Supporting Teachers and Educators who are Teaching Children Who Have Suffered Trauma and/or Neglect

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ABSTRACT

Resource Teachers: Learning and Behaviour (RTLB) are receiving significantly more behaviour referrals from teachers and schools. In the cluster where I practise as an RTLB there has been a major increase in funding requests relating to concerning behaviours. Behaviour-specific requests increased from 6 percent in 2013 to 26.2 percent in 2017. Schools are now including more students who have suffered from trauma and/or neglect, who present with complex, and at times, very challenging behaviour. Some of the behaviours include the student appearing hyper-vigilant, who flies into unpredictable, uncontrollable rages, who runs away, who swears, and who verbally and even physically attacks other children or the very people who are there to support them. The usual behaviour management systems and strategies that teachers have learnt to use including rewards and consequences often have little impact on this child's ability to remain calm, rational and therefore ready for learning (Howard 2013; Ziegler, 2015).

This paper reports on an inquiry which investigated how to support children who have experienced trauma or neglect in early life, and specifically, how synthesising research in the field of childhood trauma and presenting it in a 40-minute instructional video, can support the teachers of children who present with complex and challenging behaviours due to trauma. It is essential that educators understand the physiological state these children are in, and understand the theory as well as the evidence-based practical strategies that can be used when working with traumatised students. Ultimately, by understanding these concepts, teachers will be able to support children with renewed confidence, understanding and empathy.

Research paper

Keywords:
neglect; professional inquiry; trauma

INTRODUCTION

As an RTLB, I want to make a positive difference for children and, in particular, for vulnerable children. The aim of this professional inquiry was to investigate how Resource Teachers: Learning and Behaviour (RTLB) could use an instructional video to share this research and information with teachers to assist them in understanding the impact of trauma on neurological development in children. It also sought to investigate if this had any positive effect on teachers' beliefs and ability to support students with challenging behaviour. The rationale for this research grew out of frustration at the lack of practical resources explaining to teachers the impact of trauma on children's' neurological development.

The literature suggests that teachers need both theoretical and evidence-based practical strategies to affect change in their practice (Timperley, Wilson, Barrar & Fung, 2007). The specific questions of this inquiry were:

1. By developing a video resource, can this resource support teacher growth and capability in developing understanding in:
   a. The theory of the impact of trauma and neglect on neurological development in children, and
   b. Evidence-based practical strategies and interventions which have been identified as being key to improving the outcomes of these students.
2. What do teachers consider to be the most valuable input from RTLB to support them when working to improve the well-being and educational outcomes of children identified as suffering trauma and who have complex needs?

LITERATURE REVIEW

What is Trauma and How is it Experienced?

The literature provides multiple explanations and definitions on what childhood trauma is, however, all have common threads which focus on trauma occurring as a result of prolonged stress reaction to distressing and/or disturbing experiences which overwhelm people and their ability to cope. A useful explanation is provided by Downey (2007)

when she describes trauma occurring when "an event is so frightening it causes a prolonged alarm reaction where the body is primed and pumped with chemicals and enzymes such as adrenaline and does not calm down for a long time. In any person, this creates an altered neurological state" (p. 3). Definitions involve aspects of anxiety and an inability to cope with situations as the brain goes into a survival pattern of fight or flight response (Downey, 2007; Howard, 2013; Ziegler, 2015).

Link between Trauma and Attachment Theory

If there is ongoing trauma in the early life of a child there is very likely to be a direct link to the impact on attachment to the adults looking after them.

British psychoanalyst John Bowlby (1982) developed, starting in the fifties, the basic principles of "attachment theory" where he studied the interaction between parenting behaviours and child development. Attachment focuses on the child's needs being met, the instinct of reciprocal attachment, and the enduring emotional and physical affiliation between the child and the caregiver. There are seven functions of attachment and these can impact significantly in later life depending on whether an individual has developed healthy or poor attachments. Poor attachments can lead to the child feeling unsafe, unprotected, anxious and fearful. If a child has ongoing feelings of being unsafe and anxious this can lead to having poor emotional self-regulation, they are easily stressed, impulsive, aggressive, they have poor self-worth, poor empathy towards others, and they believe the worst of most people and of life.

Ainsworth, a Canadian psychologist, continued the work of Bowlby by identifying different types of secure and insecure attachment between child and carer. She developed the 'Strange Situation Test' (Ainsworth, Blehar, Waters & Wall, 1978) which involves putting the child in a controlled situation without the mother, then introducing a stranger and assessing the behaviour. This has become one of the most commonly-used procedures in child attachment research. This inquiry focuses on what she calls 'disorganised attachment'. Briefly, this is when the carer has issues themselves and cannot care for the child, and the child is in a high-risk home environment and is often maltreated. They are therefore often in an ongoing stressful state of trauma.

Impact of Trauma on Children's Functioning

Research in this area has continued to grow as the profound impact of trauma has become recognised. For example, Perry, Pollard, Blakely, Baker and Vigilante (1995) report that trauma in childhood can have emotional, behavioural, cognitive, social, and physical impacts. Similarly, Howard (2013) has found that trauma (particularly neglect and abuse) during the first years of a child's life can have a major negative impact on the child's attachment to their caregiver. This can negatively affect the child's future behaviours and relationships, and even their mental health. Having an engaged and invested caregiver is one of the single-most important determinants of neurodevelopment for children.

Impact on a Child's Developing Brain

As Perry and Szalavitz (2006) have reported, there has been a massive growth in the amount of research into the brain and brain development, beginning in the 1980s and expanding massively in the 1990s. Because of this, there is currently evidence on the physical effects of trauma and disorganised attachment on a child's developing brain. This is established through a range of sophisticated brain scanning technologies, computerised axial and positron emission tomography, and magnetic resonance imaging (Howard 2013).

This has led to a growing body of literature on the neurological impact of trauma on the developing brain (e.g. Coade, Downey & McClung 2008; Cook, Blaustein, Spinazzola & van der Kolk, 2003; Howard, 2013; Pearce 2009; Perry & Szalavitz, 2006; Schore & Schore, 2008; Ziegler, 2015).

With all the literature reviewed, there are common threads that outline the physical development of the brain during the critical period of conception to three years of age. There are four distinct areas of the brain and their development is sequential. Firstly, the brain stem developed in utero controls things done without thinking like heartbeat, breathing, swallowing and the fight, flight, or freeze response. Next to develop is the cerebellum or midbrain – responsible for movement, balance etc. Thirdly, the limbic system consists of two important parts: the hippocampus, which has an important role in learning and memory, and amygdala, which helps regulate emotional responses that guide behaviour. The development of the limbic system is mostly completed by the age of three or four years of age. Lastly, the cortex – responsible for thinking and learning – and the prefrontal cortex, which is developed much later and involved with higher level thinking, involves negotiating, planning, decision making, and abstract thinking (Howard, 2013).

The vulnerable brain develops rapidly during early childhood. All brain development is the result of neurons (nerve cells) communicating with each

other electro-chemically. These electro-chemical connections are called synapses. A new-born infant has over 100 billion neurons, each having around 2,500 synapses which form neural pathways. In babies, synapses are growing at 1,000 per second and by age five there are more than a quadrillion synaptic connections. These synaptic connections have a huge influence on a person's emotional, social and intellectual make-up (Howard, 2013).

This is where attachment is vital to the developing brain. Human brains are hardwired to need social connections to grow well and develop resilience. Healthy attachment is the firing of strong neuron pathways in a predictable and repeated sequence. The more often a pathway is stimulated, the stronger and more resilient it becomes. With strong, healthy brain development, the child learns confidence, trust, emotional regulation and a positive world-view.

But what impact does insecure attachment, trauma or neglect have on the developing brain? Children who have suffered trauma have not developed healthy neural pathways. Their neural activity can be erratic and maladaptive, and their brain is wired for survival. They could be living in an unpredictable, threatening, abusive, neglectful and scary home, and therefore have high anxiety which leads to a lot of electrical activity in the 'survival' brain stem, and low activity in the cortex, thinking brain (Haskell, 2014; Ziegler, 2015). The synaptic connections between the amygdala, where the information comes into the brain, and the brainstem have overly strong connections because of the trauma in their lives, and any threats, even perceived threats, will trigger the fight and flight stress response. The amygdala is 'wired' to thinking that there is a threat and straight away triggers the stress response. When this stress response is triggered, there are physiological changes including the release of adrenaline, increased heart rate and dilation of pupils, while non-essential organ systems are turned off including the cortex, the thinking part of the brain. Connections to the cortex are not developed (Haskell, 2014; Ziegler, 2015).

Understanding the Behaviour of Children at School who have Suffered Trauma

There is a lot of literature which focuses on the impact this has for children at school (e.g. Howard, 2013; Perry & Szalavitz, 2006; Taylor, 2010; Ziegler, 2015). It is important for teachers to understand the impact of trauma on children's neurological development and to understand that the child's brain has not developed healthy connections. A student could present as hyper-vigilant, with their brain stem very easily stimulated. They could present as being stressed and always on the lookout for any sign of threats. Often, they think adults at school are uncaring and manipulative rather than basically kind and wanting the best for them. Rewards can be viewed as manipulation and punishments as cruel, and this can lead to further maladaptation and negative world-views. They will often misinterpret the neutral or even friendly intentions of others as dangerous to them and they could respond with a survival response. Self-regulation of emotions is very difficult for them (Downey, 2007).

Supporting Students who have Experienced Trauma

To support students with complex needs, teachers and educators need an understanding of why they have such a low threshold for stress, why they have challenging behaviour, and why they are not responding to the usual behaviour management strategies. Once teachers have this understanding, they may be able to build empathy and move forward to plan appropriate interventions for them.

There are common key ideas presented in the literature on how to support individuals with complex needs and experiences. The most common agreed theme is the importance of relationship-building. Howard (2013), Perry and Szalavitz (2006) and Downey (2009) all identify that predictable, respectful relationships with at least one adult at school who is consistent, patient and who gives repetitive loving care is critical for improved outcomes. Downey (2009) sums this up by saying, "The quality of the relationships we have with them is pivotal to helping them move from isolation to connection. Children need unconditional care: a sense that those involved in their lives will not give up on them, and still respect and value them even when they demonstrate the worst of their pain" (p 6).

Another common theme relating closely to this is developing an environment of safety and calm to help the child reduce their hyper-vigilance. When the brain stem is firing with high activity in a stressful situation, the cortex is on the other end of the scales with low activity. To really be using your cortex, your brainstem needs to be calm. This is key to supporting individuals who have a lot of brain stem activity. Our job is to help all students feel safe and calm so that they are in the right headspace to learn.

A third theme is the importance of teaching emotional self-regulation. Teachers and other staff need to support students by teaching them effective calming strategies, understanding ways to minimise a crisis event, and implementing healthy ways to address crisis when it does occur (Howard, 2013).

Facilitation of Teacher Learning to Bring About Change

When supporting teachers and effecting change in their beliefs and practice, it is important to identify successful ways to facilitate teacher learning, with the goal of improving outcomes for these vulnerable children.

In their report, *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration,* Timperley, Wilson, Barrar and Fung (2007) synthesised the evidence around the types of activities that were likely to promote professional teacher learning. Importantly, they pointed out that professional development which challenged teachers existing beliefs of the child and provided alternative pedagogies that were better-able to meet the needs of the child were the most effective. They explored the importance of closely integrating theory and practice, and that professional learning activities need to focus on this integration rather than on a set of teaching strategies divorced from theory.

They also reported the importance of teacher theory engagement and how this impacts on the outcomes of professional development. It needs to make sense to the teacher; "Sense-making is both necessary and unavoidable" (p. 197). The three important things interacting here are the individual teacher's existing knowledge, beliefs and attitudes, the situation they are in, and the message of the professional development provider.

Creating dissonance with current position can help change teaching views and approaches (Timperley et al., 2007). The studies show that creating conflict with what they currently believe could lead to fundamental change. This could be achieved by presenting theory that challenges existing beliefs or theory that opened up new possibilities for addressing the acknowledged problem. Interventions could create dissonance by presenting unexpected outcomes for alternative teaching practices.

METHODOLOGY

The researcher elicited the support of a senior colleague to contact school principals who were willing for teachers in their school to be invited to participate in this study. As a result of this process, principals identified three teachers who had children in their class who had suffered trauma and/or neglect. These teachers were sent an information sheet about the research and invited to participate.

Once the three teachers had accepted the invitation to participate in the research, they were sent a link to an online questionnaire. The questionnaire gathered data on teachers' beliefs, attitudes, knowledge and understanding of the child in their class, the theory of the impact of trauma and neglect on neurological development in children, and known practical strategies that could be used with their student.

The researcher then met with them and showed an instructional video that she had produced. The video is thirty-five minutes long and covers common beliefs of many teachers dealing with these difficult students; it covers the importance of attachment, and the impact of trauma and neglect on early neurological development. The video also covers a number of evidence-based interventions that the experts recommend as being the most effective when supporting students with complex needs. They spent some time after viewing the video discussing aspects of it and their students of concern. They were all sent a link to a post-video questionnaire and all three teachers completed this within a week of viewing the video.

RESULTS

Behaviour being displayed at school included verbal and physical aggression to peers and adults, including swearing, name-calling, pushing, punching, defiance, angry outburst, blaming everyone else to justify their wrong behaviour, being argumentative and unreasonable when things were not going their way including head hanging and crying when approached by the teacher, blaming everyone else for their wrong behaviours, running off, refusing to eat with others or refusing to eat at all, wanting to be in control of situations, and being a master negotiator.

The questionnaire gathered information about the teachers' knowledge of the theory of the impact of trauma and neglect on neurological development in children before they viewed the video. Two identified they had no knowledge and one had a little knowledge.

Before they viewed the video, they were asked what the most pressing concerns were right now and how they were feeling about this student and about teaching them right now. There were a variety of answers. One teacher felt confident:

> *All good! I try different strategies and have colleague support!! (Teacher 1).*

The other two teachers were having difficulties with their students' behaviour:

> *Not sure where to go to as today a new level was hit, with chair throwing after school etc*

as an expectation of a weekly prize was not met. I am working at building the teacher/ student relationship which he responds to well but when it comes to whole class activities it is more difficult (Teacher 2).

I really enjoy teaching him and he is not usually unsettled for me. However, he is not coping well with missing his sister. He is beginning to become more defiant and is being noticed in the playground. He will not listen to any other teacher if he thinks he is in trouble. He will run away from them. He is okay for my regular reliever, but we worked hard to have him know that he could trust her (Teacher 3).

Results of teachers' beliefs and attitudes pre-and post-viewing of the video were compared, and some positive shifts were found. Participants were asked to rate their level of agreement with the following statements, and Table One highlights findings from both the pre-and post-video surveys.

Table 1
Teachers' Attitudes and Understandings

Statement		Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
This student is a victim of the 'cycle of abuse'	Pre-video viewing			X	X	X
	Post-video viewing	X		XX		
The student's prospects are grim	Pre-video viewing		X	X	X	
	Post-video viewing	X X	X			
This student has the power to make the right choices, and he is deliberately choosing to do wrong	Pre-video viewing		X		X X	
	Post-video viewing		X X X			
The rights of the rest of the class to learn in a happy safe environment is more important than this one disruptive student	Pre-video viewing		X X		X	
	Post-video viewing		X		X	
As a teacher, I work hard to prepare for teaching my class and it is not fair when one student sabotages the whole classes learning	Pre-video viewing	X	X		X	
	Post-video viewing		X X		X	
It is not a good look for the school when there is a very disruptive child	Pre-video viewing		X		X X	
	Post-video viewing	X	X X			
Withdrawing this student from class and even from school is the best option for him/her	Pre-video viewing	X	X X			
	Post-video viewing	X	X X			
This student needs withdrawal and negative consequences to help them learn how to behave properly	Pre-video viewing	X	X X			
	Post-video viewing	X X	X			

A list of strategies was given to the teachers to rank them in order of effectiveness when working with their students who have suffered trauma or neglect. Figure 1 presents the findings from the pre- and post-video survey.

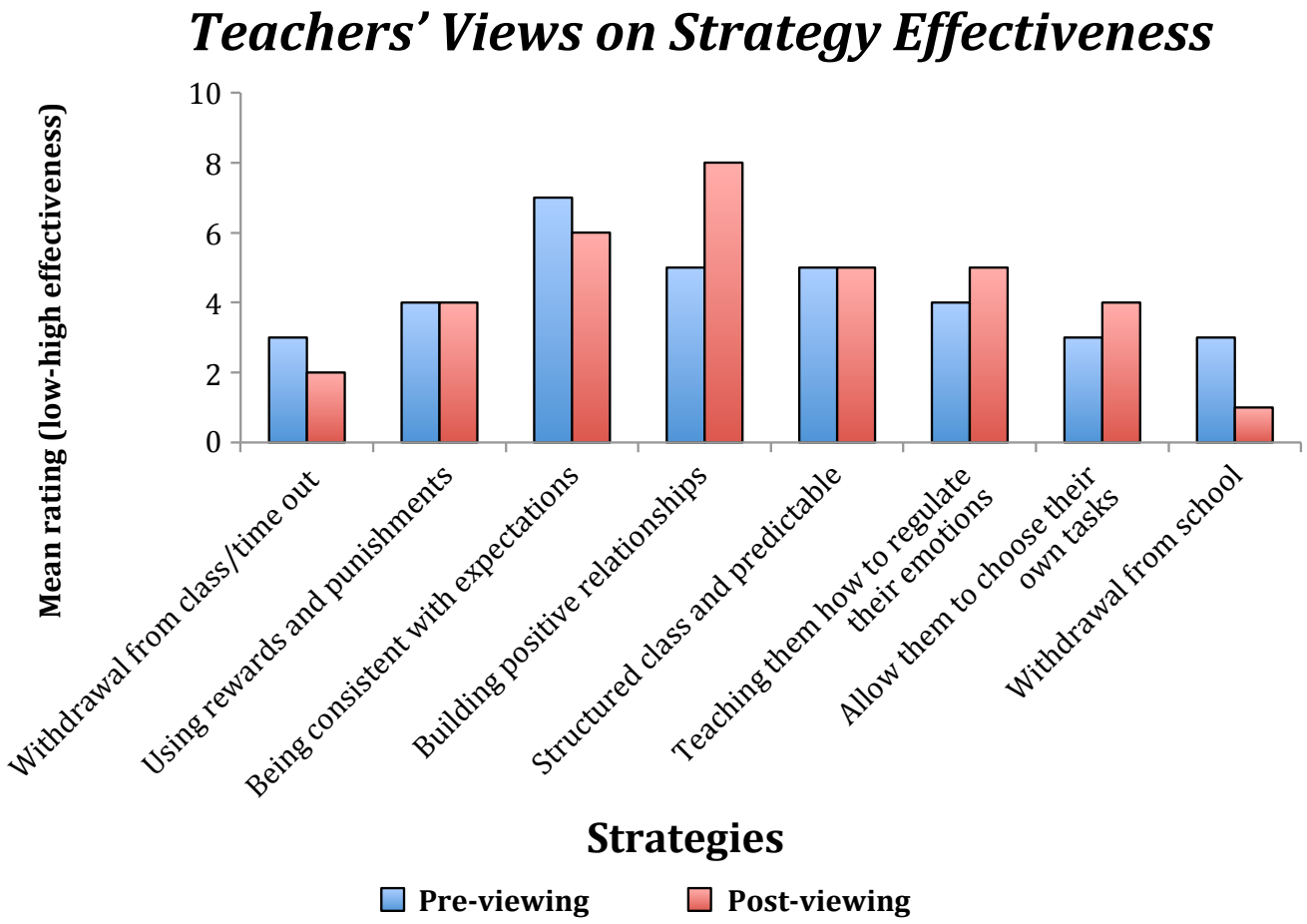

Figure 1.
Teachers' views on strategy effectiveness.

The strategies discussed in the video were all referred to in the post-viewing results, showing a shift in teacher understanding of what strategies work best for these students. The video discussed how building positive relationships was key, and this went from second to first in the post-video survey. Being consistent with expectations and teaching them how to regulate their own emotions came second post-video, which are two other important considerations when working with these children. Teaching them how to regulate their own emotions went from fourth to second equal in the ranking score which was pleasing as this was an important strategy discussed in the video. Withdrawal from class or school got the lowest ranking score in both surveys.

Teachers were asked if they had an expectation that the student should complete the learning tasks the rest of the class were undertaking. Initially, two of the three expected that the student should complete the learning tasks the other students were doing, whereas one considered it was okay to let them do other things from the class. After viewing the video, teachers were asked what their understanding was around sometimes allowing them to do other things different from the class rather than expecting that they complete the learning tasks the other students are completing. The results showed all three teachers believed that allowing the child to do things that might be different to the rest of the class was necessary and supported the learning and social needs of the child, for example:

> *Due to the exposure of ongoing trauma, the development of the child's brain shows their gaps between their decision-making and learning, therefore to do other things from the class is supporting this child's learning (Teacher 1).*

One teacher demonstrated her understanding of the necessity to consider a different approach to allow the child to calm down:

> *This helps him calm down - or it stops a big blow up. Even though he may be doing something differently to the rest of the class, he will be learning skills that he needs in the future such as self-regulating or self-soothing (Teacher 3).*

Another teacher understood that it was detrimental to continue pushing the child:

I think that if he is escalating and becoming anxious etc there is no point in pushing him. It is better for him, the class and me for him to do something that will keep him in a good space and this may mean something other than what the class is doing (Teacher 2).

This inquiry also sought to investigate the usefulness of the video as an instructional resource for teachers. One of the survey questions asked teachers to rank which aspect of the video was the most valuable to them; the science of neurological development in children who have suffered trauma and neglect or the practical strategies to use when teaching these students. All three teachers thought the combination of both theory and practical strategies was the most helpful, two thought the practical strategies came second and one thought the science of neurological development came second. They were asked to indicate what support/professional development would be most valuable from RTLB. The results showed two wanted a combination of both theory and practical strategies, while one considered the theory on the science of neurological development in children who have suffered trauma and neglect as important new learning and what they thought would be most valuable.

Teachers were also asked to provide qualitative feedback as to the value of the video, and how it could impact on their practice when working with the children in their class who have suffered trauma and/or neglect. One teacher indicated improved understanding of his student:

As above a great source of information that has given me understanding and recognition of where the child is at and how I can support him (Teacher 1).

Another teacher discussed how she had improved understanding of other students in her class as well:

I have found the video has been helpful in not only thinking about my target child I had in mind but other children in my class. It has made me aware and more patient in regard to why they may be acting the way they are (Teacher 2).

The third teacher mentioned the *Incredible Years Teacher Course* and how it relates to information in the video. She also discussed how the video would be useful for other staff members:

I really think this was a great video. It has helped consolidate the learning I had just done with IYT. I would love for the teacher aides at our school working with these students to watch this. It may help them understand some of the theory behind the behaviour and give them more of an understanding of where these children are coming from.

Teachers were also asked to comment on what was the most important concern right now and how they were feeling about this student and about teaching him. All three teachers commented that they were feeling more positive and confident. For example, Teacher 3 commented:

I am feeling really positive working with him now. I feel that I had been doing lots 'right' for him. But the video just confirmed that I was on the right track.

Teachers indicated that they are a lot more aware of the special needs of their student as well as other students at school:

I am definitely more aware of what is going on in his mind and watching for signals of something starting to happen. I am also aware of how other children can play a huge part in his thinking. This week I have witnessed students thinking they are the teacher and have caused my student to become very aggressive (Teacher 2).

The video made me aware that there are a number of students at our school that demonstrate symptoms of neglect or trauma - not all of this is acting out with bad behaviour. The students that are withdrawn also need our help (Teacher 3).

The teachers have shared their new knowledge with their colleagues:

I have been able to share not only with my students but colleagues as to how we can support this student. I feel I understand him a bit more and can support him better especially during those moments when he cannot (Teacher 2).

Teachers are planning to use strategies discussed in the video. For example, Teacher 3 said:

There will be a calming box in our room now - not just for him but for the other students who may need some calming down time (Teacher 3).

Overall, the video was received very positively and was beneficial to the teachers. For example, Teacher 3 commented:

Thank you so much for taking the time to show us the video. I really got so much out of it!

DISCUSSION

This inquiry aimed to discover how RTLB could support teacher growth and capability when working with students who have suffered trauma or neglect, with the purpose of breaking down barriers to inclusion of these students and improving their well-being and educational outcomes.

Research has shown that teachers' beliefs need to be challenged and that there needs to be both theory and practice information imparted. As indicated in *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration* (Timperley, Wilson, Barrar & Fung, 2007), professional development which challenges teachers' existing beliefs of the student and provides alternative pedagogies that are better-able to meet the needs of the student are the most effective. Timperley et al. (2007) explored the importance of closely integrating theory and practice, and that professional learning activities need to focus on this integration rather than on a set of teaching strategies divorced from theory.

The instructional video produced for supporting teachers needed to challenge teacher beliefs, as well as the two important aspects of developing an understanding of the theory of the impact of trauma and neglect on neurological development in children, and the evidence-based practical strategies which have been identified as being key to improve the outcomes of these students.

The survey results of this research confirmed that the teachers who viewed the video thought the combination of both theory and practice proved the most valuable professional development for them. The video challenged the teachers' existing beliefs around why the child behaves like they do, and provided scientific evidence on the impact on neurological development on the child's brain and strategies directly relating to this theory.

Further feedback on the video was very positive and clearly indicated using this multi-media approach was effective. There was an increase in confidence of the teachers. Increased empathy was very evident in the feedback, and viewing the video has made them more aware of other children in their class or at the school who need greater understanding, patience and kindness.

FUTURE ACTIONS

As RTLB receive significantly more referrals from teachers who are struggling with challenging behaviour of students who have experienced trauma and neglect, it is important to not just focus on practical strategies but also to develop teacher understanding around the neurological development of these children.

There are a number of ways RTLB could practically support teachers and share this knowledge. This research has shown that producing an instructional video which covers these things is very effective. RTLB can cover a lot of information in a relatively short period of time using the motivational benefits of multi-media. In the future, with multi-media advances, RTLB should consider using this as an effective, efficient means of professional development for teachers.

CONCLUSION

As RTLB, we strive to break down the barriers to inclusion of all students. An important aspect of our work is supporting teachers who have students with complex needs and challenging behaviour, who have been identified as having suffered trauma and neglect. This study has highlighted the importance of giving teachers practical evidence-based strategies to build their capability but, as RTLB, we must also challenge teachers' existing beliefs and work at developing their understanding of the theory of the impact of trauma on the neurological development of these students.

There is a huge body of research on this topic that could be very overwhelming and unattainable for a busy classroom teacher to acquire. It was important to identify, synthesise and summarise the most relevant information and then present it all in an interesting way that teachers can identify with and understand. By producing an instructional video, the use of visual information which further assists in teacher understanding was used including diagrams, pictures and photos, as well as the use of an audio narration. RTLB need to be able to share research and development that directly relate to classroom teachers and educators. This study shows that, by using a multi-media approach, RTLB can achieve positive shifts in teacher attitudes and beliefs, as well as developing positive teaching skills and strategies.

"Ma te huru huru, ka rere te manu"
With feathers, a bird can fly
(With support, our children can achieve great things)

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Ko te Tamaiti te Pūtake o te Kaupapa
The Child – the Heart of the Matter

AUTHOR PROFILE

Andrea Tamatea

Andrea Tamatea is a Resource Teacher of Learning and Behaviour with Te Whiri Koko Cluster based in Palmerston North. After 28 years as a primary school classroom teacher, Andrea became an RTLB in 2010. Through her role as an RTLB, Andrea has developed a passion for supporting teachers who have children in their class and school who have suffered trauma and/or neglect.

As part of Andrea's Master of Specialist Teaching Degree, she completed extensive research on the impact of trauma on early neurological development, the implications of this for teachers who teach students who have suffered trauma and/or neglect, and importantly for everyday teaching, plus evidence-based practical trauma informed educational teaching practices. This research has been synthesised into a 40-minute video presentation for educators. Anyone interested in learning more please contact Andrea.

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