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Demonstrating the effectiveness of a residential education programme for disengaged young people: a preliminary report

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Article

Cite this article: Mastronardi P, Ainsworth F, and Huefner JC (2020). Demonstrating the effectiveness of a residential education programme for disengaged young people: a preliminary report. *Children Australia* **45**: 312–316. https://doi.org/10.1017/cha.2020.48

Received: 16 April 2020
Revised: 30 August 2020
Accepted: 30 August 2020
First published online: 19 October 2020

Keywords:
residential education; programme evaluation; strengths and difficulties; data-informed decision-making; effectiveness

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Abstract

This article reports on the early results of using behavioural and educational data to evaluate a residential education programme. The programme serves male and female students between 12 and 16 years of age who have been suspended or expelled from school due to behavioural issues or who refused to attend school. Using measures of behavioural and educational progress during care and reporting these changes over time provided empirical evidence that the programme was achieving its primary aims of 'behaviour change and educational gains.' Collecting and reporting this data has empowered the programme to increase programme effectiveness through both data-informed decision-making and ongoing programme evaluation.

Introduction

Programme clinical and administrative data is a potentially rich source of information (Cohen, 2011). Clinical data is used primarily for identifying the needs of children and young people and their families, inform placement decisions and allow for individualised treatment plans. Administrative data is used primarily for reporting and accountability. These functions, while critical, only begin to tap the potential uses for this data. Secondary data analysis is using existing data for objectives beyond their initial purposes and empowers organisations to improve service effectiveness.

Once it has been used for its primary objectives, clinical and administrative data accumulates over time and typically sits unused in an organisation's files or electronic database. This is a wasted opportunity to use this information to better understand the needs and strengths of children and young people, their families and communities and the interventions used to serve them (Lee et al., 2013; Winship, 2012). Effective use of clinical and administrative data empowers organisations to increase the effectiveness of their interventions to achieve mission and strategic goals and improve the outcomes of the children and young people they serve. There are two related ways in which clinical and administrative data can be reused: data-informed decision-making and programme evaluation. Both are recursive processes, where the focus of data-informed decision-making is on individual data and programme evaluation is on data aggregated by group, setting, or intervention.

Data-informed decision-making is the process where measurement and reporting of key outcomes are used to drive treatment decisions and impact the effectiveness of the intervention for each child or young person (Means et al., 2009). Specifically, it entails applying data to support daily decisions involving care. It is important to recognise that data is only an element in effective decision-making and that there are other important sources of information needed in the care of children (Murray, 2014).

Programme evaluation is a systematic method for using the information to improve intervention effectiveness and efficiency. The ultimate criterion for programme evaluation is meeting service objectives (i.e., children and young people and their family outcomes) (Courtney, 2000; Mark & Pines, 1995). A programme evaluation model should include appropriate outcomes domains and provide information useful to both internal and external audiences (Thompson & Way, 2000).

The purpose of the present preliminary efforts reported in this article was to demonstrate that using behavioural and educational data would be effective in helping the residential education programme achieve 'behaviour change and educational gains' for students enrolled in the programme. In terms of behaviour change, the expectation was of significant problem reduction and not necessarily total problem resolution. For education, there was an expectation of significant improvements in numeracy and literacy. A description of the programme in which the intervention change occurred, and the new practice model follows.

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The agency

Setting

The residential education programme is Dunlea Centre in suburban New South Wales. The centre is a 5 day/4 night (Monday–Thursday) per week accredited residential school for both male and female children and young people. In 2019, 27 young people attended the school (20 males, 7 females) with ages at enrolment ranging from 12 to 16. The centre is a campus-based facility consisting of a modern school, extensive recreational facilities and 4 residential houses (3 males and 1 female) with a capacity of 8 young persons in each house. The expected period of attendance at Dunlea Centre is a minimum of 12 months. The aim is to either return a young person to a mainstream school, college or employment following completion of their time at Dunlea Centre.

A brief history

Dunlea Centre is faith based and was established in the late 1930s by Father Dunlea, a Catholic priest. The vision and purpose of the Dunlea Centre grew out of Father Dunlea's knowledge of the work of Father Flanagan who had established the famous Boys Town in Omaha, Nebraska. Hence, the name was adopted by the Engadine agency which today both honours Father Dunlea and Boys Town in Omaha (i.e., Dunlea Centre – Australia's Original Boys' Town). The current site was first occupied in the late 1940s. Then in 1952, Father Dunlea's failing health resulted in the Salesian Brothers (a Catholic society founded to help poor children) assuming responsibility for the agency.

Population

In 2019, 44.4% of referrals to Dunlea Centre were made by a community school or family; truancy, school refusal or inappropriate classroom behaviour were typically cited as the reason for these referrals. The other 62.9% of young people accepted into Dunlea Centre had a mental health diagnosis, with some using prescribed psychotropic medications. This highlights emotional and behavioural issues as underlying the problematic school record for many of these children and young people, hence the programme's dual emphasis on 'behaviour change and educational gains.' Additionally, 29.7% of the families of the young people were known to the New South Wales child protection authority. This data indicates that Dunlea Centre is serving a population of young people with a wide range of complex needs.

Practice model

Following a 2018 review by an expert panel, changes were made to the agency's organisational structures and day-to-day educational and care practices in 2019 (Humphreys et al., 2018). This long-overdue review was the first review of the Dunlea Centre programme since 1998, when it had been recast and presented as a residential education and a family preservation programme (Blythe et al., 1994; Halliday & Darmody, 1999).

As part of the change process, the agency adopted the residential Teaching-Family Model used at Boys Town in Omaha, Nebraska (Fixsen & Blase, 2019; Thompson & Daly, 2015). This re-established a connection with Boys Town in Omaha that had eroded since the days of Father Dunlea. The agency selected the Teaching-Family Model after an extensive review of the USA and UK residential programmes. Teaching-Family Model has evolved over 50 years (Fixsen & Blase, 2019) and has outstanding outcome evidence about the productivity and well-being of children and young people in the Boys Town programme (Friman et al., 1996; Huefner et al., 2007; Kingsley et al., 2008; Thompson et al., 1996). The Teaching-Family Model is a cognitive-behavioural intervention that is characterised by family-style living, integrated support systems and clearly defined individualised goals (James, 2011). The Teaching-Family Model has been widely replicated, well researched in the literature and identified as a promising best practice (Fixsen et al., 2007; James, 2011; The California Evidence-Based Clearinghouse for Child Welfare, 2012).

The process of implementing Teaching-Family Model at Dunlea Centre involved the centre's Executive Director spending time at Omaha in 2016 to familiarise himself with Teaching-Family Model. Since 2016, the entire Dunlea Centre leadership team and one board member have spent time at Omaha becoming familiar with the model. The result is that the leadership team and the Board were all committed to the implementation of the Teaching-Family Model. Boys Town in Omaha also provided significant technical support to the Dunlea Centre. This included Omaha staff spending time at Dunlea Centre training the entire educational and care staff in the use of the Teaching-Family Model in daily practice with young people. It was expected that the new model would result in improved behavioural and educational outcomes.

Method and measurement

Sample

The sample for the exploratory evaluation consists of 14 young people for whom there was complete data (i.e., two administrations of the Strengths and Difficulties Questionnaire (SDQ) (see http://www.sdqinfo.corn/aO.html) and the Progressive Achievements Tests (PATs) (see https://www.acer.org/au/pat/tests) instruments). These data are collected as a part of everyday operations at Dunlea Centre and are used by clinical staff for treatment planning and individual behavioural and educational progress reports (i.e., data-informed decision-making). Reports that aggregate the data for all children and young people within each treatment home are also produced and used by administrative directors for programme evaluation and external advocacy purposes. The confidentiality of children and young people's information is protected throughout these processes.

Outcome measures

The SDQ was used to measure behaviour change. The baseline SDQ T1 data was obtained from a parent and young person when they first seek a place at the Dunlea Centre. If the young person is admitted to the Dunlea Centre programme, a teacher then completes the SDQ within 2 weeks of the admission. The T2 administration of the SDQ is at 6 months following admission. It is completed by the same three parties.

The SDQ is a well-established 25-item behavioural screening measure for children and young people (Bergström & Baviskar, 2020; Goodman et al., 2004; Mathai et al., 2002). It consists of five sub-scores which are listed as emotional, conduct, hyperactivity, peer problems and a prosocial score. The questionnaire is completed by a young person, their parent and a teacher. With the exception of the prosocial subscale, higher scores for the other SDQ subscales indicate greater behavioural impairment. The result is a cumulative difficulty score that is the sum of the scores on

Table 1. Sample SDQ emotional/behavioural status table used in an individual report

SDQ	Emotional	Conduct	HyperA	Peer	Prosocial	Impact	Total
Time 1	1	6	8	1	7	2	18
Time 2	5	3	6	1	8	1	16
Change +/–	+4	–3	–2	0	+1	–1	–2

Lower scores at Time 2 = problem reduction.

subscales. These are banded as close to average, slightly raised/slightly lowered, high/low or very high/very low.

The PAT was used to measure educational status and change. The T1 PAT was administered at the beginning of term (or when the youth was admitted if after the beginning of term). T2 PAT was administered at the end of term.

The PAT provides norm-referenced achievement in mathematics, reading and grammar. The PAT has been shown to have strong predictive validity for school grades (Fogarty, 2007). The mathematics test consists of 3 achievement tests each with 35 multiple-choice questions which assess mathematical skills within the areas of numbers, space, measurement, chance and data and algebra.

Data and reporting

The SDQ and PAT are collected for all children and young people at the Dunlea Centre, and this data is used to track individual progress and organisational outcomes. Children and young people must complete all measures. If they refuse this is seen as a failure to cooperate with the programme and they will be asked to leave. If a parent refuses to complete the measures, they will likewise be asked to remove their young person from the centre.

Individual-level SDQ data is used for setting individualised treatment goals and tracking emotional and behavioural changes over time. This is an example of where data is being used to identify individual strengths and challenges and help guide treatment goals and objectives (i.e., data-informed decision-making). Examples of the results from this data collection process as student profiles are presented in Table 1 and Figure 1. The table and figure pair are followed with a brief explanation of what the results mean in terms that are understandable by both children and young people, parents and caregivers. The DC programme has begun to use the tables and figures with parents when they hold review meetings about their son/daughter's progress. Parents have reported that they value the visual presentation as it is easy for them to understand. For example, for the information displayed above, the explanation might include something like the following: 'Behaviour change is noted against conduct and hyperactivity. Pro-social behaviour shows a slight increase. In this case, the SDQ scores have been reduced to a lower point in the high band. This signifies problem reduction, but also indicates that there is room for further improvement.'

Individual-level PAT data is used for identifying educational needs, creating individualised learning plans and tracking academic gains over time. This is an example of using academic data to identify educational needs and inform intervention strategies (i.e., data-informed decision-making). A sample table and figure are shown for the PAT results in Table 2 and Figure 2. The educational results also include a summary statement of what these results mean, something along the lines of 'Student showed educational gains for all three areas, especially for Spelling and Comprehension. PAT scores have moved higher and this signifies very positive educational gains.'

Table 2. Sample PAT educational status table used in an individual report

PAT	Maths	Spelling	Comprehension	Total
Time1	28	37	44	109
Time2	35	53	59	147
Change +/–	+7	+16	+15	+38

Higher scores at Time 2 = educational gains.

Organisational-level SDQ and PAT results can be aggregated by group, house or overall programme. The results for the group of students in a specific home are shown in Figure 3. This figure shows that for the students in the programme with complete data, 78% achieved a measure of positive behaviour change and 86% achieved educational gains. These results support the programme evaluation and advocacy efforts of the organisation.

Discussion

Using the SQD and PAT as measures of behavioural and educational progress and reporting changes over time has provided Dunlea Centre with empirical evidence that the programme is achieving its primary aims of 'behaviour change and educational gains.' These behaviour change and educational gains also supported the position that the Teaching-Family Model implemented at Dunlea Centre has been effective in helping the programme meet these aims.

The tables and figures based on the SDQ and PAT instruments provide relevant and easily-understood information to children and young people, their families and caregivers as to key outcomes for children and young people in the programme. The individual reports support data-informed decision-making efforts within the programme by providing detailed information about how each individual child and young person has progressed and identifying specific areas in which intervention efforts going forward might be focused. Similarly, reports that aggregate SDQ and PAT data by house or for the programme as a whole provide empirical outcome data for programme evaluation purposes and advocacy with public and private stakeholders.

Using behavioural and educational data for more than its initial stated purpose has allowed Dunlea Centre to integrate data-informed decision-making into the care provided children and young people and demonstrate effectiveness to their families and communities. Moving forward, additional work needs to be done on how to get ever better in using this data to provide effective individualised care and refine and adapt the programme to best match the populations served.

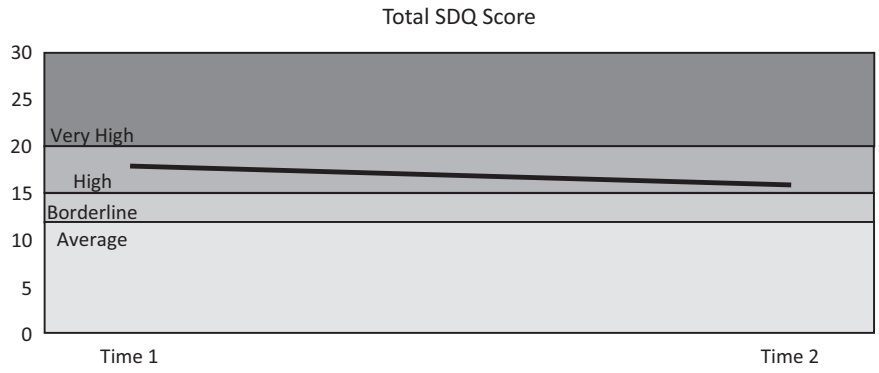

Fig. 1. Sample figure of T1 to T2 change in total SDQ score used in an individual report.

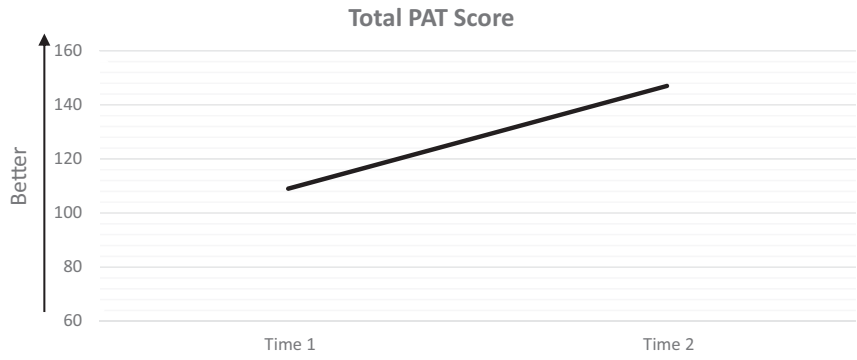

Fig. 2. Sample figure of T1 to T2 change in total PAT score used in an individual report.

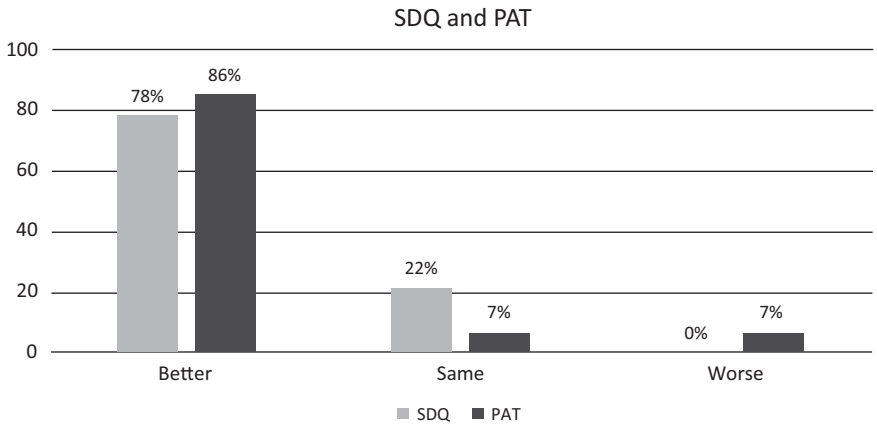

Fig. 3. Overall SDQ and PAT results for home X.

Limitations

This evaluation effort is in an early stage of implementation, and the reported results are so far based on only 14 cases. We feel a necessity to grow this sample to a minimum of 100 cases in order to have a strong sense of how the programme is doing and establish set goals for individual progress. It had been anticipated the this would be achieved by 2022, but the COVID-19 crisis will delay this. It is expected that additional data will add weight to these early findings.

Summary

Collecting and reporting SDQ and PAT has allowed Dunlea Centre to establish a solid foundation for increasing programme effectiveness through both data-informed decision-making and ongoing programme evaluation. By integrating the measurement and reporting of SDQ and PAT data into treatment decisions and organisational operations, Dunlea Centre makes explicit its commitment to doing what is in the best interest of the children and young people in care.

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