

Interventions to reduce safeguarding-related behaviours in autistic children with an intellectual disability

Jayne Lobley, Meredith Wightman, Carol Comber, Mariann Szabo, Jack Barsby, Kate Hewett, Chloe Mason, Hannah Stockford, Racheal Eade and Sophie House

Abstract

Purpose – This paper summarises three case studies conducted in a special school for autistic children and young adults with an additional learning disability, to reduce different safeguarding-related behaviours. There is limited research available for special schools in regards to managing behaviours that challenge that can result in safeguarding concerns for all those involved. The purpose of this paper is to share strategies that have been successful in decreasing behaviours and, as a result, reducing an individual's vulnerability in general.

Design/methodology/approach – Strategies used to address safeguarding-related behaviours are described, to achieve a reduction in a target behaviour. The authors stress the importance of the strategies being easy to implement to allow others to continue with the approach at home and in the community.

Findings – In all case studies, the target behaviours reduced, positively impacting the social opportunities for the participants. The strategies implemented were designed to reduce the participants' vulnerabilities in regard to safeguarding concerns and improve their access to learning.

Originality/value – Previous research in addressing safeguarding-related behaviours is limited, and these case studies showed how evidence-based strategies can be used to address concerning behaviours in special schools. It is important that strategies can be transferred consistently across all settings in order for them to be successful in all areas of the participant's community.

Keywords Safeguarding, Behaviours that challenge, Harmful sexual behaviours, Contextually inappropriate sexual behaviours, Intellectual disability, Safety

Paper type Research paper

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Introduction

This paper focuses on safeguarding-related behaviours across two categories: behaviours that challenge and contextually inappropriate sexual behaviour. Behaviours that challenge are behaviours of such intensity, frequency or duration that they place the individual or others at risk of harm, or significantly interfere with access to ordinary community facilities, education and social relationships (Emerson, 2001). Contextually inappropriate sexual behaviours (Beyond Autism, 2026) are those that occur in settings where they are not appropriate, such as public places or in situations where the behaviour is not expected, or without consent. These behaviours can include unwanted sexual advances, sexual assault and harassment. Careful consideration of context allows practitioners to differentiate harmful sexual behaviours from developmentally typical exploration and from behaviours arising from differences in social understanding rather than sexual intent [National Institute for Health and Care Excellence (NICE), 2016]. It is important to recognise and understand the context of the behaviour to determine whether it is appropriate or not.

Conflict of interest: All authors were employed by the school in which the studies were conducted. To reduce the risk of bias, data were collected using predefined measures and analysed against specific criteria. Results were analysed and reported as objectively and clearly as possible.

Young people with an intellectual disability can have a limited understanding of safety and may exhibit behaviours that challenge and put them at greater risk of harm. [McLay et al. \(2015\)](#) reported that autistic individuals with intellectual disabilities usually develop physically at the same rate as their non-disabled peers; however, the emotional changes and some sexual urges related to puberty may be delayed. This frequently coincides with an escalation in behaviours that challenge at the same age ([Eaves and Ho, 1996](#)) which can be problematic for these individuals. Pubescent autistic children with intellectual disabilities are not always aware of socially accepted standards, and therefore contextually inappropriate sexual behaviours may manifest as part of the increase in behaviours that challenge ([Sullivan and Caterino, 2008](#)).

Inappropriate touch may result in the child or young adult having restricted access to community settings, educational resources and social occasions ([Early et al., 2012](#)). [Luiselli et al. \(1977\)](#) also pointed out that individuals engaging in socially inappropriate behaviours will have less teaching time than those who do not engage in such behaviours because teachers will prioritise reducing the socially inappropriate behaviour over targeting an educational goal.

With all socially inappropriate behaviours, the individual is at risk of victimisation ([Davis et al., 2016](#)). They may be threatened by those who do not understand their lack of consideration of socially appropriate behaviour, and other people may not wish to encounter interactions with the individual for fear of unwanted sexual contact ([Athens and Vollmer, 2010](#)).

The contextually inappropriate sexual behaviour of those with intellectual disabilities remains an area with minimal focus within the applied literature. [Sandfort and Rademakers \(2000\)](#) described two possible reasons for this area of neglect: parents' reluctance for their child to participate because the subject is of a sensitive nature; and also because they are unwilling to accept that their child engages in sexual behaviour. Parents may also feel inexperienced in the subject due to a personal lack of knowledge in this area. Sexual behaviour is considered a private event, and therefore it would not be ethical to observe children or young adults taking part in this behaviour. Likewise, asking an individual personal questions related to their sexual behaviour may be considered inappropriate and unethical, particularly if the individual in question does not have the cognitive ability to recognise and express their experiences and emotions, reason and plan what personal beliefs they wish to share with others. Another consideration for the limited research on inappropriate sexual behaviour could be related to cultural and religious aspects that may influence researchers ([McLay et al., 2015](#); [Lafferty et al., 2012](#)).

In regard to interventions available for those working in special schools, there appear to be limited antecedent-based interventions to address inappropriate behaviours such as self-touch, disrobing and inappropriate urination based on the author's professional experience and review of relevant literature. Interventions are more commonly consequence-based, indicating that the behaviour has occurred before strategies are considered to reduce it ([Cividini-Motta et al., 2020](#); [Flynn and Lo, 2016](#)). Additionally, over the years, punishment-based interventions have reduced, as ethical considerations and regulations are more rigorous and individuals' rights are considered. [Van Camp et al. \(2000\)](#) highlighted an important consideration when applying behavioural interventions: the pairing of behaviours of concern with non-contingent reinforcement may inadvertently strengthen those behaviours. This is particularly relevant in contexts where proactive, antecedent-based strategies are limited, as reliance on reactive approaches may unintentionally reinforce the behaviour being targeted. For typically developing children, covering private parts in public areas may avoid negative social reactions from peers; however, for an autistic child or a child with an intellectual disability, the inability to recognise socially appropriate and acceptable behaviour will have an impact on the reinforcing value of the consequence of their behaviour ([Trevvarthen et al., 1996](#)).

All case studies in this paper were conducted in a specialist school setting. Four autistic pupils with other related learning difficulties, including limited communication and social skills and sensory needs, took part in the studies. Data were collected and analysed by trained and experienced teachers, with supervision in place. Interobserver agreement data were not specifically recorded; however, there were instances where additional staff members were supporting the management of the target behaviour, which contributed to data recording.

Assent was determined by staff familiar with the participants through observable willingness to participate, including engagement with the strategies, non-verbal communication and responsiveness to directions.

The paper aims to demonstrate how practical, transferable strategies can effectively decrease safeguarding-related behaviours for autistic children and young adults with intellectual disabilities.

Case study one

This study explored the effects of three interventions on the behaviour of pulling peers' trousers down using a single-subject ABCD design.

Differential reinforcement of other behaviours (DRO) is a procedure for decreasing specific behaviours of concern in which reinforcement is contingent on the absence of the behaviour of concern during, or at specific times ([Cooper et al., 2020](#)). DRO has been implemented with various behaviours with success: behaviours that challenge, such as self-injurious behaviours ([Mazaleski et al., 1993](#)), and classroom behaviours, such as out-of-seat behaviour ([Ramasamy et al., 1996](#)).

A behaviour contract is defined by [Cooper, Heron and Heward \(2020\)](#) as a document that specifies a contingent relationship between the completion of a specified behaviour and access to a specified reward. An example of this may be completion of a worksheet resulting in access to an iPad or the playground for 5 min. Most contracts are formed of a description of the task, a description of the reward and the task record. [Hawkins et al. \(2011\)](#) used behavioural contracts with individuals with learning disabilities to reduce behaviours that challenge, destruction and socially "inappropriate" behaviours towards others.

Vicarious reinforcement is when an individual's behaviour is influenced by observing another being reinforced or rewarded for their actions. Vicarious reinforcement has been used in classrooms to increase attentive behaviours and classroom performance (e.g. [Birnbrauer et al., 1982](#); [Kazdin, 1973](#)).

The behaviour was reported as a safeguarding concern due to the risk posed both to the participant and to peers affected by the target behaviour. Engagement in such behaviours placed the participant at increased risk of negative social responses from others, including potential retaliatory interactions following unwanted contact. Peers were at risk of experiencing embarrassment and humiliation and, in some cases, reported feeling fearful of the participant.

Method

The participant was an eight-year-old autistic girl with an additional learning disability. She communicated vocally (using short sentences) and read at a basic level. Materials included laminated tick charts, visual instructions, a timer and a variety of preferred items and activities. Data were collected on the daily frequency of pulling peers' trousers down, defined as pulling on the back of the individuals' trousers and revealing any amount of their underwear or bare skin. Baseline data were collected in Phase A, followed by DRO in Phase B and a home-school behavioural contract (Phase C), neither of which reduced the

behaviour. In Phase D, vicarious reinforcement was introduced and peers were taught alternative responses.

Procedure

FBA. A functional behaviour assessment (FBA) is a systematic process used to understand why a specific behaviour occurs. This supports with identifying effective strategies to manage these behaviours.

In this study, the FBA was conducted through the collection of ABC (antecedent, behaviour and consequence) data to identify the function of the behaviour prior to the first intervention. The function was identified as attention, particularly from the targeted peers.

DRO. Initially, a highly preferred reinforcer (Heelys: shoes with wheels), identified by parents, was provided at the end of the specified interval (based upon the average inter-response time during baseline), contingent upon the absence of the target behaviour during that interval. The specified reinforcer was not available at any other times of the day.

Behavioural contract

The home-school behavioural contract was then implemented. Lower rates of the behaviour were differentially reinforced. The reinforcer was provided at home at the end of the school day, contingent upon the participant emitting the target behaviour less than the specified number of times in a day.

Vicarious reinforcement

Peers not emitting the target behaviour were provided with praise, increased attention and generalised reinforcers. Peers were also taught to respond differently to the behaviour; rather than running away, they were taught to say, “stop, I don’t like that,” using prompts and curricular objectives related to relationships and privacy. Due to the sensitive nature of the behaviour, the class teachers took responsibility for monitoring safety and intervening as required. Peers were supported by the teachers to share any concerns or emotional impact if they were affected by the behaviour, and opportunities for reassurance and debrief were provided as necessary.

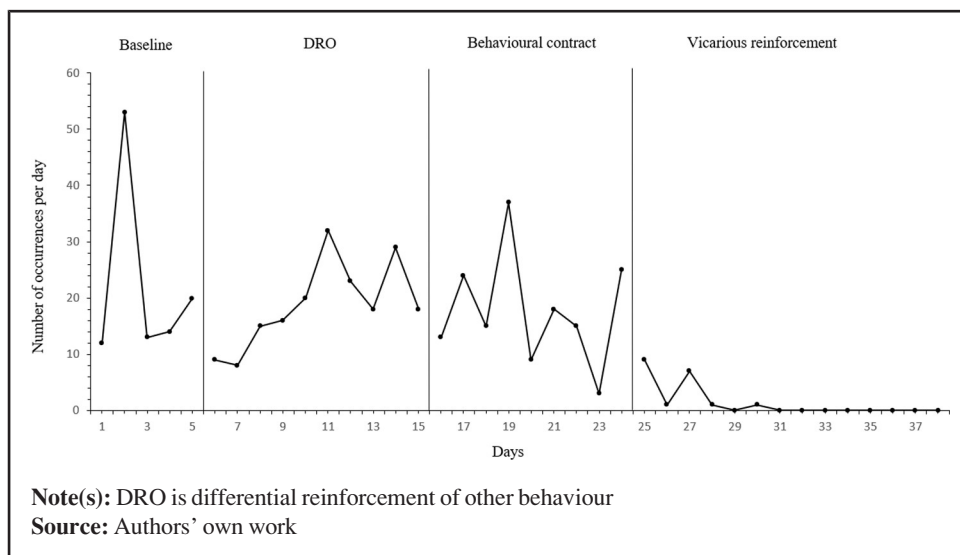
Results

As shown in [Figure 1](#), baseline levels of the target behaviour were high, ranging from 11 to 53 occurrences per day, with an average of 21.6 occurrences per day. When DRO was introduced on day 6, data ranged from 9 to 32 occurrences per day, averaging 20 occurrences per day. After the home-school behavioural contract was added, daily occurrences continued to fluctuate between 4 and 35, with an average of 15.7 occurrences per day. In contrast, the introduction of vicarious reinforcement resulted in an immediate and sustained effect, reducing the behaviour to zero for eight consecutive days.

Discussion

Neither DRO nor the home-school behavioural contract resulted in meaningful reductions in the target behaviour. The FBA identified peer attention as the primary function however, DRO reduced opportunities for reinforcement without explicitly teaching or strengthening a functionally equivalent alternative response, limiting its effectiveness. Similarly, the behavioural contract relied on delayed reinforcement delivered outside the immediate intervention context, increasing the risk of inconsistent contingency application and reduced treatment fidelity. In contrast, vicarious reinforcement directly targeted the social contingencies maintaining the behaviour by systematically reinforcing appropriate peer

Figure 1 The number of occurrences of the target behaviour on a daily basis



responses within the natural environment. This highlights the importance of using ongoing data-based decision making to evaluate intervention effectiveness and adapt strategies as necessary.

In regard to the home-school behavioural contract, it is important to consider how feasible this was for the parents. It is not possible to determine whether the reinforcer was provided contingently. If it was provided non-contingently, this may have inadvertently reinforced the behaviour.

Case study two

This study examined the frequency of three target behaviours emitted by an eight-year-old boy over a two-year period. In the second year of the study, differential reinforcement of alternative behaviour (DRA) without extinction was implemented.

DRA is a reinforcement-based intervention in which an appropriate, functionally equivalent alternative behaviour is systematically reinforced, while reinforcement for the target behaviour is minimised or withheld (Cooper, Heron and Heward, 2020). In this study, DRA without extinction was designed to strengthen functional communication responses that would enable the participant to appropriately request access to preferred items. The intervention ensured that the participant continued to receive reinforcement for communicating appropriately, while gradually shaping more complex and contextually appropriate responses, such as requesting independently and tolerating increasing delays to reinforcement.

LaVigna and Willis (2002) highlighted that reinforcement-based, non-aversive strategies are effective in reducing the intensity and frequency of behaviours that challenge, further supporting the rationale for the approach used in this study. Additionally, Athens and Vollmer (2010) used DRA without extinction to reduce behaviours that challenge and contextually inappropriate sexual behaviour.

Method

The participant was an eight-year-old autistic boy with an additional learning disability. He communicated vocally using short sentences. Access to a variety of preferred items that the

participant was known to seek access to was required. Data were collected through a single-subject AB design on the weekly frequency of:

- Behaviours that challenge towards others: hitting, kicking, biting, pulling hair, grabbing;
- Contextually inappropriate disrobing: removal of clothing out of the context of changing clothing/toileting; and
- Contextually inappropriate urination: intentional urination occurring away from the toilet/urinal.

Procedure

In this study, an FBA conducted through collection of ABC data, identified the function of the participant's target behaviours to be primarily access to tangibles.

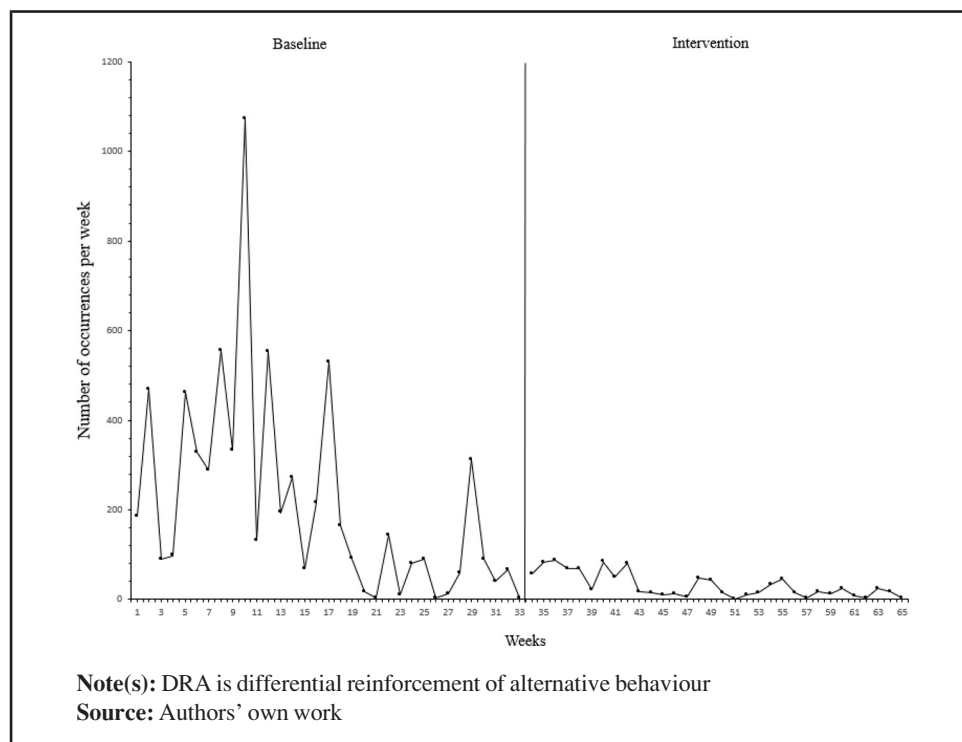
DRA without extinction was implemented over the course of the academic year, with the expectation and response effort gradually increasing:

- Initially, contingent upon any warning signs that the behaviour may occur, the echoic was provided. 'I want (item)'. If echoed, the participant could have immediate access. If the participant did not echo, the echoic was provided again until the response was given by the participant. Independent requests without echoic were also honoured. If the participant engaged in the target behaviour, the access to the item was not provided contingent on the behaviour, and no additional extinction procedures (such as planned ignoring or response blocking) were systematically implemented.
- Following success with this, the participant was then expected to ask for the item (independently or as an echoic) and respond to "why?" – why does he want the item? If his response was to use it in a safe and appropriate way, he was given access. If not, an appropriate echoic was provided, and he had access with adult support to use the item safely. If target behaviour occurred, it continued to be neutrally managed and did not result in access to the item.
- Waiting was then gradually introduced, up to 5 min. A visual timer was provided to support his understanding of the waiting. Appropriate communication responses were reinforced following the delay period. If the target behaviour occurred during the delay, it did not result in access to the item, and the delay interval was maintained where feasible.
- Finally, the waiting timeframe was gradually increased so that the participant had access to the item in line with the class timetable – waiting until the end of the current learning activity or lesson, until the next break time, until the end of the school day, or not at all that day. Visuals were used to support the participant's understanding of when the activity would be available. Appropriate communicative responses continued to be reinforced according to the schedule, while target behaviour did not produce reinforcement.

Results

Figure 2 displays the weekly frequency of behaviour that challenges towards others across the two years. In baseline, the frequency was highly variable, ranging from 2 to 1074 instances in a single week with a mean of 213.12 per week. During intervention, the frequency reduced, with data ranging from 0 to 87 occurrences per week with a mean of 31.25 occurrences per week. There continued to be an overall reduction as the academic year progressed.

Figure 2 The occurrences of behaviours that challenge during baseline and when DRA without extinction was implemented



Data were similar for the weekly frequency of contextually inappropriate disrobing. During baseline, this ranged from 0 to 91 instances per week with a mean of 15.75, and it was observed 63% of weeks. During the intervention, the behaviour was observed 46% of weeks with a mean of 7 instances per week.

Data for the weekly contextually inappropriate intentional urination ranged from 0 to 154 instances per week, with a mean of 21 instances during baseline. It was observed on 65% of weeks. During the intervention, the behaviour was observed on 43% of weeks, with a weekly mean of 5.95.

Discussion

DRA without extinction was successful in reducing behaviours that challenge towards others, contextually inappropriate disrobing and contextually inappropriate urinating. Over time, this meant the participant was able to access more learning and spend more time with his peers, improving his independence and overall quality of life. These findings show that DRA increases appropriate alternative responses and reduces behaviours that challenge by providing more frequent reinforcement for desired behaviours than for target behaviours. Because extinction was not used, the intervention avoided the escalation effects sometimes associated with traditional extinction-based procedures and was consistent with modern differential reinforcement methods that adjust reinforcement schedules rather than remove reinforcement entirely.

A limitation of this study is the experimental design, which demonstrates correlation between the intervention and the reduction in the target behaviour. Because the intervention was introduced only once and without replication or withdrawal, alternative explanations for the observed change cannot be ruled out.

Case study three

This study looked at the efficacy of choice-making as an intervention for public disrobing and inappropriate urination. Whilst the intervention did not eliminate public disrobing and urination, the behaviours were reduced significantly and to a frequency that allowed educational instruction to take place.

Public disrobing is a difficult behaviour to manage, particularly when in the community. This may lead to social isolation, poor integration with peers and placement in restricted settings (Bigelow *et al.*, 1988).

Carlson *et al.* (2008) used a choice-making intervention for two children with developmental disabilities who demonstrated public disrobing in school settings and also urinated in their clothing.

Functional behaviour assessments identified this was to gain access to new and more preferred clothing. The intervention decreased and eliminated incidents of public disrobing and urinary incontinence for both children.

Method

The participant was a nine-year-old autistic girl with an additional learning disability. She was non-vocal and used Picture Exchange Communication System and some Makaton signs to communicate. The participant was provided with access to a variety of preferred brightly patterned leggings, in this case, prioritising safeguarding over uniform compliance.

Data were collected on the number of occurrences of disrobing, defined as removal of clothing to expose underwear or private body parts in any location other than a changing room or toilet cubicle, and occurrences of inappropriate urinating, defined as urinating anywhere outside of a toilet cubicle. A single-subject AB design was used.

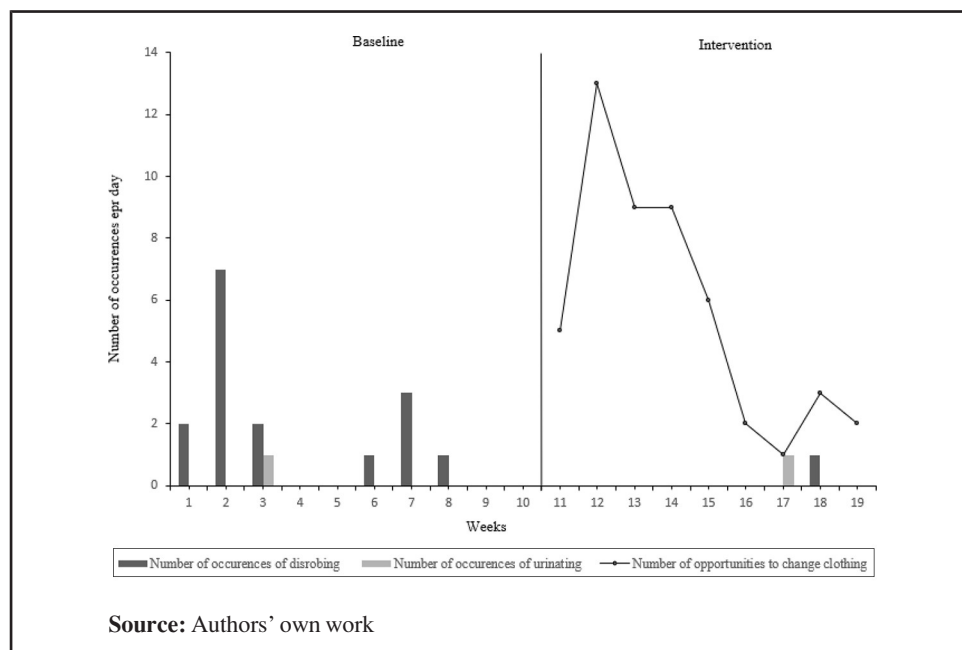
Procedure

An FBA conducted through ABC data identified that the behaviours occurred to gain access to preferred clothing, and the intervention therefore gave the participant the opportunity to change into high-preference clothes at scheduled times during the day. The participant was offered the choice and opportunity to change her leggings up to five times a day initially. If she chose to change, she was taken to an appropriate place such as a changing room to do this. If she declined, this was recorded, and she was offered a choice again at the next opportunity. During the intervention if the participant disrobed, she was asked to put the same leggings on again and was not given a choice at this time. If the participant urinated in her clothing, she was changed into a pair of leggings that were not from her choices.

Results

As shown in Figure 3, the intervention was successful in reducing the number of occurrences of disrobing for this participant. Initially, the participant was offered five opportunities a day to change her leggings, and over the course of the weeks this was reduced to three times, then twice a day. There was an instance of inappropriate urination and one instance of disrobing in weeks 17 and 18, respectively, and the choices were increased to three times the following week. The participant left the school during the intervention, and the strategy was shared with the next setting to ensure this strategy was continued as necessary.

Figure 3 The number of occurrences of disrobing, urinating and opportunities to change clothing



Discussion

From an ethical perspective, the intervention aimed to respect the participant's rights and dignity by incorporating choice and privacy, while also recognising the need for proportionate risk management. This reflects the importance of supporting independence and considering safeguarding when managing behaviours that may pose risks to wellbeing.

Limitations of the study include restrictive opportunities for changing if out on a school trip, or not in an environment where this is possible. The participant was also not wearing the correct school uniform during the time of the intervention; however, the disrobing behaviour was considered a safeguarding concern, and it was agreed that uniform would be introduced slowly over time.

Overall discussion

All the interventions implemented in these case studies were successful in reducing the target behaviours that were considered to be related to safeguarding concerns for the individuals themselves and also others within their communities.

Whilst we are already aware of some of the reasons why there may be reluctance to seek guidance and support from expert researchers, future research should explore further what other factors explain the limited research available. It should also identify ways to encourage investigations into strategies to prevent, reduce and eliminate safeguarding-related behaviours, in particular those related to contextually inappropriate sexual behaviours. [Carlson et al. \(2008\)](#) stress the importance of being able to implement interventions efficiently, with clear definitions of target behaviours, and the significance of generalisation to other settings and caregivers, including the home. Interventions need to be easily implemented and replicated exactly and concisely by all caregivers, and not just the professionals.

Maintenance and generalisation are critical considerations when evaluating interventions targeting safeguarding-related behaviours. While the interventions reported here resulted in

meaningful reductions in target behaviours within the school environment, long-term maintenance of behaviour change and generalisation to other settings (e.g. at home and in the community) should be considered. [Lindsay and Smith \(2002\)](#) suggested that individuals with autism and/or developmental disabilities may require long-term intervention to produce maintenance of behaviour change. Any meaningful reductions in target behaviours not only reduce the participants' risk of experiencing harm related to the behaviours but also improve their overall independence and wellbeing.

A prominent gap in the literature concerns the lack of research exploring antecedent-based interventions that can be effectively implemented in special schools to address safeguarding-related behaviours, including self-touch, disrobing and inappropriate urination.

The main limitations of these case studies were associated with experimental designs. Although baseline data demonstrated some variability, the studies were conducted in an applied setting, and it was necessary to implement safeguarding strategies without delay. In addition, although the paper aimed to implement 'transferable' strategies, the interventions were evaluated within a single setting, limiting the extent to which transferability or generalisation across contexts can be demonstrated. Further research is required to replicate these case studies using more robust experimental designs to strengthen the evidence base and increase confidence in the effectiveness of these strategies in a school setting. Furthermore, alternative explanations for observed behaviour change, such as maturation, cumulative effects of prior interventions, or changes in staffing, cannot be ruled out.

Nonetheless, the findings remain consistent with the aim of this paper, demonstrating how practical, transferable approaches may reduce safeguarding-related behaviours for autistic children and young adults with intellectual disabilities.

Ethics statement

Ethics approval is in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Informed consent

The study was approved by the School's Ethics Committee, and participants' assent was obtained. All behavioural strategies implemented during the study were consistent with each participant's individualised behaviour guidelines, which had been developed in consultation with and shared with parents/carers as part of routine practice. Parents/carers were informed of the study and the strategies being used and were given the opportunity to raise any concerns or withdraw their child from participation. No parents/carers indicated that they objected to their child's involvement.

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