CONCLUSION

The aim of this study was to collect data on prevalence and burden to inform the development of a model of care for paediatric TBI clients who have or are at risk of developing challenging behaviours. This model of care would then be integrated into the existing model of service delivery used by BIRP, which represents the largest brain injury service provider in NSW.

BIRP aims to put in place the necessary supports and rehabilitation options so that children and adults can live successfully within their community and family structures. This is reflected in the BIRP mission statement, which outlines the following objectives:

- To provide assessment, rehabilitation and community support services for the present and future needs of children, young people and adults with traumatic brain injuries and their families
- To establish and develop specific relationship programs to enable maximum reintegration of people with traumatic brain injury into the community in line with the needs and preferences of each individual
- To provide a goal-directed individual management system for the client and to minimise dependency and maximise function
- To advocate for, initiate and support the development of appropriate policies and services in the government and community sectors to meet the long-term needs of people with traumatic brain injuries and their families
- To assist people with traumatic brain injury and their families through advice, information, discussion and counselling during medical, rehabilitation and community support phases
- To undertake research and education about traumatic brain injury
- To increase community awareness of the particular problems faced by the person with traumatic brain injury and his or her family
- To provide consultation and support to other service providers in the area of traumatic brain injury management.

The focus on community integration mirrors what has occurred in other parts of Australia and the trend internationally (Feeney, Yvisaker, Rosen & Greene, 2001; Kelly & Winkler, 2007).

The paediatric CBP identified eight key principles to be integrated into the BIRP model of service delivery so that better outcomes could be achieved for clients with or at risk of developing challenging behaviour. Each of these principles and the paediatric data supporting them are presented below.

PRINCIPLE 1:
Early identification and intervention is required to prevent challenging behaviours becoming entrenched patterns of client functioning

The CBP identified a very high prevalence of challenging behaviour in the active paediatric BIRP cohort; 51% of BIRP paediatric clients with TBI met the study criteria for challenging behaviour. The two most prevalent types of challenging behaviour in children were socially inappropriate behaviour followed by aggression, present in 37% and 34% of clients respectively. Substantially fewer children demonstrated other types of challenging behaviour including the next most prevalent of the challenging behaviours, adynamia/lack of initiation, which was prevalent in 15% of children with TBI.

The qualitative paediatric case review found that maladaptive behaviours developed soon after children sustained their TBI, but families endured significant stress and despair in relation to these behaviours before seeking assistance and referral to BIRP services. These cases were difficult for BIRP to treat as the behaviours, despite the relatively few years they may have been present, had become entrenched and family/carer habitual responses and/or behaviour-maintaining environments needed to be undone. It is noteworthy that in longitudinal studies spanning up to five years, challenging behaviour has been shown to become increasingly prevalent as children become older, especially for severe TBI (Catroppa et al., 2008; Schwartz et al., 2003). This is particularly relevant as severe TBI makes up over 85% of the paediatric BIRP caseload.

The current study also found that children may be more likely to experience certain types of challenging behaviours if their injuries occurred before school age. These behaviours included physical aggression against self, perseverative/repetitive behaviour and adynamia/lack of initiation.

The above results reveal that BIRP needs to increase its capacity for early detection of challenging behaviour so that intervention services can be promptly delivered before problems become entrenched. In this regard BIRP needs to be geared to respond to the greater proportion of children presenting with socially inappropriate behaviours and aggressive behaviours. In addition BIRP needs to ensure the ongoing monitoring of families who have children with challenging behaviour so that effective behavioural management approaches can be identified promptly and new strategies devised. The following is recommended:
Recommendation 1:
BIRP services to have a system of assessment and monitoring for paediatric clients with TBI that will allow for the early identification of challenging behaviours and the early implementation of behavioural management plans. Where appropriate, this system of assessment and monitoring should include standardised, validated instruments.

Recommendation 2:
BIRP needs to increase the provision of behaviour management programs (e.g. formal social skills retraining and anger management programs) to respond to the high prevalence of socially inappropriate and aggressive challenging behaviours after childhood TBI.

Recommendation 3:
BIRP services need additional resources to be able to adequately evaluate the effectiveness/outcomes of behavioural management plans so they can promptly respond when plans are or are not working.

Recommendation 4:
BIRP services need to develop and implement formal protocols for undertaking systematic case review of clients whose challenging behaviours have not changed despite behavioural management approaches, so that weaknesses in approaches or maintaining environments can be identified and new strategies initiated.

Recommendation 5:
BIRP services need to strengthen and maintain their relationship with community referral and support networks to improve access for children and families dealing with challenging behaviour.

PRINCIPLE 2:
An interdisciplinary approach to managing challenging behaviour is required at all levels and types of impairment and disability

The qualitative case review found that cognitive impairment and disability contributed to the development and maintenance of challenging behaviours. It is the deficits in and/or lack of ongoing development of executive cognitive abilities, which include self-monitoring, impulse control, emotional processing, abstraction, conceptual reasoning, feedback utilisation and problem-solving, that contribute to a child's inability to regulate their behaviour after TBI (Levin & Hanten, 2005). Moreover, the qualitative review found that increased fatigue conspired with cognitive deficits to further reduce children's level of frustration tolerance, exacerbating challenging behaviour episodes.

PRINCIPLE 3:
Clients require adequate level of long-term care, support and environmental modification

The project found that 78% of children with challenging behaviour experienced breakdown in their family situation compared to 48% of children without challenging behaviour. The qualitative case review found that the home environment was particularly important in the delivery of needed care and support services. The review of these cases found that in isolation families struggled or demonstrated a complete inability to provide the supportive, consistent structure, feedback and environment required for clients with challenging behaviour.

The results of the CBP showed that whilst there was proportionally more community agency/hospital support services, support from family/friends and respite services provided to families with a child exhibiting challenging behaviours, there was also greater unmet need for services that support families.
Specifically, family education, behaviour management and respite services were desired but not accessed or received by a greater proportion of families with a child with challenging behaviour compared to families not burdened by such behaviours.

Another important area where children need support after TBI is at school. The qualitative review found that cognitive impairments, behavioural dysregulation and emotional adjustment issues resulting from TBI interfered with children's learning and educational achievement. Over 60% of children in the study sample received educational assistance. Despite this high uptake, 72% of children with challenging behaviour experienced a breakdown in their educational situation compared to 43% of children without challenging behaviour. Unmet need for educational assistance services was one reason for this high rate of breakdown. Twenty percent and 14 percent of challenging and non-challenging children respectively had educational assistance services desired for them that were not provided.

Reasons for the lack of educational support identified in the qualitative review included insufficient level of funding (e.g., funding available for shared but not one-to-one teacher's aide; children not qualifying for funding); delays in schools making applications for learning support; educational institutions being completely unaware of a student's TBI status and resulting difficulties; and the belief and attitudes of some staff that interfered with implementation of recommended behavioural management and learning support approaches recommended by the BIRP services.

BIRP services need to reduce the unmet need of clients with challenging behaviour or those at risk of demonstrating it. This includes providing greater in-home training and support to families/attendant carers about behavioural management approaches and ensuring the transfer of training to real-life situations. More also needs to be done to provide the necessary school support for children after TBI to maximise their developmental and academic potential. The following is recommended:

Recommendation 8: A network of BIRP paediatric co-ordinators is needed to facilitate access to needed care and support services within the local community.

Recommendation 9: There is a need to advocate for increased in-home services so that families can sustain their role in providing care and support to children and adolescents with TBI.

Recommendation 10: BIRP needs to be better equipped to provide families with home-based interventions so the families are enabled to provide the necessary supports for children.

Recommendation 11: All ancillary carers should be required to undertake training before working with children with TBI.

Recommendation 12: Ancillary services should have a formal personnel management structure that encourages carers to follow treatment guidelines provided by BIRP.

Recommendation 13: BIRP needs to undertake comprehensive assessment of families' adaptive skills and capacity to provide positive parenting to their child post-TBI.

Recommendation 14: BIRD should develop standard challenging behaviour education program(s), e.g. workshop(s), for family and ancillary services that care for paediatric clients with TBI.

Recommendation 15: There is a need to increase the range of respite services available to strengthen the capacity of families to manage children with challenging behaviour by improving access to existing respite services and developing new approaches to respite.

Recommendation 16: BIRD needs to liaise with the BIA to explore options about advocacy for improved access to appropriate services (e.g. emergency respite; educational support; family support) to meet the needs of children with TBI and maintain a positive family environment.

Recommendation 17: BIRD needs to promote state-wide education programs for teachers and educational authorities, government and non-government alike, to increase their awareness of issues relevant to children with TBI and how best to support them so their learning is not disadvantaged.

Recommendation 18: BIRD needs to advocate for access to a functional assessment-based approach to funding educational support needs that considers the behavioural, emotional and executive impairments (not only IQ) that impact on learning and day-to-day functioning of children with TBI, so as to help ensure the delivery of adequate levels of educational support and teacher’s aide hours.

Recommendation 19: BIRD needs to advocate for an expansion of learning support teams so children with TBI can have access to special classroom resources to maximise their learning and reduce occurrence of challenging behaviour.
PRINCIPLE 4:
Consideration must be given to the medical, psychosocial and environmental context of children’s challenging behaviours (i.e. whole-of-client approach)

A number of factors were demonstrated to be related to the presence of challenging behaviours. There was some evidence that demographic characteristics such as gender (males) and indigenous status (Aboriginal/Torres Strait Islander) were related to increased rates of specific types of challenging behaviour. Children with premorbid developmental learning issues and psychiatric disturbance had a significantly higher prevalence of challenging behaviour generally. Moreover, the qualitative case review showed many examples where behaviour dysregulation was present prior to children sustaining their injuries, supporting the extant evidence that premorbid behaviour problems contribute to the severity of behavioural disturbance seen after brain injury (Schwartz et al, 2003).

The current study did not find strong evidence for injury-related factors to be related to challenging behaviour prevalence in children. The small sample size when children were stratified on the basis of different types of injury or severity of injury may partially have contributed to finding few statistically significant differences. It is noteworthy that others have also found that the prevalence of childhood behaviour problems do not appear to vary as a function of injury severity or injury circumstance (Eisenberg, 1990; Fletcher et al., 1996; Ganesalingam et al., 2006; Hawley, 2003). However, there is evidence for an increase in challenging behaviour prevalence over time in children with severe TBI. This may reflect the lack of maturation of expected cognitive-behavioural regulation processes as children with severe TBI develop, an increased stress reaction in children with severe TBI as greater environmental expectations are placed on them as they get older, despite their cognitive impairments, or, as is more likely the case, a combination of these two mechanisms.

The qualitative review showed how medical comorbidities contributed and compounded challenging behaviours observed in children with TBI. In one of the paediatric case histories, post-traumatic seizures were found to affect behaviour. The anomalous electrical, epileptic activity in the frontal regions of this child's brain were thought to be interacting with areas already affected by the TBI, resulting in an exacerbation of his behavioural disturbance. Indeed, initiation of anti-epileptic drug therapy resulted in reduced incidences of challenging behaviour. Other medical comorbidities that were known to be impacting on children's behaviour included adolescent drug and alcohol use, but more commonly mental health issues, particularly childhood anxiety and depression. The CBP found that children with or without challenging behaviour were generally well served for their medical needs, except in the case of mental health problems where there was relatively high unmet need for services for children with challenging behaviour. Approximately 13% of children with challenging behaviour had their mental health needs unmet compared to only 5% of children without challenging behaviour.

In addition to the above child specific characteristics, some children were known to live in very complex psychosocial environments where parents and siblings struggled with drug, alcohol and/or mental health issues of their own, resulting in environments for children that were disorganised at best but more commonly chaotic. In those circumstances parents were neglectful or completely absent as care givers and at best were simply overwhelmed by the multitude of psychosocial stressors, making them incapable of responding to the needs of their child with TBI and provide a positive, nurturing environment. Another important factor affecting behaviour was the cultural identities and attitudes of families and the communities in which they lived. For example, authoritarian parenting styles where punishment was the main means of responding to behaviour were often found not to be effective and were perceived as unfair by children.

The above findings reveal the myriad of factors that contribute to and maintain challenging behaviour, thereby emphasising the need to take a whole-of-client approach in behavioural management. However, paediatric BIRP services were shown to have difficulties in implementing such an approach when children lacked insight into their difficulties and lacked willingness to engage with services. Parents too were sometimes unwilling to prioritise the need for services despite their complaints about challenging behaviours.

Although rare, the qualitative review also found examples where services excluded clients because of instances of severe destructive and impulsive, dangerous behaviours. There also were non-BIRP services that provided minimal follow-up of clients, or which were reluctant to review a client's situation when it was critical in terms of trying to manage a client's behaviour.

These results emphasise that any model of care developed for the TBI population must recognise the broader psychosocial and environmental context in which challenging behaviours occur, and strategies need to be developed to ensure that children's need for services to tackle these issues are met. The following is recommended:

Recommendation 20:
BIRD needs to support the implementation of protocols for assessment of premorbid and current issues which will aid in the assessment of risk of clients developing challenging behaviour. This should include systematic assessment of premorbid behaviour, mental health and medical comorbidity, family functioning, cultural identity, developmental levels and level of impairment and disability.
Recommendation 21:
BIRP services need to identify the indigenous status of clients so they can collaborate with the Aboriginal Health Service and other indigenous service providers when working with indigenous TBI clients.

Recommendation 22:
BIRP services need to routinely assess the mental health status of paediatric clients, including depression, anxiety and emotional adjustment, and make referrals to appropriate mental health services as soon as possible.

Recommendation 23:
BIRP services need to liaise with multicultural health services when engaging with clients from culturally and linguistically diverse backgrounds.

Recommendation 24:
BIRP staff need to advocate for access and support for children in non-BIRP health and other required services (e.g. respite, behavioural support services, family and parenting support, community trained staff).

Recommendation 25:
BIRD needs to develop education programs that will support other services that come into contact with paediatric TBI clients to increase their awareness of TBI issues and how to be able to successfully provide services to paediatric TBI clients.

PRINCIPLE 5:
There is a need for equitable access to all services throughout NSW based on need

The CBP documented a trend for challenging behaviour to be more prevalent in children living in remote parts of NSW (75%) compared to urban and regional locations (52% and 46% respectively). Despite the very high prevalence of challenging behaviour in remote geographical locations, children in more isolated parts of the state generally received fewer BIRP services. For instance, rehabilitation specialist services were provided to 82% of urban clients compared to only 50% of regional/remote clients with challenging behaviour, while only one-third of geographically isolated children with challenging behaviour received case management services compared to three-quarters of their urban counterparts. This result contrasts with that found in the adult CBP where case management services filled the gap of specific professional BIRP services that were lacking (ACI, 2011). It appears that geographically isolated children with challenging behaviour fare worse than adults in terms of BIRP service provision.

There were two services that BIRP did not provide to any challenging behaviour paediatric clients in regional/remote areas. These were psychotherapy/counselling and crisis intervention, which were provided to 23% and 30% of urban children with challenging behaviour. Behaviour support was also provided sparingly by BIRP in more isolated parts of the state. Only two of 18 clients with challenging behaviour in regional/remote areas received behavioural support services, compared to 35% in urban geographic locations. There was a suggestion that BIRP services in more remote parts of the state could be made more accessible when there were third-party purchases of the services.

Interestingly, there was greater unmet need for vocational assistance among children with challenging behaviour living in urban locations than regional/remote locations. Indeed, no children with challenging behaviour in more isolated parts of the state were thought to have unmet need for vocational assistance services, compared to 20% of their urban counterparts. This is unusual and may indicate that vocational rehabilitation services are not even contemplated for more geographically isolated children.

BIRP services need to develop their model of care so that they are able to adequately deliver services to paediatric clients living in more remote parts of the state, redressing the current inequity based on geography and age. The following is recommended:

Recommendation 26:
BIRP services that cater for more geographically isolated clients need to have the option of providing behavioural services for children and/or for there to be an increase in resources to enable staff from these services to travel to remote areas.

Recommendation 27:
All BIRP services need an appropriate number and skill mix of case managers and/or social workers to manage family and ancillary carer issues.

Recommendation 28:
There is a need to increase psychological services within paediatric BIRP services to deal with the presentation of emotional and behavioural issues after TBI.

Recommendation 29:
BIRP needs to increase the use of IT facilities (i.e. Telehealth) for clinical consultations (e.g. rehabilitation specialists, clinical psychologists) and management of clients in remote parts of the state via local health service providers.

Recommendation 30:
BIRP needs to increase its capacity to provide a network of rehabilitation coordinators to support staff in other services in more geographically isolated areas where there is currently minimal or no infrastructure support for children with TBI and their families.
Recommendation 31:
BIRD needs to liaise with ADHC and other relevant service providers to explore options about improving access to needed services for children with TBI in remote/regional parts of the state.

Recommendation 32:
BIRD to explore with BIRP services barriers to why children with challenging behaviour in regional/remote areas are not receiving the support required to access vocational assistance.

PRINCIPLE 6:
Client-centred communication pathways must be established and maintained to ensure smooth and timely delivery of education services needed by clients

Along with assessment, education liaison was the most frequently provided BIRP service for children with challenging behaviour. Sixty-four percent of children with challenging behaviour received this service. The purpose of this service is to provide education about TBI, the specific impairments and disabilities that would impact on their learning and psychosocial development and to assist with the implementations of recommendations, strategies and support services to maximise each child’s potential. It was found that BIRP would meet with school personnel regularly over the course of a school year and at important transition points in the educational curriculum as well as at times of crises. However, the qualitative case review uncovered problems in the existing communication pathways used by BIRP when liaising with educational institutions. The qualitative review revealed situations where different school personnel attended meetings with BIRP, requiring BIRP to educate and orient new people on the needs of a child. Also, there was sometimes a lack of consistent handover to other staff members about a child’s behavioural and learning support needs. The following is recommended:

Recommendation 33:
Special school counsellor (brain injury) roles need to be expanded (multiple and full-time) so there is a consistently available interface between rehabilitation and education to improve learning outcomes.

Recommendation 34:
There is a need to develop well defined and consistent communication pathways between BIRP services and schools (through learning support teams or equivalent structures in independent and Catholic schools) regarding individual children with TBI.

PRINCIPLE 7:
Specialised assessment and management is required for challenging behaviours in the TBI paediatric population

When working with children comprehensive assessment of the individual child or adolescent, their family and school setting is crucial to the choice of intervention. A wide range of psychological treatments may be appropriate and will depend on the problem. The qualitative case review found that although implementation of operant conditioning principles as well as positive behavioural support were utilised this was done in a broader context of attempting to address the different needs of children and adolescents as they progress through different developmental stages, as well the psychosocial environment of the child and any cognitive, emotional and physical deficits they may have as a result of TBI (see also Principle 4).

Evidenced-based behavioural interventions for children and adolescents within the general clinical population focus on family interventions that include parent training and support. These programs have a theoretical background not only in the principles of social learning theory and operant conditioning but also in attachment theory. There is limited research on the use of these programs with children with disabilities and particularly with TBI although there is an emerging literature (Hudson, Cameron, & Matthews, 2008; Wade et al., 2008; Wade et al., 2011; Warschausky, Kewman & Kay, 1999). In general, a manualised approach is rarely appropriate because of the complex interacting factors. Therefore, specialised staff are required for the assessment and treatment of challenging behaviour in this population. The following is recommended:

Recommendation 35:
BIRP needs to maintain capacity and have adequate availability of skilled staff in metropolitan and rural NSW. Skilled staff will consider a range of behavioural management approaches for intervention and integrate them in the family and developmental context in which the behaviours occur.

PRINCIPLE 8:
The community and social participation of TBI clients needs to be promoted

The qualitative review showed that clients with challenging behaviour are at risk of being excluded from social and community activities when they do not receive an adequate level of support. Additionally, supported participation that was of intrinsic value to the client and viewed as meaningful was able to reduce challenging behaviour episodes. Boredom or activities that lacked meaning to the client were underlying causes of challenging behaviour.
The work of Ylvisaker and his colleagues (Feeney et al., 2001; Ylvisaker et al., 2007) emphasised the importance of participation in the management of challenging behaviour in the positive behavioural supports framework. Specifically, the positive behaviour process first reduces handicap by providing the required supports for meaningful participation. The patient practises strategic behaviours in the context of the supports provided to reduce disability, and over time these strategic behaviours may become internalised and, therefore, reduce underlying impairment. By starting with participation (i.e. reducing handicap) patients experience success with the rehabilitation process that they perceive as meaningful, increasing the clients’ probability of engagement with the rehabilitation process. Feeney et al. (2001) demonstrated the cost-effectiveness of a positive behavioural supports approach that emphasised client participation in reducing challenging behaviour.

These results emphasise the importance of implementing supported participation for clients who have, or are at risk of developing, challenging behaviours. The following is recommended:

Recommendation 36:
There needs to be a planned approach to the assessment and implementation of meaningful participation for paediatric clients at all levels of disability.

Recommendation 37:
Resources need to be allocated to enable BIRP to provide education and ongoing consultation to facilitate children’s engagement in community and leisure activities.

Recommendation 38:
BIRP needs to facilitate the process for paediatric clients to develop new social links if clients become isolated and/or old links are at risk of withdrawal.

Recommendation 39:
BIRP needs to incorporate the use of social technologies to promote the social links of paediatric clients.

Recommendation 40:
The capacity of disability and generic leisure and recreation service providers to accommodate children with TBI and challenging behaviour should be increased.

Recommendation 41:
There needs to be an increased availability of resources including care, transport and financial support to enable paediatric clients to participate in meaningful community and leisure activities.

Recommendation 42:
BIRP staff need to be able to access the range of social technologies available for undertaking of therapies that will promote clients developing and sustaining social networks.

Recommendation 43:
To improve the current paediatric BIRP model of care a Behaviour Support and Development Service (BSDS) is required that would initially focus efforts in rural and remote NSW where there is currently little of no behavioural management support services.

Implementation of Principles and Recommendations
The establishment of a Behaviour Support and Development Service (BSDS) would be the most practical and efficient method of ensuring the application of the above eight principles and developed recommendations across the BIRP network.

The BSDS would need to focus their service delivery in more remote parts of the state where there is currently little or no behavioural management support or interagency links with non-BIRP services. The consultancy may have a greater education and training role in BIRP units that currently have inadequate psychological support. Moreover, the proposed service will need to be able to flexibly provide services to a wide age range of clients including children and adolescents where the variability of behavioural presentations will be determined by developmental, attachment, family and educational issues. Specifically, the BSDS would have the following objectives:

• Comprehensive assessment of needs of challenging behaviour clients and their families, and of clients at risk of developing challenging behaviour
• Development of comprehensive family and community-based interventions for challenging behaviours
• Provision of support to families, ancillary carers and BIRP staff in implementing behavioural interventions
• Education of knowledge and skills required by families/ancillary carers; and BIRP about TBI and challenging behaviour
• Education and support of other providers, including educational institutions, respite services and other health organisations, so they can initiate and maintain needed services to clients with TBI
• Develop and support participation opportunities for clients with, or at risk of developing, challenging behaviour.

It will be essential for the BSDS to be staffed by clinical psychologists and/or clinical neuropsychologists for the development and implementation of behavioural management strategies and overall management of the service. Social workers will be required to assist and support clients with known complex psychosocial and family issues. It is also acknowledged that other professions which have knowledge and experience of this complex client group may also be integral to the provision of psychosocial and family support services e.g. teachers, case managers, therapists, rehabilitation specialists and psychiatrists.
Table 6: Areas targeted by recommendations

<table>
<thead>
<tr>
<th></th>
<th>BIRD</th>
<th>BIRP</th>
<th>Non-BIRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service delivery</td>
<td>14, 17, 25</td>
<td>1, 2, 3, 4, 5, 6, 7, 9, 10, 13, 15, 21, 22, 23, 24, 26, 36, 37, 38, 39</td>
<td>18, 19, 40, 41</td>
</tr>
<tr>
<td>Workforce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td>43</td>
<td>8, 27, 28, 29, 30</td>
<td>33</td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Policy</td>
<td>16, 20, 31, 32</td>
<td>34, 42</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 6 provides an organised structure of the recommendations arising from this project, including the establishment of a Behaviour Support and Development Service (recommendation 43). This table provides an outline of the areas the recommendations target at the level of the BIRD, BIRP and non-BIRP service providers for Service Delivery, Workforce (including resources and training) and Policy.

**SUMMARY**

This study established the prevalence and burden of challenging behaviours in BIRP paediatric clients with TBI. These results informed the development of eight principles to guide clinical practice and 43 recommendations for changes or enhancement to the existing model of service delivery for children with or at risk of demonstrating challenging behaviour. It was suggested that a behaviour support and development service within the BIRP is the most practical way to ensure the principles and recommendations are adopted and implemented.