



Parent involvement in positive behaviour intervention and supports in Australia: teacher and parent/caregiver perspectives

Michelle Rose¹ · Mary Mooney¹ · Christine Johnston¹ · Roberto H. Parada¹

Received: 27 September 2021 / Accepted: 15 November 2022 / Published online: 9 January 2023
© The Author(s) 2023

Abstract

Positive Behaviour Intervention and Supports (PBIS) is a framework for defining, teaching, and supporting appropriate social and academic behaviour in the school setting. This framework is widely implemented across the world, including Australia. Studies evaluating the effectiveness of PBIS confirm a relationship between implementation fidelity and student outcomes. Abundant literature highlights the significance of parent involvement (PI) on children's social and academic outcomes. However, a consistently and surprisingly under researched component of PBIS is the involvement and influence of parents/caregivers. This article presents the findings of an original qualitative study using stakeholder interviews and artefact analysis to assess parent/caregiver involvement during PBIS implementation in two primary schools in South-West Sydney, Australia. These findings indicate that parent/caregiver involvement in PBIS implementation was interpreted differently by teachers and parents/caregivers and that there is potential for the development of improved methods to engage parents/caregivers more effectively in schools. Reframing parent/caregiver involvement in PBIS to address cultural sensitivities can progressively influence and stabilise this involvement to positively affect the sustainability, effectiveness and fidelity of PBIS. Limitations of the study together with recommendations for future practice are discussed.

Keywords Positive Behaviour Interventions and Supports · Parent involvement

✉ Michelle Rose
michellerose99@hotmail.com

Mary Mooney
m.mooney@westernsydney.edu.au

Christine Johnston
c.johnston@westernsydney.edu.au

Roberto H. Parada
r.parada@westernsydney.edu.au

¹ NSW DEC: New South Wales, Department of Education, 35 Bunarba Road, Gymea, NSW 2227, Australia

Overview of PBIS

Positive Behaviour Intervention and Supports (PBIS) is a student-centred three-tiered framework based on prevention logic. In Tier 1, 3–5 school rules are explicitly taught and the expectations embedded into everyday classroom and playground interactions. These expectations are encouraged by staff through the use of positive reinforcement and supportive corrective feedback. Tier 2 facilitates small groups which may include teaching social skills, self-management techniques and academic support providing extra intervention for those students who have difficulty adjusting to the expectations. Tier 3 provides individualised interventions for students who need more intensive support due to their unique needs. The framework is underpinned by behaviour theory in which Skinner-determined behaviours are controlled by their consequences (Berndt, 1992). The realisation that a functional relationship exists between behaviours and stimuli led to the development of applied behaviour analysis (ABA). Alberto et al., (2022) discuss ABA noting that structure, planning, consistency and consequences are important. Positive Behaviour Support (PBS) grew from ABA with the view that preventing behaviour problems improves quality of life (Carr et al., 2002). Quality of life may also be improved for parents and teachers, with research indicating that persistent challenging behaviours are linked to parental stress (Bidell & Deacon, 2010) and contribute to teacher stress and burnout (Clunies-Ross et al., 2008; Rajendran et al., 2020). Across the three tiers of PBIS, evidenced-based practices such as positive reinforcement, social skills groups and check and connect strategies support the behavioural expectations of students. A comprehensive explanation of School-Wide Positive Behaviour Supports is provided by Sugai and Horner (2009).

The effectiveness of the PBIS approach to support student behaviour has been established in many schools across the USA and in other countries with positive effects attributed to its implementation. For example, following PBIS implementation, Bradshaw et al. (2010) found that discipline referrals decreased significantly in 37 elementary schools in the USA. In New Zealand, Hill and Brown (2013) reported that out-of-class referrals had reduced from a previously recorded maximum of 37 per week to a maximum of two per week, with zero being recorded during some weekly periods.

Fidelity of practice is an important aspect of the effectiveness of the PBIS approach, one of which is linked to the success or failure of schools to reach their intended outcomes for students (Hill & Brown, 2013; Mathews et al., 2014). Fidelity refers to the consistent delivery of intervention practices or the extent to which the core elements of PBIS are applied (Turri et al., 2016). Examples of these elements are teaching rule expectations followed up with encouraging feedback, regular collection and analysis of data and culturally responsive parent involvement (PI) (Hill & Brown, 2013; Mathews et al., 2014; Rose et al., 2020). Although the evidence base for the implementation of PBIS in schools is strong, implementation fidelity remains a key issue particularly in relation to PI (Pas et al., 2010; Poed & Whitefield, 2020; Sugai & Simonsen, 2012). Furthermore,

although tools and resources are available to support PI in PBIS (Leverson et al., 2016; Weist et al., 2017), there remains no clear plan for schools to encourage and sustain PI generally, given consideration of the range of diverse cultures, abilities and confidence levels that parents have on entering the school environment (Hieneman & Fefer, 2017; Sahin, 2019). Rose et al., (2020) suggest that the fidelity of PBIS will be negatively impacted if cultural responsiveness is not addressed. According to Leverson et al., (2016) further work is required to enhance equity and involve parents in the PBIS approach. Research suggests that this requires schools to communicate effectively, acknowledge cultural diversity, develop relationships with parents and provide opportunities for shared decision-making within the school (Garbacz et al., 2018; Weist et al., 2017) in anticipation of building collaborative partnerships with parents for the benefit of all stakeholders. The issues are complicated, with trust and parent self-efficacy impacting the bidirectional support that a teacher–parent relationship can offer (Harpaz & Grinshtain, 2020). The fidelity, sustainability and effectiveness of the PBIS approach may well be strengthened further by encouraging PI. Increased PI in PBIS creates opportunity to facilitate the generalisation of positive behaviour skills across school, home and community settings (Garbacz et al., 2016; Hieneman & Fefer, 2017). Unfortunately, this is an area that is under researched and is in need of further investigation (Garbacz et al., 2018; Hieneman & Fiefer, 2017; Leverson et al., 2016).

In the Australian context PBIS is also termed Positive Behaviour for Learning (PBL) (www.pbl.schools.nsw.edu.au) maintaining the same data collection processes, systems and practices as PBIS in the USA. Although, in Australia, efficacy data show PBIS as having a positive impact on supporting behaviour and learning, such research is limited (Mooney et al., 2008). Additionally, teacher-led interventions and teacher–student relationships are emphasised in these studies at the expense of parent input or involvement (De Nobile et al., 2016). This is inconsistent with New South Wales state policies and legislation which highlight the importance of the partnership between parents and teachers in the shared responsibility of educating children (Education Act NSW, 1990; NSW Department of Education and Training (NSW DET) 1996, 2006a). The NSW Student Behaviour Strategy includes the aim “schools and parents partnering and collaborating to support student behaviour” (NSW Government – Education, 2021, p.21). Despite this aim, a clear plan for strong PI in school and PBIS remains elusive.

In conclusion, despite the success of the PBIS approach in schools, current research indicates PI is underemphasised and should be a targeted area for growth and investigation (Garbacz, et al., 2016, 2018; James, et al., 2018). The present study focusses attention on PI in PBIS, particularly parents’ and teachers’ perceptions and actions in relation to PI during PBIS implementation. Although NSW education policy and PBIS literature highlight the importance of PI, specific guidelines to enable PI in school more generally are lacking. Greater involvement of parents in school is not a new concept, but one without a targeted approach to do so. This unique study will add to the knowledge base of PI in school in Australia and elsewhere.

Aims and research questions

There are two related aims of this PBIS South-Western Sydney study:

- (a) To establish if PBIS is valued by teachers and parents and
- (b) To determine the extent of parent involvement in PBIS.

These aims were addressed by the following research questions:

1. What are the perceptions and understandings of teachers and parents regarding PBIS?
2. How do teachers and parents perceive parent involvement in PBIS implementation and in school more widely?

Method

This study employed a qualitative methodology to report meaningful understandings relevant to the human experience (Miles & Huberman, 2002).

Selection criterion

Schools in South-Western Sydney that had been implementing PBIS for at least one year were eligible to participate in the study. Two schools that met this criterion accepted an invitation to participate. To preserve their anonymity and for ease of discussion, the primary schools have been named Grayson and Westlee. Table 1 provides an overview of each school's context.

Following acceptance, invitations were sent to all teachers and parents from the two schools seeking their participation in the research.

Participants

A total of 12 classroom teachers, 13 parents and the principal from each school volunteered to take part in the study.

Table 1 School contexts

Context	Westlee School	Grayson School
No. of students	720	420
No. of staff	48	34
Implemented PBIS	3 years	1 year
% of students speaking a language other than English	95%	80%
No. of languages spoken	60	40

At Grayson school the principal was male, one teacher was male, and five teachers were female. At Westlee school the principal and all six teachers interviewed were female. The teacher participants from each school had a range of teaching experience from two years to 18 years and the principals had been in their executive roles for 15 and 18 years, respectively. The 12 classroom teachers and principals were interviewed individually. Parents were given the option to be interviewed individually or to be part of a focus group discussion. The 13 parent participants were female. The four parents from Grayson school were interviewed individually. Two parents from Westlee school were interviewed individually. Two focus groups were held on the Westlee School site, with the first comprising five parents and the second two parents.

Westlee School's student population spoke more than 60 different languages. Apartment accommodation was common in the area and most students walked to school. Relocations for families wanting larger homes resulted in a high rate of student turnover which had been a recent trend.

Grayson School's student population spoke more than 40 different languages. Most students walked to school and lived in single- and double-storey homes with some students transported to and from school by bus. Grayson School had a more stable student population, with children more likely to be enrolled continuously from Kindergarten to Year 6.

Data collection and analysis

Ethics approval for this study was provided by Western Sydney University after completion of the National Ethics Application Form (Approval No. H9331) and then by the NSW Department of Education through the State Education Research Approval Process (Approval No. 2011137).

A semi-structured interview technique, inclusive of open-ended questioning, was employed to understand teachers' and parents' perspectives about PBIS as a system and PI in the implementation process. In the qualitative interview such techniques are designed to encourage elaboration on themes when investigating the experiences of participants (Kvale, 2007; Miles & Huberman, 2002). Throughout the interviews, active listening was used to encourage elaboration on specific elements of the conversation. According to DeRouen and Smith (2020) active listening increases participant voice and verifies understanding of their ideas and experiences. This method of obtaining further information provided clear and rich data to extend our knowledge and understandings about the importance of PI.

All interviews were audio recorded and transcribed verbatim by the researcher. Thematic analysis was applied initially to two teacher and two parent transcripts (one teacher and one parent from each school). The use of thematic analysis has the potential to provide nuanced and complex interpretations based on recurrent responses from participants (Braun & Clarke, 2006). The aim was to ascertain if PBIS was valued by teachers and parents and how it was understood, as per Research Question One. A colour coding system was developed by the main researcher to code similar responses across the categories of Positive Rule Statements (Green),

Understanding PBIS (Yellow), Positive Comment (Red) and Negative Comment (Orange). Four independent colleagues were also given one teacher and one parent interview to sort words and phrases using the same coding system. Once interrater consistency was established the remaining individual and focus group transcripts were analysed and coded by the team. According to Hemmler et al. (2022) and Church et al., (2019), using thematic content analysis provides deep and rich data across many fields and is strengthened by interrater consistency reducing the need for a coefficient value. The initial analysis showed a consistent pattern of responses by teacher and parent participants from each school. Table 2 provides an example as evidence of the consistency of this procedure across raters. Some crossover between Green and Red statements can be seen; however, they all reflect a positive perception of PBIS. Multiple independent raters provide an additional level of scrutiny and rigour to the thematic analysis.

From these recurring responses in Table 2, themes and categories were created. NVivo 10 (QSR International Pty Ltd, n.d.) software is designed to support the organisation of qualitative information from multiple sources and was used to further organise the themes under specific categories. In addition to the interviews, data were collected from school artefacts, including school plans and meeting minutes. The NVivo software cross-referenced data from the artefacts with interview data to increase analysis consistency and minimise researcher bias from initial interpretations. This enabled what Carter et al. (2014) term as “data source triangulation” to support the validation of the findings.

Analysis of data from the parent and teacher interviews and the artefacts yielded two distinct categories each with subthemes. The first category, *Valuing PBIS*, relates to Research Question One and is aligned with three subthemes. The first subtheme “rules” was deduced because teachers and parents referred to the rules as a valued part of PBIS. The second subtheme “understanding PBIS” evolved from teachers reporting “training” and “learning” about the PBIS system. The parents “understood” PBIS through newsletters, listening at assemblies and also to their children. The third subtheme “consistent strategies” emerged from teachers and parents talking about the importance of consistency when related to encouraging a behavioural expectation. Importantly, raters did not uncover any negative comment about the PBIS system.

The second category, *Parent Involvement*, relates to Research Question Two and is aligned with two subthemes. The first subtheme “informed” emerged from teachers who indicated that parents were “informed about PBIS”. The second subtheme “no involvement” emerged from the parent responses to a direct question about their involvement in PBIS.

Findings and discussion

The findings are presented and discussed sequentially prefaced by each research question. Data samples related to each research question are presented in Tables 3, 4, 5, 6, 7.

Table 2 Interrater consistency example RQ1

	Rater Researcher	Rater 1	Rater 2	Rater 3	Rater 4
Teacher transcript					
GREEN positive rules statement / safe respectful learner	Safe, respectful learner / rules PBIS has given us a consistent language to use	The rules are the same for everyone	The rules are consistent across the whole school	Safe, respectful, learner we all use the same language	The rules allow a consistent approach to student behaviour
YELLOW understanding PBIS	PBIS was explained to the staff and the school decided to go with it A PBIS team was set-up and trained at Region	Some of us went to PBIS training	A core group had off-site training in PBIS	We constantly talk about PBIS and how it is working	A special staff meeting is organised to review what PBIS is and some teachers present their ideas
RED positive comment	It has made a big difference in the way we talk to the kids, more positive The students are responding well to the rules	Consistency is important	We are all on the same page	The students are rewarded more often	PBIS has made it a more positive place for everyone
ORANGE negative comment					
Parent transcript					
GREEN positive rules statement / safe respectful learner	They must have respect for anyone around them and play nicely If they don't have rules they are nowhere	The rules are good. Kids need rules everywhere	I want my kids to be safe respectful learners at home and at school	The rules, safe, respect and learner are very good	Kids need rules and consequences so that to do, they are good
YELLOW understanding PBIS	The children bring home rewards and we talk about them There are signs around the school about the rules	We see it in the newsletter every week and at assembly	I know more from working in the classroom	They tell about it at kindly orientation	I talk to my children about the rules and we hear about it at assemblies

Table 2 (continued)

	Rater Researcher	Rater 1	Rater 2	Rater 3	Rater 4
RED positive comment	Once the school brought in PBIS, I thought it doesn't sound like a bad idea The teachers drill the rules and that is a good thing	I have a chart at home so the kids aren't conflicted. Same rules at home and school	I want my kids to be safe and respectful everywhere, school, home and in the community	The children must know the rules are good for them	Consistency is important for kids so if they break the rules there are consequences at school and outside
ORANGE negative comment					

Table 3 Understanding PBIS

Documents	Data samples
Teacher Interviews	Some staff attended PBIS training; We had staff meetings telling us about PBIS; The PBIS coach took data about our students and also in the classrooms so we could see what was happening and plan from there; All staff were given the goals of PBIS at a staff meeting; We set up a PBIS team; We talk about PBIS at staff meetings so new staff can learn all about it
Parent Interviews	PBIS was explained at Kinder orientation; It is always talked about at assemblies; The rules are in the newsletter; The children bring home the awards for their behaviour so we can talk to them about it; They have signs around the school about the rules; The newsletter has about the PBIS
Artefacts	Staff to attend training on PBIS; Create a PBIS team; Put PBIS rules in the newsletter; Inform parents of the change to school rules and policy; Present PBIS to parents at the launch day; Incorporate PBIS in the Values Day presentation; Present an overview of PBIS and latest data at staff meeting; Include PBIS behaviour management presentation at Kindergarten orientation and supply information for parents

Table 4 Valuing PBIS

Documents	Data samples
Teacher Interviews	We all have the same expectations; It [PBIS rules, rewards, consequences] becomes more uniform because everyone is speaking the same sort of language; Every child...every teacher knows what safe, respectful, learner is all about
Parent Interviews	If they [children] don't have rules they are nowhere; They must have respect for anyone and play nicely; If they don't listen, they need to face the consequences; Once the school brought PBIS in I thought, well that doesn't sound like a bad idea. At home I do the same thing, I have a reward chart for my kids so it can work properly, they won't get conflicted...same rules as the school; I wasn't here at the beginning, but the rules are great; The teachers drill the rules and that is a good thing

Research question 1: what are the perceptions and understandings of teachers and parents regarding PBIS?

Teachers and PBIS

Table 5 Teacher perceptions of parent involvement

Teacher perceptions	Yes, definitely. It [PBIS] is explained at orientation. The community can see our posters hanging around the school. I think the parents, although they may not have been involved in the actual planning as such, they have been very much aware of its use and what we do with it at the school; Well, it went to staff first. There were assembly announcements so parents knew it was coming and notes went home; Parents were invited to the launch day [after systems were in place] so they could know all about it; Through newsletters and open days we are making sure parents are aware of what our expectations are; When we first started PBIS, parents were not involved but they attended a meeting later to inform them; The principal presented it to parents at a meeting, showed it to them and explained it
---------------------	---

Table 6 Artefact data – parents informed post-implementation of PBIS

Artefact	Data sample
Staff Meeting Minutes	PBIS rules to be included in the newsletter; Parents could be provided with a “simpler” form of the matrix in kinder orientation packs; Parents to be invited to the launch day; Parents informed of the “rule of the week”; Talk about PBIS at assemblies
School Newsletters	PBIS rules outlined [weekly]; Parents invited to information sessions; Invitation to values day inclusive of PBIS; Student PBIS award winners printed [weekly]; Parent invitation to PBIS launch day assembly

Table 7 Parent perceptions of parent Involvement in PBIS

Parent’s answers to: “Were you asked to contribute your ideas to the PBIS implementation process?”	No; I wasn’t at the school at the time; It was already in place; No, not at all; It was explained briefly at orientation; No, no, I attend meetings about Naplan (National Assessment Programme for Literacy and Numeracy), reading, but PBIS, no; No, this is my first year here; I don’t know, my English not good; No, I don’t think so; I don’t remember, ah, no, not really; No; No, it was just told to us; No not really because I was new to the school
---	---

The teacher participants acquired their knowledge and understanding of PBIS through training at a regional or school level. The artefacts confirmed that teachers had been either trained off-site or at designated staff training sessions about the PBIS goals and framework. All teachers interviewed regarded PBIS as a valuable behaviour support system within their schools which provided consistent and predictable responses to student behaviour as the following quotes confirm:

PBIS gave us a very universal language to communicate with each other; Everyone's on the same page; We are all speaking the same language; We all had the same understanding, the same expectations; The rules are consistent across the whole school; and Everyone is speaking the same sort of language.

These teacher participants valued the consistent and predictable language that PBIS had provided to manage social and academic behaviours across their schools.

Parents and PBIS

Parents acquired their knowledge and understandings of PBIS through information provided at the PBIS "launch day", in newsletters, at assemblies and Kindergarten orientation sessions as well as vicariously from their children.

Parent participants from both schools valued PBIS. They stated that the PBIS rules of being safe, being respectful and being a learner were behaviours that they valued and wanted their children to abide by at school, in the community and throughout life.

Whilst valuing PBIS rules is important, one parent who volunteered in the classroom had a deeper understanding and offered this explanation:

When you read it [in the newsletter] you don't really understand, now that I am in the school [a volunteer in the classroom] I am aware of things. [How the rules are taught and reinforced].

This parent, through being part of the classroom routine, had realised that rule following behaviour was being explicitly taught. She understood that positive behaviours were encouraged by the teacher, through reminders, praise and rewards, in a consistent manner throughout the day.

In summary, findings from the analytical process for Research Question One identified that teachers valued the PBIS systematic approach to behaviour support. The explicit teaching of school rule behaviour was considered effective in promoting students' understanding. The consequences for rule compliance or noncompliance were thought to be logical and integrated with the teaching and understanding of the rules. For teachers this 'value' component was reinforced by specific training to understand the goals of PBIS and by the practical involvement in the explicit teaching process and follow through with students.

Findings suggest that all participating parents also valued PBIS. For parents this 'value' component was related to their personal appraisal of the rules. Parents wanted their children to be safe, to be respectful and to be a learner, not only at school but at home and out in the community. Analysis of the transcripts and artefacts found parents' understandings of PBIS had been acquired post-implementation through newsletters, assembly announcements, vicariously through their children and for one parent by volunteering in the classroom.

Research question 2: how do teachers and parents perceive parent involvement in PBIS implementation and in school more widely?

Teacher perceptions

Teachers perceived parents had been involved throughout the implementation of PBIS. However, the data did not support this but rather the provision of information following implementation (see Table 5).

Artefact data comprising meeting minutes and newsletters from each school (Table 6) show that parents were informed of PBIS following implementation.

The data show that parents from both schools had been invited to the “PBIS launch” day, after the rules had been established and the systems set in place, to be informed how the system would operate.

Parent perceptions

The parent interview data show that parents were not invited to be involved in the decision-making process regarding PBIS implementation (see Table 7).

Parent non-involvement is confirmed by the school artefact analysis that demonstrated no recorded evidence of parents being invited to provide input into the PBIS implementation processes nor feedback following implementation.

Of particular interest were the responses from parents new to each school who stated that PBIS was already in place. Although these parents valued the PBIS rules, their feedback on PBIS had not been sought. The following comment not only indicates no involvement in PBIS but also a lack of knowledge about how to offer feedback to the school on any topic.

Not really [any involvement], because I was new to the school, I didn't know we could give our ideas and stuff.

This statement raises concerns about PI in general in these two case study schools, beyond PBIS implementation.

As both schools had a significant population of parents with English as their second language (see Table 1), communication via assembly announcements or the school newsletter without translations may have inhibited parents' understanding of information and involvement in school activities. In addition, for some parents, attending school meetings was ineffective in building their knowledge about school initiatives and programmes due to their limited understanding of English. The following comments indicate that some parents felt embarrassed or intimidated about their lack of English ability when communicating with teachers.

They got the parents meeting...my English limited... I don't go.

Parents feel intimidated if they don't speak English.

Parents might feel intimidated coming to school or working with teachers.

The analytical process for Research Question Two identified that teachers perceived parents accepted, appreciated and were involved in PBIS implementation. This perception evolved from parents being regularly informed about PBIS. Parents were invited to attend information evenings, given PBIS information at

orientation and assemblies and could see and read the visual signage indicating expected behaviours that had been placed around the school.

The culturally diverse population in these two case study schools clearly poses a significant challenge to PI. According to Sugai et al., (2011), PBIS is enhanced when cultural contexts are considered; however, 'culture' is not clearly defined. At Tier 1, understanding the local cultural context is a fundamental feature (Noltemeyer et al., 2018) and family collaboration at each Tier promotes equitable practices (Witte et al., 2021). However, Fallon et al., (2012) state that there is a dearth of research focussed on culture, prompting the need for further investigation. The literature recognises the importance of effective communication, building trusted relationships with and better understanding of the needs of the students and families served by schools (Christianakis, 2011; Garbacz et al., 2018; Sugai et al., 2011; Weist et al., 2017; Witte et al., 2021). This implies that cultural sensitivity must be woven throughout school practices beyond the PBIS framework.

This investigation highlights the complex nature of PI. To enable parents to become involved in school and PBIS, schools need to know their parents more comprehensively. Finding a way to do this would lay the foundation for more effective communication, a platform from which trusted relationships can be built.

This paper presented the findings from a study which examined PI in PBIS in two primary schools. State legislation, policies, literature and PBIS material (www.pbis.org) acknowledge the benefit of schools partnering with parents to promote positive social and academic outcomes for children (Brock & Edmunds, 2010; Education Act, 1990; Kolbert et al., 2014; NSW Det, 1996, 2006; Weist et al., 2017; Woodrow et al., 2016).

The teacher participants believed PI was important, which concurs with government policies, but without the requisite protocols for the promotion of PI in schools, PBIS information alone were applied. Without denying these schools had good intentions to involve parents, practical strategies to enable best practice were not available in this context (Epstein, 2005; Gordon & Louis, 2009). When guidelines and strategies are lacking, the alternative is to substitute traditional and tokenistic approaches to involving parents in school (Khanal, 2013; Woodrow et al., 2016).

The implications of these findings are multifaceted. School staff believed that providing information to parents is equal to involvement. When this information is communicated only in English it denies some parents the opportunity to understand, critique and respond to processes and programmes that impact their children's social and academic learning. With teachers convinced that the majority of parents understood and accepted PBIS, the findings implicate assumption by the teachers rather than basing their assessment on evidence. These findings concur with Witte et al., (2021) who state that educators make assumptions about families, and Noltemeyer et al., (2018), who suggest increased attention must be given to cultural sensitivity and responsiveness in school settings. In addition, there were a lack of procedures to inform parents who were new to the school about the PBIS system. The opportunity for parents to provide feedback on any topic to the school is their right and should be afforded to all, not just those who have English as a first language or the confidence to do so.

The importance of getting to know parents is a critical aspect of building relationships which provide opportunities for partnerships and collaboration. Furthermore, literature states that parent self-efficacy is necessary for a parent to collaborate with the school and advocate for their child (Coleman, 2013; Harpaz & Grinshtain, 2020) adding to the importance of establishing trusted relationships. The question is not whether schools involve parents but how they involve them in a way that is respectful and culturally sensitive. In relation to PI there seem to be critical misunderstandings from these schools regarding communication and relationships with parents. According to collaboration and stakeholder theories (Christianakis, 2011; Savage et al., 2010), effective communication and relationships are fundamental to the success of initiatives in organisations (such as schools). Such theories position stakeholders (teachers and parents) as having the right to be involved in problem-solving activities. These theories suggest that there are varying levels of involvement within organisations (such as schools) and parents may need to be encouraged and supported to feel comfortable with their chosen level of participation. It is important for schools to replace assumed knowledge about parents with established evidence to support getting to know their parents more comprehensively.

Conclusions and limitations

Although all teachers and parents from the two case study schools were given the opportunity to participate in the research study, only a small sample volunteered; therefore, findings cannot be generalised. Larger studies, in Australia and elsewhere, are necessary to establish how PI is conceived and actioned in differing contexts. Despite this, this study is the first of its kind in Australia to investigate PI in PBIS, thus the findings contribute to Australian and international knowledge about PI in PBIS.

Parent involvement in school is associated with increased student engagement, attendance and rule compliant behaviours (LaRocque et al., 2011), better academic performance (Coleman, 2013) and improved classroom behaviours (Kolbert et al., 2014). Therefore, understanding a parent's ability to partner with the school is imperative to the process of PI. This study, through investigating PI in PBIS, reveals that parent characteristics may need to be considered to increase PI in school. Being attentive to the emotional, cultural, language and/or physical challenges parents may face and may encourage their involvement in school (LaRocque et al., 2011). Weist et al., (2017) suggest outreach, networks and support are needed to empower families with opportunities for involvement, built on trusted relationships. Supporting parents' individual needs in conjunction with their understanding of the goals for PBIS, can only strengthen the aim to improve the academic and social behaviour of students.

The benefit of consistent positive practices to improve behavioural outcomes for children across settings, coexists with the benefits of fidelity of practice when implementing PBIS in school. The PBIS Tiered Fidelity Inventory (Algozzine et al., 2014) supports schools with the consistent application of core components. A broader perspective of PBIS fidelity at home and in the community would be

valuable beyond the school gate. The current study sought to establish teachers' and parents' perceived value of PBIS and parents' understanding of and involvement in PBIS decision-making processes.

These findings present a conundrum for schools and for parents. PI in school generally and in PBIS requires a deeper investigation into how schools build relationships and communicate with parents. Training can build skills in relationship development and data collection can provide information on cultural diversity (Weist et al., 2017; Witte et al., 2021). This research has exposed a gap between the intention of policy requiring schools to involve parents and the expectations of schools to enable this involvement. However, without training and a model that guides strategies to support better PI, schools are challenged to replace the tokenistic approach uncovered in this study. Weist et al. (2017) and colleagues agree that there is not a 'one size fits all' approach to PI and that there is much work to be done to reduce the barriers to family engagement in school.

Given the importance of PI as a contributing factor to student academic and social success larger studies are needed to further inform this area of research. As the findings expose a need for a practical framework to guide PI practices, action has begun to develop a model for this purpose. The model will enable schools to collect parent data to inform ways to communicate more effectively and build strong relationships with parents in ways which are respectful, culturally responsive, and sustainable through yearly review. The recommendation is to provide schools with this model to analyse their unique situational data as a starting point for the future improvement of PI. Engaging parents in PBIS and more broadly in school offers the opportunity to connect the home and school influences to further support students' academic and social success.

Funding No funding is attached to this submission.

Declarations

Conflict of interest No potential conflict of interest was reported by the authors.

Ethical approval Ethics approval for this study was provided by Western Sydney University after completion of the National Ethics Application Form (Approval No. H9331) and then by the NSW Department of Education through the State Education Research Approval Process (Approval No. 2011137). This information was included directly under the heading "Data Collection and Analysis"

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Alberto, P., Troutman, A., & Axe, J. (2022). *Applied behavior analysis for teachers*. (10th ed.). Pearson.
- Algozzine, B., Barrett, S., Eber, L., George, H., Horner, R., Lewis, T., Putnam, B., Swain-Bradway, J., McIntosh, K. & Sugai, G. (2014). *PBIS Tiered Fidelity Inventory*. www.pbis.org/resource/fti.
- Berndt, T. J. (1992). *Child Development*. Harcourt Brace Jovanovich.
- Bidell, M. P., & Deacon, R. E. (2010). School counselors connecting the dots between disruptive classroom behavior and youth self-concept. *Journal of School Counseling*, 8(9), 1–29.
- Bradshaw, C. P., Mitchell, M. M., & Leaf, P. J. (2010). Examining the effects of schoolwide positive behavioral interventions and supports on student outcomes. *Journal of Positive Behavior Interventions*, 12(3), 133–148. <https://doi.org/10.1177/1098300709334798>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brock, S., & Edmunds, A. L. (2010). Parental involvement: Barriers and opportunities. *EAF Journal*, 21(1), 48–59.
- Carr, E., Dunlap, G., Horner, R., Koegel, R., Turnbull, A., Sailor, W., Anderson, J., Albin, R., Koegel, L., & Fox. (2002). Positive behavior support: Evolution of an applied science. *Journal of Positive Behavior Interventions*, 4(1), 4–16. <https://doi.org/10.1177/109830070200400102>
- Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., & Neville, A. J. (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum*, 41(5), 545–547. <https://doi.org/10.1188/14.onf.545-547>
- Christianakis, M. (2011). Parents as “help labor”: Inner-city teachers’ narratives of parent involvement. *Teacher Education Quarterly*, 38(4), 157–178.
- Church, S., Dunn, M., & Prokopy, L. (2019). Benefits of qualitative data quality with multiple coders: Two case studies in multi-coder data analysis. *Journal of Rural Social Science*, 34(1/2), 1–14.
- Clunies-Ross, P., Little, E., & Kienhuis, M. (2008). Self-reported and actual use of proactive and reactive classroom management strategies and their relationship with teacher stress and student behaviour. *Educational Psychology*, 28(6), 693–710. <https://doi.org/10.1080/01443410802206700>
- Coleman, M. (2013). Empowering family–teacher partnerships: Building connections within diverse communities. *Sage*. <https://doi.org/10.4135/9781452240510>
- De Nobile, J., El Baba, M., & Teola, L. (2016). School leadership practices that promote effective whole school behaviour management: A study of Australian primary schools. *School Leadership and Management*, 36(4), 419–434.
- DeRouen, J., & Smith, K. (2020). Reflective listening visualisation: Enhancing interdisciplinary disaster research through the use of visualisation techniques. *Risk Analysis*, 41(7), 1093–1103. <https://doi.org/10.1111/risa.13464>
- Education Act NSW, 1990. <https://legislation.nsw.gov.au/view/html/inforce/current/act-1990-008>.
- Epstein, J. L. (2005). A case study of the partnership schools comprehensive school reform (CSR) model. *The Elementary School Journal*, 106(2), 151–170. <https://doi.org/10.1086/499196>
- Fallon, L., O’Keefe, B., & Sugai, G. (2012). Consideration of culture and context in school-wide positive behavior support: A review of current literature. *Journal of Positive Behavior Interventions*, 14(4), 209–219. <https://doi.org/10.1177/1098300712442242>
- Garbacz, S. A., Hirano, K., McIntosh, K., Eagle, J. W., Minch, D., & Vatland, C. (2018). Family engagement in school wide positive behavioral interventions and supports: Barriers and facilitators to implementation. *School Psychology Quarterly*, 33(3), 448–459. <https://doi.org/10.1037/spq0000216>
- Garbacz, S. A., McIntosh, K., Eagle, J. W., Dowd-Eagle, S. E., Hirano, K. A., & Ruppert, T. (2016). Family engagement within schoolwide positive behavioral interventions and supports. *Preventing School Failure*, 60(1), 60–69. <https://doi.org/10.1080/1045988X.2014.976809>
- Gordon, M. F., & Louis, K. S. (2009). Linking parent and community involvement with student achievement: Comparing principal and teacher perceptions of stakeholder influence. *American Journal of Education*, 116(1), 1–32. <https://doi.org/10.1086/605098>
- Harpaz, G., & Grinshtain, Y. (2020). Parent-teacher relations parental self-efficacy and parents’ help-seeking from teachers about children’s learning and social-emotional problems. *Education and Urban Society*, 52(9), 1397–1416. <https://doi.org/10.1177/0013124520915597>
- Hemmler, V., Kenney, A., Langley, S., Callahan, C., Gubbins, J., & Holder, S. (2022). Beyond a coefficient: An interactive process for achieving inter-rater consistency in qualitative coding. *Qualitative Research*, 22(2), 194–219. <https://doi.org/10.1177/1468794120976072>

- Hieneman, M., & Fiefer, S. (2017). Employing the principles of PBS to enhance family education and intervention. *Journal of Child and Family Studies*, 26, 2655–2668. <https://doi.org/10.1007/s10826-017-0813-6>
- Hill, D., & Brown, D. (2013). Supporting inclusion of at risk students in secondary school through positive behaviour support. *International Journal of Inclusive Education*, 17(8), 868–881. <https://doi.org/10.1080/13603116.2011.602525>
- James, A. G., Smallwood, L., Noltemeyer, A., & Green, J. (2018). Assessing school climate within a PBIS framework: Using multi-informant assessment to identify strengths and needs. *Educational Studies*, 44(1), 115–118.
- Khanal, P. (2013). Community participation in schooling in Nepal: A disjunction between policy intention and policy implementation? *Asia Pacific Journal of Education*, 33(3), 235–248. <https://doi.org/10.1080/02188791.2012.756390>
- Kolbert, J. B., Schultz, D., & Crothers, L. M. (2014). Bullying prevention and the parent involvement model. *Journal of School Counseling*, 12(7), 1–20.
- Kvale, S. (2007). Doing interviews. *Sage*. <https://doi.org/10.4135/9781849208963>
- LaRocque, M., Kleiman, I., & Darling, S. (2011). Parent involvement. The missing link in School achievement. *Preventing School Failure: Alternative Education for Children and Youth*, 55(3), 115–122. <https://doi.org/10.1080/10459880903472876>
- Levenson, M., Smith, K., McIntosh, K., Rose, J., & Pinkelman, S. (2016). *PBIS cultural responsiveness field guide. Resources for trainers and coaches*. www.pbis.org/resource/pbis-cultural-responsiveness-field-guide-resources-for-trainers-and-coaches
- Mathews, S., McIntosh, K., Frank, J. L., & May, S. L. (2014). Critical features predicting sustained implementation of school-wide positive behavioral interventions and supports. *Journal of Positive Behaviour Interventions*, 16(3), 168–178. <https://doi.org/10.1177/1098300713484065>
- Miles, M. B., & Huberman, A. M. (Eds.). (2002). *The qualitative researcher's companion*. CA: Sage.
- Mooney, M., Dobia, B., Barker, K., Power, A., Watson, K., Yeung, A. S. (2008). *Positive Behaviour for Learning: Investigating the transfer of a United States system into the New South Wales Department of Education and Training Western Sydney Region schools*. University of Western Sydney.
- Noltemeyer, A., Harper, E., & James, A. (2018). Culturally responsive positive behavioral interventions and supports. *Positive Schooling and Child Development*. https://doi.org/10.1007/978-981-13-0077-6_5
- NSW DET (NSW Department of Education and Training). (1996). *Student welfare policy*. <https://education.nsw.gov.au/policy-library/policies/student-welfare-policy>.
- NSW DET (NSW Department of Education and Training). (2006a). *Student discipline in government schools policy*. <https://education.nsw.gov.au/policy-library/policies/student-discipline-in-government-schools-policy>.
- NSW Government – Education. (2021). *The student behaviour strategy*. <https://education.nsw.gov.au/student-wellbeing/attendance-behaviour-and-engagement/behaviour-strategy/the-student-behaviour-strategy#Download0>.
- Pas, E. T., Bradshaw, C. P., Hershfeldt, P. A., & Leaf, P. J. (2010). A multilevel exploration of the influence of teacher efficacy and burnout on response to student problem behavior and school-based service use. *School Psychology Quarterly*, 25(1), 13–27. <https://doi.org/10.1037/a0018576>
- Poed, S., & Whitefield, P. (2020). Developments in the implementation of positive behavioural interventions and supports in Australian schools. *Intervention in School and Clinic*, 56(1), 56–60. <https://doi.org/10.1177/1053451220910742>
- Rajendran, N., Watt, H., & Richardson, P. (2020). Teacher burnout and turnover intent. *The Australian Education Researcher*, 47, 477–500.
- Rose, J., Levenson, M., & Smith, K. (2020). *Embedding cultural responsive practices in tier 1*. www.pbis.org/resource/embedding-culturally-responsive-practices-in-tier-i.
- Sahin, U. (2019). Parents' participation types in school education. *International Journal of Educational Methodology*, 5(3), 315–324. <https://doi.org/10.12973/ijem.5.3.315>
- Savage, G., Bunn, M., Gray, B., Xiao, Q., Wang, S., Wilson, E., & Williams, E. (2010). Stakeholder collaboration: Implications for stakeholder theory and practice. *Journal of Business Ethics*, 96, 21–26.
- Sugai, G., & Simonsen, B. (2012). *Positive behavioral interventions and supports: History, defining features, and misconceptions*. www.pbis.org/resource/positive-behavioral-interventions-and-supports-history-defining-features-and-misconceptions.

- Sugai, G., & Horner, R. H. (2009). Defining and describing schoolwide positive behavior support. In W. Sailor, G. Dunlap, G. Sugai, & R. Horner (Eds.), *Handbook of positive behaviour support* (pp. 307–326). Springer.
- Sugai, G., O’Keeffe, B., & Fallon, L. (2011). A contextual consideration of culture and school-wide positive behavior support. *Journal of Positive Behavior Interventions*, *14*(4), 197–208. <https://doi.org/10.1177/1098300711426334>
- Turri, M., Mercer, S., McIntosh, K., Nese, R., Strickland-Cohen, M., & Hoselton, R. (2016). Examining barriers to sustained implementation of school-wide prevention practices. *Assessment of Effective Interventions*, *42*(1), 6–17. <https://doi.org/10.1177/15345084166634624>
- Weist, M., Garbacz, S., Lane, K. & Kincaid, D. (2017). *Aligning and integrating family engagement in Positive Behavioral Interventions and Supports (PBIS): Concepts and strategies for families and schools in key contexts*. www.pbis.org/resource/aligning-and-integrating-family-engagement-in-pbis.
- Witte, A., Singleton, F., Smith, T. & Hershfeldt, P. (2021). *Enhancing family school collaboration with diverse families*. www.pbis.org/resource/enhancing-family-school-collaboration-with-diverse-families.
- Woodrow, C., Somerville, M., Naidoo, L., & Power, K. (2016). Researching parent engagement: A qualitative field study. *Western Sydney University*. <https://doi.org/10.4225/35/5715bccdd2df24>

Publisher’s Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Michelle Rose has an interest in human behaviour. She has a degree in Early Childhood Education, a Master in Early Childhood, Master in Special Education, and graduated with a PhD in 2018. She has taught at Macquarie University and at Western Sydney University in the areas of early childhood education and behaviour and educational psychology. Michelle is a trained PBIS coach with the NSW Department of Education and is following an interest in connecting parents to a deeper understanding of positive behaviour support being rolled out in schools across Australia and worldwide.

Mary Mooney is an Adjunct Professor at Western Sydney University Australia. Mary’s research includes: Two funded Positive Behaviour for Learning projects in Western Sydney; Teacher education; Effective teaching; Screen drama; and Artists in Residence in schools.

Christine Johnston is Associate Dean, International in the School of Education at Western Sydney University, Australia. She teaches primarily in the areas of early childhood intervention and evidence-based practice. She has a proven record as a project co-ordinator and extensive experience in the use of multi-method approaches and the ecocultural paradigm as a research tool. A strong thread throughout her research program is that of linking research to practice. Christine maintains a strong involvement in the early childhood intervention field both nationally and internationally through her teaching, her work with professional groups and her research.

Roberto H. Parada is a psychologist and Senior Lecturer in Adolescent Development behaviour and well-being in the School of Education, University of Western Sydney Australia. His research interest focus on school bullying, positive learning environments, wellbeing and the application of cognitive and behavioural interventions in schools.