Evidence-based guidelines to reduce the need for restrictive practices in the disability sector

APS Working Group
Ms Morag Budiselik
Ms Michelle Davies
Ms Ewa Geba
Dr Nick Hagiliassis
Professor Alan Hudson
Dr Keith McVilly
Dr Kim Meyer
Ms Madonna Tucker
Dr Lynne Webber

APS Project Staff
Mr Harry Lovelock
Dr Rebecca Mathews
Ms Claire Forsyth
Ms Rachel Gold

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Abbreviations used in this guide

AAC   Augmentative and alternative communication

APS   Australian Psychological Society

BSP   Behaviour support plan

CBT   Cognitive behaviour therapy

DRA   Differential reinforcement of alternative behaviours

DRI   Differential reinforcement of behaviours incompatible with the problem

DRL   Differential reinforcement of low rate behaviour

DRO   Differential reinforcement of zero behaviour

FCT   Functional communication training

PBS   Positive behaviour support

PCP   Person centred planning

SIB   Self-injurious behaviour

WHO   World Health Organisation

Executive summary

This practice guide has been prepared by the Australian Psychological Society (APS) in consultation with experts in the field and a disability reference group. Seminal literature about disabilities was consulted as part of the preparation process.

The aim of this guide is to reduce restrictive practices in the disability sector by increasing the use of positive behaviour support programs. A range of issues about the use of restrictive practices is addressed. These practices include the use of restraint and seclusion as well as procedures and programs that can impede a person's ability to exercise choice and self-determination. The reduction of restrictive practices has relevance not only in the disability sector, but also in other areas of practice including rehabilitation, mental health, forensic, juvenile and aged care settings.

This guide has been written with both psychologists and non-psychology health professionals in mind in order for interdisciplinary collaboration to occur and to support systemic improvements.

There is an evident clinical need for guidelines about restrictive practices. The incidence of restraint in Australia (23-28%) is considered high compared with the UK, where it is reported that between seven and 17 per cent of adults with a disability are subjected to restraint (Emerson, 2002). The need is even greater considering the potentially serious consequences for individuals and services if inappropriate use of restrictive practices occurs.

Restrictive practices are applied in a range of service settings with varying degrees of appropriateness. There is now substantial evidence demonstrating that inappropriate use of these practices can result in physical and psychological injuries that have long-term implications. Furthermore, these practices can adversely affect the therapeutic relationship between clients and clinicians. In many cases, the decision to use restrictive procedures is made in the absence of adequate consideration of alternative psychological interventions that might mitigate their use. A range of factors should be considered before implementing restrictive practices. These are briefly outlined below.

Person-centred planning
Person-centred planning (PCP) is both a philosophy of service provision and a set of procedures used in the planning, delivery and evaluation of services for people with disabilities. PCP is based on what people with a disability, and their family and friends, want out of life. It is different from traditional planning approaches (e.g., individual rehabilitation planning and individual service planning), which are predominantly based on the assessments and recommendations of professionals. PCP is a self-empowering process as it encourages individuals to identify their own goals. In addition, it emphasises the assessment of the strengths and skills of an individual.

Determining an appropriate physical environment
Challenging behaviour is mediated by a combination of interpersonal, organisational, and environmental factors. Clinicians should assess the impact of environmental factors on the occurrence of challenging behaviours and modify the environment where possible to meet clients' needs and sensory preferences. Furthermore, clinicians should ensure that the physical environment is designed so that clients:

- feel safe, to prevent crises;
- have access to quiet space and privacy;
- have some level of control over, or choice regarding, their environment; and
- have access to communication aids to improve receptive and expressive communication with others.

Ethical considerations
When considering the use of restrictive practices, clinicians must uphold the moral rights of clients in accordance with relevant legislation. Clinicians must also comply with their profession's ethical guidelines at all times.

Assessment of people with disabilities

Appropriate psychological assessment of challenging behaviour is fundamental to the development of any behaviour support and intervention plan. Assessment can involve functional behaviour assessment and analysis, person-centred planning, risk assessment, mental health evaluation, physical assessment, cognitive/neuropsychological assessment, adaptive behaviour assessment and personality assessment. Formal psychological tests used as an adjunct to the functional behaviour assessment should be validated for use with people who have disabilities, and those tests should be administered by appropriately trained clinicians. Unfortunately, very few psychological tests have been developed and normed for use with people who have disabilities.

Managing concerns related to staffing

Factors related to staffing have been identified as critical in the decision to implement restrictive practices. Staff are crucial mediators in the provision of effective and appropriate support (LaVigna, Willis, Shaull, Abedi, & Sweitzer, 1994). Staff workloads (e.g., staff ratios to clients) and their mental health (e.g., levels of anxiety, depression, and burnout) are related to the likelihood of restrictive practices being employed. Staff education, together with appropriate levels of supervision and management support, could reduce the use of restrictive practices by assisting staff to identify non-restrictive strategies such as the implementation of behavioural, interpersonal, and environmental monitoring and management.

Research evidence suggests that the frequency and severity of challenging behaviours can be reduced using psychological interventions if those interventions are tailored to the individual and their carers and support workers, and if carers and support workers are trained in the implementation of interventions. Positive behaviour support (PBS) is one approach for reducing challenging behaviours that has received evidence-based support. PBS focuses on improving the individual's quality of life and on reducing challenging behaviour. Clinicians working with people who have disabilities should ensure that they have appropriate training in the psychological issues and intervention techniques applicable to this population. They should also implement PBS and use a PBS framework to develop and implement a behaviour support plan (BSP).

Implementation of intervention plans

Many BSPs, and most treatment plans, are written by psychologists. Direct support workers often have difficulty implementing treatment plans simply because they do not have a clear understanding of what is required. Further, Singh, Singh, Davis, Latham, and Ayers (1999) recommend strongly that psychologists be mindful when writing plans to make sure they are written in a language appropriate for the staff who will implement them.

Working with an interdisciplinary framework

Challenging behaviours can be complex, and consequently working in an interdisciplinary team with professionals such as speech pathologists, occupational therapists, psychiatrists and general practitioners is most effective. Interdisciplinary assessment can provide a richer understanding of the unmet needs that underlie challenging behaviours. Sharing collective knowledge and expertise should also minimise duplication of information and ensure that all factors are considered and addressed, that intrusion into a client's life is minimised, and that all treatment approaches are complementary and add value for the client. To attain this, regular formal meetings and communications are required for the team of professionals who are treating a client.

Working with children and adolescents who have disabilities

There are specific considerations and issues that need to be taken into account when working with children and adolescents who have a disability. Important considerations include whether the client is old enough to give consent for the therapy or treatment, or if parental consent is required; whether clinician practices using evidence derived from adult research are appropriate for children and adolescents; and whether the staff and health practitioners require specific training for working with this group of individuals.

Working with people who have persistent self-injurious behaviours

The issue of restraint in situations involving people who engage in stereotypic and self-injurious behaviours requires specific attention, as learning theory and traditional functional analysis techniques are insufficient to generate effective intervention strategies. Instead, staff training needs to focus on coaching in PBS strategies and the need to minimise use of personal and mechanical restraint. PBS strategies include the differential reinforcement of periods of non-self injurious behaviour by the presentation of 'preferred' forms of restraint and the fading of existing non-preferred restraints.

Legislative and policy issues

A major issue influencing decisions about the use of restrictive practices relates to government legislation and organisation policy. Clinicians should be familiar with federal, and their state or territory's, legislation concerning the use of restraint and seclusion in the disability sector. They should also be aware of any publications and/or guidelines for appropriate practices that support state legislation. Furthermore, clinicians should be familiar with their workplace protocols for managing challenging behaviours, and they should work at all times with approaches that, according to evidence-based research, employ least restriction to clients.

Upholding dignity and respecting the rights and safety of clients and staff

There are many ways to stop behaviours of concern and to do so with safety and dignity for clients. These methods should be used before restrictive interventions are considered (see Osgood, 2004). The use of physical restraint places both the person subject to the restrictive practice and those implementing the practice at serious risk of harm, trauma or, in worst case scenarios, death. However, there may be times when the use of restrictive practices becomes unavoidable. Moreover, these practices should be used only as a last resort. In such circumstances, it is important that respect for clients, and their dignity, remain paramount at all times.

1. Purpose

The purpose of this practice guide is to support and provide direction to clinicians working in the disability sector, particularly when they work in collaborative interdisciplinary teams. This interdisciplinary approach reflects material about restrictive practices that was issued in a joint statement by the Royal College of Psychiatrists, British Psychological Society, and Royal College of Speech and Language Therapists (2008).

This guide should not be regarded a substitute for training and professional development in the use of assessment tools and psychological interventions.

2. Background

Consistent with the United Nations' *Convention on the Rights of Persons with Disabilities* (2006), the APS has prepared this practice guide for clinicians to "promote, protect and ensure the full and equal enjoyment of human rights and fundamental freedoms by persons with disabilities, and to promote respect for their inherent dignity" *(Human Rights Council - Resolution 7/9, 2008).*

In particular, this guide seeks to reduce restrictive practices in the disability sector by increasing the use of positive behavior support (PBS) programs. Restrictive practices include the use of restraint (physical, mechanical, and chemical) and seclusion. They also include a range of programs, procedures, and psychosocial techniques that can impede a person's exercise of choice and self-determination, all of which prevent people from being able to exercise human and legal rights that are ordinarily available to other members of the community.

Restrictive practices are applied in a range of service settings with varying degrees of appropriateness. There is now substantial evidence that inappropriate use of these practices can be harmful and can result in physical and psychological injury to a person, with long-term implications. Many deaths of both adults and children have occurred in relation to the use of restrictive practices: Asphyxia and cardiac complications ensuing from the use of restraint are the most frequently reported causes of death. Researchers have also recognised the negative effect of restrictive practices on well-being and quality of life of people who have disabilities (Sigafoos, Arthur, & O'Reilly, 2003; Singh, Lloyd, & Kendall, 1990) as restraint or seclusion often lead to reduced opportunity to engage in daily activities, fewer social opportunities, and social isolation. There is also evidence that restrictive practices can place those implementing them at risk of both physical and psychological harm. Furthermore, restrictive practices can adversely affect the therapeutic relationship between client and clinician. In many cases, the decision to use restriction is made in the absence of adequate consideration of psychological interventions that might mitigate their use.

As knowledge increases about effective psychological interventions that are alternatives to restrictive practices, it is important that those interventions be applied to all settings where they can have a positive impact upon people's lives (Ball, Bush, & Emerson, 2004; Hagiliassis, DiMarco, Gulbenkoglu, Iacono, & Watson, 2006). The reduction of restrictive practices has relevance across not only the disability sector, but also in other areas of practice including rehabilitation, mental health, forensic, juvenile, and aged care settings.

This practice guide describes the process of developing the guide itself, defines terms such as restraint and seclusion, and provides recommendations for a number of aspects of practice, including:

- person-centred planning;
- determining an appropriate physical environment;
- ethical considerations relevant to working with people who have challenging behaviours;
- assessment of challenging behaviour in the disability field;
- managing concerns related to staffing;
- psychological interventions for clients presenting with challenging behaviour;
- working with an interdisciplinary approach;
- working with children and adolescents who have a disability;
- working with people who have persistent self-injurious behaviours; and
  legislative and policy issues.

2.1 The clinical need for a practice guide

Research has revealed that approximately 4-17 per cent of people with an intellectual disability show behaviours that can result in injury to self and/or others, or property damage (Emerson et al., 2001; Holden & Gitlesen, 2006; Moss et al., 2000). Historically, individuals working with people who have a disability and who display behaviours of concern, are known to use methods of restraint and seclusion as a means of managing unwanted behaviours. For example, in Victoria, the Intellectual Disability Review Panel reported that during 2005 and 2006, 28 per cent of residents in accommodation services and 23 per cent of residents in respite services were exposed to restraint and/or seclusion (2006).

Internationally, the use of restraint has been questioned. In the United States of America, increased risk of litigation has given rise to a systematic change in policy and practice. Currently, all American states have laws, regulations, and policies governing the use of restrictive practices. New Zealand has a Code of Health and Disability Services Consumers' Rights. The New Zealand Health Complaints Commission, in investigating a number of complaints regarding the inappropriate use of restraint and seclusion, found that the use of these practices was in breach of this code. Furthermore, the incidence of restraint in Australia (23-28%) is considered high compared with the United Kingdom, where it is reported that between seven and 17 per cent of adults with a disability are subjected to restraint (Emerson, 2002). The British Psychological Society has developed a set of guidelines for the use of psychological interventions for severely challenging behaviours shown by people with learning disabilities (Ball et al, 2004).

2.2 Barriers to the application of effective intervention

There are many barriers to the use of psychological interventions as an alternative to restrictive practices for managing challenging behaviour. These barriers include poor work culture, lack of adequate staffing and staff supervision, lack of adequate education for staff, and client stigmatisation (perception that care of the person requires restraint based on the person's characteristics or diagnosis). It is important to recognise these barriers and to understand their impact. However, they should not prevent setting standards and developing alternatives that require vision and leadership.

Clinicians need to be aware of their ethical and legal responsibilities when formulating, recommending, or endorsing strategies that include restrictive, or potentially restrictive, practices. They also need to be aware of the justifications that are used to defend those practices. Clinicians have an ethical responsibility to challenge those practices and to resist pressures to formulate, recommend or endorse them as alternatives to appropriately structured and resourced programs of support.

2.3 Prevention of challenging behaviour

Preventing people with disabilities from developing challenging behaviour is more desirable than having to construct specific support programs for them after they have already developed such behaviour. Although this practice guide focuses on assisting clinicians to construct non-restrictive support programs for clients who exhibit challenging behaviours, it must be remembered that psychologists can also play a major role in preventing those behaviours.

Training significant others in a client's life (e.g., parents, teachers, and care staff) to provide an appropriate environment for the client is extremely important. These significant others should interact with clients on a daily basis in ways that promote appropriate development and reduce the occurrence of challenging behaviours. In particular, it is important for a client's significant others to foster particular skills, especially communication skills, because an absence of these skills increases the risk of challenging behaviours. However, not all efforts to prevent the development of challenging behaviours are successful. Therefore, there is a need for programs that are specifically designed to support people who exhibit challenging behaviours. The focus of this guide is the development of such programs.

3. Development of this practice guide

Promoting evidence-based alternatives to restraint and seclusion in human services has been recognised as an important area in need of clear guidelines. The first steps in developing these guidelines were to conduct a literature review — including a review of academic databases, legislation and key documents available in the field — and to engage a group of experts in discussions. That expert reference group was established to contribute their own ideas and to comment on documents.

Following the literature review and consultation with the reference group, a discussion paper was developed. The paper provided a brief overview of the literature, identified significant barriers to implementing evidence-based alternatives to restraint and/or seclusion in the disability sector, and raised questions about which responses were sought. The goal of these questions was to identify significant workforce issues that had not been adequately addressed in the paper and to encourage input from psychologists working in the field about the best means for promoting evidence-based alternatives. The APS appreciates the time and consideration of the members who submitted their responses.

From the discussion paper and feedback, guidelines were drafted and distributed to the expert reference group for comment. Revisions were completed following comment and integration of all feedback.

4. Definitions

There are a number of key terms referred to throughout these guidelines. While various interpretations of these terms exist in the sector, the following definitions will be adopted for the purpose of this document.

4.1 Disability

According to the World Health Organisation (WHO), disability is a physical or mental impairment that significantly interferes or restricts an individual's ability to participate at home, in education, at work or in the community generally (WHO, 2001). The Australian Institute of Health and Welfare (AIHW) describes and measures disability in terms of impairments in any one, or combination of three core activity areas: communication, mobility and self-care. McVilly and Newell (2007, pp.10, 11) state that:

> …disability is not simply a quality or attribute inherent in an individual person that requires treatment or cure. Rather disability comes about as a consequence of the complex interaction between biological, psychological and social factors, including physical, economic and attitudinal barriers to participation at home, in education, at work or in the community generally.

4.2 Challenging behaviours

Challenging behaviour is a term that is used broadly and is sometimes also referred to as a 'behaviour of concern'. Emerson et al. (1988) define challenging behaviours as behaviour that is of such intensity, frequency, or duration that the person and others around them are at serious risk, or behaviour that is likely to seriously limit or delay access and use of ordinary community facilities. McVilly (2002, p.7) uses the term 'challenging behaviour' to denote any behaviour that: (1) is a barrier to a person participating in and contributing to their community (including both active and passive behaviours); (2) undermines directly or indirectly a person's rights, dignity or quality of life; and (3) poses a risk to the health and safety of a person and those with whom they live and work.

4.3 Restraint and seclusion

There are a number of methods of restraint and an even greater number of working definitions about what constitutes restraint. In some states and territories of Australia, definitions are provided in legislation, regulations, or policy documents. Within this guide, the definitions below have been adopted.

4.3.1 *Physical restraint* refers to the prolonged use of any part of a person's body to restrict the free movement of that person.

4.3.2 *Chemical restraint* involves the use of medication to control a person's behaviour when that medication is not prescribed by a registered medical practitioner for treating a formally identified physical or mental illness.

4.3.3 *Mechanical restraint* refers to the use of devices such as harnesses or straps to restrict the free movement of an individual or to prevent self-injury, with the exception of an authorised device recommended by a medical practitioner or therapist for therapeutic purposes, or devices required by law to transport a person safely.

4.3.4 *Psychosocial restraint* is the use of social or material sanctions, or verbal threat of those sanctions, to attempt to moderate a person's behaviour. Psychosocial restraint includes practices such as response cost and restricted access. Banks et al. (2007) define response cost as withholding a valued item or activity from the person in response to a specific behaviour. Restricted access refers to the process of using a physical barrier, increasing supervision, or implementing limits or boundaries beyond normally accepted community practices as a means of limiting a person's access to items, activities, or experiences with the intention of manipulating a particular behaviour or managing risk — for example, locking a cupboard where food is kept.

4.3.5 *Seclusion* involves solitary confinement of a person in a room or area (e.g., garden) from which their exit is prevented by a barrier or another person. Seclusion includes situations in which people believe they cannot or should not leave an area without permission.

4.3.6 *Timeout* is a procedure in which the person is separated temporarily from a rewarding environment as part of a planned and therapeutic program to modify behaviour (Royal College of Psychiatrists, 2004). Timeout may be exclusionary, which refers to forcibly moving individuals from one setting to another or non-exclusionary where a person remains in a particular setting but is prevented from engaging in activities.

4.4 Functional assessment

Functional assessment involves three interrelated processes:

- identification and definition of a target behaviour;
- use of observation and information from a variety of sources to identify when the challenging behaviour does and doesn't occur, and the associated environmental events or bio-behavioural states; and
- generation of hypotheses concerning events that precede the occurrence of the behaviour, contingencies maintaining the behaviour (such as available reinforcers or rewards), and the characteristics and patterns of the challenging behaviour itself.

4.5 Functional analysis

In functional analysis, the observations and hypotheses from the functional assessment are tested by intentionally manipulating antecedents and consequences that are expected to affect the occurrence of challenging behaviour, and the occurrence of the challenging behaviour is subsequently observed.

4.6 Learning theory

Learning theory refers to mechanisms that lead to relatively permanent change in behaviour as a result of the way in which individuals perceive or interpret their environment. Many learning theories have been proposed, the most well known focusing on behavioural, cognitive or developmental factors.

4.7 Establishing operation

Establishing operation relates to any change in an environmental event that affects reinforcement of that event, as well as the frequency of the behaviours related to gaining that reinforcement. For example, food deprivation is an establishing operation and evokes behaviours that may lead to gaining food. Food satiation, the state of being satisfactorily full, is an abolishing operation because people who are satiated will not be motivated to perform behaviours related to eating or acquisition of food.

4.8 Positive behaviour support

Positive behaviour support (PBS) is a comprehensive approach to assessment, planning and intervention for people who exhibit challenging behaviours. The PBS approach includes two main types of strategy. The first of these addresses deficient environmental conditions — e.g., physical access and staffing issues, including staff training, activity schedules, engagement techniques, and choice making opportunities. The other strategies address deficient behavioural repertoires of the person — e.g., communication, self-management, activities of daily living, and social skills. PBS incorporates a bio-psychosocial approach that seeks to understand clients and to develop strategies that address their needs. In most instances, PBS is best implemented with the support of an interdisciplinary team.

Consistent with the principles of PBS, the term 'behaviour support' is preferred to 'behaviour management'. Behaviour support is understood to encompass a much more holistic approach to assessment and the design of strategies and programs. Furthermore, the term behaviour support is intended to place a greater focus on the support of the individual rather than on management of a disembodied behaviour.

4.9 Person-centered planning

Person-centered planning (PCP) is both a philosophy of service provision and a set of procedures used in the planning, delivery and evaluation of services for people with disabilities. PCP is based on what people with disabilities (and their families and friends) want out of life, in contrast to traditional planning approaches (e.g., individual rehabilitation planning, or individual service planning) which are predominantly based on the assessments and recommendations of professionals. The PCP process is typically facilitated by the person who has a disability, along with a close network of family and friends (a 'circle of support') that invites the participation of professionals as needed. This operates in contrast to traditional planning processes, which are facilitated by case managers and other categories of service worker. There is a variety of approaches to PCP— e.g., personal futures planning, essential lifestyle planning, making action plans (MAPS), planning alternative tomorrows with hope (PATH), and group action planning (GAP). All of these approaches are similar in that they focus on eliciting a client's identity, needs and aspirations, and then plan supports based on those factors. They differ in the techniques they use to gather information and the relative emphasis they place on either day-to-day issues or longer-term planning.

5. Guidelines for practice

The following guidelines focus on areas of consideration for clinicians working in the disability sector when making decisions in their practice and designing intervention plans. For each area of practice, the relevant literature is summarised, and guidelines for clinicians (printed in bold and boxed) are provided accompanied by relevant supporting information. Some of the support is provided by research evidence, and other support comes from a clinical perspective.

5.1 Ethical, legal and policy considerations

The fundamental human rights of the person must be assured in accordance with relevant legislation. Before any formal assessment is undertaken, clinicians must ensure that the fundamental human rights of the person exhibiting the challenging behaviour are being met. The person must have a safe environment to live in, adequate social and community access, and regular activities and respect from staff and the service provider(s). Only when these rights have been assured, and the challenging behaviour is still observed, should more formal assessment be considered.

The United Nations' *Convention on the Rights of Persons with Disabilities* (2006), an internationally accepted convention, states that individuals should be "guaranteed freedom from torture and from cruel, inhumane or degrading treatment or punishment" (Article 15). In addition, states should "protect the physical and mental integrity of persons with disabilities, just as for everyone else" (Article 17) and "enact laws and administrative measures to guarantee freedom from exploitation, violence and abuse" (Article 16).

To ensure that the human rights of the person are preserved, clinicians should not formulate, recommend or condone practices that, as specified in the NSW Guardianship Act (1987):

- are degrading or demeaning;
- involve intimidation or aversive outcomes;
- involve denial of access to basic supports or prevent people from fulfilling their basic needs, e.g., preventing access to food, personal possessions, or contact with significant others, or disrupting their usual routine and/or their preferred means of communication;
- involve wrongful imprisonment, including unauthorised modification of equipment essential to their mobility;
- give rise to assault or abuse, or act in any way that causes physical pain or serious psychological distress; or
- involve the unauthorised use of medication.

> **Guideline:**
> *Clinicians must comply with their profession's ethical guidelines*
> **Several sections of the *APS Code of Ethics* are relevant to working with clients who have an intellectual or developmental disability, in particular, Ethical Standards A.1. Justice, A.2. Respect, and A.3. Informed Consent.**

A.1.1. Psychologists avoid discriminating unfairly against people on the basis of age, religion, sexuality, ethnicity, gender, disability, or any other basis proscribed by law.

A.1.2. Psychologists demonstrate an understanding of the consequences for people of unfair discrimination and stereotyping related to their age, religion, sexuality, ethnicity, gender, or disability.

A.1.3. Psychologists assist their clients to address unfair discrimination or prejudice that is directed against the clients.

A.2.1. In the course of their conduct, psychologists:

    (a) communicate respect for other people through their actions and language;

    (b) do not behave in a manner that, having regard to the context, may reasonably be perceived as coercive or demeaning; and

    (c) do not denigrate the character of people by engaging in conduct that demeans them as a person, or defames or harasses them.

A.3.1. Psychologists fully inform clients regarding the psychological services they intend to provide, unless an explicit exception has been agreed upon in advance or it is not reasonably possible to obtain informed consent.

A.3.2. Psychologists provide information using plain language.

In addition to being aware of the *APS Code of Ethics*, clinicians working in the field of intellectual and developmental disability should be aware of the content of the *Australasian Code of Ethics for Direct Support Professionals*, published by the Australasian Society for the Study of Intellectual Disability (ASSID) [www.assid.org. au]. This code was designed with specific applicability to people who provide direct support to clients. Typically, these people are the staff who are expected to implement programs and strategies devised by clinicians.

Importantly, clinicians should take seriously their obligation to communicate openly and honestly with the person who is the focus of the assessment and intervention, regardless of that person's disability. In most instances, it will also be important to communicate with those who have most contact with that person (e.g., family members, friends and support staff). The person and the members of their support network should be fully informed of the assessment process and any recommendations or proposed strategies arising from the assessment. Consent of the person or their legally authorised representative must be obtained prior to conducting assessment and/or implementing behaviour support programs.

People with a disability should also be aware of, and be supported to access, sources of independent advice and advocacy prior to their agreeing to the implementation of any programs or procedures, especially those that are or could be restrictive in any way. In some instances, a family member or friend could offer that support. In other instances, a person might need to have access to an independent advocate. For the implementation of some programs in some jurisdictions, especially those involving restrictive practices, a legal guardian will need to be appointed to consent to and monitor the implementation of the program where the person with a disability lacks the capacity to provide consent. Family members and paid staff are not automatically able to provide consent on behalf of an adult who lacks decision-making capacity.

Consistent with the principles of PCP, clinicians should listen carefully and use all strategies available to them not only to assess skills and behaviours, but also to elicit a person's identity, needs and aspirations, and to plan supports based on all these factors. In many instances, this will involve consultation with individuals who form part of the person's circle of support. In such instances, consideration also needs to be given to balancing open communication with preserving privacy and confidentiality.

> **Guideline:**
>
> **Respect for individuals and their dignity must remain paramount at all times. Restrictive practices should be used only as a last resort, and the least restrictive option should be adopted.**

There are many ways to stop challenging behaviours with safety and dignity. These should be used before restrictive interventions are considered (Osgood, 2004). If restrictive intervention is considered a necessary part of a behaviour support plan, medical consultation should be instigated.

The use of physical restraint can place both the person subject to the restrictive practice and those implementing the practice at serious risk of harm. Restrictive practices have caused serious trauma and even death (McVilly, 2008; Paterson et al., 2003).

Use of restrictive practice in its various forms can contradict the intentions behind clinical programs that are designed to educate people about the consequences of their behaviour and to support them in making decisions about appropriate behaviour. If the decision is made to use of any type of restrictive practice to educate a person about the consequences of specific behaviours, restriction must occur in a manner that is consistent with that person's developmental level. If understanding the links between the behaviour and the consequence – the restrictive practice – is beyond the abilities of the person, the practice will not reduce the challenging behaviour as restraint will be seen simply as a punishment for an unknown antecedent.

If a clinician considers the inclusion of physical or mechanical restraint to be a necessary part of a BSP, a medical consultation should be instigated. In addition, a person qualified in the use of physical intervention techniques should be engaged to assess the client and that person's support needs (this may include consulting with the client's medical practitioner), assess the environment and staff involved, and provide training tailored to the client's individual profile.

Where physical intervention is proposed, protocols for access to medical support should be included in the BSP. In addition, the following recommendations are made:

- Prone (face down) or 'hobble (hog) tying' restraint should not be used.
- Any physical or mechanical restraint that inhibits the respiratory and/or digestive system should not be used.
- No physical or mechanical restraint that involves compliance through the infliction of pain, hyperextension of joints, and pressure on the chest or joints should be used.
- There should be no use of 'takedown' techniques in which the individual is not supported and/or free fall occurs as the individual goes to the floor.
- An individual's physical condition should be evaluated throughout the restraint in order to minimise the potential of individual harm or injury.
- Physical restraint should not exceed 30 minutes within any two-hour time period.
- Individuals should be immediately released from physical restraint when they no longer present a danger to themselves or others.
- Support staff should monitor the individual for signs of distress throughout the restraint process and for a period of time (up to two hours) following the application of a restraint.
- Observations that include vital clinical indicators such as pulse, respiration, and temperature should be conducted and recorded, and staff should be trained so that they are competent to interpret these vital signs.
- Permission to use a restrictive practice should be clinically validated and approved by a guardian via an appropriate authority and proper authorisation process.
- Use of the any restrictive practice in support services should be monitored and reviewed by senior management.

> **Guideline:**
> **Clinicians should be familiar with their state/territory legislation concerning the use of restraint and seclusion in the disability sector. Where applicable, clinicians should be aware of any publications and/or guidelines for appropriate practice that support state/territory legislation.**

Each Australian State and Territory legislates its own definitions of restrictive practices as well as policy and procedures surrounding their use. (Refer to the table below).

State	Website
Australian Capital Territory	www.legislation.act.gov.au/
New South Wales	www.legislation.nsw.gov.au/
Northern Territory	www.nt.gov.au/
Queensland	www.legislation.qld.gzov.au/OQPChome.htm
South Australia	www.legislation.sa.gov.au/index.aspx
Tasmania	www.legislation.tas.gov.au/index.w3p
Victoria	www.legislation.vic.gov.au/
Western Australia	www.slp.wa.gov.au/legislation/statutes.nsf/default.html

It would be desirable for consistent legislation to be adopted across all States and Territories, thus establishing standardised terminology and definitions; without this, it is difficult to develop an overarching understanding of practice standards across Australia. However, it is important to note that current legislation does not regard restrictive practices as being illegal, but makes specific allowances and guidelines for their use.

> **Guideline:**
> **Clinicians should be familiar with their workplace protocols for managing challenging behaviour and employ the least restrictive measures that are supported by research evidence.**

It is important that clinicians practise within the regulations and protocols of their place of employment alongside the *APS Code of Ethics*. Where conflicts emerge, clinicians should discuss these with their employer and, where necessary, seek advice from their professional association.

> **Guideline:**
> **In developing organisational policy around the use of restrictive practices, language should be carefully constructed to increase understanding and capture the range of situations in which the use of restrictive practices may be considered.**

Definitions of practice terms can be quite broad, resulting in unclear understanding and creating opportunities for misuse of restrictive practice. An example of this may be in the practice of timeout. Furthermore, communication of policy and procedures between staff may be problematic. The Royal College of Psychiatrists (1995) notes that timeout is in widespread use, particularly with certain groups such as children or those who have intellectual disabilities. They recommend that in clinical practice, rather than simply prescribing the use of timeout, clinicians should clearly describe the procedures to be used in order that they be properly evaluated for the degree to which they represent restraint or seclusion, and if proposed as part of a therapeutic process, appropriate consent, monitoring, and review procedures should be established.

Research has indicated that misuse of timeout may produce many negative long-term outcomes. The RCP cautions that the breadth of the timeout definition is open to misuse, to encompass what is, in fact, seclusion. In practice, many clinicians do not fully understand the difference between when timeout is used as a therapeutic/educational strategy, and when timeout becomes a process of seclusion. Mitchell and Clegg (2005) found that a high proportion of adults with an intellectual disability suffered trauma linked to prolonged solitary separation as children. As a result, these intellectually disabled adults went on to experience signs of post-traumatic stress disorder similar to that exhibited by non-disabled adults with such past trauma.

The term timeout in the context of restrictive practices should not be confused with a lay definition, meaning to take a break from a stressful situation. This interpretation must also be differentiated from 'time-away' meaning time to calm down which, for example, may be used as a positive experience when people with autism spectrum disorder need time away from overwhelming sensory experiences.

Even when organisations provide a clear policy document, difficulties can arise when translating policy into practice. One such difficulty concerns a lack of clarity about organisational policy and protocols. For example, the likelihood of a carer or clinician employing seclusion as a method of managing challenging behaviours may be affected by the terminology used in the policy. Describing seclusion as a treatment creates positive connotations because it implies that it will make people feel better. On the other hand, conceptualising seclusion as a containment procedure of last resort could reduce its use due to negative implications.

> **Guideline:**
> **Documentation of a restrictive practice should be implemented after every event to monitor the efficacy of practices and to aid reporting and review of client plans.**

Where there is a need to implement restrictive interventions there should be clear and comprehensive documentation of the reasons for the use of the intervention, the parameters around which the intervention is applied and a plan for the subsequent removal of the restrictive practice.

5.2 Approaches to working with people who have intellectual disabilities and challenging behaviours

> **Guideline:**
>
> **An interdisciplinary team approach should be used for the development and implementation of an intervention plan.**

Behaviours of concern are often complex. Interdisciplinary collaboration can provide a richer understanding of the unmet needs that underlie these behaviours. Consequently, an interdisciplinary team consisting of a psychologist and one or more professionals from speech pathology, occupational therapy, physiotherapy, psychiatry or general practice can lead to a more effective approach in developing appropriate interventions. Each of these professionals brings specific expertise to the task of supporting a person who has complex needs.

When speech pathologists work with people who have behaviours of concern, they focus on developing the person's communication skills to replace the behaviour and provide a functional equivalent to the behaviour of concern. Their contribution can also be to increase the skills of disability support staff to become more effective communication partners with the person, to become better at identifying the person's early warning signs, and to enhance positive interactions between staff and the person. In addition, speech pathologists have skills in assessing and providing interventions for people who have dysphagia (swallowing problems).

When participating in the development of interventions to address behaviours of concern, occupational therapists place emphasis on exploring the context of the person's behaviour, rather than simply prescribing aids and devices to be used as restraints or to reduce risk of injury. Particular areas of focus for occupational therapists are environmental analysis, injury prevention and engagement. Occupational therapists may also have specific expertise in assessing people's sensory needs and developing intervention strategies to address sensory integration or dysfunction issues that may be contributing to the behaviours of concern.

Skilled and experienced occupational therapists can work collaboratively with physiotherapists as well as psychologists in addressing the equipment needs of people with more severe behaviours of concern that place a person's safety and well-being at risk.

The traditional role of physiotherapists (postural problems, lower limb deformities, and wheelchair and insert prescription) has evolved to a greater emphasis on consultation and collaboration with people from other disciplines. This applies particularly to issues of restrictive practices and 'grey areas'. Grey areas involve interventions and devices where, although the focus is on safety, injury prevention and reduction of risk, the functional impact on the client is one of restraint and restriction of freedom of movement.

Similar to occupational therapists, skilled and experienced physiotherapists explore referrals further than simply considering equipment needs. They too will look at a person's whole situation, what social issues may be impacting on the referral problem, and how any prescribed therapy or equipment can assist the person as well as others in the person's environment. Psychiatrists and general practitioners work with allied health professionals to provide support and provide care for the person's physical well-being.

In summary, in addition to the contribution of psychology, the allied health disciplines of speech pathology, occupational therapy and physiotherapy can increase the quality of an intervention by their specialist focus on such aspects as:

- adapting the person's environment;
- developing meaningful tasks and enjoyable activities;
- developing skills training plans;
- specialist assessments (e.g., sensory, communication, dysphagia, and equipment needs);
- adaptation and making of appliances where mechanical restraint is required to minimise injury to the person; and
- staff training in specialist areas (e.g., communication and use of visual supports).

> **Guideline:**
>
> **Where an interdisciplinary team is involved in a treatment intervention, regular meetings and communications should occur.**

We recommend that new referrals be discussed in meetings that include at least one member of each discipline that should be involved. At this time, decisions can be made about which discipline or disciplines should provide the initial assessment. Subsequent case meetings may indicate that the input of other disciplines is required to meet the requirements of the particular intervention.

Ongoing cases need to be discussed frequently, either formally or informally, to ensure that effective communication and best service are provided to clients and to the support people in their environments. It is also recommended that a coordinator oversee the interdisciplinary team to ensure that the intervention process is managed effectively and efficiently.

> **Guideline:**
>
> **Clinicians should adopt a bio-psychosocial approach to understanding a client and developing intervention strategies.**

Providing appropriate services and support that meet the needs of the individual can prevent or minimise the development of challenging behaviours. Considering a person's support needs, their home environment and their overall quality of life is essential. Creating positive environments and supporting people to live meaningful lives should be the primary objective of all clinicians. One way to achieve an adequate quality of life for someone with a disability is to undertake a 'whole-of-person', or bio-psychosocial approach. See Definition 4.8 regarding positive behaviour support.

5.3 Assessment of people with disabilities

Prior functional assessments are essential to obtain information that can be used in the treatment of challenging behaviour (Didden, Duker, & Korzilius, 1997; Emerson, Reeves, Thompson, Henderson, Robertson, & Howard, 1996). Circumstances may change in a person's life, and thus assessment always needs to be reviewed. Where substantial changes have occurred, reassessment may be necessary.

> **Guideline:**
>
> **Clinicians should use a person-centered planning approach.**

From a clinical perspective, PCP (as defined in Section 4.9) is an important process as it empowers individuals to identify the goals and services that are important to them. There is a direct link between autonomy and well-being. Lack of autonomy has been shown to lead to depression (Boyle, 2008). In addition, PCP emphasises the strengths and skills of the individual. This information, combined with information from the functional assessment that identifies situations where challenging behaviour is likely to occur, provides important insights for development of the intervention plan. The process of PCP includes developing plans with clients by:

- listening to clients and assisting them to determine the goals and activities that are important to them;
- identifying strategies, and identifying people who will help to design and deliver services to meet the goals and activities that are important to clients;
- providing information and training to staff and other relevant people (e.g., carers) to ensure that they can support clients to meet their goals;
- conducting ongoing reviews with clients and significant people in their lives to ensure that a particular plan is meeting the needs of individual clients; and
- updating the plan as necessary.

> **Guideline:**
>
> **A functional assessment should be a necessary component of designing an effective intervention program for reducing challenging behaviour.**

Research evidence demonstrates that a functional assessment, along with implementation of an intervention based on the results of the assessment, lead to a decrease in challenging behaviour. Assessment should include a planned, systematic and hypothesis-driven approach to understanding a client's challenging behaviour. It should comprise a comprehensive functional assessment and include multiple elements that address the client's immediate needs (such as physical safety) as well as long-term needs (such as acquisition of new skills). Completing a comprehensive assessment may require analysis beyond challenging behaviour. Other forms of assessment may include cognitive/neuropsychological status, adaptive behaviour, mental health and physical health.

> **Guideline:**
>
> **Only formal psychological tests that have validity for use with people who have disabilities should be used, and those tests should be administered by appropriately trained clinicians.**

Psychological testing of people with disabilities should be conducted by clinicians who have been trained in the administration of psychological tests with this population group. Where possible, tests that have been trialled and validated for use with individuals who have specific disabilities should be adopted; however, very few psychological tests have been developed and normed for use with people who have disabilities. Therefore, where appropriately normed tests are not available, interpretation of test results should be made with caution and should take the client as a whole into account.

In many instances, psychometric tests will not be appropriate for use with clients who have disabilities because of severe communication impairments or motor skill deficits. In addition, administration of standardised tests requires working according to strict guidelines, for example, administration in a particular environment. This is not always possible when working with people with disabilities. Hence, the limitations of such testing should be identified and taken into account.

5.4 Psychological interventions for clients presenting with challenging behaviour

> **Guideline:**
>
> **Psychological interventions should be carefully tailored to individual needs of both the person with a disability and the disability support workers who implement the interventions.**

Research evidence indicates that psychological interventions can be used to effectively reduce the frequency and intensity of challenging behaviours when those interventions are individualised and carers know how to implement them.

Recent meta-analyses have demonstrated that behavioural interventions are effective in reducing challenging behaviours exhibited by children and adolescents (Harvey, Boer, Meyer, & Evans, 2009), individuals diagnosed with mild mental retardation (Didden, Korzilius, van Oorsouw, & Sturmey, 2006), and individuals diagnosed with autism (Campbell, 2003).

Harvey et al. (2009) conducted a meta-analysis of 142 articles published between 1988 and mid-2006 reporting interventions with 316 individuals under the age of 21. The researchers categorised challenging behaviours into six groups: self-injurious, aggressive, destructive, stereotypic, inappropriate social and disruptive. In addition, they categorised treatments into groups: modification of antecedents/triggers, teaching replacement skills, contingency management, systems change, a combination of two or more interventions, use of aversive interventions, and whether or not a functional assessment was used. Their findings indicate that psychological (behavioural) interventions reduced challenging behaviours. In addition, their results suggest that skills replacement strategies are more effective than changing antecedents or contingencies. Furthermore, multi-component strategies containing a skills replacement element based on the results of a functional assessment may be most effective.

The authors acknowledged the value of assessment in determining the function of challenging behaviour and the importance of replacement strategies to address those functions in the design of effective interventions. Furthermore, they argue that their research provides evidence that teaching new adaptive skills should be emphasised in future intervention strategies.

Didden et al. (2006) reviewed 80 articles published between 1980 and 2005 that described treatments for challenging behaviours exhibited by individuals diagnosed with mild mental retardation. The majority of cases were children although some studies with adults were included (the authors noted that further research was needed within the adult population). Their findings indicated that challenging behaviours exhibited by this population were successfully treated using predominantly behavioural interventions. They also indicated that cognitive behaviour strategies (e.g., anger management) also demonstrated effectiveness to a lesser degree. Functional assessment was found to contribute to more powerful interventions.

Campbell (2003) reviewed 117 articles published between 1966 and 1998 that provided information regarding challenging behaviour exhibited by 181 individuals diagnosed with autism. The findings indicated that behavioural interventions were successful in reducing challenging behaviours and that use of a functional assessment improved the likelihood of success.

In summary, the findings from these meta-analyses clearly indicate that psychological interventions can effectively reduce the frequency and intensity of challenging behaviours. The findings also suggest that the use of functional assessment to guide intervention strategies increases the likelihood of success. In addition, the Harvey et al. (2009) paper suggests the importance of using multi-component interventions.

> **Guideline:**
> **Clinicians working with individuals presenting challenging behaviour should work within a positive behaviour support framework.**

PBS is an evidence-based approach with the primary goal of increasing the quality of life of individuals who exhibit challenging behaviour. A secondary goal is to decrease the frequency and severity of challenging behaviours. Individualised goals are determined through collaborative efforts of the stakeholders (e.g., the individual, family, friends and staff members) to increase the likelihood of support and implementation. These goals are accomplished by changing the environment to support appropriate behaviours and supporting the individual in the acquisition of new skills and coping strategies.

Some of the aims of a PBS program may include:

- identifying and teaching new skills to assist people to improve their situation;
- avoiding the use of negative consequences or punishment as a way of altering behaviour;
- changing people's environments to better meet their individual needs;
- promoting positive activities that provide good experiences for individuals and increase their life satisfaction; and
- identifying the triggers that lead to challenging behaviour and developing strategies to avoid these.

5.5 Determining an appropriate physical environment

Challenging behaviour is mediated by a combination of interpersonal, organisational and environmental settings. Therefore, as well as careful assessment of interpersonal and organisational settings that clients are placed in, assessment of environmental factors is essential. The physical environment of an accommodation, respite, day support, educational or employment service influences both the behaviour of people with a disability and staff providing support. This may become a potential factor that influences decisions about the use of, or diminished need for, restraint or seclusion. Most of the factors that will be discussed in this section can be addressed through a person-centred approach and functional assessment.

> **Guideline:**
>
> **Clinicians should ensure that the environment is assessed and modified, where possible, to meet clients' needs and/or their sensory preferences.**

An intervention that modifies the environment in which a person exhibits challenging behaviours must be preceded by a thorough assessment to identify factors that could contribute to maintenance of those behaviours. Such an assessment should include analysis of noise levels, crowding, smells and temperature. Any resulting intervention should be dependent on the level of sensory stimulation that is optimal for the individual.

Enriching the physical environment in some situations has been shown to reduce challenging behaviours such as stereotypic behaviours, non-compliance and self-injury. Methods for enrichment may include increased visual and auditory stimulation and/or increased access to toys, leisure activities and social contact. However, changes need to be individualised for people's sensory preferences and needs (Miller, Anzalone, Lane, Cermak, & Osten, 2007). In contrast, for some people, an increased level of stimulation may result in over-arousal, elevated stress and anxiety, and negative peer contact. Increasing the level of stimulation available in the physical environment can increase challenging behaviours such as aggression and stereotypy, and reduce task performance.

Over-stimulation might be particularly important to consider when planning support and intervention strategies for people with autism spectrum disorder.

People's sensory preferences should be considered so that their environment can be enriched with the physical stimuli they find calming or that assist them to integrate their senses for better coping. Use might be made, for example, of ear phones, heavy blankets, sensory boards or vibrating cushions. The environment also needs to cater for clients' mobility and the age appropriateness of the furnishings and activities.

The furnishing and decor of an environment can also be adjusted by using brighter or more sombre colours, reducing clutter, providing direct sunlight and lighting, or arranging and reducing the amount of furniture to alleviate stress and anxiety for clients. Other modifications may include use of sturdy building materials such as reinforced walls and unbreakable windows, and the provision of safe areas. Some clients may have specific support needs. For example, people with Prader-Willi syndrome need to be in an environment that places less emphasis on the food preparation areas to reduce risk of property damage or injury. Consultation with an occupational therapist may enhance the assessment and program development process by attending to sensory input and structural issues. Useful information about creating an environment suitable for clients with autism spectrum disorder has been published by the UK National Autistic Society, and can be accessed at the following site: www.nas.org.uk/nas/jsp/polopoly.jsp?d=2004

> **Guideline:**
>
> **Clinicians should ensure that all clients have access to personal space and privacy.**

Poor facility design can be a significant factor in clients' challenging behaviour. Stress and anxiety that produces challenging behaviours may be reduced by providing clients with adequate personal space. Where there are few quiet and private places there may be more frequent or intense behavioural episodes. Allowing private space may include provision of sufficiently large living and recreation areas as well as adequate bedroom or private spaces.

Clients should have access to personal areas such as their own room or quiet spaces when they require some space or time out as a means of alleviating stress. Inability to access their own spaces or items (when appropriate) may increase frustration in individuals who already have low frustration levels and thus result in challenging behaviour. This allowance also helps to nurture a sense of independence and autonomy for the individual.

While this guideline is clinically supported, simple and logical, there is currently little research evidence concerning the provision of space and privacy and its impact on challenging behaviours. There is, however, research evidence to suggest that being involved in making choices results in greater participation and engagement and a consequent reduction in challenging behaviours (Sigafoos, 1998). People with an intellectual disability may experience lack of control over their environment, and recent research has shown that the inability to exercise autonomy, such as constraining or ignoring a person's views, leads to depression in older people with a disability (Boyle, 2008).

Further, Finlay, Walton, and Ankaki (2008) found that highly vulnerable individuals were often those with the least amount of choice, and that the focus of choice within disability services is often on 'the big things in life' (holidays, etc.) rather than on smaller, everyday issues. Finlay et al. also studied the everyday practices of three services and found that power was the dominant feature of interactions between people. When examining the views of staff, the researchers found that staff perceived their role and evaluated their competency based on their ability to ensure residents had their nutrition and hygiene needs met, as opposed to engaging with the residents. Therefore, clinicians should engage the client in decision-making and ensure that clients have some level of control over their environments (e.g., concerning social activities, routines and privacy), which should be appropriate to the client's physical and intellectual abilities.

Guideline:

Clinicians should ensure that the physical environment is designed to prevent crises.

Consideration should be given to the environmental changes that can be made to prevent the occurrence of challenging behaviour and to reduce the risk of injury to the person or others should the person present with challenging behaviour.

Guideline:

Clients with communication difficulties should have access to communication aids to support receptive and expressive communication with others.

There is an association between lack of communication skills and challenging behaviour. This has led to the communication hypothesis (Carr & Durand, 1985; Carr, Levin, McConnachie, Carlson, Kemp, & Smith, 1994) that people who exhibit challenging behaviour are trying to communicate through that behaviour. If individuals learn to communicate by more adaptive means they become less frustrated, more able to communicate their needs with ease, and are therefore less likely to use challenging behaviour as a form of effective communication.

The use of speech and communication aids with clients who have speech impairments or communication difficulties enhances communication and positive interactions with peers and staff. Speech pathologists are trained to assess communication needs and to design, individually tailor and monitor the use of standard and innovative communication devices, and should be consulted with when developing treatment plans for people with disabilities who display challenging behaviours.

It is important to remember that communication is a two-way process. When providing communication support, the clinician must realise that communication tools are feasible and can be effective for both the person with a disability and his or her carers.

5.6 Implementation of intervention plans

Staff have been identified as critical mediators in the provision of effective and appropriate support (LaVigna et al., 1994), and in the decision to implement restrictive practices. High staff workloads (as evidenced, for example, in disproportionate staff–client ratios) and their mental health (e.g., levels of anxiety, depression, and burnout) are related to the likelihood of restrictive practices being employed. On the other hand, staff education, together with appropriate levels of supervision and line-management support, could reduce the use of restrictive practices and assist staff in identifying alternatives to these practices. The alternatives could include the implementation of behavioural, interpersonal and environmental monitoring and management.

> **Guideline:**
>
> **Careful assessment based on client needs and abilities and staff experience should be used to determine optimal staff–client ratios and staffing profiles.**

Determining the optimal staffing level for a particular service is not a simple case of more is better. Higher staffing levels have been linked to early intervention in managing challenging behaviours and preventing escalation of those behaviours. However, high staffing levels or staff availability have also been associated with a greater likelihood of the use of physical interventions. While lower staff ratios make physical interventions more difficult, lower staffing levels are known to contribute to staff anxiety and consequently can also increase the likelihood of employing restrictive practice. Clinicians have stated that they are sometimes asked to approve the use of restrictive methods with clients who display challenging behaviour when it is evident that higher staffing levels or more appropriately skilled staff could equally manage the situation (McVilly, 2008).

> **Guideline:**
>
> **Staff at all levels of the organisation should receive training in managing challenging behaviours and in appropriate responding.**

Staff skills and knowledge also influence decisions about the use of restrictive practices. Staff with low levels of skill or knowledge may be unaware of alternative interventions. Staff should be trained and educated in PBS and the need to understand the function of challenging behaviour for particular clients. While there is currently a general lack of evidence for the efficacy of staff education programs, McVilly (2008) recommends that combinations of staff education programs should be trialled and evaluated.

The level of experience of a unit manager is strongly related to the use of seclusion (Morrision & LeRoux, 1987). Staff in more senior positions should be educated in this area to ensure that the staff they oversee are aware of, use, and have a clear understanding about why alternatives to restrictive practices are implemented.

The use of restrictive practices may become commonplace in some organisations, and consequently organisational culture around restrictive practices may have a strong influence on the treatment of people with disabilities. Organisational cultural change can be encouraged through the use of education and training. In some organisations, restraint, seclusion and restrictive practices are viewed as a necessary part of managing people with challenging behaviours. Best practice outcomes will be achieved in an organisation where restraint, seclusion and restrictive practices are seen as methods of last resort. Situations must be monitored and continually reviewed to develop strategies that will lead to a person with challenging behaviours no longer needing restrictive support methods.

> **Guideline:**
>
> **Education should be provided regarding staff and client protection and safety.**

Employing physical restraint may lead to injury (both physical and psychological) to staff, thus raising both clinical and legal issues. Several studies have found that injuries to staff and others decline as a result of restraint reduction (Lebel & Goldstein, 2005; Singh Lancioni, Wahler, Winton, & Singh, 2008). According to Wynn (2003), staff can believe that restraint and seclusion make people calmer and do not cause aggression, anxiety, or injuries to staff or recipients of those restrictive practices. However, Wynn found that about 70 per cent of staff in his study had been assaulted by people in connection with use of restraint and seclusion. Staff should be made aware of this information to encourage the reduction of these restraint practices. Furthermore, the introduction of BSPs outlining methods for coping with very challenging clients or unexpected behaviours would ensure staff and client safety and a consistent standard of care for the rare or extreme cases when challenging behaviours may endanger staff or clients.

> **Guideline:**
>
> **Clinicians should ensure that adequate time is allocated to their own self-care strategies to prevent burnout and enhance resilience.**

Research shows that staff experiencing stress and burnout are more likely to use restrictive practices to manage challenging behaviours (Skovholt, 2000). Burnout refers to the exhaustion and diminished efficiency for practice resulting from unrelieved work stress. It may manifest as emotional exhaustion, a sense of depersonalisation, and/ or a lack of job satisfaction (Maslach & Jackson, 1981). Clinicians who exercise good self-care tend to experience less fatigue, greater ability to enjoy life, and less burnout, and they are less likely to experience a gradual lessening of compassion resulting from the constant demands of caring for others. Staff should be aware of the potential for fatigue, burnout and emotional overload. In order for clinicians to meet the needs of their clients, it is paramount that they allocate time and resources to looking after themselves. Self-care is an important component of practice for clinicians in the disability sector because the work involves an intense focus on the needs of others and can be very challenging.

> **Guideline:**
>
> **Psychological intervention for challenging behaviour should be guided by a behaviour support plan.**

A BSP should be an outcome of a functional assessment. There should be a direct relationship between the results of a functional assessment and the interventions recommended in a BSP. The functional assessment should include strategies for improving quality of life through systems change, skills acquisition, and environmental redesign, and it should provide information to all staff working with the client about what they need to do to assist the client in this regard. The BSP should be evaluated and revised as necessary.

The BSP should reflect the principles of a bio-psychosocial understanding of disability and the promotion of health and well-being. The International Classification of Functioning Disability & Health/ICF (WHO, 2001) provides a comprehensive framework to inform bio-psychosocial assessment and strategy development. It includes consideration of individual factors associated with the integrity of a person's body structures and functions (including the nervous system and cognitive functioning), the range of activities known to affect health and well-being (such as communication, learning, domestic activity, and social and community participation), and environmental factors that can facilitate or impede people realising their full potential (including physical, social and political factors).

Refer to Appendix C for the minimum standards for a BSP.

> **Guideline:**
>
> **Behaviour support plans should be written in language that is easily understood by all members of the support team.**

Many BSPs are written by psychologists. Plans are most likely to be implemented when the people involved in the implementation have input into its development and therefore understand their roles. Singh, Matson, Cooper, and Adkins (2009) found that none of the behaviour support plans they examined were written at a reading level easily understood by most direct support staff. They propose that many direct support workers would have difficulties implementing BSPs simply because they do not understand what to do, and Singh et al. therefore recommend that psychologists write plans at the reading level of staff who will implement them.

There are three steps psychologists can take to maximise the likelihood that plans will be implemented:

1. Involve all interested people, including the person with a disability and their family members and/or advocates, in planning from the outset (assessment phase). This will help to gain commitment from everyone who will need to implement the plan.

2. Make sure the plan is written in plain English and that all support people and family members know how to implement it. This will help to ensure that all aspects of the plan are implemented consistently from one service to the other and by family members.

3. Provide a timely follow-up to solve any issues that may arise. This will help to solve any problems that have arisen and remind everyone what they need to do, thus increasing the likelihood the plan will be implemented.

> **Guideline:**
>
> **Clinicians working with people who have disabilities should have appropriate training in the psychological intervention techniques applicable to this population.**

There is a variety of non-aversive approaches and programs for which there is evidence of effectiveness in bringing about behaviour change. These include:

• multi-element systemic interventions (e.g., active support);
• low arousal techniques (e.g., moderating interaction styles, and minimising demands and situations of potential conflict);
• early development techniques (e.g., Intensive Interaction);
• mindfulness techniques;
• functional communication and behavioural-based training; and
• modified cognitive behavioural therapy.

These interventions are detailed further in Appendix C.

5.7 Evaluating and revising interventions

Intervention outcomes should be evaluated regularly and treatment plans should be modified accordingly to ensure treatment effectiveness.

Outcomes of interventions should be assessed to evaluate their effectiveness and to ascertain what aspects of the BSP need to be modified. Outcome measures that should be used include the following:

- a direct and continuous measurement of the challenging behaviour targeted for change;
- a record of any restrictive procedures used;
- an assessment of the extent that the plan has been followed, i.e., treatment fidelity;
- an assessment of improvement in any skills targeted for intervention as part of the plan;
- an assessment of broader factors such as involvement in community activities or quality of life using an instrument such as the Personal Wellbeing Index (2006) for people with an intellectual disability;
- an assessment of any negative side effects; and
- an assessment of the social validity of the intervention, which typically includes assessment of the client's satisfaction with both the intervention procedures used and the outcomes achieved.

Details about outcomes to be assessed and who will be involved in collecting the data should be included in the BSP.

5.8 Working with children and adolescents who have disabilities

There are many specific issues that need to be considered when working with children and adolescents who have a disability. Practices using evidence derived from adult research need to be implemented with sensitivity to a young client group. Clinicians need to fully understand their legal obligations with regard to obtaining consent before providing any psychological services to children and adolescents. Consideration will also be required as to whether clinician practices using evidence derived from adult research are appropriate for children and adolescents and whether the staff and health practitioners require specific training for working with those groups.

In addition, psychologists need to be mindful of some of the unique aspects of restrictive practices that apply to minors. Although guardianship laws vary across states, guardian or parental consent needs to be obtained prior to any decision to implement a restrictive practice. More broadly, and consistent with the family-centred approach, parents should be given the opportunity to participate fully in the planning and delivery of behaviour support services. Parents should also be provided with information about the restrictive practice (e.g., the location of restrictive practice, the maximum length of any restrictive period, and the number of times restraint would be used during a single day) and be notified of any incident requiring the use of a restrictive practice. Parents have the right to refuse a restrictive intervention if they disagree with the method — in which instance psychologists should take further advice.

Psychologists play an important role in ensuring that children are protected. It is unacceptable that, particularly in child settings, restrictive practices are used as a matter of convenience or as a punishment (Kennedy & Mohr, 2001). Although the long-term impact of restrictive practices in childhood is not well understood, some have argued that psychological problems such as fears and phobias, impaired trust, and cumulative re-traumatisation are among the consequences of restrictive practices (Kennedy & Mohr, 2001; Selekman & Snyder, 1996).

The issue of prevention raised in Section 1.3 is particularly relevant for young children. There are several evidence-based programs that have been developed in Australia and are available to clinicians for use in this preventative endeavour. These may be generic child management programs such as Triple P (Sanders, Markie-Dadds, & Turner, 1999), or programs specifically designed for children with disabilities such as Stepping Stones (Roberts, Mazzucchelli, Studman, & Sanders, 2006), or Signposts for Building Better Behaviour (see Hudson, et al. 2003; Hudson et al., 2008; Hudson, Cameron, Reece, & Matthews, 2009).

> **Guideline:**
> **Specific education and training to increase awareness of alternatives to restraint and seclusion should be provided to support workers and health practitioners who work with children and adolescents.**

Staff should be trained in age-appropriate PBS that encompasses behavioural assessment, functional assessment and intervention strategies. Staff education is required to ensure staff understand that reducing and/or eliminating restrictive practices is of high priority. Also, training should promote the use of alternative practices specifically for working with children and adolescents, provide skills in implementing alternative practices, and support ways to change practice. Training needs to increase staff awareness about the common misuse of timeout, particularly when used with young children, because it can subsequently lead to seclusion and physical restraint.

> **Guideline:**
> **Use of restraint and seclusion should be regarded as appropriate with children and young people only when all alternatives have been exhausted.**

From a behavioural perspective, restraint and seclusion is used as a behaviour reduction method or punishment. However, in practice, teachers and support workers may use such methods for other purposes such as calming young people, removing them from a setting, or providing them with time to self-reflect or problem solve. There is, however, little evidence to support the effectiveness of these practices for those purposes. Therefore, clarification of the purpose of the timeout (restrictive seclusion), and increased staff awareness and training including specific intervention and description of the appropriate procedures for the seclusion should be employed. Seclusion, timeout and restraint should only be used if the client's behaviour poses a risk to themselves or others and other less restrictive practices have not been successful.

The overuse of ineffective seclusion or restraint strategies with children and adolescents is common even with those who do not respond to these methods and the challenging behaviour perpetuates (Samuels, 2009). Therefore, monitoring of these practices by staff, and reviewing intervention plans on a regular basis provide opportunities to update best practices and improve the efficacy of current interventions.

> **Guideline:**
> **Practice should be guided by the latest research about child and youth populations in Australia.**

There is currently limited research in the child and adolescent field in Australia that identifies the effectiveness of interventions that might serve as alternatives to restrictive practices. International studies do exist, such as that by Ryan, Peterson, and Rozalski (2007) who attempted to identify which states in America had polices regarding use of seclusion in schools. However, there is little information about the impact of policies and procedures that both standardise and include the safe and appropriate use of restraint of young people across settings. Moreover, there is limited Australian data about the frequency of use and nature of restraint and seclusion procedures when supporting, caring for, or educating children and adolescents. Further research is needed that will continue to inform practice specific to child and adolescent populations.

> **Guideline:**
> **Clinicians should be aware of ethical issues associated with working with children and adolescents.**

Health professionals generally work within a code of conduct that guides professional behaviour and responsibilities. For example, psychologists are required to abide by the APS *Code of Ethics and Ethical Guidelines,* a supplement to the *Code of Ethics*. A specific guideline identifies ethical issues specifically for working with young people including issues around engaging young people, involvement of families, and confidentiality for the young person in the context of working with families. Access to this resource is free for APS members at the following website: www.psychology.org.au/Assets/Files/EG-Young-People.pdf

5.9 Working with people who have persistent self-injurious behaviours

> **Guideline:**
>
> **Clinicians should receive specific training about understanding and working with people who persist in stereotypy and self-injurious behaviours.**

The issue of restraint in situations involving people who continue to engage in stereotypy and self-injurious behaviours (SIB) despite the implementation of best practice interventions requires specific attention (McVilly, 2009). This area includes a complex and emerging literature that requires a bio-behavioural understanding of both the origins of the behaviour and appropriate response strategies (Barrera, Violo, & Graver, 2007; Hall, Lightbody, & Reiss, 2008; Rapp & Vollment, 2005). For example:

- The prevalence of SIB in persons with intellectual disabilities is estimated at between 4 per cent and 14 per cent (Oliver, 2008), and the incidence increases with the assessed severity of disability.
- Some genetic disorders (e.g., Lesch-Nyhan syndrome) are characterised by physical and emotional disturbance and severe and persistent SIB that is involuntary.
- In some instances, SIB is an effective (albeit maladaptive) mechanism used by individuals to self-regulate anxiety (Barrera et al., 2007).

The most common forms of SIB, which have long been documented in the literature, include skin-picking and scratching, biting, head-banging and punching (Griffin, Williams, Stark, Altmeyer, & Mason, 1986; Oliver, Murphy, & Corbett, 1987; Rojahn, 1986; Schroeder, Schroeder, Smith, & Dalldorf, 1978). Multi-disciplinary assessment is considered essential. For a contemporary overview of SIB in relation to people with intellectual disabilities, refer to information provided by the Society for the Study of Behavioral Phenotypes: www.ssbp.co.uk

Self-injurious behaviours not only cause harm to people who engage in them; they also cause significant psychological distress to staff providing support (Duperouzel & Fish, 2007). When involved in behaviour interventions involving SIB, clinicians need to consider support strategies for both the client and those who provide support services.

In complex cases where behaviour is highly resistant to change, use of some restrictive practices might be regarded as being necessary as part of a wider intervention program based on the principles of PBS (as discussed elsewhere in these guidelines). However, clinicians should ensure that any such practices involve the least amount of restriction possible, are subject to regular review, and are well understood by staff as being only part of a more comprehensive program of support.

In one example of restraint having been maintained but modified as part of an intervention, Oliver, Hall, Hales, Murphy, and Watts (1998) described the effects of introducing flexion into a straight-arm splint. Using a single-case design for two individuals self-injury was reduced to zero, while the overall level of restriction also significantly reduced. The authors reported that engagement in activities and social contact were not affected by the introduction of the new splint. Furthermore, observations indicated no evidence of increased negative affect and that the intervention led to an increase in positive vocalisation.

> **Guideline:**
>
> **Where protective measures are used to prevent harm, a strategy should be developed and documented to guide the procedure to be undertaken, its duration and a plan for fading out of the procedure.**

Protective measures that are considered restrictive are only used when all other less restrictive measures have failed to protect the individual or others from harm. Such measures are used in a time-limited way and documentation to support the decision-making procedures, the circumstances under which such intervention is used and a plan for the reduction and eventual elimination of the intervention. Transparent and accountable processes are essential.

Guideline:

Where self-injurious behaviours persist despite the consistent implementation of environmental strategies and programs designed to teach and reinforce the use of alternative behaviours, or where despite thorough functional behaviour assessment the cause of the self-injurious behaviours remains unknown, referral for genetic testing should be considered to ascertain if there might be a genetic contributor which could inform the formulation of cause and any proposed use of restrictive interventions

There is much that is yet to be understood about persistent self-injurious behaviours that might have some genetic basis, or at least a very complex neurobiological basis for which our current behavioural intervention technologies are far from effective. As part of a thorough assessment for persistent self-injurious behaviours, referral to a geneticist for diagnostic screening is appropriate. This will allow consideration of the presence of any syndrome that may explain the persistent challenging behaviour. For example, Lesch-Nyhan syndrome is characterised by physical and emotional disturbance and severe and persistent self-injury, including severe self-mutilation and aggressive behaviours which are involuntary, with those that can self report indicating they do not desire to continue the behaviour. While environmental manipulation to reduce the potential for anxiety that might contribute to the escalation of the behaviour would be recommended, reinforcement strategies are highly unlikely to have any significant effect in decreasing the behaviour. Good practice would recommend the use of devices, redirection and consideration of medication.

6. Conclusions and future action

The APS has created this guide as a basis of best practice for psychologists working in the disability sector. It provides a body of evidence, both clinical and research based, identifying alternative psychological interventions shown to be effective in the reduction — and, where possible, elimination — of restrictive practices when supporting people who have disabilities. It is intended that this document will also be relevant to other health professionals in order for interdisciplinary collaboration to occur and to promote systemic change within this field of practice.

When working with people who have disabilities and who display challenging behaviours, it is important to maintain a commitment to set goals and uphold standards of practice. It is also important to monitor progress concerning those goals as a further step in ensuring the highest level of care for these clients.

It is anticipated that this document will evolve in future iterations to take into account future research and theorising, emerging techniques, and changes to legislation. It's hoped this guide will be a useful tool in psychologists work with clients and for working with colleagues.

In order to further the aim of reducing restrictive practices in this sector, the APS will continue to develop resources including the development of a strategic plan for the dissemination, uptake and implementation of the strategies outlined in this guide. Such a plan is likely to include a number of the following components:

1. Working with federal and state/territory governments to ensure adequate resourcing to support the implementation of the guidelines.
2. The development of information and training material about the use of assessments, interventions and resources to reduce the need for restrictive practices.
3. The administration of training to key staff across a range of levels.
4. Support for organisations to develop policies that aim to avoid the use of restrictive interventions wherever possible.

7. Appendices

Appendix A: Tools for assessment of people with disabilities

- The Abbey Pain Scale (Abbey et al., 2004)
- Aberrant Behavior Checklist (Aman, Singh, Stewart, & Field, 1985)
- Adaptive Behavior Scales (ABS; Nihira, Leland, & Lambert, 1993)
- BroadScreen Checklist of Observed Changes (Minda Inc.) (Koenig, 1996).
- Cohen Mansfield Agitation Inventory (CMAI; Cohen-Mansfield, Marx, & Rosenthal, 1989).
- Dementia Scale for Down Syndrome (Gedye, 1995)
- Depression in adults with intellectual disability: Checklist for Carers (Torr, Iacono, Graham, & Galea, 2008).
- Developmental Behaviour Checklist for Adults (DBC-A; Mohr, Tonge, & Einfeld, 2004).
- Functional Assessment Interview (FAI; adapted from O'Neill et al., 1997)
- Glasgow Anxiety Scale (GAS-ID; Mindham & Espie, 2003)
- Glasgow Depression Scale (Cuthill, Espie, & Cooper, 2003).
- Inventory for Client and Agency Planning (ICAP; Bruininks, Hill, Weatherman, & Woodcock, 1986).
- Motivational Assessment Scale (MAS; Durand & Crimmins, 1989)
- Personal Wellbeing Index (International Wellbeing Group, 2006)
- Psychiatric Assessment Schedules for Adults with Developmental Disabilities (PASS-ADD; Moss et al., 1997). This includes a number of different tools within this family of schedules: from a screening checklist, PAS-ADD Checklist; to a structured interview which is the PAS-ADD 10. There is also a child and adolescent version called the CHA-PAS.
- Reinforcement Inventory for Adults (Willis, LaVigna, & Donnellan, 1993).
- Questions About Function Scale (QABF; Matson & Vollmer, 1995)
- World Health Organization Quality of Life measures, with an add-on module to assess people with disabilities (Power, Green, & the WHOQOL-DIS Group, 2010).

Appendix B: Minimum standards for a behaviour support plan

- Plans should be formulated in plain language and any technical terms should be explained in lay terms.
- The identified behaviour(s) should be operationally defined and the topography should be detailed (form, intensity, frequency and duration).
- The hypothesised function(s) of each behaviour, based on a documented functional assessment, should be outlined.
- Predictors and setting events should be described in detail (e.g., places, activities, people and personal circumstances such as health status or social incidents), together with strategies to minimise their occurrence or diffuse their impact.
- The person's preferred circumstances and needs should be outlined; i.e., details of the circumstances under which the behaviour is known not to occur because the person's needs are met and they are happy.
- Environmental (social, physical, organisational and procedural) strategies should be detailed. These should include strategies to explicitly enhance the person's quality of life and wellbeing.
- Educational strategies should be described, together with details of associated reward and reinforcement programs designed to enhance the development of alternative, more adaptive behaviours.
- The goals of the BSP should be outlined, as should the review/evaluation timeline and procedures (including data collection processes and time lines). Details of the circumstances under which the review process might be brought forward should also be included.
- Communication strategies should be detailed, providing a clear explanation of the person's receptive and expressive communication skills and the strategies (including any augmentative or alternative communication techniques, aids or devices) that those who provide support should be using.
- Crisis management procedures (Carr et al., 1994) should be specified.
- The educational and other support needs of those expected to implement the plan should be outlined.
- Team coordination, communication and responsibility protocols should be detailed and include contact options for short-term consultations and clarification of the plan.
- Any legal requirements, such as details of the consent process and the necessity for guardianship, or others' approvals for particular procedures etc., should be documented.

Following development of a BSP the clinician should be able to answer several questions (Horner, Sugai, Todd, & Lewis-Palmer, 2000). These are:

- Is there a good understanding of the problem?
- What needs to be done differently?
- How can you promote success?
- How will the plan be monitored and reviewed?

Appendix C: Therapeutic Interventions and Programs

In providing psychological and behavioural intervention to people with disabilities, consideration must be given to the multiple and complex factors that are unique to the population group. As indicated in this document, the provision of interventions should be based on a functional behaviour assessment and functional analysis.

There is now a growing body of literature demonstrating promising results for the provision of psychological intervention with people with disabilities (Hagiliassis et al., 2006; Tomasulo & Razza, 2006). Some of the interventions for which research evidence of effectiveness exists are outlined below.

Modified cognitive behavioural therapy

The use of cognitive behaviour therapy (CBT) approaches with people who have intellectual disabilities is becoming more widely accepted (Taylor, Lindsay, & Willner, 2008). For example, in their review of the evidence for the effectiveness of psychological treatments with people who have intellectual disabilities, the Royal College of Psychiatrists (2004) concluded that the available, albeit limited, evidence for the effectiveness of psychotherapeutic approaches, including CBT, with people who have intellectual disabilities is promising.

There is an increasing number of modified CBT programs (see Taylor, Novaco, Gillmer, & Thorne, 2002) available to practitioners, developed specifically for people with varying levels of intellectual disability. Predominantly, these are manualised group-based programs for anger. Research about anger provides the strongest evidence that CBT can be effective with people who have intellectual disabilities. In clinical terms, this is important because of the prevalence of anger and its close association with behaviours of concern expressed as aggression in this population. Consistent with a CBT approach, anger is conceptualised as an individual's appraisal of an event or situation that mediates their emotional arousal and behavioural response, and that determines whether or not they are likely to feel angry and/or behave aggressively. Most programs incorporate adapted content and pictographic materials developed for people with a range of cognitive and communication abilities. In addition to anger programs, a staff-administered group CBT program for the treatment of depression in people with intellectual disabilities has been developed and shown to be effective in reducing depressive symptoms (McGillivray, McCabe, & Kershaw, 2008).

The principle of these approaches is making CBT accessible to people with intellectual disability and communication difficulties while not compromising the integrity of the CBT process (Hagiliassis et al., 2006). Examples include making information more accessible (e.g., easy English translations of psychoeducational material), using experiential tasks such as role-plays, using flip charts with thought bubbles, and ensuring repetition, practice and support between sessions and after therapy (Dagnan, Jahoda, & Sternfert Kroese, 2007; Royal College of Psychiatrists, 2004; Taylor et al., 2008). Di Marco and Iacono (2007) and Hagiliassis et al. (2006) also suggest the following:

- drawing on sources of information that indicate the person's underlying language ability (this information is most likely to come from speech pathology assessment);
- becoming familiar with any augmentative and alternative communication (AAC) system the person may use, and adding specific vocabulary to provide the language for specific techniques of CBT;
- acknowledging the slower pace of CBT and that less content is likely to be covered in each session;
- signalling to the client when a change in a CBT theme is to take place;
- providing the person with strategies to signal when they want to take a turn or initiate in the conversation;
- slowing down the therapist's rate of conversation by inserting frequent pauses;
- working with the person to co-construct messages;
- using closed questions strategically as openers for subsequent targeted questions;
- using visual aids, diagrams, pictures, or pictographs;
- using social scripts and pictorial templates to depict action strategies; and
- using communication systems such as 'talking mats' (Murphy & Cameron, 2001) for exploring thoughts and feelings at progressively deeper levels of meaning.

Multi-element systemic intervention: active support

Active support represents one form of multi-element systemic intervention (Felce, Jones, & Lowe, 2002). It emphasises a person-centred approach to planning activities (Mansell, Elliot, Beadle-Brown, Ashman, & Macdonald, 2002) and the use of systematic techniques to provide support for engagement in meaningful daily activity (Felce, Lowe, & Jones, 2002). Active support is implemented through a combination of structured staff education, staff coaching conducted in the work place, and the development of organisational policy and procedure. Importantly, in the implementation of active support, policy and procedure support people to be involved in a range of ordinary everyday activities, together with the regular collection and use of data to evaluate and inform program development. This is consistent with an evidence-based approach to practice (Jones et al., 2001). Effective implementation of active support can enhance people's engagement in meaningful activity, decrease their behaviours of concern and, as a consequence, decrease staff reliance on restraint and restrictive practices. For a recent review of research evidence relating to active support, see Stancliffe, Jones, Mansell and Lowe (2008).

Strategies for staff and carers

Blackburn (2006) highlights the need for people with disabilities to have a documented support plan that has been formulated as part of an interdisciplinary collaboration. The plan needs to include both short- and long-term strategies that address the client's health care and educational needs, together with the physical and social environments in which they are supported. Those who provide support need to have a well-developed understanding of the client's behaviour in terms of its functionality from that person's perspective and, where relevant, any biological factors contributing to the behaviour (e.g., where the behaviour emerges as a behavioural phenotype). In addition, staff should have a well-developed understanding of circumstances that are likely to contribute to the emergence of the identified behaviour, specific triggers for the behaviour, and precursor or lower level behaviours that provide an early indication that an identified behaviour is likely to occur.

Blackburn (2006) has identified a number of strategies that staff can use to promote accurate interpretation of communications and cooperation. These include using a calm voice, speaking slowly, using open questions, not sounding accusatory or threatening, acknowledging the feelings of the person in a way that is genuine and the person understands, providing positive feedback, being patient and honest, and showing a preparedness to negotiate (rather than adopting a 'win at all cost' approach). 'Strategic capitulation' can be an important strategy to defuse potentially dangerous situations. In these instances, staff should not be concerned about the prospect of them rewarding inappropriate behaviour. Rather, they should focus on minimising any escalation of inappropriate or dangerous behaviours, with the systematic reward of more appropriate behaviours to follow later when the situation is defused and the person is in a position to learn (LaVigna & Willis, 2002).

Consistent with Stevenson (1991), Blackburn (2006) has identified a number of non-verbal techniques that can be used when supporting people who might otherwise be subject to physical and other forms of restraint. These include moderating eye contact to maintain visual communication but without causing the person increased anxiety, keeping facial expression serious but calm, and avoiding the expression of anger or fear, adopting an open physical posture (e.g., not crossing arms or adopting accusatory or domineering stances), and avoiding physical contact with the person unless this is absolutely necessary or known to provide comfort and reassurance. An awareness of, and skills in, managing personal space is also an important strategy in which staff need to be trained. Recommendations include keeping distant, but still within range to maintain visual contact and to hear the person clearly as well as be heard by the person; standing off to the side (e.g., 90 degrees to the side) rather than directly in front of the person; being on the same level as the person rather than towering over them; ensuring there is a clear path for the staff member to leave; and exercising the option to leave if the danger escalates or the staff member becomes uneasy or concerned about the situation and his or her individual capacity to remain calm and safe.

Skill development strategies

Teaching people appropriate behaviours or alternative ways of communicating their thoughts, feelings and needs are important strategies to consider when developing a comprehensive BSP. For people with cognitive impairments, directly teaching adaptive behaviour can be more effective than relying on the use of consequences (e.g., aversives or punishments) to signal where undesirable or maladaptive behaviours have been used. The educational processes associated with developmental programming (such as task analysis and systemic instruction involving graded prompts — e.g., ask, show, tell, prompt and guide) are well established as effective evidence-based techniques.

Practitioners should be familiar with and use formal reinforcement schedules. They should consider using differential reinforcement of low rate behaviour (DRL), where the behaviour is tolerable but needing to be reduced;

differential reinforcement of alternative behaviours (DRA), while ignoring the target behaviour; differential reinforcement of behaviours incompatible with the problem behaviour (DRI); and differential reinforcement of zero behaviour (DRO), where the behaviour is dangerous and needs to be extinguished. When planning reward strategies, consideration needs to be given to the specificity of the reward (i.e., a clear link between the behaviour and the reward needs to be established), the salience of the reward to the person (i.e., it must be meaningful and motivating for the person), the quantity of the reward necessary to effect change, the interval or frequency with which the reward is given, and the practicality of consistent delivery of the reward.

Environmental strategies

Environmental strategies can be adopted to manage difficult situations in order that more restrictive physical interventions can be avoided. Examples include minimising noise and removal of items that could be dangerous (e.g., knives and small items of furniture); removing other people from the area or ensuring that staff who might not have a positive rapport with the client are not present or involved in the intervention; and/or offering food and drink or the option of a preferred activity. Staff should be aware that the de-escalation of a potentially dangerous situation by using a seemingly rewarding strategy should be considered a priority over the use of physical or other restrictive interventions. Such strategies are sometimes referred to as counter-intuitive strategies.

Counter-intuitive intervention strategies

LaVigna and Willis (2002) describe the importance of counter-intuitive strategies to avoid situations that would otherwise lead to the use of physical restraint and other restrictive practices. They note that staff are often resistant to the use of these counter-intuitive strategies as they defy logic and run counter to traditional service priorities that emphasise control and dominance of clients and client behaviours. Therefore, staff require specific instruction in their use, and organisational policies (and staff supervision practices) need to reinforce their use as valid and preferred clinical options.

One counter-intuitive strategy is to introduce and maintain high density non-contingent reinforcement programs. These are based on the principle that, even when clients engage in challenging behaviour, their usual routine, including anticipated enjoyable events, should be maintained. This strategy lessens the likelihood of further challenging behaviour arising as a consequence of the absence of preferred activity. The removal of preferred activity from a person's schedule is only likely to be experienced as aversive and contribute to further challenging behaviour. The concern often advanced by staff is that continuing with preferred activity will reinforce and encourage the challenging behaviour. However, as long as the activity is not contingent on the behaviour (i.e., the behaviour does not itself give rise to the event) and there is at least a short delay between the behaviour and the preferred event, the evidence from behavioural science suggests that there is minimal danger of the challenging behaviour being reinforced. Cancelling the event or discontinuing a client's usual routine is not educational; instead, it is aversive, and is consequently likely to act as the setting event for further undesirable behaviour.

Another counter-intuitive strategy is to avoid natural consequences of a behaviour. This is a particularly important strategy where people with a cognitive impairment are less likely to learn from consequence-based strategies, and the consequence in itself is likely to be an added frustration or aversive event that in turn becomes the setting or trigger for further behaviours of concern.

A third counter-intuitive strategy is not to ignore disruptive or undesired behaviour. Historically, such strategies have been used with the idea that if social reinforcement was withdrawn, the behaviour would go without reinforcement and as a consequence be extinguished. This could apply if the function of the behaviour was solely to gain attention. However, functional analysis techniques suggest that people use challenging behaviour for a variety of purposes and to communicate a range of messages. Where these attempts to communicate go unheeded, the person is likely to escalate the behaviour or develop another behaviour that will typically be as challenging or possibly more so. It is often more important to respond promptly to low-level challenging behaviour as early as possible to avoid escalation, and then later teach the person the more desirable alternative, reinforced by meeting the person's needs in their preferred way.

A fourth counter-intuitive strategy is to eliminate punishment. Similar to the elimination of natural consequences, removing punishment serves to minimise aversive situations that act as the setting events of further escalations of challenging behaviour that could then require ever increasing levels of restriction and restraint. LaVigna and Willis (2002) recommend that, rather than using punishment or restrictive practices that might be interpreted by people

as punishment, staff need to be skilled in using diversion to a more compelling or reinforcing activity. Arguably, and even more challenging for staff, staff need to be taught the value of strategic capitulation: giving clients what they want regardless of the staff members' perspective about the appropriateness or normality of such an action. Within the framework of a multi-element intervention, there will be time later to teach the person more appropriate skills or coping strategies. Importantly, the authors stress that when the person is agitated, it is not a good time to attempt to teach them a lesson.

Low arousal techniques

Another approach to the support of people exhibiting challenging behaviour, offered as an alternative to more restrictive interventions and building upon knowledge of the person's sensory needs, is based on low arousal techniques (Sturmey & Palen McGlynn, 2002). The low arousal approach represents a class of diffusion strategy. Diffusion strategies include staff identifying, and systematically reducing, potential points of conflict and the number of requests (demands) made of clients. In practice, this could include a review of the number of expectations, or the level of compliance, that staff expect of clients in particular settings or across the course of their day. Similar to the counter-intuitive approaches advanced by LaVigna and Willis (2002), it is reported that staff will commonly find the adoption of a low-arousal approach difficult as it either places responsibility on staff, rather than the client, to change, and/or the proposed strategies are contrary to traditional approaches and service policies. For these reasons, in order to be successful, these strategies require not only that staff be given specific instruction in their use, but also explicit policy-level support within agencies and for supervisory staff to emphasise use of these techniques through both direct modelling in situ and in regular staff supervision activities.

Intensive interaction

Intensive interaction was first described by Nind and Hewitt (1988), and has since been subject to a series of systematic evaluations (e.g., Watson & Fisher, 1997; Watson & Knight, 1991). It is now a recognised evidence-based technique and has been incorporated into the English school curriculum for students with learning disabilities. Nind (1996) identified five central features of intensive interaction as being:

- the creation of mutual pleasure and interactive games;
- staff adjustment of their personal behaviours in order to become more engaging and meaningful for clients;
- interactions flowing in time with pauses, repetitions and blended rhythms;
- the use of intentionality, i.e., responding to clients' behaviours by regarding those behaviours as initiations with communicative significance;
- the use of contingent responding, i.e., following the leads provided by clients and sharing control of activities.

The British Institute for Learning Disabilities describes intensive interaction as "a practical approach to interacting with people who have learning disabilities and who do not find it easy communicating or being social" (www.bild.org.uk/factsheets/intensive_interaction.htm).

It helps them develop their communication abilities. Studies have found beneficial outcomes from intensive interaction. These include children's increased ability to initiate and maintain social contact and improved pre-verbal communication skills (Kellett, 2000; Nind, 1996; Watson & Fisher, 1997). Improved behaviour and communication have been observed for adults with severe or profound and multiple learning disabilities (Elgie & Maguire, 2001; Lovell, Jones, & Ephraim, 1998). In addition, intensive interaction has helped to build positive relationships between clients and their employed carers (Elsworth, 1999; Samuel, 2003; Watson & Knight, 1991). This last point is important given the critical influence of staff regard for their clients in both their interaction style and the effectiveness of the support they provide to clients exhibiting behaviours of concern.

Mindfulness techniques

Mindfulness and mindfulness-based interventions are increasingly being incorporated into staff training. Proponents claim that their use can positively influence staff behaviour towards their clients and in turn affect client behaviours. The mindfulness mechanism is proposed as leading to a clear, calm mind that is focused in the present and is aware of both external and internal conditions. A staff member employing this technique attends not only to what is unfolding in the external environment (e.g., an individual becoming upset and aggressive), but also to what is occurring in the client's internal environment (e.g., changes in the client's own emotional state as a consequence of his or her aggressive behaviour). Thus, the staff member is more prepared to respond to the situation in a way that promotes the 'wellness' of all involved. (See Hayes, Follette, & Linehan, 2004; Segal, Williams, & Teasdale, 2002).

Singh et al. (2006) found that when staff were trained in mindfulness techniques, the number of staff interventions for aggression decreased. The researchers asserted that mindfulness training considerably enhanced the ability of the group home staff to manage aggressive behaviour effectively and promote learning for the individuals with disabilities. There is also emerging evidence of the effectiveness of teaching adaptations of mindfulness techniques to people with mild intellectual disability (Singh, Wahler, Adkins, & Myers, 2003).

Functional communication training

Functional communication training (FCT) uses information gained through a functional assessment (Brown et al., 2000). It involves training clients to replace challenging behaviour with more appropriate forms of communication. Functional communication training is predicated on four theoretical assumptions:

1. Challenging behaviour can be maintained by variables in the environment.
2. These same environmental variables can produce a functionally equivalent communicative behaviour (i.e., they are members of the same response class). Treatments need a 'functional match' (Iwata, et al., 1990) between the response and the intervention.
3. The new functionally equivalent behaviour will be able to compete successfully with the challenging behaviour (i.e., efficiency).
4. Participants can learn a formal symbolic communication system. One basis for this assumption is that clients appear to already possess a non-symbolic communication system in the form of their challenging behaviour. They use their challenging behaviour to access certain elements from their environment. Thus, the purpose of functional communication training is to transfer the non-symbolic skills to a symbolic communication system (Durand, 1993). As a result, the new desirable behaviour (i.e., the appropriate communication strategy) will be performed in situations that previously resulted in the challenging behaviour.

An important benefit of functional communication training is the speed with which challenging behaviour can be reduced to zero or near zero levels. For example, Carr and Durand (1985) and Durand and Carr (1987) have demonstrated that disruptive and stereotypic behaviours were decreased significantly when an alternative communicative skill was taught to replace challenging behaviours.

A disadvantage of functional communication training, however, is that the more symbolic communication system may go unnoticed or may even be ignored if it is in the form of signs (Steege et al., 1990). In most natural settings, there undoubtedly will be times when reinforcement of communication may be delayed or even denied altogether. This may occur because the requested reinforcer is not readily available (e.g., food requiring preparation), or the participant may request reinforcement more often than is practical for care providers to provide. The result may be to weaken the communication response and increase the likelihood that challenging behaviour will re-emerge (Fisher, Thompson, Hagopian, Bowman, & Krug, 2000). Thus, the functional communication strategy taught needs to be comprehensive and appropriate for the particular individual and setting.

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