walton-Fisette (2020) suggests that teachers could make a conscious effort to learn names, use non-verbals such as a smile or thumbs-up, and ask students questions. Similarly, Fletcher and Baker (2015) suggest that valuing students in class by getting to know them personally or calling on class demonstrators can be useful for fostering positive relationships and a sense of community. Building on this, pre-service teachers in our study also identified *taking an interest* in students’ lives beyond school and regularly *checking-in* with them as crucial strategies for demonstrating care:

Having an interest in just like their broader life and any particular activities or interests they have ... having a chat about it and that can really build that positive relationship and they feel like they can come to you and have a chat about something unrelated to that, that might pop up in the day or in the next week or two (Michael, Group 2)

Showing the pupils that you care in a kind of, you know not directly, maybe not asking them all the time, but just a simple like ‘how are you?’, as soon as they come in and that’s to all pupils, but that’s (also) maybe a special thing you have for them, that you can kind of just check in (Lana, Group 1)

Research shows that those who experience multiple ACEs need a consistent, caring environment to feel safe (Brown, Howard, and Walsh 2022). As such, the suggestions above align with broader calls from research advocating that teachers get to know students and their lives beyond the classroom, to try to understand their trauma, any adversity they have experienced, and what might act as triggers for them (e.g. Sutherland and Parker 2020).

Another strategy to help build and sustain positive relationships centres around restorative practice. In this instance, pre-service teachers noted that adopting non-confrontational language and using *positive and restorative conversations* could develop relationships, whilst also working to ensure that students feel safe:

I think dealing, depending on the instance itself, just going from a real restorative conversation with the child, explaining what they've done wrong, the effect that it has on themselves, on their learning, on the rest of the class perhaps and making them aware of their actions, as far as behaviour I would say ... there has been a few instances where they've [the placement school] said 'shout at kids', but I've been taught to sort of have them restorative conversations, positive framing and things like that, so I think for behaviour yeah that's a big one (Kyle, Group 2)

Restorative practice in PE has been noted by Lynch, Schleider, and McBean (2020) to be reflective of trauma-aware pedagogies. When there are incidents – for example, behavioural outbursts – restorative conversations may be particularly beneficial. However, the timing of these conversations is context specific. They could occur in the moment (privately talking to a student in the lesson) or they could occur after the lesson or later that day/week. As such, teachers need to be able to read the situation and act accordingly.

Similarly, Lynch and Curtner-Smith (2019) discuss alternative disciplinary approaches for managing student behaviour that involve teachers not shouting or punishing students, rather dealing with any conflict in an open conversation. This approach, according to Lynch and Curtner-Smith (2019) results in students being more positively involved in lessons, with less misbehaviour and disruption. In fact, a *no shouting policy* and *centrally agreed script* was also identified by one pre-service teacher during the workshops as a key strategy that could be applied across the whole school to great effect:

The school that I'm at now (has) a no shouting policy, which is significantly easier said than done, especially when you have a boy coming that's trying to hit somebody with a chain ... it means that no matter the situation, because (the) majority of our pupils have got not the greatest of home lives, that we're not another person shouting at them ... So, we bring them out and each teacher has a set script that has to be said every single time that asks them 'Do you understand why I'm taking you out of the situation?', 'Do you understand what you've done?', 'From my perspective, this is what it is, from your perspective, what is it?' (Rosie, Group 1)

Establishing routines and structures

We have previously noted that the overarching principles are interlinked/intertwined and, hence, establishing clear routines and structures contributes to creating a safe environment for students (Quarmby et al. 2022). To help establish such routines and structures, pre-service teachers highlighted the importance of *being predictable*. Equally, being predictable may also help to shape positive relationships, and one way of doing this is by routinely greeting students at the same place and in the same way:

... having the teachers standing and greeting the pupils at the same place each lesson, so you know a consistent place where they see you every time, and having those routines and procedures that, you know if they are set and communicated to the pupils, they know exactly what is happening, so where the register will be done, how the changing rooms work, borrowing kit, and we just thought that would make it ... a bit more comfortable (Erica, Group 1)

Walton-Fisette (2020) suggests that knowing the rules, routines and expectations allows students to have a sense of what to expect, which helps to decrease potential anxiety. In addition, clear and consistent transition protocols can help students anticipate what will happen next and minimise the

likelihood of a negative stress response occurring (Quarmby et al. 2022). Indeed, to support a sense of predictability, there was recognition by pre-service teachers that having a whole-school approach to *consistent transitions*, both within PE and between lessons would help:

I think like discussions about like consistency across the school. Well, it's quite interesting, like how different teachers have (different approaches). So, some teachers like you to line up outside your class. Some want you to come in and sit down. Some want you to come in and get started, and I think like just discussions about how confusing that must be to remember all those different procedures (Chloe, Group 1)

Finally, to support clear and consistent routines and structures, it was felt that students should be *forewarned of any changes* so that they can better prepare themselves for what is to come:

So, if the routine is going to change or if there is going to be some sort of different routine or a different teacher, then you know, I know it's not always possible, but you are meant to communicate that in advance to kind of mentally and emotionally prepare them for you know, something different (Erica, Group 1)

I think just having that little bit of forewarning and then not just for pupils affected by trauma, but it just prepares everyone. I know that if I know something in advance, I feel a bit more comfortable (Eva, Group 1)

Facilitating and responding to youth voice

In relation to facilitating and responding to youth voice in PE, pre-service teachers identified four distinct strategies that could be employed. One of these was *active listening* – whereby teachers resist the temptation to interrupt young people when they are talking to them. As well as being a key component of inclusive approaches in PE, listening to youth voice has also been found to enhance participation, enjoyment, and meaningfulness (Beni, Fletcher, and Ni Chróinín 2017). As one pre-service teacher noted:

Like the active listening one, so not jumping in straight away with your experiences and how you can relate, but making sure that you are actually listening to what they are saying, because if you jump in straightaway, there's that aspect of them then being unheard and you've kind of just bombarded them with everything what you are thinking and you're not actually listening to them, so yeah you are trying to be empathetic and help out, but it might make the situation worse (Erica, Group 1)

In addition, our conversations with participants also considered different ways of allowing students to provide their thoughts, feelings, reflections and/or feedback in an anonymous way – one that would safeguard their identity but still allow for their voice to be heard. In so doing, *feedback boxes* and the use of *post-it notes* were explored. With regard to the former, it was suggested a box could be used where students could anonymously post their comments as it was recognised that if a pupil has 'had trauma and the school knows about it, they're probably getting asked quite a lot' (Lana, Group 1). With the latter, participants considered ways in which, as students leave or enter lessons, they might write on a post-it note and stick it to a designated place (e.g. whiteboard/door). Finally, *traffic light cards* were suggested as a means of non-verbal communication, that could be used to express feelings about activities or whether pupils understand tasks:

They gave out laminated copies of red, yellow and green cards, so the teacher, they'd be sitting in the classroom or whatever. This is obviously for more theory stuff, but then the teacher would ask like how you doing? Do you understand? No one staring (at) each other cause they're all worrying about their own cards (and) throughout the lesson if they're struggling, all they do is put it to the side. This green card or red card and then the teacher would then know and then organise a time to speak to the people and if they need help or if they wanted a chat, you know. Just so they know there were options there for if (they) needed that extra support (Edie, Group 1)

Promoting strengths and self-belief

Arguably, by getting to know students and their interests, teachers are better positioned to start to promote their strengths and develop students' self-belief. Promoting strengths is reflective of

trauma-aware pedagogies, since it signifies a shift to a more-strengths based approach. For instance, instead of asking pupils ‘what is wrong with you today?’, strengths-based approaches would ask ‘what has happened today?’. This shift may take time but one strategy that was suggested as encouraging this more positive perspective in PE could be *supporting pupils to be model performers*. In this way, pupils who are affected by trauma could be recognised for positive behaviours and actions, though this would need to be in the right context (i.e. whereby the teacher considers the student, the skill, and the number of observers):

Say it’s that something they are like quite confident in already or something allowing them to be like a model performer. And like I feel like that could go one of two ways that, like it could be quite overwhelming, but even if it’s like to smaller groups like if you’re doing it with group tasks or something and then you’re asking them to show something that they know they can already do ... if they’re able to explore something that they know they can do, they can show that they’re being a bit more confident and they’re kind of developing that skill and like eventually, I suppose you could have them being a model performer for the whole class (Lana, Group 1)

We would also suggest that teachers could ask the student (in private) if they would like to be the model performer first, since just being asked might have a positive impact. As well as promoting model performances as a means of showcasing students’ strengths and developing their self-belief, pre-service teachers also noted how setting *small incremental tasks* could support this too:

I think, especially where the school I’m at, because the students ... they might not come from the best backgrounds, they might not have developed the resilience to be able to cope with these situations, which is about promoting those and then making sure that you know they feel capable in lessons and I’m not setting tasks that are too challenging for them, I want them to get successful first and then build up on that once they’ve sort of mastered that idea that they can be successful and they’re not just seeing a wall straight away and thinking ‘god I can’t do this’ and now it’s like actually if you set them up little challenges first and then build it up, it definitely, for the students in my school anyway, that works best for them (Alice, Group 2)

Taken together, setting small incremental tasks, and allowing students the option/opportunity to be model performers are two strategies that could be used to promote students’ strengths and develop their self-belief.

Conclusions

In this paper we extend our innovative work and present a range of strategies – co-created with pre-service teachers – that could be used by both future and current practitioners to enact trauma-aware pedagogies in PE. Through collectively considering the principles and providing pre-service teachers with the space to reflect and discuss, we have been able to co-create these strategies with them, offering an original contribution to the work around PE pedagogies. Indeed, the novel approach we adopted here enables practitioner’s (emerging) expertise to be recognised and shared. Moreover, this work highlights the value of the overarching principles to help teachers recognise existing ‘good’ practice, and to develop new ideas. Opportunities such as these are important for all teachers, but especially for pre-service teachers given (a) the challenges they face during placement-based learning and (b) the fact that they should be supported and provided with space for dialogue and reflection during this critical time in their career. However, while the workshop supported pre-service teachers to generate ideas, having opportunities to enact them in practice may be more challenging. As noted by Erica (Group 1): ‘I think as a student teacher, you are just trying to meet the criteria for each (mentor teacher) rather than actually feeling that ... you are being heard and wanting to try new things’.

While the strategies outlined in this paper are clearly beneficial for those students who have been impacted by trauma, we also note that they are reflective of ‘good pedagogy’ more broadly. We also recognise that some strategies are reflective of whole-school approaches (e.g. ‘no shouting’ policy) and are not bound solely to the PE context. Such recognition of the broader school context was very much central to our earlier work regarding trauma-aware pedagogies for PE, in which we drew on the 4Rs (SAMHSA 2014) – key assumptions which underpin a trauma-aware approach – to create a

foundation for our trauma-aware principles. The findings from this study therefore reinforce the significance of whole-school approaches in addressing trauma and contribute to broader discussions within the literature in this respect (see also Brown et al. 2022; O'Toole 2022). Moreover, they also highlight that in enacting any strategies, there remains a need for practitioners to keep in mind the specific context of their school, the students, and broader cultures, as there is no one-size-fits-all approach. Hence, we are not suggesting that teachers should aim to enact all of the strategies outlined here, rather that they could draw on certain strategies to support students in PE, depending on the context they find themselves in.

Finally, this study emphasises that further work in this area should consider the importance of context when seeking to enact trauma-aware pedagogies and look to engage practitioners from all career stages to support the development of supportive learning communities. There is also, we argue, a need to consider how the strategies presented here relate to and reflect the learning of pre-service teachers, as learning of/about trauma-aware approaches might happen in different ways – both formally and informally – and in different settings.

Note

1. A GIF (Graphical Interchange Format) is an image or soundless video that continuously plays on a loop.

Disclosure statement

No potential conflict of interest was reported by the author(s).

ORCID

Thomas Quarmby  <http://orcid.org/0000-0002-6950-5010>

Rachel Sandford  <http://orcid.org/0000-0002-7572-0059>

Oliver Hooper  <http://orcid.org/0000-0001-6303-6017>

Shirley Gray  <http://orcid.org/0000-0002-7742-2629>

References

- Avery, J., J. Deppeler, E. Galvin, H. Skouteris, P. Crain de Galarce, and H. Morris. 2022. "Changing Educational Paradigms: Trauma-Responsive Relational Practice, Learnings from the USA for Australian Schools." *Children and Youth Services Review* 138: 1–11. doi:10.1016/j.childyouth.2022.106506.
- Bellis, M., K. Hughes, N. Leckenby, C. Perkins, and H. Lowey. 2014. "National Household Survey of Adverse Childhood Experiences and Their Relationship with Resilience to Health-Harming Behaviors in England." *BMC Medicine* 12: 72. doi:10.1186/1741-7015-12-72.
- Beni, S., T. Fletcher, and D. Ni Chróinín. 2017. "Meaningful Experiences in Physical Education and Youth Sport: A Review of the Literature." *Quest* 69 (3): 291–312. doi:10.1080/00336297.2016.1224192.
- Bergholz, L., E. Stafford, and W. D'Andrea. 2016. "Creating Trauma-Informed Sports Programming for Traumatized Youth: Core Principles for an Adjunctive Therapeutic Approach." *Journal of Infant, Child, and Adolescent Psychotherapy* 15 (3): 244–253. doi:10.1080/15289168.2016.1211836.
- Braun, V., and V. Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3 (2): 77–101. doi:10.1191/1478088706qp063oa.
- Brown, E., A. Freedle, N. Hurless, R. Miller, C. Martin, and Z. Paul. 2022. "Preparing Teacher Candidates for Trauma-Informed Practices." *Urban Education* 57 (4): 662–685. doi:10.1177/0042085920974084.
- Brown, M., J. Howard, and K. Walsh. 2022. "Building Trauma Informed Teachers: A Constructivist Grounded Theory Study of Remote Primary School Teachers' Experiences with Children Living with the Effects of Complex Childhood Trauma." *Frontiers in Education* 7: 1–15. doi:10.3389/educ.2022.870537.
- Brunzell, T., H. Stokes, and L. Waters. 2016. "Trauma-informed Flexible Learning: Classrooms that Strengthen Regulatory Abilities." *International Journal of Child, Youth and Family Studies* 7 (2): 218–239. doi:10.18357/ijcyfs72201615719.
- Courtois, C., and J. Ford. 2009. *Treating Complex Traumatic Stress Disorders: An Evidence-Based Guide*. New York, NY: The Guilford Press.

- Ellison, D., and J. Walton-Fisette. 2022. "‘It’s More About Building Trust’: Physical Education Teachers’ Experiences with Trauma-Informed Practices." *European Physical Education Review* 28 (4): 906–922. doi:10.1177/1356336X221096603.
- Ellison, D., T. Wynard, J. Walton-Fisette, and S. Benes. 2020. "Preparing the Next Generation of Health and Physical Educators Through Trauma-Informed Programs." *Journal of Physical Education, Recreation & Dance* 91 (9): 30–40. doi:10.1080/07303084.2020.1811623.
- Fallot, R., and M. Harris. 2009. *Creating Cultures of Trauma-Informed Care (CCTIC): A Self-Assessment and Planning Protocol*. Washington, DC: Community Connections.
- Felitti, V., R. Anda, D. Nordenberg, D. Williamson, A. Spitz, V. Edwards, M. Koss, and J. Marks. 1998. "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults." *American Journal of Preventive Medicine* 14 (4): 245–258. doi:10.1016/S0749-3797(98)00017-8.
- Fletcher, T., and K. Baker. 2015. "Prioritising Classroom Community and Organisation in Physical Education Teacher Education." *Teaching Education* 26 (1): 94–112. doi:10.1080/10476210.2014.957667.
- Franke, H. 2014. "Toxic Stress: Effects, Prevention and Treatment." *Children* 1: 390–402. doi:10.3390/children1030390.
- Hellison, D. 2011. *Teaching Responsibility Through Physical Activity*. Human Kinetics, IL: Champaign.
- Hemphill, M., R. Martinnen, and K. Richards. 2022. "One Physical Educator’s Struggle to Implement Restorative Practices in an Urban Intensive Environment." *Journal of Teaching in Physical Education* 41 (1): 140–148. doi:10.1123/jtpe.2020-0145.
- Howard, J. 2021. *National Guidelines for Trauma-Aware Education*. Queensland University of Technology and Australian Childhood Foundation. https://eprints.qut.edu.au/207800/1/National_Trauma_Aware_Guidelines_web_version_2021.pdf.
- Howlett, M. 2022. "Looking at the ‘Field’ Through a Zoom Lens: Methodological Reflections on Conducting Online Research During a Global Pandemic." *Qualitative Research* 22 (3): 387–402. doi:10.1177/1468794120985691.
- Kearns, S., and N. Hart. 2017. "Narratives of ‘Doing, Knowing, Being and Becoming’: Examining the Impact of an Attachment-Informed Approach Within Initial Teacher Education." *Teacher Development* 21 (4): 511–527. doi:10.1080/13664530.2017.1289976.
- Lynch, S., and M. Curtner-Smith. 2019. "‘You Have to Find Your Slant, Your Groove’: One Physical Education Teacher’s Efforts to Employ Transformative Pedagogy." *Physical Education and Sport Pedagogy* 24: 359–372. doi:10.1080/17408989.2019.1592146.
- Lynch, S., J. Schleider, and L. McBean. 2020. "Restorative Practice in Health and Physical Education: Shifting the Norm from Punitive to Reparative." *Journal of Physical Education, Recreation & Dance* 91 (9): 41–47. doi:10.1080/07303084.2020.1811624.
- NSPCC. 2022. "Statistics on Child Abuse." <https://learning.nspcc.org.uk/statistics-child-abuse#heading-top>.
- O’Toole, C. 2022. "When Trauma Comes to School: Toward a Socially Just Trauma-Informed Praxis." *International Journal of School Social Work* 6 (2): 1–12. doi:10.4148/2161-4148.1076.
- Quarmby, T., R. Sandford, and E. Elliot. 2019. "‘I Actually Used to Like PE, but not Now’: Understanding Care-Experienced Young People’s (dis)Engagement with Physical Education." *Sport, Education and Society* 24 (7): 714–726. doi:10.1080/13573322.2018.1456418.
- Quarmby, T., R. Sandford, R. Green, O. Hooper, and J. Avery. 2022. "Developing Evidence-Informed Principles for Trauma-Aware Pedagogies in Physical Education." *Physical Education and Sport Pedagogy* 27 (4): 440–454. doi:10.1080/17408989.2021.1891214.
- Reddig, N., and J. VanLone. 2022. "Pre-service Teacher Preparation in Trauma-Informed Pedagogy: A Review of State Competencies." *Leadership and Policy in Schools*, doi:10.1080/15700763.2022.2066547.
- Save the Children. 2020. "Children at Risk of Lasting Psychological Distress from Coronavirus Lockdown. Save the Children." <https://reliefweb.int/report/world/children-risk-lasting-psychological-distress-coronavirus-lockdown-save-children>.
- Siegel, D. 1999. *The Developing Mind: How Relationships and the Brain Interact to Shape who we are*. New York, NY: The Guildford Press.
- Smith, M. 2018. "Capability and Adversity: Reframing the ‘Causes of the Causes’ for Mental Health." *Palgrave Communications* 4 (13): 1–5. doi:10.1057/s41599-018-0066-z.
- Smith, B., and K. McGannon. 2018. "Developing Rigor in Qualitative Research: Problems and Opportunities Within Sport and Exercise Psychology." *International Review of Sport and Exercise Psychology* 11 (1): 101–121. doi:10.1080/1750984X.2017.1317357.
- Smith, B., O. Williams, L. Bone, and the Moving Social Work Coproduction Collective. 2023. "Co-production: A Resource to Guide co-Producing Research in the Sport, Exercise, and Health Sciences." *Qualitative Research in Sport, Exercise and Health* 15 (2): 159–187. doi:10.1080/2159676X.2022.2052946.
- Sonu, S., D. Marvin, and C. Moore. 2021. "The Intersection and Dynamics Between COVID-19, Health Disparities, and Adverse Childhood Experiences." *Journal of Child & Adolescent Trauma* 14: 517–526. doi:10.1007/s40653-021-00363-z.

- Sparkes, A., and B. Smith. 2014. *Qualitative Research Methods in Sport, Exercise and Health: From Process to Product*. London: Routledge.
- Substance Abuse and Mental Health Services Administration. 2014. *SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach*. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Sutherland, S., and M. Parker. 2020. "Responding to Trauma in and Through Physical Education." *Journal of Physical Education, Recreation & Dance* 91 (9): 16–21. doi:10.1080/07303084.2020.1811621.
- Treisman, K. 2017. *Working with Relational and Developmental Trauma in Children and Adolescents*. London: Routledge.
- UNESCO. 2019. *Education as Healing: Addressing the Trauma of Displacement through Social and Emotional Learning* (Global Education Monitoring Report No. 38). Paris: UNESCO. <https://data.unicef.org/topic/covid-19-and-children>.
- Van Lancker, W., and Z. Parolin. 2020. "COVID-19, School Closures, and Child Poverty: A Social Crisis in the Making." *The Lancet Public Health* 5 (5): e243–e244. doi:10.1016/S2468-2667(20)30084-0.
- Walton-Fisette, J. 2020. "Fostering Resilient Learners by Implementing Trauma-Informed and Socially Just Practices." *Journal of Physical Education, Recreation & Dance* 91 (9): 8–15. doi:10.1080/07303084.2020.1811620.
- Wright, P., W. Li, and S. Ding. 2007. "Relations of Perceived Motivational Climate and Feelings of Belonging in Physical Education in Urban Schools." *Perceptual and Motor Skills* 105 (2): 386–390. doi:10.2466/pms.105.2.386-390.