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The University of Sydney

Australian Implementation and Evaluation of Active Support

By

Roger J. Stancliffe, Anthony D. Harman, Sandy Toogood, and Keith R. McVilly

REPORT

TO THE

DEPARTMENT OF AGEING, DISABILITY AND HOME CARE

September 2005

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We are extremely grateful to Professor David Felce and his team at the Welsh Centre for Learning Disabilities, in particular Edwin Jones and Jon Perry, for generously sharing many Active Support teaching resources, for all their work on Active Support, and for their encouragement and support during this project. In addition, we particularly wish to thank Professor Eric Emerson and the Hester Adrian Research Centre for the development, supply and instruction in the use of the software designed to record and analyse the data collected. We also gratefully acknowledge the valuable contribution made by DADHC and RRCS staff for participating in the project and facilitating our access to their respective group homes and to the staff and residents of these homes for their willing and cooperative participation. DADHC are also to be very gratefully acknowledged for their commitment to and the funding of this project.

EXECUTIVE SUMMARY

Stancliffe, Dew, Gonzalez, and Atkinson (2001) examined lifestyle outcomes for 65 randomly selected group-home residents from 34 group homes across NSW and found that a number of residents were at risk of having too little to do and of receiving too little support from staff to participate in activities. The Active Support model, developed and evaluated in the UK, seems ideally suited to address these issues because it is a coherent, well-researched package of training in staff working practices and group home organisational procedures that has been shown in UK research to result in (a) staff providing more direct support for resident participation, and (b) higher levels of engagement in activities by group-home residents.

The Active Support model is a research-based suite of interrelated procedures which focus strongly on the way group home staff work with consumers and the organisation of the group home to ensure that the primary focus is on direct support of residents to enable them to participate actively in everyday activities. The present study serves as a demonstration project to assess the effectiveness and viability of implementing Active Support in Australian group homes, by introducing Active Support to five Sydney group homes and evaluating its impact.

The primary research question for this project was: does implementation of Active Support result in better client outcomes for residents of Australian group homes, particularly in higher levels of engagement in activities? Engagement in activities was assessed through detailed observational data collection in the group homes. A variety of other client outcomes were evaluated as well using written assessments. All outcomes were assessed before and after the implementation of Active Support in each group home. The before and after data were compared to assess the impact of Active Support.

Residents, staff and managers from five group homes (3 non-government, 2 government group homes) in Sydney participated in the project. Training in Active Support was delivered to group-home staff one house at a time. Therefore, across the five houses training was staggered sequentially over a 6-month period to enable adequate project staff time for training and data collection.

Following implementation of Active Support, staff in 4 of 5 group homes provided significantly more direct help to residents to support their participation in activities. This was associated with significant increases in resident engagement in activities at post-test and at follow-up several months later. Increased engagement was demonstrated both through direct observation of resident activities and by staff reports of significantly greater participation in domestic and community activities. The fact that community participation also increased shows that it was not only participation in domestic activities that improved. Implementation of Active Support was not associated with any significant change in choice, depression, adaptive behaviour, challenging behaviour, or contact with family and friends. A non-significant trend toward less depression was reported ($p < .10$). Inactivity and passivity are associated with depression, so it is of interest that increases in activity were accompanied by a trend toward reduced depressive symptoms. It may be worthwhile assessing depression in future studies, especially where the research involves larger numbers of participants than the present project.

The representativeness of this study's findings is strengthened by the fact that it involved two different agencies and residents with diverse abilities. In addition, the finding that improved resident outcomes (notably engagement) were evident for the vast majority of houses and of residents speaks to the broad applicability of the Active Support approach. Possible reasons for the disappointing results in one house are discussed.

Given the success of a relatively small-scale implementation of Active Support in Australia, the way is now open to pursue more widespread *systemic* implementation across Australian accommodation support services for people with intellectual disability. Adaptation of Active Support to other service types and to other disability groups should also be considered.

Active Support represents a highly *cost-effective* intervention because it yields better outcomes by using existing group-home staff more effectively (not by increasing staffing). If the capacity to deliver high quality Active Support training can be developed within individual agencies and the disability service system, then such training can be provided at a reasonable cost as part of ongoing staff training efforts.

GLOSSARY OF ACTIVE SUPPORT TERMINOLOGY

TERM (alphabetical order)	**MEANING**
Activity and Support Plans:	Offer a layout to timetable household tasks, personal self-care, hobbies, social arrangements and other activities which *individuals* need or want to do each day and to work out the availability of support so that activities can be accomplished successfully (see Appendix 7 for an example of an *Activity and Support Plan* for one day).
Individual Plans:	Offer a template to set out a way to consider important developments in people's lives as part of a regular overall review of what has been achieved and what might be possible in the future. New goals for people's activity, social relationships, learning, independence, and other aspects relevant to the quality of their life are set. Individuals' preferences and involvement in deciding goals are important.
Interactive Training:	Interactive Training is practical skills-based training provided to each group-home staff member individually in the group home itself using activity materials and opportunities that are ordinarily available. The training is designed to help each staff member improve their skills in supporting people with intellectual disabilities to participate in everyday activities. Each training session lasts about 100 minutes. During training the staff member works with one or more residents supporting their participation in various ordinary activities in the group home or in nearby community venues. Active Support trainers provide feedback, demonstration and coaching to the staff member about support skills.
Opportunity Plans:	Provide a template to allow staff to focus on a number of very specific skills and organise frequent opportunities for residents to practise them in order to help individuals learn (see Appendix 3 for examples of *Opportunity Plans*).
Participation Record:	An individualised daily record of activity detailing the activities the person has been involved in. This can take the form of a *Domestic Participation Record* or *Community Participation Record* (see Appendices 1 and 5 for examples of these Records). Categories might include preparing meals or snacks, laying the table, and similar domestic activities, leisure and hobbies at home, gardening or DIY. Community activities such as social life, leisure, hobbies, sport, shopping, cinema outings or visits home. Different activities within each of these categories can be recorded and a summary of weekly totals calculated which are then transferred to a Participation Summary (see below).
Participation Summary:	*Domestic* or *Community* - A summary of the opportunities a person has had over a three-month period. Weekly data are transferred to these forms respectively from the *Domestic Participation Record* or *Community Participation Record* (see Appendices 2 and 6 for examples of a *Domestic Participation Summary* or *Community Participation Summary*).
Support:	In Active Support varying degrees of support are based on the format of 'ASK – INSTRUCT – PROMPT – SHOW – GUIDE' depending on the level of support required needed to enable the person to participate in the activity.

Support Protocol: A series of detailed steps to assist an individual in completing a particular task. This task is broken down into simple itemised activities to enable an individual to progress through each stage to successful completion (see Appendix 8 for an example of a *Support Protocol*).

Teaching Plans: These offer a way to be even more specific about how to teach particular skills. Teaching plans are set weekly and build on each other so that individuals progress towards independence (note that Teaching Plans were not used in the current study but are included here for the sake of completeness).

These definitions are mostly drawn from Jones, Perry, Lowe, Allen, Toogood, Felce et al. (1996a)

Jones, E., Perry, J., Lowe, K., Allen, D., Toogood, S., & Felce, D. (1996). *Overview* (Booklet 1). Cardiff: Welsh Centre for Learning Disabilities Applied Research Unit.

1. INTRODUCTION

In 2000-01 the Centre for Developmental Disability Studies (CDDS) undertook a major research and evaluation project for the NSW Department of Ageing Disability and Home Care (DADHC) looking at quality service in Departmental group homes. One of the reports completed as part of this project looked at lifestyle outcomes for 65 randomly selected group-home residents from 34 group homes across the state (Stancliffe et al., 2001). Stancliffe et al.'s findings were very consistent with research in UK group homes which has highlighted the problem of resident underactivity, and which has resulted in the development of the *Active Support* model (Felce, Jones, & Lowe, 2002). Overall, Stancliffe et al. demonstrated that residents with lower ability were at risk of having too little to do and of receiving too little support from staff to participate in activities. Similar findings were evident regarding community participation.

Stancliffe et al. (2001) found that the majority of participating DADHC group homes had systems, resources, and experienced personnel in place to support achievement of resident outcomes, but the researchers also concluded that better organised, resident-focused staff working practices may well contribute to better resident outcomes. The Active Support approach seems ideally suited to address these issues because it is a coherent, well-researched package of training in staff working practices and group-home organisational procedures that results in (a) staff providing more direct support for resident participation, and (b) higher levels of engagement in activities by group-home residents.

Stancliffe et al. (2001) recommended that DADHC implement the Active Support model in its group homes. This project, and DADHC's financial and practical support of it, can be seen as a logical development of the earlier project on quality service in Departmental group homes. The present study serves as a demonstration project to assess the effectiveness and viability of implementing Active Support in Australian group homes, by introducing Active Support to five Sydney group homes and evaluating its impact.

1.1 What Is Active Support?

Providing a normal living environment, such as an ordinary suburban home, has been shown to be a necessary but not sufficient step for meaningful resident participation in activities. Service provision must also involve well-organised staff support of individual

resident participation if satisfactory lifestyle outcomes are to be achieved (Felce et al., 2002). The Active Support model, developed and evaluated in the UK, is a research-based suite of interrelated procedures which focus strongly on the way group home staff work with consumers and the organisation of the group home to ensure that the primary focus is on direct support of residents to enable them to participate actively in everyday activities. These procedures include:

- Systematic planning of individual opportunities for daily activities for each resident (using a tool called an *Activity and Support Plan* – see the *Glossary of Active Support Terminology* for a definition, and Appendix 7 for an example)
- Staff planning their own division of responsibility for supporting resident daily activities
- Staff being taught to use effective methods for supporting resident participation in activities, not just verbal prompting
- Staff providing attention and praise to people who are occupied constructively
- Active monitoring by staff of opportunities provided to individuals each day (using the *Domestic Participation Record* and the *Community Participation Record* – see Glossary for a definition of a *Participation Record*, and Appendices 1 and 5 for examples).

Staff members' main job should be to work directly with residents. Active Support helps staff and services refocus on this, and provides well-structured ways of achieving it. This model has been implemented in group homes in the UK (see Felce et al., 2002; Jones et al., 1999) and has been shown to effectively improve the way group home staff work with residents (staff provide more assistance to residents and interact with them more) and to enhance resident participation in constructive activities. Active Support is associated with a number of positive outcomes, including higher levels of social, personal, household and leisure activities (see Felce et al., 2002). Active Support provides staff with practical skills to enable them to effectively support resident participation, so that staff no longer feel like "glorified domestics".

In essence, Active Support is designed to provide a bridge to participation in everyday activities for people who lack the skills to participate independently. Independent participation is not necessarily the intended outcome (although this is welcome if it

occurs), rather it is expected that people will participate in everyday activities *with support*.

1.2 Research Concerning Active Support

We will briefly review the experimental research which has evaluated the effectiveness of Active Support training for group-home staff. All of the research examined in this section has been conducted in the UK. A number of different measures have been used to evaluate Active Support. The most consistent of these is direct observation of resident engagement in various types of activity, and of staff support for resident participation. Typically both resident and staff behaviours are reported as the percentage of the total observation period. Unless otherwise stated, when the terms *resident engagement in activity* and *staff support for resident participation* should be understood to mean the percentage of the total observation time these behaviours occurred.

Jones et al.'s (1999) landmark study evaluated the effects of Active Support training in five Welsh group homes (the current study employs a very similar research design to that used by Jones et al., a multiple-baseline-across-group-homes design). Following introduction of Active Support, Jones et al. found increased levels of staff assistance to residents and increased resident engagement in activities. Moreover, these changes were evident for 18 of the 19 residents who took part in the study. Follow-up observations 8-12 months after the introduction of Active Support showed that gains had been maintained in most but not all houses.

More recent Active Support intervention studies have reported on larger-scale interventions. Jones, Felce, Lowe, Bowley, Pagler, Gallagher et al. (2001) provided Active Support training to staff of 38 community houses in the UK. Analyses compared pre-training and post-training data without a control group. This study reported significant increases following training in staff support for resident activity, resident engagement in activities, as well as increases in resident participation in domestic activities, social activities, and community activities. Jones, Felce, Lowe, Bowley, Pagler, Gallagher et al. (2001) also found that Active Support was very beneficial for those with severe intellectual disability, but the benefits were less for people with milder disabilities (i.e., better developed adaptive behaviour). This would appear to be consistent with the theoretical basis of Active Support for several reasons. Firstly, there is a well-established

association between adaptive behaviour and level of resident engagement in activity, with those with better developed adaptive behaviour experiencing higher levels of engagement. One effect of this state of affairs is that those with better adaptive skills have less room for improved engagement, because they already have relatively high levels of pre-intervention engagement. Secondly, individuals with more skills can often carry out many activities independently, so a key element of Active Support – staff assistance for participation in activities – is not relevant for those activities. However, Bradshaw et al. (2004) found that there was no tendency for less able residents to benefit more from Active Support. Indeed, Bradshaw et al. reported that in several houses it was the *most* able individual who benefited most. These authors suggested that this may have been because these individuals were easier for staff to teach, and that the resident's greater degree of initial success may have resulted in them being given opportunities to take part in even more activities.

Even though there are theoretical reasons for assuming that less able service users benefit most from Active Support, the research findings on this issue are mixed. Therefore, for the Australian implementation and evaluation of Active Support, it seemed appropriate to involve participants with a range of abilities, not just those with severe intellectual disability.

Jones, Felce, Lowe, Bowley, Pagler, Strong et al. (2001) reported the findings of an Active Support training study involving a total of 74 group homes. One of the aims of the study was for service managers to develop the capacity to provide Active Support training independent of the University-based research team. The project had three phases: (1) training was led by the researchers with managers assisting (22 houses), (2) training was led by a manager with assistance from the researchers (16 houses), and (3) training was delivered independently by managers who had participated in the earlier phases (36 houses). Significant improvements in staff assistance to residents and in resident engagement in activities were found in phases 1 and 2, but not in the final phase. Active Support training was implemented fully in the first two phases, but in the final phase managers frequently did not provide the practical training on site at the group home itself (known as *Interactive Training* in Active Support – see the Glossary for a definition). This finding highlighted the importance of interactive training and underlined the

challenges of creating large-scale systemic capacity to train staff effectively in Active Support.

In relation to the current project, the Jones, Felce, Lowe, Bowley, Pagler, Strong et al. (2001) study also made clear the difficulty for CDDS staff to acquire effective training skills in Active Support, and reinforced the value of directly involving in the project Dr Sandy Toogood from Wales, a highly experience and skilled Active Support trainer.

Except for Bradshaw et al. (2004), all of the Active Support studies discussed in this section so far were undertaken by staff from the Welsh Centre for Learning Disabilities. Bradshaw et al. (2004) also conducted their research in the UK, but independently of the Welsh Centre, and reported improved levels of resident engagement. However, Bradshaw et al. (2004) also noted that this outcome was patchy, with some houses and some residents showing little change. This study too reminds us that good outcomes of Active Support are not automatically assured, and that successful implementation in Australia is likely to require considerable effort and close cooperation with the originators of the Active Support approach. CDDS has an excellent ongoing cooperative relationship with the Welsh Centre for Learning Disabilities. We were most fortunate in obtaining full cooperation from the Professor David Felce and his team at the Welsh Centre regarding access to training materials, curriculum and so on. This, together with the direct contribution of Dr Toogood during training in Australia, enabled CDDS to provide authentic Active Support training.

1.3 Australian Implementation and Evaluation of Active Support

There are a number of compelling reasons why Active Support Model should be implemented in Australian group homes.

1. There is evidence that Active Support model is more relevant to people with more severe disabilities such as those living in Australian group homes with full-time staffing. These are the individuals who are most dependent on staff for opportunities to be involved in activities.
2. Active Support is a well-researched model that has been demonstrated be related to *better resident outcomes* in real group-home settings.
3. Active Support has never been trialed and formally evaluated in Australia.
4. Implementation of Active Support is a logical follow up to the *Quality Service in*

Group Homes Project that CDDS completed for DADHC Disability Services in 2001.

5. The Active Support Model is essentially a *cost-neutral intervention*. Other than initial training costs (which are minor when compared to the recurrent investment in staff) Active Support involves more effective utilisation of existing staff to achieve better resident outcomes.

The current project provides a rigorous evaluation of Australian implementation of Active Support. However, it is important to acknowledge that, at the time of writing, other Active Support projects are under way in other Australian states and territories. There are government-run projects in the ACT (McKenna, Stephen, Cooper-Finch, & Harris, 2003) and Victoria, as well as a non-government agency (Jewish care) in Victoria.

1.4 Research Questions

A compelling feature of the UK Active Support research is the finding of improvement in *resident outcomes* such as engagement in activities; that is, factors that make a real practical difference in residents' day-to-day life. This is an impressive finding, given that Active Support is essentially a staff-training intervention. All too often in disability services staff training fails to bring about change in staff behaviour, let alone improved outcomes for service users. Therefore, the primary focus of the current study was on *resident outcomes*, particularly on the level of engagement in activities, as assessed by direct observation and recording of the amount of time residents spent participating in activities. Given that resident engagement has been found to depend significantly on the amount of support for engagement provided by staff, it was also important to evaluate changes in the amount of time staff spent helping residents to participate in activities. Such staff help was also assessed by direct observation and recording. Because resident engagement and staff help are the two key outcomes of Active Support, we chose to evaluate them both in the short term following Active Support training (i.e., at post-test) and in the medium term several months later (follow-up).

We also assessed other outcomes such as community participation, participation in domestic activities, choice, depression, adaptive behaviour, challenging behaviour, and contact with family and friends. These are also important outcomes, and it was of interest to see whether any of these outcomes changed following implementation of Active

Support. However, the primary focus remained on directly observed resident engagement in activities and on staff help.

The essential questions this study was intended to answer were:

1. Does implementation of Active Support result in higher levels of engagement in activities by residents of Australian group homes? Relative to pre-test levels, are changes in engagement evident after implementation of Active Support (i.e., at post-test)? Are these changes evident at follow-up several months later?
2. Does implementation of Active Support result in more staff support for resident participation in activity? Relative to pre-test levels, are changes in the amount of staff support evident after implementation of Active Support (i.e., at post-test)? Are these changes evident at follow-up several months later?
3. Is implementation of Active Support associated with changes in other client outcomes between pre-test and follow-up? Outcomes assessed were: community participation, participation in domestic activities, choice, depression, adaptive behaviour, challenging behaviour, and contact with family and friends.

Clearly, there are a number of related issues that also are relevant to implementation of Active Support, such as staff members' views about the model, residents' and families' attitudes, costs of implementation, and so on. However, the primary research question at this initial stage was: does implementation of Active Support result in better client outcomes for residents of Australian group homes, particularly in higher levels of engagement in activities? If the answer to this question is "no", then these related issues are moot because there would be no point in implementing Active Support. Given the limited time and resources available to conduct the evaluation, it was necessary to focus strongly on client outcomes (and staff support for resident engagement in activities) to ensure that the impact of Active Support on these outcomes could be assessed validly and thoroughly.

2. PROCEDURE

2.1 Ethics Approval and Consent

This project received ethics approval for the University of Sydney's Human Research Ethics Committee and from the Royal Rehabilitation Centre Sydney's Ethics Committee. Written informed consent was obtained from parents, persons responsible or guardians of the participating residents from the five group homes involved in the project. In addition, staff members in each of the group homes gave written informed consent about their participation in the project.

2.2 Participants and Settings

Residents, staff and managers from five group homes in Sydney participated. Three houses (Houses 1, 2 & 3) were operated by a non-government organisation, whereas Houses 4 and 5 were government-operated. In both cases the participating houses were drawn from a much larger pool of houses operated by each agency. Details about the residents in each house are shown in Table 2.1. The selection of the specific group homes was made by the agencies involved and was not under the control of the researchers. In retrospect, it appears that the agencies consciously selected houses that were heterogeneous in terms of resident characteristics. For example, Houses 2 and 5 served residents with more severe intellectual disability, whereas most residents in Houses 3 and 4 had milder intellectual disability, but several had significant challenging behaviours. All participating residents had intellectual disability except for two residents of House 1, who had acquired brain injury. All four residents of House 1 used wheelchairs. One resident in House 2 needed staff assistance for safe mobility. One resident in House 4 had limited mobility and used a walker. One resident in House 5 had severe scoliosis and her mobility was reduced because of that. Details of resident characteristics for each house are shown in Table 2.1.

Table 2.1 Resident Characteristics for Each House.

Auspice/ House	No. of Residents			Means			
	Male	Female	Total	Adaptive Behaviour	Challenging Behaviour	ICAP Service Score	Age (years)
NGO							
House 1	0	4	4	383.8	-13.8	25.0	39.7
House 2*	1	3	4*	417.5	-14.0	35.8	44.3
House 3	4	0	4	450.5	-18.8	47.3	45.0
Government							
House 4	2	3	5	461.4	-10.0	59.8	41.6
House 5	1	4	5	430.8	-21.0	35.8	36.3

* There was one additional temporary resident in this house who was present during several of both the pre-intervention and post-intervention observations. This person did not take part in the project and no data were collected about this person.

The 22 participating residents were all adults and had an average age of 41.2 years (range 27.2 to 62.1 years). There were no significant differences between houses in residents' age.

Adaptive behaviour, as measured by ICAP Broad Independence Domain scores, had a mean score of 430.4 (range 350 to 500). A domain score of 500 is equivalent to the performance of a non-disabled fifth grader (aged 10 years and 4 months). The range from 350 to 500 represents a wide range of skills from highly dependent to relatively independent (e.g., several of the most able participants from Houses 3 and 4 routinely moved about the community independently). There was a significant difference between houses in residents' adaptive behaviour, F (4, 17) = 6.09, p = .003, with House 4 having the highest mean and House 1 the lowest (see Table 2.1).

Challenging behaviour (ICAP General Maladaptive Index scores) averaged –15.5 (range –37 to 0). The mean (-15.5) represents marginally serious challenging behaviour, while the range of scores varies from serious challenging behaviour (-37) to no challenging behaviour (0). There were no significant differences between houses in the level of challenging behaviour (see Table 2.1).

ICAP service scores are indicative of the need for service support and range from 0 to 100 with higher scores reflecting increased independence and a *lesser* need for supervision or service support. The mean ICAP service score was 41.4 (range 1 to 82). This mean is indicative of a need for *extensive personal care and/or constant supervision*. The range

varies from 1 (total personal care and intense supervision) to 82 (limited personal care and/or regular supervision). There was a significant difference between houses in residents' service scores, F (4, 17) = 3.77, $p < .05$, with House 4 residents having the highest mean (i.e., the *least* need for support) and House 1 residents having the lowest (i.e., the *most* need for support) (see Table 2.1).

Settings

All group homes, except House 3, were freestanding 4-6 bedroom detached houses in various parts of suburban Sydney. House 4 was the only 2-storey dwelling. House 3 differed in that it was consisted of two adjoining 2-bedroom single storey duplexes with a common wall through which a doorway had been made to enable staff to move from one side to the other. Information about the amount and stability of staffing is shown in Table 2.2.

Table 2.2 Staffing for Each House.

Auspice/ House	Staff		
	Average Staff Roster Hours per week	Mean % Staff (FTE) Turnover during last 12 months	Mean Length of Staff Employment in Home (months)
NGO			
House 1	280	84%	18
House 2*	192	50%	12
House 3	184	60%	18
Government			
House 4	220	50%	12
House 5	266	0%	74

Each house had at least a basic written weekly timetable setting out major scheduled activities, such as attendance at work or day program, visits to family, and regular community leisure activities. None of the houses had a detailed activity timetable that covered even half of the time residents had available. House 5 had the best developed activity timetable that incorporated a number of domestic activities to which individual residents were assigned on specific days of the week. These activities included assisting prepare dinner, table setting, washing one's clothes, hanging them out and bringing them in. These activities were also set out in a photographic weekly schedule available to residents. Each House 5 resident also had a weekly 1:1 community activity scheduled.

All houses reportedly had systems for individual planning in operation, although in some cases the plans had not been reviewed for some time.

2.3 Staff Training in Active Support

There were two main components of Active Support training that were needed for the project to succeed. They were:

- **Train the trainer** (February, 2004) – this component, led by Dr Sandy Toogood, was needed to train CDDS staff and selected agency personnel how to provide Active Support training to group-home staff.
- **Training group-home staff in Active Support** – this training was delivered one group home at a time between February 2004 (House 1) and July 2004 (House 5).

2.3.1 Train-the-Trainer Workshop

The two-day 'train-the-trainer' workshop was held in early February 2004 and delivered by Dr Sandy Toogood a highly experienced expert in Active Support from the UK. Dr. Toogood is currently Consulting Behaviour Analyst for Intensive Support Services (for people with intellectual disability and challenging behaviour), and Clinical Director for a new residential school program operated by the School of Psychology at the University of Wales, Bangor (Bangor Centre for Developmental Disabilities), as well as Honorary Senior Research Fellow at the School of Psychology. Previously he worked on the Andover Project (Felce, de Kock, & Repp, 1986), which is seen as the seminal work that resulted in the development of the Active Support model.

The workshop consisted of two full days of instruction which included theory, group discussion, and role-plays, and covered the following topics:

- A service description
- Basic principles of Applied Behaviour Analysis
- Why Active Support?
- Individual Planning
- Activity and Support Planning (see Appendix 7 for an example)
- Opportunity Planning (see Appendix 3 for examples)
- Teaching Plans

- Domestic Participation Record (see Appendix 5 for an example)
- Community Participation Record (see Appendix 1 for an example)
- Team Meetings
- Interactive Training (on-site training with staff and residents in the group home).

The workshop dealt with all aspects of Active Support, but the major focus was on role-played practice of the skills needed for interactive training, because research has shown that interactive training is an essential component of Active Support training (Jones, Felce, Lowe, Bowley, Pagler, Strong et al., 2001) that is difficult for new trainers to master. The purpose of the workshop was to build the capacity of the participating organisations to provide Active Support training, both for the purpose of the current project and in the longer term. The workshop was attended by CDDS staff and management staff from the DADHC region in which the two participating DADHC houses were located, as well as the team leaders and senior management staff concerned with the three participating houses from the non-government organisation. For various practical reasons, not all of the staff who attended the train-the-trainer workshop subsequently were involved in providing training direct to group-home staff.

2.3.2 Training Group-Home Staff in Active Support

Active Support training for group-home staff involved two main components:

- **Classroom training (offsite)** – the entire staff of the group home and the first-line manager for the home participate as a group in a 2-day training workshop off site (i.e., away from the group home).
- **Interactive training (on site)** – during an individual 100-minute session at the group home, each group-home staff member works with group-home resident(s) and is observed, coached, and given feedback in techniques for supporting residents to participate in activities (see glossary for a more detailed definition).

Classroom training

Teaching resources. Both Prof. Felce (Welsh Centre for Learning Disabilities) and Dr Toogood provided an extensive range of resources for use, reproduction and adaptation by CDDS for Active Support training. Materials made available and used included:

- A comprehensive Powerpoint presentation covering all aspects of Active Support (Jones et al., 2004).

- Interactive training materials and resources (Toogood, 2004b).
- A range of templates for Activity and Support Plans, Participation Index, Community Log, Opportunity Plans and Behavioural Support Objectives (Toogood, 2004a).
- A training resource video (Jones, n.d.) which has subsequently been converted to DVD format for distribution within Australia (Jones, 2004).
- A set of six booklets covering the various aspects of Active Support (Jones, Perry, Lowe, Allen, Toogood, & Felce, 1996a, 1996b, 1996c, 1996d; Jones, Perry, Lowe, Allen, Toogood, Felce et al., 1996a, 1996b). Although booklets 4 and 5 (Teaching Plans and Individual Plans[1]) were not used as part of the teaching framework these were still supplied, within the complete set, to all participants in the Active Support training program.
- Additionally CDDS further developed the Community Participation and Domestic Participation templates (Harman, 2004) to better suit the research project and requirements of the group homes within this project.

Training was delivered one house at a time. Therefore, across the five houses training was staggered sequentially over a 6-month period to enable adequate project staff time for training and data collection. The training schedule and location was negotiated with each agency and group home but was deliberately designed to be intensive, so that for each group home training was completed and Active Support put into practice in the group home as quickly as practicable. This was to try to ensure that enthusiasm and momentum were maintained and that the ideas generated during training were implemented promptly. The two days of classroom training were provided either on two consecutive days or in the same week with a one day break between training days. There was a strong emphasis in the classroom training on producing *practical products*, that is tangible resources that staff could use when implementing Active Support in their group home. As the project proceeded, this emphasis became even stronger. The main practical products were (a) the Activity and Support Plan for the group home, (b) Opportunity Goals for each resident, and (c) Protocols.

[1] This material was omitted from the classroom training for the following reasons. (1) All participating group homes had existing individual planning (IP) systems. Introduction of an IP approach from the UK would have been confusing an unnecessary. (2) Teaching Plans involve quite complex formal task analysis and record keeping and were judged too difficult to teach in the available time and too complex for everyday use in Australian group homes.

Dr Toogood led the training for House 1 with CDDS staff as support trainers. CDDS staff led the training for House 2 with Dr Toogood as support trainer and observer. Training for Houses 3, 4 and 5 was delivered solely by CDDS staff. For each house, two days of intensive offsite training were conducted presenting the principles and application of Active Support utilising the materials listed above. Over time frame these materials were adjusted to accommodate the specific learning needs of the Australian Model, particularly by increasing the amount of group exercises for staff and spending more time planning for specific client needs (e.g., developing Opportunity Goals for each client).

Interactive training

As noted, each staff member was allocated a two-hour period of on-*site interactive training* at the group home in conjunction with two trainers and one or more clients. The staff member was asked to undertake a number of activities with one or more residents. These were real activities that typically took place at the time training was conducted, and included domestic tasks (e.g., food preparation, laundry, clothing care, etc.), leisure activities (e.g., operating audio equipment, games), and brief community activities (e.g., going to the corner shop). Training involved a monitoring of staff performance, providing constructive feedback, suggesting ideas for alternative methods of interaction, and so on. As much as practicable, this training was scheduled when (some) residents were available at the group home for the staff member to work with. There were occasions when it was necessary to ask some residents to miss a portion of their day program (e.g., come home early) in order for them to be available to take part in this training.

Over time increasing emphasis was placed on using the various planning and recording components of Active Support during interactive training (e.g., choosing an Opportunity Goal for that resident, implementing it and recording the outcome; selecting appropriate activities from the Activity and Support plan; recording domestic activities in the Participation Index; recording any community activities on the Community Log).

Participation in Active Support training

Numbers of direct-care staff involved in the program from each house were as follows:

1. House 1 NGO: 7 care staff and the Team Leader (part of the training only)
2. House 2 NGO: 7 care staff and the Manager Client Support Services

3. House 3 NGO: 4 care staff and the Team Leader
4. House 4 DADHC: 7 care staff and the Network Manager
5. House 5 DADHC: 6 care staff and the Network Manager

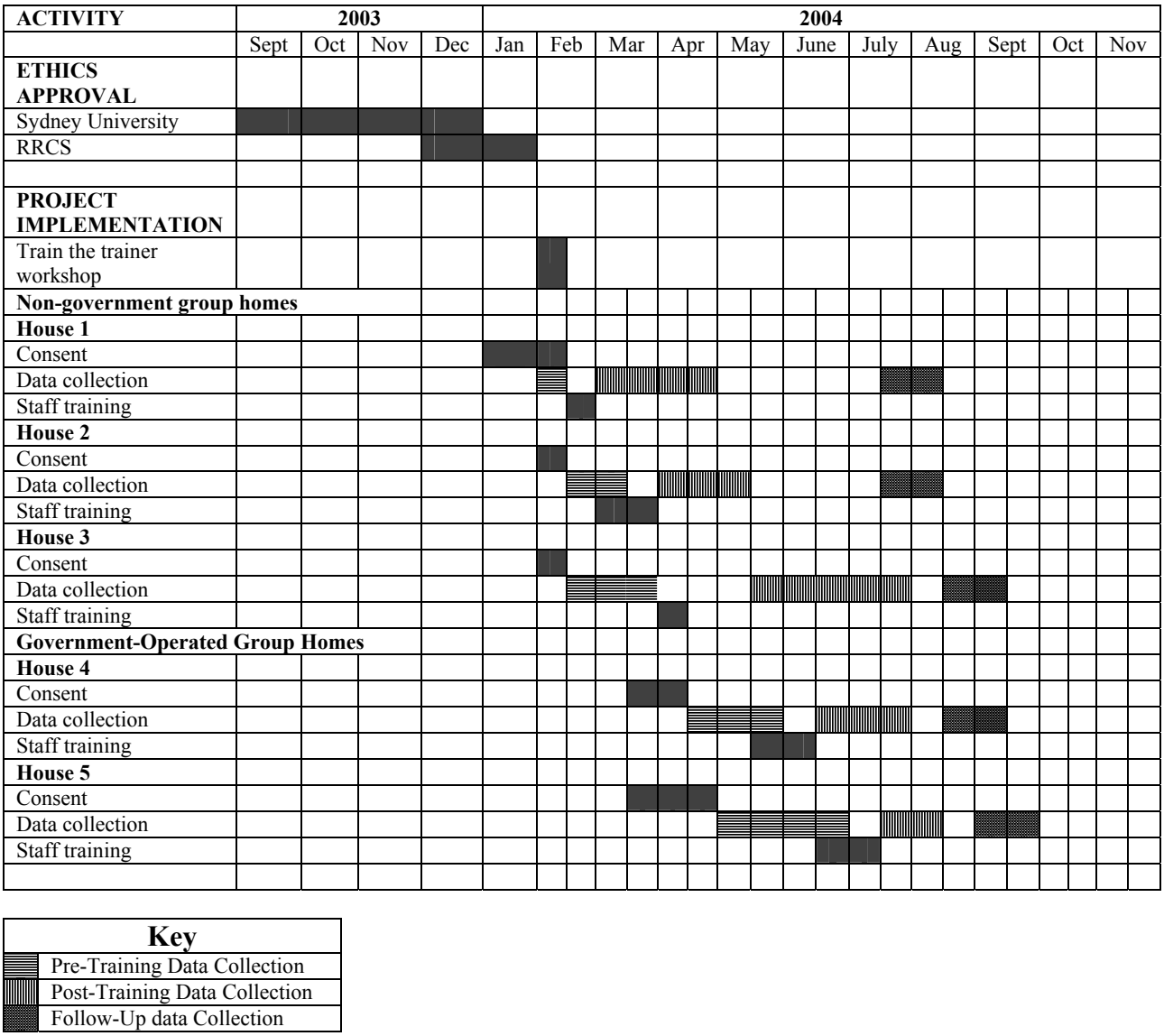
The initial two-day 'train the trainer' workshop at CDDS had involved the four of the five team leaders / managerial staff specified above plus the Deputy Director from the NGO, two additional managerial staff from DADHC, and five members of CDDS staff. Four members of CDDS were directly involved in training and three in data collection, additionally the team leaders / managers from each of the above five houses took part in the on-site interactive training *as trainers*.

As previously indicated, observations, training, and data collection across the five houses were staggered. This not only enabled adequate time, resources, and staffing levels to be applied, but also allowed for the beneficial experiences gained from earlier training to be incorporated into subsequent training. It was also apparent from the outset that the total involvement and commitment of managerial staff from each facility to the project and their staff was vital to its success and continuation.

2.3.3 Timeline

It was a complex task to Schedule the delivery of training across five group homes, as well as pre-test, post-test, and follow-up data collection. The timeline for these various activities is shown in Figure 2.1.

Figure 2.1 Timeline for Active Support Project



2.4 Evaluation

2.4.1 Observational data

Direct observation and recording of resident and staff behaviour was a key evaluation strategy for this project because it captures a sample of real-life behaviour. The validity of such data is compelling, provided sufficient observations have been conducted so that the data are reliable and representative. A total of 67 observation sessions of 1.5 to 2 hours were completed in the five participating group homes, or 14 sessions in each house, except for House 1 (see Table 2.3). The pre-test observations in House 1 had to be cut back to three observation sessions because of delays in obtaining consent, together with the need to proceed with training due to the arrival of Dr Toogood from the UK.

Table 2.3 Observational Data: Number and Timing of Observations by Project Phase

Auspice/ House	No. of Observations Pre-test, Post-test & Follow up	Days elapsed between observation phases (last obs. to first obs.)			Typical No. of Staff on Duty during Observations
	Pre Post FU	Pre-post	Post-follow-up	Pre-follow-up	
NGO					
House 1	3 – 6 – 2	14	96	168	2
House 2	6 – 6 – 2	17	102	154	1
House 3	6 – 6 – 2	52	54	165	1
Government					
House 4	6 – 6 – 2	23	28	92	2
House 5	6 – 6 – 2	25	35	76	2
Mean		26.2	63.6	131.0	1.6

All observation sessions took place on weekdays during a period of two hours prior to and during the evening meal period. This was chosen to coincide with the normal activities carried out at this time and when the highest number of residents would normally be in attendance. This approach also enabled us to make direct comparisons with observational data from UK Active Support research (e.g., Jones et al., 1999) where observational data were gathered under similar circumstances.

Observations took place in public areas of the group home and its yard. We did not follow residents into private areas (bathrooms, bedrooms). Instead, the resident was coded as "unobservable" while in a private part of the house. On a small number of

occasions part of an observation session was conducted in community settings near the group home (walking distance), such as a local park or video store.

During an observation session each resident in turn was observed individually for two periods of 10 minutes, so over the course of a single observation session we gathered 20 minutes of observational data about each individual (less any periods when the person was unobservable). To try to minimise the degree of intrusion into the group home, we scheduled a maximum of two observation sessions per week. In practice, the frequency of observation was usually much lower than this.

Observational data were recorded on a Psion workabout palmtop computer, programmed for real-time multiple-category data entry (Emerson, Reeves, & Felce, 2000). As a further cross-check on the accuracy of the data entry, handwritten notes of each observation were kept using the *House Notes* form (see Appendix 4). The information on this form allowed for detailed cross-checking of computer records whenever needed. The codes and definitions used for recording various resident and staff behaviours on the palmtop computer are shown in Table 2.4.

Table 2.4 Observational Data Codes for Resident and Staff Behaviour

Code/ Name	Focus Person	Definition
Resident Behaviours (only record the behaviours of the resident currently under observation)		
G* *Unobservable*	Resident under observation	Once the data collection is commenced the individual becomes unobservable, - e.g., absent or in private area where he/she cannot be observed.
H* *Social Engagement*	Resident under observation	Consists of recognisable speech or attempts to speak, signs, gestures or other attempts to gain or retain the attention of another person (except challenging behaviour), or giving attention, as evidenced by eye contact or orientation of the head, to another person who is reciprocally interacting. Socially appropriate behaviour.
I* *Challenging Behaviour*	Resident under observation	Is defined as self-injury, aggression to others, damage to property, stereotypy or other inappropriate behaviours (e.g., public masturbation, stripping, spitting, pica, tugging at someone or pestering/pushing/pulling a person) and socially inappropriate behaviour.
J* *Non-Social Engagement*	Resident under observation	Comprised getting ready for, doing or clearing away household (e.g., washing clothes, setting table), gardening, self-help / personal (e.g., brushing teeth), recreational or educational activity (e.g., looking at a magazine), a non-interactive appropriate task.

Code/ Name	Focus Person	Definition
K* *Disengagement*	Resident under observation	Consisted of all other behaviour (i.e., when not engaged socially, non-socially or in challenging behaviour), including no activity, passively holding materials, walking/wandering outside the context of an engagement activity, smoking and unpurposeful activity (e.g., manipulating materials to no apparent purpose, minor self-stimulation, talking quietly to self, fiddling with buttons or picking at clothing).
L* *Audiovisual Engagement*	Resident under observation	This is a specific category defined for the current program and consists of passive listening to/watching any form of media eg. TV, radio, CD, tape, etc. (This code is not used if the person is clearly not paying attention ie. Just happens to be in the same room).
Staff Behaviours (only record behaviours directed to the resident currently under observation)		
S* *Absent*	Any staff member	*All* staff are absent from the observable area.
T* *Talk*	Any staff member	Comprised all other conversational interactions (e.g., pleasantries) that are neither encouraging (praise) or discouraging (restraint) of activity.
U* *Help*	Any staff member	Comprised explicit instruction to perform an activity (eg., "pick up the spoon"), implicit instruction (e.g., questions about what step of the activity comes next) or presentation of materials in the context of an activity (e.g., handing a resident a towel to dry their hands), Gestural prompting of an activity (e.g., pointing to the tin to be put in the cupboard), Demonstration (e.g., showing the person what to do then prompting him or her to do it), Physical prompting or guidance (e.g., giving hand over hand guidance as a resident pours a cup of tea), Guiding or arranging the materials being used by a resident in an activity (e.g., holding an item steady on a chopping board as the resident cuts it), or giving corrective feedback containing guidance or instruction.
V* *Restraint*	Any staff member	Comprised physical disapproval (e.g., holding the resident's hands down), Verbal disapproval without correction (e.g., saying "no" or saying the resident's name in a controlling manner).
W* *Working*	Any staff member	Consisted of doing something to the focus resident without assisting their participation (i.e., not Help) (e.g., dressing a resident or holding a resident by the hand while walking).
X* *Praise*	Any staff member	Comprised verbal, physical or gestural praise (saying "Good!", signing "That's right" or patting a resident on the back).

* The alphabetic code corresponds to the actual key on the Psion computer which was pressed when recording this behaviour.

Note that, if a staff member remains in the room but is not interacting with the focus resident, nothing is recorded concerning staff behaviour. These codes, with the exception

of 'audio-visual engagement', are based on the format used by the Welsh Centre for Learning Disabilities Applied Research Unit (Jones et al., 1999).

The Psion palmtop computer records the duration of each behaviour in seconds from onset to offset, except for praise, where a frequency count is provided. In addition to the codes shown in Table 2.4, the Psion keys 1, 2, 3, 4, and 5 were designated to residents 1 to 5 within each group home. This enabled us to identify and collate observational data for specific individual residents. Hence the resident behaviours coded were *only* the behaviours of the particular resident under observation at the time. The behaviour of other residents was ignored until their turn arose to be the focus of the observation for next 10 minutes. There was no equivalent system of coding the identity of staff and no way of assigning behaviours to specific individual staff members. Staff behaviours were recorded for *any* staff member who interacted with the resident under observation.

For the purposes of evaluation and data analysis in this report, resident engagement for each resident was defined as the combination of *social engagement* and *non-social engagement*, expressed as the percentage of time under observation when either or both of these behaviours were present. Staff help to each resident was the percentage of time that individual was under observation when he or she received help from staff (as defined in Table 2.4).

Inter-observer reliability. Reliability observations were conducted during each project phase (pre-test, post-test and follow-up). This involved the attendance at the group home of a second observer with a separate Psion during the two-hour observation period. The second observer recorded observations of the same individuals independently of the first observer. The two observers only liaised to coordinate the point of change from observing one resident to the next. Inter-observer reliability was evaluated over twelve sessions covering all five houses and all project phases. This represented 18% of the total of 67 observation sessions. Inter-observer reliability was evaluated at one pre- and one post-test observation in each house, with two additional reliability observations during long-term follow-up. The level of agreement between the observers was calculated for each observational code using a modified form of Cohen's kappa (Reeves, 1994). This statistic affords an estimate of concurrence between two independent observers once the levels of chance agreement have been taken into account. Kappa has a maximum value of

1.0 indicating perfect agreement, whereas 0.0 means no agreement other than chance agreement. Summary kappa values over the twelve sessions were calculated as an average weighted for the incidence of the behavioural category in question. Kappa values for the key resident behaviour codes are shown in parentheses: social engagement (0.70), non-social engagement (0.80), audio-visual engagement (0.69), and disengagement (0.80). Values of kappa for key staff behaviours were: help (0.78), and working (0.74). Suen and Ary (1989) suggest that a kappa value of 0.60 or higher is acceptable for observational research. All of the kappa values in the present study exceeded this criterion, so the observational data should be considered to be reliable, with occurrences of staff help and resident engagement in social and non-social activity being distinguished reliably.

2.4.2 Written Assessment Instruments

A number of written assessment instruments were used before implementation of Active Support (pre-test) and again at follow-up to assess three groups of variables (a) the group home environment, including staffing and staff working practices; (b) residents' personal characteristics; and (c) resident outcomes and amounts of staff help for resident participation in activities. As well as serving as descriptive variables, adaptive and challenging behaviour were also examined as outcomes, so for the purposes of analysis, outcomes included adaptive behaviour, challenging behaviour, choice, participation in domestic activities, participation in community activities, social network (amount of contact with family and friends). The instruments used are shown in Tables 2.5 to 2.7. All written assessment instruments were used by CDDS project staff interviewing the group-home staff informant.

Table 2.5 Instruments used to Describe the Group Home Environment

Instrument	Informant
· Staffing Information Interview (Centre for Developmental Disability Studies, 2001)	Group home manager/team leader
· Residential Services Working Practices Scale (Felce, Lowe, & Emerson, 1995)	Group home manager/team leader
· Group Home Management Interview (Pratt, Luszcz, & Brown, 1980)	Group home manager/team leader

The *Staffing Information Interview* (Centre for Developmental Disability Studies, 2001) focuses on basic descriptive information about the amount of staffing, staff training, staff turnover, key workers, and staff meetings.

The *Residential Services Working Practices Scale* (Felce et al., 1995) was used to gather information on procedures in each group home regarding individual planning, assessment and teaching, planning of resident activity, staff support for resident activity, and staff training and supervision.

The Group Home Management Interview (Pratt et al., 1980) looks at the social climate of the group home in relation to issues such as block treatment, depersonalisation, rigidity of routines, and social distance. No data from this assessment were used in the current report.

Table 2.6 Instrument used to Assess Residents Personal Characteristics

Instrument	Informant
· The Inventory for Client and Agency Planning (ICAP) (Bruininks, Hill, Weatherman, & Woodcock, 1986)	Group home staff (usually key worker)

The adaptive and challenging behaviour scores from the ICAP (Bruininks et al., 1986) were used both to describe the participants, and as outcome measures. Adaptive and challenging behaviour are important characteristics because they are related to the individual's need for staff support and to individual outcomes. Residents with more adaptive behaviour skills generally need less support and are likely to enjoy better outcomes, such as more frequent community participation. Similarly, residents with fewer challenging behaviours typically require less support and may also have access to better outcomes in some instances.

The Inventory for Client and Agency Planning (ICAP; Bruininks et al., 1986) was used to assess adaptive and challenging behaviour. This instrument has excellent validity and reliability. ICAP *Broad Independence* domain scores were used as an overall index of adaptive behaviour. Overall challenging behaviour was measured by the ICAP *General Maladaptive Index*.

For adaptive behaviour, the *higher* the score the *better* the adaptive behaviour. *Broad Independence* domain scores can range from 270 to 569. A domain score of 500 is equivalent to the performance of a non-disabled fifth grader (aged 10 years and 4 months).

The ICAP *General Maladaptive Index* has a mean of zero and a standard deviation of 10. The mean corresponds to the average level of challenging behaviour at any given age in the general population. The more *negative* the score the *more* serious the problem behaviour. Challenging behaviour scores of -10 to +10 are interpreted as being normal, scores between -11 and -20 as being marginally serious, -21 to -30 as moderately serious, and so on.

Table 2.7 Instruments used to Assess Outcomes

Domain/Instrument	Informant / data source
Community Participation and Social Network	
· Index of Community Involvement – Revised (Raynes, Wright, Shiell, & Pettipher, 1994)	Group home staff (usually key worker)
· Social Network Index (Centre for Developmental Disability Studies, 2004)	Group home staff (usually key worker)
Domestic Participation	
· Index of Participation in Domestic Life (IPDL) (Raynes et al., 1994)	Group home staff (usually key worker)
Depression	
· Depression Scale (Evans, Cotton, Einfeld, & Florio, 1999)	Group home staff (usually key worker)
Choice	
· The Choice Questionnaire (Stancliffe & Parmenter, 1999)	Group home staff (usually key worker)

The *Index of Community Involvement – Revised* (Raynes et al., 1994) assesses the frequency of the person's involvement in social, leisure and community-based activities

in the preceding month. Higher scores mean more frequent and/or varied community participation.

The *Social Network Index* (Centre for Developmental Disability Studies, 2004) evaluates the amount and natures of the person's contact with family and friends in the last three months. Higher scores mean more social contact.

The *Index of Participation in Domestic Life* (IPDL) (Raynes et al., 1994) examines the person's participation in domestic tasks with help or independently. Higher scores indicate greater participation in domestic activities.

The *Depression Scale* (Evans et al., 1999) is a 38-item checklist of behavioural criteria for major depression for use by proxy informants to rate the frequency of each behaviour. The scale has acceptable inter-rater reliability (Evans et al., 1999). Higher scores mean more serious depression.

The *Choice Questionnaire* (Stancliffe & Parmenter, 1999) evaluates the availability of choices to adults with intellectual disability. The scale may be used to interview consumers or a knowledgable proxy. As shown in Table 2.7, the scale was used as a proxy-response instrument only in the present study. Higher scores indicate more choice.

Internal Consistency

Where appropriate, we evaluated the internal consistency (using Cronbach's alpha) of the instruments we used to evaluate outcomes, to provide as an index of the extent to which the items are related to each other and measure the same construct consistently. This provides an assessment of the scale's f accuracy. We found the following values of alpha:

Choice Questionnaire	alpha = .94
Depression Scale	alpha = .90
Index of Community Involvement – Revised	alpha = .55
Index of Participation in Domestic Life	alpha = .88

Values of alpha over .70 are usually judged acceptable and over .80 as good. These figures show that, except for the Index of Community Involvement – Revised, internal consistency was excellent.

2.4.3. Research Design

This study used a multiple-baseline-across-group-homes design in that Active Support training was staggered across the five group homes (see Figure 2.1 and Figures 3.2 & 3.3). Six pre-test observational assessments (except House 1), six post-test observations, and two follow-up observations were conducted in each house (see Table 2.3). In fact, the practical constraints imposed by working sequentially with two separate agencies meant that pre-test observational data collection did not start until many weeks later for the government group homes (Houses 4 & 5). Therefore, we ended up with *two* multiple-baseline designs in succession, the first involving Houses 1, 2 and 3 from a single non-government agency, and the second concerning the government-operated Houses 4 and 5. This is why the multiple-baseline graphical data in Figures 3.2 and 3.3 are presented separately for the two agencies, because the houses served as controls for others from the same agency. Having houses from the same agency strengthened the study's control over extraneous agency-wide variables such as changes in staffing, training and management. Any effects of these extraneous changes should have been obvious, in that they would have shown up *simultaneously* in *all* of the houses from that agency, whereas the effects of Active Support in each house were expected to arise from the time Active Support was implemented in that house, and implementation was *staggered* (i.e., not simultaneous) across houses.

3. RESULTS

The evaluation had two main components: (a) direct observation and recording of resident and staff activities in the group home, and (b) a series of written assessments to evaluate other important lifestyle outcomes for residents. Both components focus primarily on *resident outcomes*; that is, factors that make a real practical difference in residents' day-to-day life.

3.1 Presentation of Results

All data are reported according to the major phases of the project: **pre-test** (baseline data gathered before Active Support training and implementation), **post-test** (or *Active Support phase* when Active Support procedures were first implemented and data were collected to evaluate short-term effectiveness), and **follow-up** (continued implementation of Active Support and data collection to evaluate medium-term effectiveness).

The results from two main types of evaluation data, *observational data* and *written assessments* are presented in sections 3.1 and 3.2 respectively. Within each section, data are presented in order from the general to the specific. That is, we begin by reporting overall findings for the project as a whole. Where significant results are reported, we then proceed to break down the findings on a house-by-house basis, and in some instances, participant-by-participant.

Problems with House 1. One other important factor guided the presentation of results. House 1 (the first of the five houses to take part) implemented Active Support much less completely than the other four houses. This was evident throughout the later post-test observations and the follow-up observations (particularly as illustrated by the observed levels of staff help for resident participation in Figures 3.1 and 3.2). Staff were observed not to be using the Active Support written planning and training tools, and there continued to be low levels of staff support for resident activity – in fact, overall these levels declined, the opposite of the expected result. New staff (who had recently started working in the house and had not participated in Active Support training), when asked, seemed unaware of Active Support. In addition, several of the staff who did participate in Active Support training were no longer working at House 1. As will be seen, the

observational data are consistent with the notion that Active Support procedures were implemented initially but quickly fell away.

There were also constraints on the representativeness of the observational data in House 1. Because of delays with ethics approval, we were only able to complete three of the planned set of six pre-test observations in House 1. Moreover, one participant was not included at all in pre-test observations because consent for her participation did not become available until just after the last baseline observation. Because of the minimal and diminishing implementation of Active Support in House 1, we believe that this house did not provide a fair test of the effectiveness of Active Support. Even so, lack of implementation in itself is an important finding because it relates to the real-life effectiveness of interventions in typical group homes. Therefore, we have chosen to present the results on two ways: (a) including all five houses, and (b) omitting data from House 1 and reporting the results for Houses 2-5. Possible reasons why House 1 performed differently from the other houses are examined in section 4.1.1 (Discussion).

3.2 Observational Data

Overall pre-test, post-test (labelled Active Support in all figures), and follow-up results for resident engagement and staff help are presented and analysed in this section.

Collation of the observational data proceeded as follows. All files were transferred to the desktop computer for analysis. Preliminary translation of the data was undertaken using the software supplied the Hester Adrian Research Centre (Reeves, 2000). If a resident was unobservable for any period during the observation, this period was automatically included by the palmtop computer in the overall duration of the observation for that individual. The overall duration of the observation of that person was used when calculating the person's percentage of time when each behaviour was present. If uncorrected, this would have resulted in incorrect (lower) percentages for each behaviour. Consequently, the period when the resident was unobservable was eliminated from the data (including from the overall duration of observation), so that the percentage of time the resident engaged in various behaviours could be calculated accurately, based solely on the time that the resident was available for observation.

Social engagement and *non-social engagement* resident codes were combined to give an overall level of engagement. Staff interaction with the resident in the form of 'help', as defined in Table 2.4, was reported separately. Other categories of resident and staff behaviour were recorded and collated, but these figures were not used in the analyses that follow.

3.2.1 Resident Engagement

The *resident engagement* means shown in Table 3.1 are derived from the mean percentage of time during observations engaged in activity (social and/or non-social) across all residents for whom we have observational data in each phase of the project. Two participating residents were not included in these analyses (Resident 1, House 1; Resident 1, House 3) because baseline observational data were not available because of a delay in obtaining consent (Resident 1, House 1) or because the resident chose to remain in his room (Resident 1, House 3). No observation was attempted in private areas such as residents' bedrooms. As noted, resident engagement was the total percentage of time the person took part in social engagement and/or non-social engagement, but did not include simply watching television or listening to music (audiovisual engagement) in the absence of other forms of engagement.

3.2.2 Staff Help.

Staff help Table 3.1 shows the mean percentage of time during observations that any staff member was helping the resident under observation to participate in activity, averaged across all observations in each phase of the project. Staff help was not recorded separately for individual staff members, but aggregated across all staff on duty during the observation session. The percentage of time staff provided help was, *as expected*, much lower than the level of resident engagement (see Table 3.1 and Figures 3.2 and 3.3). There are two reasons for this. Firstly, because our observations were *resident focussed*, we only recorded help from staff directed to the resident under observation at the time. This meant that staff help to other residents (who were not currently being observed) went unrecorded, so our observational data are not a fair reflection of the total amount of staff time spent providing help[2]. Even so, the data do capture all staff help to the resident

[2] In a hypothetical house of 4 residents with 1 staff member on duty, even if 100% of staff time was spent providing 1:1 help to residents, then *each* resident would receive help for 25% of his or her time. Of course

being observed and so provide a very reliable measure of whether the amount of staff help changed over time. Secondly, most residents did not need *continuous* staff help to engage in activity. Rather, staff assistance was usually needed to commence the activity, but *intermittent* staff assistance or prompts were sufficient for most residents to continue. Therefore, 10 minutes of engagement in activity by an individual resident may have only needed 2 to 3 minutes of staff help to that individual, leaving staff free to help others or attend to other duties.

Overall Findings

Table 3.1 shows aggregated observational data (mean percentage of time during observation) for each phase of the project for both resident engagement and staff help. As explained previously, these data are presented for all five houses (to provide comprehensive data), and for four houses (excluding House 1), to provide the fairest evaluation of the effectiveness of Active Support when implemented.

Statistical comparisons were done using paired *t*-tests to evaluate whether the difference between means over time (e.g., pre-test to post-test) was due to chance variation or was statistically significant. We used one-tailed tests because previous studies have shown increases in engagement (Bradshaw et al., 2004; Jones, Felce, Lowe, Bowley, Pagler, Gallagher, et al., 2001; Jones, Felce, Lowe, Bowley, Pagler, Strong et al., 2001; Jones et al., 1999). The criterion for statistical significance was the conventional probability level of .05 (or lower). This probability level denotes that the probability (*p*) of the result being due to chance alone is 5 in 100 (i.e., 1 in 20). That is, such a "significant" difference is highly likely to reflect a *real* difference rather than a chance difference. The probability of .01 corresponds to 1 in 100, and .001 to 1 in 1000.

it is not realistic to expect staff to spend 100% of their time helping residents as other tasks also need staff attention.

Table 3.1 Observational Data (mean percentage of time) and Results of Paired *t*-tests (comparisons with pre-test) for all Five Houses and for Four Houses.

Variable	N	Pre-test		Post-test (Active Support)		Pre-post *t*	Follow-up		Pre-Follow-up *t*
		Mean	*SD*	Mean	*SD*		Mean	*SD*	
				All 5 houses					
Resident engagement	20	42.46	22.39	49.54	26.34	-1.95*	53.81	26.19	-2.34*
Staff help	20	7.27	6.79	11.42	7.83	-1.91*	13.66	12.21	-2.10*
				4 houses (House 1 omitted)					
Resident engagement	17	42.69	24.02	52.13	26.38	-2.90**	55.48	27.35	-2.39*
Staff help	17	5.96	4.02	12.78	7.64	-5.58***	15.23	12.40	-3.78***

* $p < .05$, ** $p < .01$, *** $p < .001$

<u>*All 5 houses*</u>. Table 3.1 shows that resident engagement and staff help both increased significantly from pre-test to post-test, and from pre-test to follow-up. These findings indicate that, relative to pre-test, there had been a significant increase in both resident engagement and staff help at post-test, which was maintained at follow-up. That is, Active Support had been effective in increasing both resident engagement and staff help. The change between post-test and follow-up was not significant for either resident engagement (t [19] = -1.10, p > .20) or staff help (t [19] = -1.21, p > .20). This indicates that, overall, gains were maintained at follow-up some 4.5 months after the last pre-test observation.

4 Houses. With House 1 eliminated from the analysis, differences for both resident engagement and staff help were significant for both the pre-test: post-test and pre-test: follow-up comparisons. Relative to the results for all five houses, the magnitude of the increases in mean resident engagement and staff help were somewhat higher, with most *t*-test comparisons attaining a higher level of significance. Overall, these findings show that, when implemented, Active Support procedures were effective in significantly increasing staff help and resident engagement both in the short and medium term.

<u>*House-by-House Findings*</u>

To more fully explore the observational data, these data are now presented on a house-by-house basis. The mean for each phase for each house is shown in Figure 3.1 and in Table 3.2.

Table 3.2 House-by-House Mean Percentage of Time for Observed Resident Engagement and Staff Help for each Project Phase

House	Variable	Pre-test	Active Support	Follow-up
House 1	Resident engagement	40.1%	34.8%	34.4%
	Staff help	13.0%	4.7%	3.1%
House 2	Resident engagement	27.5%	38.9%	59.4%
	Staff help	4.5%	12.6%	14.3%
House 3	Resident engagement	37.4%	54.0%	51.2%
	Staff help	2.1%	9.1%	8.7%
House 4	Resident engagement	66.9%	84.1%	70.2%
	Staff help	4.6%	11.4%	8.7%
House 5	Resident engagement	31.0%	38.8%	36.8%
	Staff help	10.8%	17.3%	25.4%

It is clear from Table 3.2 and Figure 3.1 that the results for House 1 differ from those for the other four houses. House 1 is the only house where resident engagement levels and staff help went *down* relative to pre-test levels. This outcome is consistent with our observations that Active Support procedures were not implemented satisfactorily in this house. By contrast, all houses except House 1 had mean resident engagement levels that were higher during the Active Support (post-test) and follow-up phases than at pre-test. This same pattern was evident for staff help as well. These data suggest that Active Support was successful in four of the five houses.

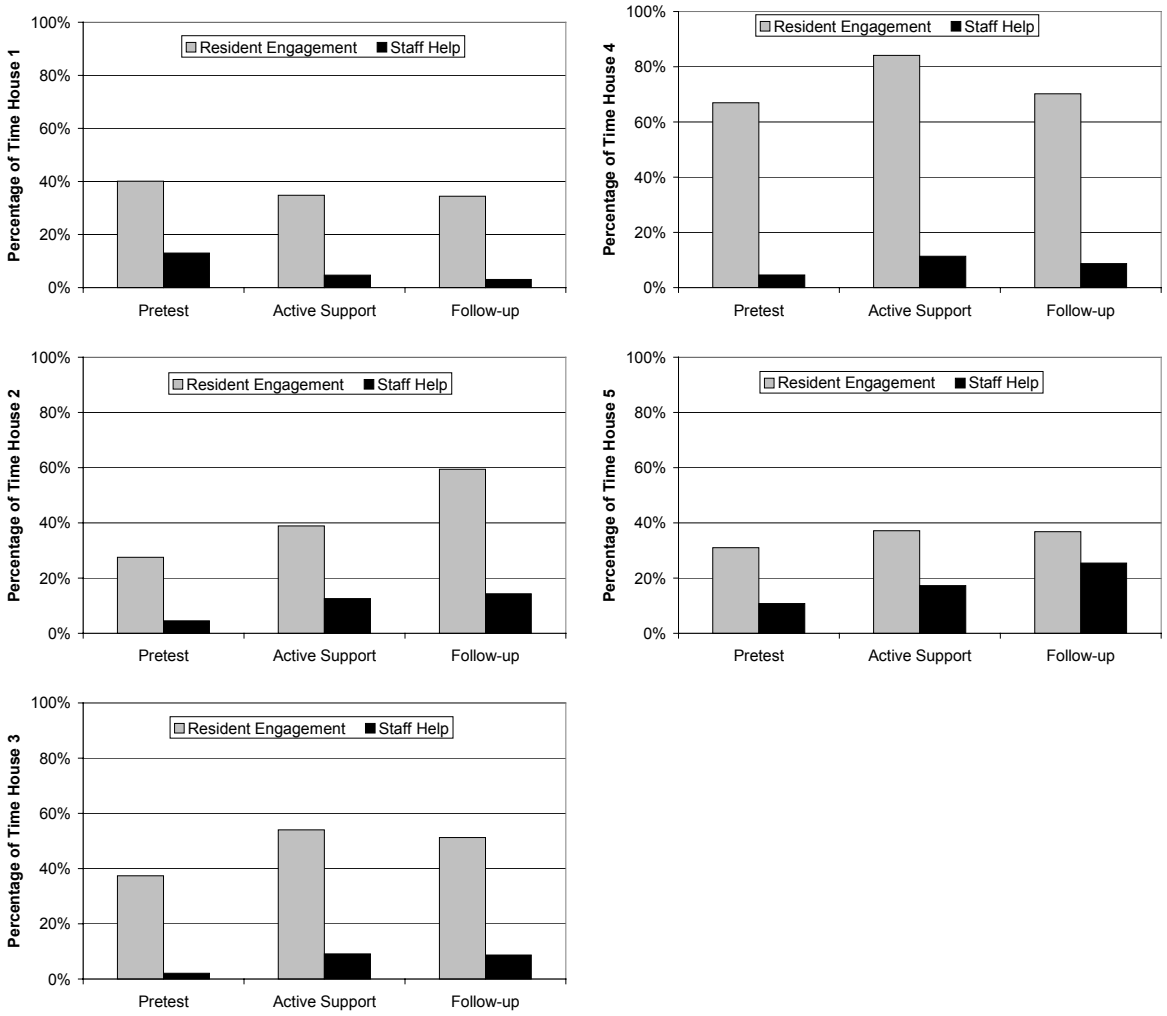
The pattern of short-term (post-test) versus medium term-change (follow-up) relative to pre-test levels was more complex when examined house by house. House 2 showed continued increases in both resident engagement levels and staff help from pre-test to post-test (Active Support) *and* from post-test to follow-up, with quite substantial increases in resident engagement. This appeared to be due, at least in part, to participation in (new) activities becoming a consistent part of each resident's daily routine, with additional activities being included via new opportunity goals for each individual, so that new activities became *cumulative*.

In the case of houses 3 and 5, the increased resident engagement evident at post-test seemed to level off, with follow-up levels being quite similar to the post-test mean. House 4 appeared to have a slight decline at follow-up, relative to post-test, even though the follow-up mean was greater than the pre-test mean. These varying findings suggest

that in some houses medium-term and long-term maintenance of Active Support procedures and resident engagement may have been an important issue.

Another notable feature of Figure 3.1 is the difference in the absolute level of pre-test resident engagement between House 4 and the other houses. Pre-test resident engagement in House 4 averaged 67%, whereas all of the other houses had pre-test engagement means at or below 40%. The most likely explanation of this difference was that the residents in House 4, on average, had the highest skill levels of any house (as shown by their higher mean scores on the ICAP adaptive behaviour assessment). It is also true that House 4 typically had 2 staff on duty during observation sessions. This was also true of some other houses (e.g., House 5), and it is therefore a less likely explanation.

Figure 3.1 House-by-House Mean Percentage of Time for Observed Resident Engagement and Staff Help for each Project Phase



Findings from each Observation Session in Each House

To further explore the observational data, these data are now presented for each observation session on a house-by-house basis. All houses except House 1 had *six* pre-test observations (House 1 had three). All houses had *six* post-test (Active Support phase) observations and *two* follow-up observations. Figure 3.2 shows the mean percentage of time for levels of resident engagement and staff help for each observation session in Houses 1, 2 and 3, all of which were operated by a non-government organisation. Figure 3.3 shows these same data for Houses 4 and 5, two government-operated group homes in a particular administrative region. These figures allow for visual evaluation of the multiple-baseline-across-houses research design. Note that the days elapsed since the start of each project (X-axis in Figures 3.2 and 3.3) relate separately to the non-government and government projects (i.e., day 1 in Figure 3.2 was several months after day 1 in Figure 3.3).

As Figures 3.2 and 3.3 reveal, for resident engagement (shown by the *line graphs* in Figures 3.2 and 3.3) all houses had falling baselines or reasonably stable baselines (with the possible exception of House 5) in the pre-test phase. Likewise, all houses had fairly stable baselines for pre-test staff help levels (shown by the *bars* in Figures 3.2 and 3.3). There were large initial increases in resident participation in Houses 1, 3 and 4 with more gradual changes in Houses 2 and 5. Unlike all the other houses, resident participation levels and staff help in House 1 both *fell* consistently during the Active Support (post-test) phase, indicating that, at best, Active Support had a fleeting initial effect that was not maintained. Each of the other houses showed some degree of increase during the Active Support (post-test) phase in both resident participation and staff help, although there was variability from observation session to observation session. Overall, these data are consistent with Active Support being having been effective in increasing resident engagement and staff help in Houses 2-5 in the short term, with these gains generally being maintained in the medium term at follow-up, with the possible exception of House 4, where follow-up data showed some decline.

Figure 3.2 Mean Resident Engagement and Staff Help at each Observation Session in each Non-government House by Number of Days.

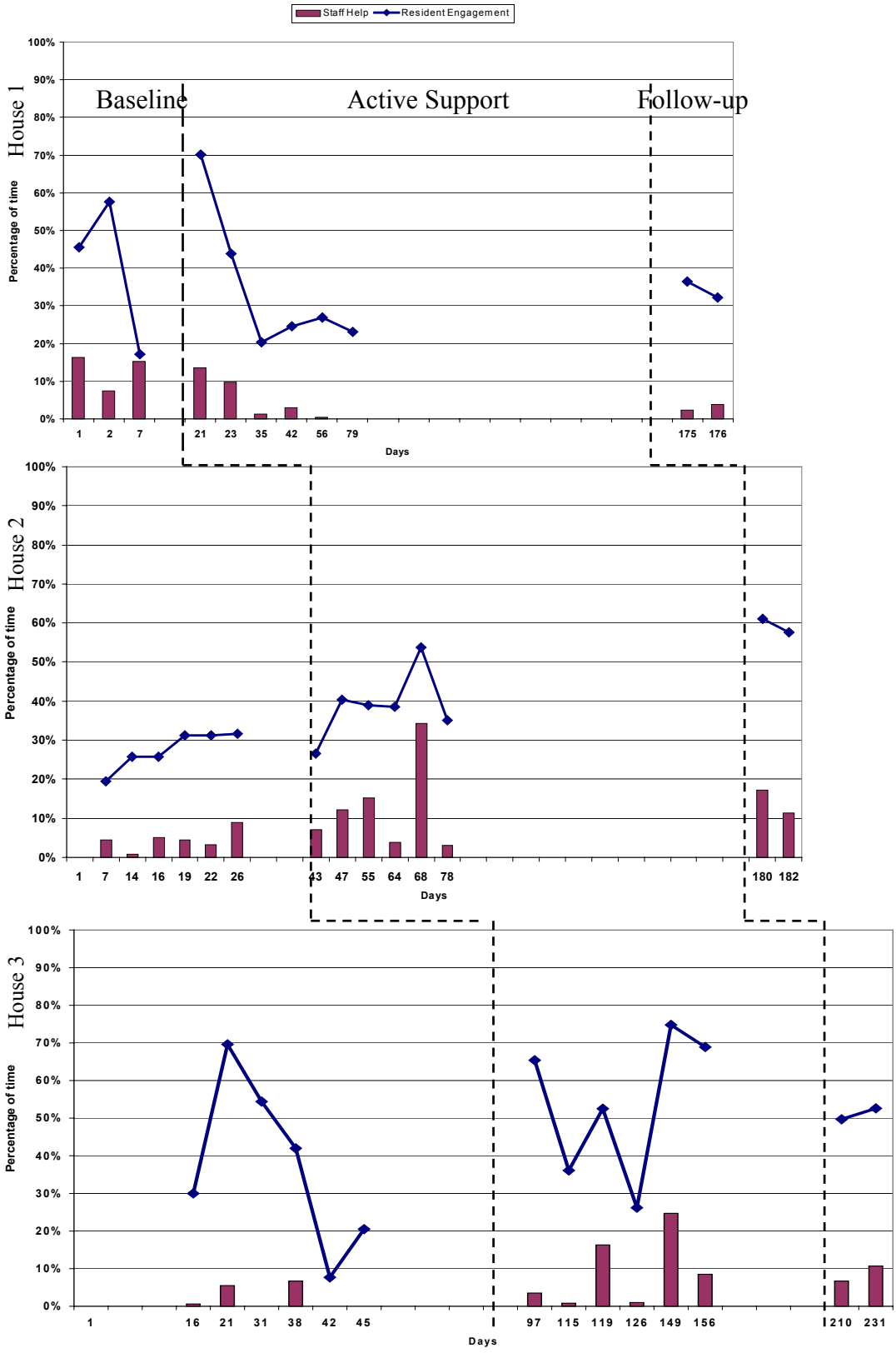
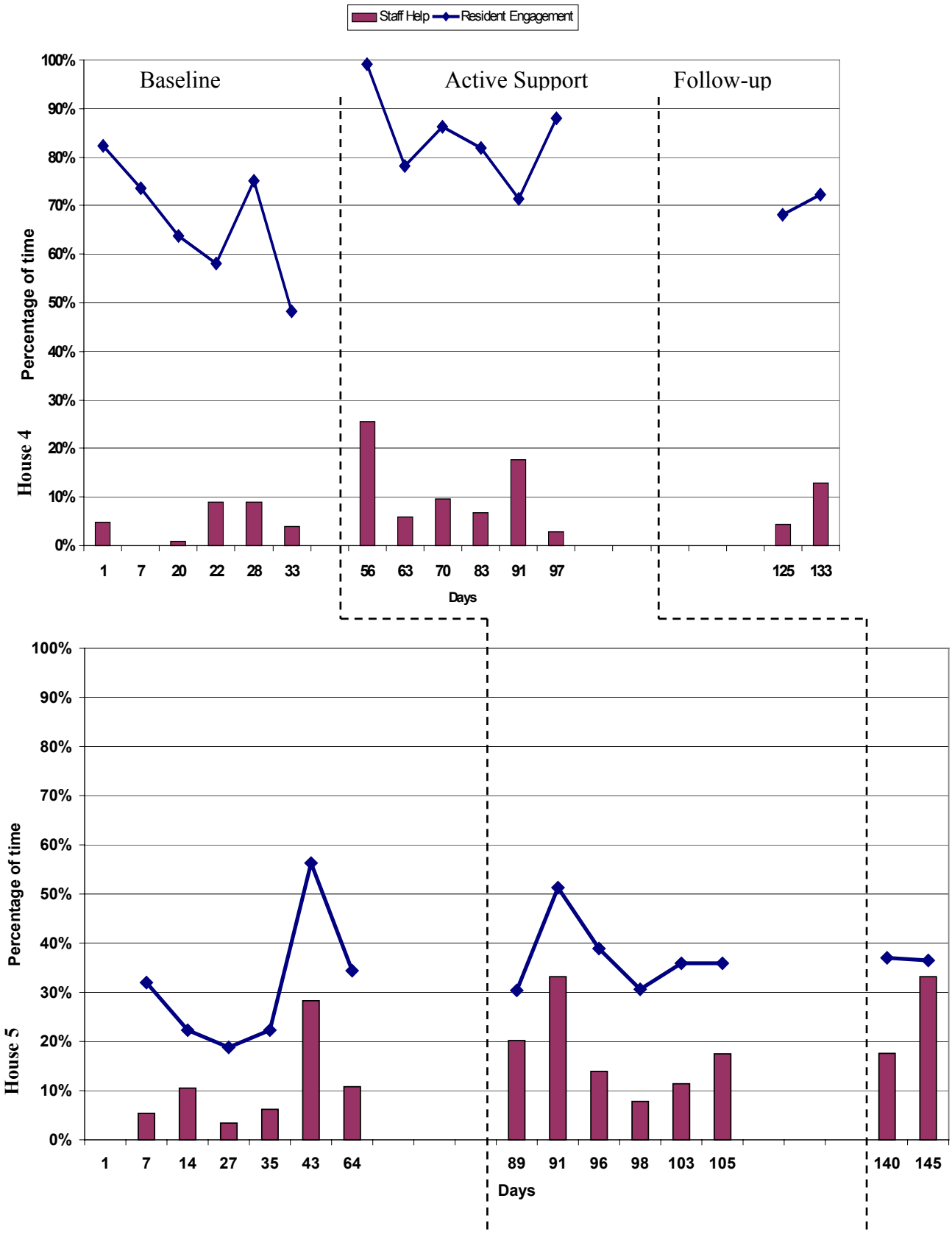


Figure 3.3 Mean Resident Engagement and Staff Help at each Observation Session in each Government House by Number of Days.



Individual data.

Table 3.3 shows individual resident engagement data at each project phase plus an indication as to whether engagement was higher or lower than at pre-test.

Table 3.3 Mean Percentage of Time for Resident Engagement for each Resident at each Project Phase.

House	Resident	Pre-test	Active Support (Post-test)		Follow-up	
			% of time	Higher than pre-test?	% of time	Higher than pre-test?
House 1	1	-	35.3%	N/A	2.8%	N/A
	2	34.6%	59.8%	✓	62.4%	✓
	3	34.0%	9.0%	**x**	23.9%	**x**
	4	54.8%	35.8%	**x**	46.7%	**x**
House 2	1	8.5%	19.3%	✓	47.1%	✓
	2	34.5%	22.8%	**x**	47.7%	✓
	3	26.7%	59.0%	✓	87.3%	✓
	4	36.8%	58.3%	✓	69.8%	✓
House 3	1	-	78.5%	N/A	86.3%	N/A
	2	55.5%	32.8%	**x**	51.8%	**x**
	3	18.7%	24.2%	✓	17.3%	**x**
	4	50.8%	71.9%	✓	68.6%	✓
House 4	1	59.0%	59.5%	✓	39.9%	**x**
	2	51.2%	66.1%	✓	98.8%	✓
	3	73.8%	81.4%	✓	68.8%	**x**
	4	73.9%	97.2%	✓	69.0%	**x**
	5	90.4%	99.4%	✓	98.4%	✓
House 5	1	38.4%	56.9%	✓	68.7%	✓
	2	30.5%	38.9%	✓	21.1%	**x**
	3	54.7%	56.8%	✓	58.9%	✓
	4	16.3%	17.5%	✓	17.1%	✓
	5	6.1%	24.2%	✓	12.9%	✓

N/A = not assessed (no pre-test data).
✓= Active Support (post-test) *or* follow-up level of resident engagement **higher** than pre-test.
x = Active Support (post-test) *or* follow-up level of resident engagement **lower** than pre-test.

As Table 3.3 shows, of the 20 consumers for whom we had pre-test observational data, 17 (85%) showed at least partial success in that they were observed to have higher levels of engagement at either post-test or follow-up. At post-test 16 (80%) had higher levels of observed engagement, while at follow-up 12 (60%) had higher engagement. Engagement was higher at both post-test and follow-up for 11 (55%) participants. Of course, the percentages would be somewhat higher if the data from House 1 were omitted. Having said that, it is noteworthy that resident 2 in House 1 showed consistently higher levels of

engagement following implementation of Active Support. This indicates that, even in House 1, some positive effects of Active Support were evident

There was some drop in engagement between post-test and follow-up for some consumers (although this change was not statistically significant, as noted previously). Even so, it should be borne in mind that post-test data were more reliable, in that they were drawn for *six* observation sessions, whereas only *two* follow-up observations were carried out. The larger number of observations at post-test allows for random variation to be averaged out more effectively. The level of engagement by each person recorded during *individual* observation sessions was affected by a number of factors, including (a) whether the observation period for a specific individual happened to coincide with an activity (sometimes an activity finished just prior to starting the observation of that individual); (b) whether the staff member was called away to another task during the activity, and so on.

Nature of increased engagement.

Changes in resident engagement arose from:

(a) being supported to spend more time engaged in activities that were happening before implementation of Active Support (e.g., clients who had previously been invited to help prepare their lunch now did so regularly),

(b) being supported to participate in new activities (e.g., a resident who previously had participated in *no* domestic tasks now enjoyed regular opportunities to be involved in laundry and kitchen activities),

(c) being given the opportunity to engage in activities that had been done in the past but were not currently part of the typical routine (e.g., one another man went to the shop independently).

(d)

A number of other examples of specific activities engaged in as a result of Active Support are described briefly in Figure 3.4.

Figure 3.4 Examples of Practical Applications of Active Support following Staff Training drawn from Four Different Houses.

Story A:
During the on-site training it was suggested that one resident may like to try ironing. Staff indicated that this had never been done before and also raised potential OH&S issues, however after some discussion all agreed that it might prove a viable exercise. Not only did the resident iron extremely well but also communicated a request for the iron to be hotter to eradicate the creases. He is now collecting washing from the line, sorts, and irons his own clothes – an aspect of domesticity not previously undertaken.
In the same house it was noticeable that residents did not share their mealtimes sitting together. Following the advent of Active Support, Wednesday nights became a joint barbeque evening with residents sharing the preparation and cooking before sitting down to share the meal together.

Story B:
Following the implementation of Active Support, the level of resident participation in activities such as collecting the washing, setting the table, food preparation, washing-up, and other domestic tasks not only showed a marked level of improvement but also a greater degree of independence, enjoyment and ownership by the residents.

Story C:
One resident would constantly sit and watch food and drink preparation whilst exhibiting various challenging behaviours. Following Active Support training she was enabled to participate in the preparation of her own coffee / drink with support prior to other work being done with a marked improvement in her behaviour pattern.

Story D:
One resident collected the post from the mailbox every afternoon and brought it into the house, a task not previously undertaken by residents.

3.3 Written Assessment Data

Unlike observational data, written assessment data were collected only twice: once before Active Support and once some time after (i.e., at follow-up) – see Figure 2.1. On average, the time that elapsed between the two assessments was 136 days (4.5 months). As noted, no follow-up written assessments were available for one resident from House 3, so there are 21 participants for most measures. The mean scores on each assessment are shown in Table 3.4. We used one-tailed tests for domestic participation and community participation, because previous research using these same has shown significant increases on these variables following introduction of Active (Jones, Felce, Lowe, Bowley, Pagler, Gallagher, et al., 2001). All other *t*-tests were evaluated using two-tailed probability.

Table 3.4 Written Assessment Data

Variable	N	Pre-test		Follow-up		*t*
		Mean	*SD*	Mean	*SD*	
		All 5 houses				
Domestic Participation	21	7.00	5.70	9.52	4.91	-3.86***
Community participation	20	12.85	7.02	16.25	8.55	-2.65**
Choice	21	45.76	10.91	44.48	9.22	0.84
Depression	20	1.50	0.76	1.29	0.56	1.97#
Adaptive behaviour	21	430.19	36.61	434.81	33.42	-1.85#
Challenging behaviour	21	-14.57	9.12	-12.67	8.45	-0.91
Hours contact with family in last 3 months	21	97.04	174.09	130.00	180.80	-0.83
Hours contact with friends in last 3 months	21	13.29	30.14	9.90	39.10	0.37
		4 houses (House 1 omitted)				
Domestic Participation	17	8.24	5.64	10.59	4.87	-2.93**
Community participation	16	13.88	7.23	17.38	9.02	-2.17*
Choice	17	47.53	11.33	45.76	8.89	1.01
Depression	16	1.42	0.65	1.21	0.51	1.79#
Adaptive behaviour	17	441.12	29.78	444.29	29.55	-1.27
Challenging behaviour	17	-14.76	7.44	-14.41	8.42	-0.18
Hours contact with family in last 3 months	17	113.17	189.59	156.44	192.07	-0.89
Hours contact with friends in last 3 months	17	15.82	33.13	11.88	43.44	0.35

# $p < .10$ two-tailed
** $p < .01$, *** $p < .001$ one-tailed

In the sections that follow Table 3.4, we discuss the details of the findings for the written assessment data. The pattern of results shown in Table 3.4 was broadly similar irrespective of whether House 1 was included in the analyses.

3.3.1 Domestic Participation

Domestic participation was evaluated using the *Index of Participation in Domestic Life* (IPDL) (Raynes et al., 1994). There was a significant increase in participation in

domestic activities from pre-test to follow-up. This finding is consistent with the increase in resident engagement found using the observational data and provides validation of the observational data results from a different data source (i.e., from staff report). This result was the same regardless of whether the analysis involved data from all five houses or only Houses 2 to 5.

At an individual level, 16 (76%) of the 21 clients showed an increase in overall IPDL scores, 3 (14%%)showed no change, and 2 (10%) had a small decrease. It is notable that at pre-test there were two clients (10%) who participated in no domestic activities, and a further six clients (29%) who took part in three of fewer different activities. At follow-up, the lowest number of different activities engaged in by any client was four. For example, one client from House 2 who was not involved in domestic activities at pre-test, but at follow-up enjoyed participating (with assistance) in setting the table, washing up, using the washing machine, and cleaning (part of) the kitchen.

All four residents of House 1 had higher IPDL scores at follow-up. Although the overall results for House 1 were disappointing, these data provide additional evidence that there were *some* positive effects in House 1. Even so, we noted anecdotally during observation sessions that participation in domestic tasks diminished over time after an initial flurry of domestic activity. A likely reason for the difference between the IPDL findings and the observational data is that the IPDL captures the variety of domestic activities engaged in and is much less sensitive to frequency of engagement, whereas the observational data show the amount of time the person was engaged in activities.

On an item-by-item basis, 12 of 13 items (except Item 8 - cleaning own bedroom) showed a mean increase from pre-test to post-test. Four items showed a statistically significant increase ($p < .05$) over this time: Item1-*Shopping for food*, Item 2-*Preparing meals*, Item 5-*Washing up*, and Item 13-*Looking after the garden*.

Overall, these findings suggest that the vast majority of clients increased their participation in domestic activities, and that the increase was the result of more participation across a wide variety of activities.

3.3.2 Community Participation

Community participation was evaluated using the *Index of Community Involvement – Revised* (ICI) (Raynes et al., 1994). There was a significant increase in participation in community activities from pre-test to follow-up regardless of whether the analysis involved data from all five houses or only Houses 2 to 5. This finding indicates that it was not only participation in domestic activities that increased following implementation of Active Support.

At an individual level, 16 (80%) of the 20 clients showed an increase in overall IPDL scores, and 4 (20%) experienced a decrease. Looking at individual items, 13 of 16 items showed a mean increase in frequency of participation from pre-test to post-test. Two items showed a statistically significant increase ($p < .05$) over this time: Item 9- *shopping*, and Item 15- *going to a bank*.

Overall, it appears that a strong majority of clients increased their participation in community activities, and that the increase was the result of more frequent participation across a many different activities.

3.3.3 Choice

Choice was measured using the *Choice Questionnaire* (Stancliffe & Parmenter, 1999). There was no significant change in choice from pre-test to follow-up assessment.

3.3.4 Depression

Depression was assessed using the *Depression Scale* (Evans et al., 1999).There was a small tendency toward fewer symptoms of depression being reported at follow-up relative to pre-test, but this change did not quite attain statistical significance.

3.3.5 Adaptive Behaviour

Adaptive Behaviour was measured using the *Inventory for Client and Agency Planning* (ICAP) (Bruininks et al., 1986). There was no significant change in adaptive behaviour from pre-test to the follow-up assessment.

3.3.6 Challenging Behaviour

Challenging behaviour was also assessed using the ICAP. There was no significant change from pre-test to follow-up.

3.3.7 Social Network

Family. There was no significant change from pre-test to follow-up inn the amount of contact with family. It was notable that *all 18* of the participants who had contact with family members at the pre-intervention assessment continued to have contact when assessed post-intervention. Likewise, the situation was unchanged for the three participants who had no family contact. These data demonstrate that family contact status was very stable.

Friends. There was no significant change from pre-test to follow-up inn the amount of contact with friends.

3.4 Cost of Training

No specific data were kept regarding the cost of training. The main costs to agencies arose from paying the entire group-home staff to attend two days (16 hours) of classroom-based training while simultaneously staffing the group home (e.g., using casuals) to keep it running normally. In addition, the on-site interactive training called for each individual staff member to be free of direct client responsibilities for two hours. This sometimes required additional staff to be rostered during that period, but in group homes where two staff were ordinarily on duty, it was sometimes possible to complete interactive training without additional staff being needed. In the present study the costs of providing the trainers (i.e., Dr Toogood and CDDS staff) were borne by the research funding provided by DADHC. Agencies considering implementing Active Support would need to factor in these training costs as well.

4. DISCUSSION

4.1 Overall Findings

This study reports on the largely successful implementation and evaluation of Active Support in five Australian group homes. Following implementation, staff in 4 of 5 group homes provided significantly more direct help to residents to support their participation in activities. This was associated with significant increases in resident engagement in activities at post-test and at follow-up several months later. Increased engagement was demonstrated both through direct observation of resident activities and by staff reports of significantly greater participation in domestic and community activities. With a handful of exceptions, observational data only reflected resident activities in the group home, but the fact that community participation also increased shows that it was not only participation in domestic activities that improved. Implementation of Active Support was not associated with any significant change in choice, depression, adaptive behaviour, challenging behaviour, or contact with family and friends.

The validity of our findings is strongly supported by a number of factors. We reported very good inter-observer reliability for our observational data that attest to its accuracy and objectivity. Likewise, internal consistency was strong for most of the written assessments indicating that each measured its outcome consistently. The concordance of our observational data and the staff reports of increased resident participation in domestic activities provides mutual validation of these results from an independent data source. Our use of a multiple baseline design provided a reasonable degree of experimental control, and showed that increases in both staff help and resident engagement were the result of implementation of Active Support. The representativeness of the findings is strengthened because the study involved two different agencies and residents with diverse abilities. In addition, the fact that improved resident outcomes (notably engagement) were evident for the vast majority of houses and of residents speaks to the broad applicability of the Active Support approach. Finally, our replication of the findings of previous Active Support studies (see below for a more detailed discussion of this issue) also argues for the validity of our findings.

Active Support procedures require that staff substantially increase the amount of structure, organisation and planning of resident activity. Even so, there was no change in resident choice. This fact was reassuring, because one possible unintended consequence of Active Support is greater staff domination of decisions about residents' activities. Written individual timetables of each resident's activities (*Activity and Support Plans*) are a key component of Active Support and could lead to reduced resident choice if implemented rigidly or without consultation with residents.

The finding regarding depression was intriguing, in that a non-significant trend toward less depression was reported ($p < .10$). Inactivity and passivity are associated with depression, so it is of interest that increases in activity were accompanied by a trend toward reduced depressive symptoms. Only 20 participants contributed to this analysis, which means that the *t*-test had relatively low statistical power to detect all but the strongest effects. Given that depression has not been evaluated before in Active Support research, this finding suggests that it may be worthwhile assessing depression in future studies, especially where the research involves larger numbers of participants than the present project.

4.1.1 Possible Reasons for Limited Success in House 1

Active Support research shows clearly that increases in resident engagement rely to a substantial degree on increases in staff help to residents to support their participation in activities (Felce et al., 2002). As such, increased staff help is a key indicator of the correct implementation of Active Support. Except for an initial burst of increased staff help seen in the first two post-test observations (see Figure 3.2), the amount of staff help in House 1 actually *fell* following Active Support training. We believe that this finding provides a clear indication that Active Support procedures were not adequately implemented in House 1. That is, we believe strongly that the absence of an overall increase in observed resident engagement in House 1 was due to insufficient implementation of Active Support, *not* that Active Support was implemented properly but "did not work". Even with what we consider to be limited (and diminishing) implementation, there were some positive outcomes in House 1: one resident's observed engagement increased, and there was a rise in the variety of domestic tasks residents participated in (as assessed by staff report using the IPDL).

Why was implementation of Active Support in House 1 less successful than in other houses? We have no experimental evidence to prove what the key factors were in House 1, so the following discussion is speculative. Some possible factors are listed below.

- House 1 was the first house to receive training, and our Active Support training skills may have improved over time. However, there were a number of positive outcomes during on-site training in House 1 (residents did participate in a variety of activities), and the initial increase in resident engagement (see Figure 3.2) demonstrates clear short-term effects of training.
- The team leader for House 1 was unable to attend a substantial part of the classroom training, and this may have made it more difficult for her to commit to Active Support and actively lead her staff in its implementation. Follow-up data indicated that staff meetings were rare in House 1 (reported to take place only about every three months). Bradshaw et al. (2004) reported better results for Active Support when house managers and senior staff are engaged in delivering and taking ownership of the training. It was our observation that implementing Active Support is a complex task which needs clear leadership at the group-home level. In the absence of such leadership, it is difficult for individual staff members to influence the overall operation of the house no matter how committed they are to Active Support.
- The characteristics of the residents in House 1 differed from the other four houses in that all House 1 residents had substantial physical disabilities and used wheelchairs. This may have contributed to a staff perception that it was difficult for House 1 residents to participate physically in certain tasks, and so affected staff motivation to implement Active Support.
- House 1 had the lowest average level of adaptive behaviour, meaning that House 1 residents had the most severe average level of disability. Bradshaw et al. (2004) reported that increases in activity levels in most of the houses they studied were due to the *most* able resident becoming more engaged, (although Jones, Felce, Lowe, Bowley, Pagler, Gallagher, et al., 2001, found the opposite). Bradshaw et al. suggested that more organisation and skill is needed to assist people with more severe disability.
- The greater (perceived) difficulty (and possible lack of rapid success) in engaging House 1 residents in activities may have been discouraging to staff, who may have opted not to persist with trying to use Active Support techniques to engage residents.

- There was significant turnover of staff in House 1 who had been trained in Active Support, which may well have negatively affected implementation (cf Jones et al., 1999). Unfortunately, we do not have comprehensive data on staff turnover for all houses, so we cannot reliably quantify this factor.

It is difficult to determine what combination of these factors contributed to the disappointing results in House 1, but we suggest that each is worthy of close attention in future Active Support research and training. More work is needed to identify how to overcome such factors to ensure that Active Support is effective in all the settings into which it is introduced (see Bradshaw et al., 2004).

Relative to post-test observations 3 to 6, the first two post-test observations in House 1 showed much higher amounts of staff help and resident engagement (see Figure 3.2). These findings appear to indicate that it was *possible* to implement Active Support procedures in House 1. The subsequent decline in both staff help and resident engagement suggests that the disappointing outcomes in this house may have been more to do with lack of staff ownership of Active Support arising from staff motivation and leadership issues. These factors may have interacted with characteristics of residents and the greater level of persistence, organisation and skill needed to support them to participate (cf Bradshaw et al., 2004).

4.2 Comparison with UK Research Findings

The UK study that is most similar to the current project is Jones et al. (1999) seminal paper which also involved progressive implementation of Active Support across five group homes, one house at a time. Both studies used quite similar observational data collection procedures and research designs, so the data are reasonably comparable (see Table 4.1).

Table 4.1 Percent Resident Engagement Levels by Project Phase for Two Studies

Study	Pre-test		Post-test (Active Support)		Follow-up	
	Mean	Range	Mean	Range	Mean	Range
Present study	42.5%	28% to 67%	49.5%	35% to 84%	53.8%	34% to 70%
Jones et al. (1999)	33.1%	23% to 38%	53.4%	47% to 65%	57.2%	50% to 64%

While mean post-test and follow-up engagement are reasonably similar for the two studies, Table 4.1 shows that the present study had somewhat higher pre-test levels of resident engagement, largely because of the relatively high engagement levels in House 4 (67%) (see Table 3.2). This suggests that, on average, the House 4 residents had less severe disability than their UK counterparts (they were the most able group in the present study – see Table 2.1). Overall, Table 4.1 indicates that, although the present study was successful in increasing resident engagement following implementation of Active Support, the degree of improvement was not quite as marked as the Jones et al. (1999) study. This reflects the experience of Bradshaw et al. (2004) in another UK study of Active Support which reported mixed success in increasing resident activity.

4.3 Limitations

We have already noted the many strengths of the current study. However, like all research studies, this project also had a number of limitations that should be considered when evaluating its findings. Firstly, our study had no control group in the classical sense, although the multiple-baseline-across-group-homes design allows for the pre-test data from houses that receive intervention later to serve as partial controls for houses where training was provided earlier. Secondly, neither the researchers nor the participants were blind to the purpose of the study or to the desired/expected outcomes. Intervention and evaluation were both undertaken by the researchers. Both of these factors have the potential to bias the results. On the other hand, our replication of the findings from previous research adds to the plausibility and validity of our findings. It is worth noting that some of the previous research that reported similar findings to our own used a stronger research design than our study. For example, Bradshaw et al. (2004) used a control group.

The duration of our study was limited, so we were only able to follow up for several months after Active Support training. Even though the medium-term follow-up data we reported are generally encouraging, we have no data on the long-term effectiveness of Active Support. However, it is worth recalling that Jones et al. (1999) found continued effectiveness in most houses 8 to 12 months after the introduction of Active Support, findings which suggest that Active Support can be effective in the longer term. Finally, our resources were such that we were unable to provide training to new staff members who joined the house some time after initial Active Support training for that house. Although steps were taken to enable the

participating agencies to provide such training themselves, the extent to which this was attempted successfully is unknown.

Another issue which might be perceived as a limitation of our study concerns the effectiveness of specific components of Active Support training and procedures in contributing toward better client outcomes. Jones, Felce, Lowe, Bowley, Pagler, Strong et al. (2001) found that if on-site interactive training was not provided to staff then increases in staff help to residents and in resident engagement did not eventuate. This finding suggests that interactive training is crucial for success. Future research could focus more specifically on the contribution of other components of Active Support to better client outcomes. For example, researchers could gather data specifically on Opportunity Goals: their implementation, success, and subsequent integration into the daily routine.

4.4 Systemic Implementation

This project reported on the successful medium-term implementation of Active Support in several Sydney government and non-government group homes. In each case these houses were part of a much larger service agency that operated many more residential facilities, so the project did not have any direct impact on the agencies beyond the participating group homes. We did not deal with systemic implementation apart from providing training to some key staff to assist them to be able to offer Active Support training to new direct-support staff in these houses. Researching issues which influence the systemic take up of Active Support is a high priority agenda for a future project (Bradshaw et al., 2004).

Numerous factors need to be considered in systemic implementation of Active Support. One such factor is more fully embedding Active Support within the work practices and culture of the entire agency. For example, to ensure that staff's clerical workloads are reasonable (so they can devote most of their time to working directly with residents) substantial harmonisation must be achieved between Active Support paperwork and other existing agency data collection, communication and paperwork systems. Simply adding Active Support record keeping on top of existing paperwork serves to detract from staff spending time assisting residents. Likewise, Active Support needs to be carefully integrated with Individual Planning, so that we fully realise the potential for Active Support to provide a daily implementation mechanism for individual plan goals. This could, for example, be partly achieved by systematically deriving Opportunity Plan objectives from individual plan goals.

As noted, implementation of Active Support had no significant effect on resident choice. Further work is needed on finding ways to ensure that Active Support both promotes constructive activity *and* enhances choice. This needs to go beyond simply involving each resident in the initial selection of his/her individual activities and incorporate a degree of resident control over the day-to-day scheduling of activities. For example, Anderson, Sherman, Sheldon, and McAdam (1997) used pictures of activities to teach group-home residents to exercise more control over their daily schedules. Participants learned to make choices among activities and to choose the sequence of activities. Engagement in activities was greater when pictorial schedules were used. Combined with Active Support, such an approach may prove highly beneficial, but its implementation was beyond the scope of the current study.

To date, community residential services for people with intellectual disability have provided the sole context for research on and implementation of Active Support. However, there seems to be no logical reason why the principles of Active Support should not be adapted for use in other service and support settings, such as day programs, community access services, and support to families with a family member with a disability living at home. Likewise, the applicability of Active Support to other disability groups needs to be explored.

4.5 Conclusions

When implemented satisfactorily, Active Support was found to be an effective approach for increasing engagement by residents of Australian group homes in both domestic and community activities. More work is needed to identify how best to ensure that Active Support procedures are implemented satisfactorily in *all* group homes. Additional effort is warranted to examine the *long-term* effectiveness of Active Support (over years rather than months), together with the approaches needed to maintain effectiveness over time. As noted by Bradshaw et al. (2004) periodic staff reinforcement, updating, appraisal, monitoring, and ongoing commitment and ownership of the process from managerial staff are crucial to the continuing success and implementation of Active Support. Likewise, Active Support procedures need to continue to be refined to enable them to coexist harmoniously and efficiently with other work practices and information systems in Australian intellectual disability services.

Given the success of a relatively small-scale implementation of Active Support in Australia, the way is now open to pursue more widespread *systemic* implementation across accommodation support services for people with intellectual disability. Adaptation of Active Support to other service types and to other disability groups should also be considered.

Finally, training costs aside, Active Support represents a highly ***cost-effective*** intervention because it yields better outcomes by using existing group-home staff more effectively (not by increasing staffing). This fact greatly reduces the impact of the perennial systemic barrier to innovation in disability services: lack of money for service enhancement. If the capacity to deliver high quality Active Support training can be developed within individual agencies and the disability service system, then such training can be provided at a modest cost as part of ongoing staff training efforts. It is sobering to note, however, that Jones, Felce, Lowe, Bowley, Pagler, Strong et al. (2001) were unsuccessful in training service managers to provide effective Active Support training. This finding suggests that considerable initial effort together with ongoing mentorship will be needed to create a viable systemic capacity to deliver effective Active Support training

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APPENDICES

Appendix 1: Community Participation Record (Weekly)

CDDS Centre for Developmental Disability Studies

COMMUNITY PARTICIPATION RECORD (Weekly)

Name: _____ **Week commencing:** _____

	TIME SPENT IN COMMUNITY ACTIVITY														Community Time				Total Number of Events	Total Time	Other Orgs. Community Services
	Enter time in Hours to the nearest decimal place – eg 1 hr 40 mins = 1.7																				
Visit / Been to:	Café, Restaurant		Hotel, RSL, Leagues		Cinema, Concert, Play		Sports Event		Shops, Bank, P.O.		All Medical Appts.		Other Leisure / Rec.		with Friends		with Family				
DAY	Indiv	Grp.	Indiv	Grp.	Indiv	Grp.	Indiv	Grp.	Indiv	Grp.	Indiv	Grp.	Indiv	Grp.	Indiv	Grp	Day	O'N			
MON																					
TUE																					
WED																					
THUR																					
FRI																					
SAT																					
SUN																					
Total Event																					
Total Time																					

Guidelines For each **community** activity: (These are specifically activities that take place away from the home)

1. Decide the category that best describes the type of activity.
2. Enter the duration of the activity in **HOURS [to 1 decimal place eg 1 hr 20 mins = 1.3]** in the appropriate box – establishing whether the activity was carried out on an [**Indiv]** individual **(*No other Residents from the House*)** basis or in a [**Grp]** group situation ***(Including/with other House Members).***
3. At the end of each day total across the categories and enter the number of events and total duration for the day in the appropriate boxes.
4. At the end of the week total down the column for each category of community activity. Enter the number of events and total duration for each category in the appropriate boxes.
5. The column **Other Leisure / Rec.** may be defined by the user to cover any specific activity as so desired
6. Visiting Family may be defined as Day (**Day**) or part thereof, or an overnight (**O'N**) or longer period of time away
7. Once completed please remember to transfer the **totals in the shaded area** to the Quarterly Summary Sheet.

Appendix 2: Community Participation Summary (Quarterly)

COMMUNITY PARTICIPATION SUMMARY (Quarterly)

Name: _____ **Quarter commencing:** _____

Week Comm-encing	TIME SPENT IN COMMUNITY ACTIVITY														Community Time				Total Number of Events	Total Time	Other Orgs. Community Services
	Enter time in Hours to the nearest decimal place – eg 1 hr 40 mins = 1.7																				
	Café, Restaurant		Hotel, RSL, Leagues		Cinema, Concert, Play		Sports Event		Shops, Bank, P.O.		All Medical Appts.		Other Leisure / Rec.		with Friends		with Family				
W/C	Indiv	Grp.	Indiv	Grp.	Indiv	Grp.	Indiv	Grp.	Indiv	Grp.	Indiv	Grp.	Indiv	Grp.	Indiv	Grp	Day	O'N			
Totals: Time for Quarter																					

Guidelines Insert total time in boxes and the number of events in the 'Event' column

Appendix 3: Example Opportunity Plans

This example shows Opportunity Plan goals for a number of different residents in order to illustrate a variety of different goals. In practice, each resident would have his/her *own* Opportunity Plan sheet each week containing *only* the goals for that individual. Typically, each individual would only have a small number of active goals. As the criterion ("how well") for a goal is achieved, the activity should be transferred into *the Activity and Support Plan* (see example in Appendix 7) and so become a routine part of that person's life.

Insert House Name

Example Opportunity Plans

Name _____

Date _____

GOAL *Who, will do what, with what help*	***How often***	***How well***	**MON**	**TUE**	**WED**	**THU**	**FRI**	**SAT**	**SUN**
John* will vacuum the carpet in the hallway, with minimal verbal prompts, to the extent it does not need to be done by staff	Twice per week for 1 month	6 times out of 8 trials							
Don* will attend the 'West's Leagues Club', with staff driving him to the door and Don* returning independently at an agreed time	Once per week	4 weeks in a row							
Ted* & Stella* will prepare a BBQ once a week without refusal	Once a week (1/7)	1/1							
Harry* will make a sandwich given choice of 3 fillings with staff physically guiding bread buttering and cutting	Weekdays (5)	3/5							
Jane* will walk to Cabramatta library & borrow 2 x items – eg CD, books - with staff accompanying & verbal assistance	Tuesdays at 11 am, for 1 month	4/4							
Kate* will collect the mail in the afternoon. Staff assist her to the mailbox and lift top. Kate* to reach inside to locate items and bring these into the office table	Twice a week (2/7)	2/5							
After eating her meal at McDonalds and following gestural prompting from staff Michelle* will place her empty tray into the tray bay & put rubbish in the bin	Once a week	3/4							
Sam* to roll down the roller shutters with staff assistance to insert the winder the with staff verbal prompts to wind down the shutter	Three times a week (3/7)	2/3							
***Pseudonym**									
Key: ✔*= Complete;* (✔) *= Offered, but needed extra help;* ***R****= Offered but refused* ✗*= Not Offered - Staff to Initial all instances.*									
General Notes:									

Appendix 4: House Notes

House Notes

Psion ID No:.....…….. Psion File Name:.....…….....

House No: (1 digit)	Session No: (2 digits)	Observation Type: (2 digits)
1	01.02,03,04,05,06 [Baseline] 07,08,09,10,11,12 [Post Test] 13,14 [Follow-up]	01 = [Regular Observation] 09 = [Reliability Observation]
2	01.02,03,04,05,06 [Baseline] 07,08,09,10,11,12 [Post Test] 13,14 [Follow-up]	01 = [Regular Observation] 09 = [Reliability Observation]
3	01.02,03,04,05,06 [Baseline] 07,08,09,10,11,12 [Post Test] 13,14 [Follow-up]	01 = [Regular Observation] 09 = [Reliability Observation]
4	01.02,03,04,05,06 [Baseline] 07,08,09,10,11,12 [Post Test] 13,14 [Follow-up]	01 = [Regular Observation] 09 = [Reliability Observation]
5	01.02,03,04,05,06 [Baseline] 07,08,09,10,11,12 [Post Test] 13,14 [Follow-up]	01 = [Regular Observation] 09 = [Reliability Observation]

Main Task - Observation Notes

Res: 1 ..... Res: 2 .....

Res: 3 ..... Res: 4 .....

Res: 5 .....

NOTES:

Represents a 10 minute block for each Resident – Each Resident observe twice

1. .....
2. .....
3. .....
4. .....
5. .....
6. .....
7. .....
8. .....
9. .....
10. .....

Date: ..... Observer: ..... Start Time: .....

Obs. No:	House No:	Res. No:	Missing Residents Nos.	No. Staff in House
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
NOTES:				

Appendix 5: Domestic Participation Record (Weekly)

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DOMESTIC PARTICIPATION RECORD (Weekly)

[Instructions - see back of sheet]

Name: _____ Week Commencing: _____

ACTIVITY		Mon	Tues	Wed	Thur	Fri	Sat	Sun	Total
Prepare / cook food	Breakfast								
	Lunch								
	Dinner								
	Snacks								
								Total	
Meals	Set table								
	Clear table								
	Wash or dry up								
	(Un)load d'washer								
	Put dishes away								
								Total	
General tidy up	Lounge								
	Kitchen								
	Dining room								
	Hall/stairs								
	Bedroom								
	Bathroom/toilet								
								Total	
Weekly clean	Lounge								
	Kitchen								
	Dining room								
	Hall/stairs								
	Bedroom								
	Bathroom/toilet								
								Total	
Launder clothes Care for clothes	Machine wash								
	Hand wash								
	Hang out/bring in								
	Use dryer								
	Fold								
	Iron								
	Put away								
								Total	
Other	Gardening								
	DIY								
	Shopping away								
	Clean car								
								Total	
Leisure + Recreation (please specify)									
								Total	

Notes of Guidance

1. This is an *individual* record of participation.

2. In order to record participation a person needs to have taken part in a specific activity to a substantial degree. This does not mean, however, that a person has to complete the whole activity.

3. **Tick** the appropriate box to indicate participation in an activity. If you offered an opportunity but there was no participation enter a tick with a circle round it.

4. Insert a tick *each time* a persons takes part in an activity, e.g. washing twice in one day.

5. Update the record every 2-3 hours throughout the day.

6. Keep the record somewhere safe, out of sight, but accessible.

7. Total up the number of activities in each area (count the number of ticks) at the end of each and transfer to a PARTICIPATION MASTER SHEET.

Appendix 6: Domestic Participation Summary (Quarterly)

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DOMESTIC PARTICIPATION SUMMARY (Quarterly)

Name:_____ Quarter Commencing:_____

Week Commenc-ing	Prepare / cook food	Meals	General tidy up	Weekly clean	Launder clothes/ Care for clothes	Other	Leisure + Recreation	Total
TOTAL FOR QUARTER								

Appendix 7: Activity and Support Plan

This appendix contains an example of an *Activity and Support Plan* for one day of the week (Sunday). In practice, there are separate Activity and Support Plans for *each* of the seven days of the week.

Activity and Support Plan

SUNDAY MORNING

Support Staff Shift Times:

1._____from____to___. 2._____from____to___
3._____from____to___. 4._____from____to___

DATE

Time	Resident 1	Resident 2	Resident 3	Resident 4	Resident 5	Household	Options
7:00					Wakes. Medication.	Open blinds.	
						Wash bed linen	
					Choose clothes. Dress.	Clothes washing	
8:00	Wakes. Medication. Choose clothes. Dress. Make bed.		Wakes. Medication. Choose clothes. Dress.		Make bed.	Wipe kitchen benches.	
	Choose, prepare &				Choose, prepare & eat breakfast.	Wipe inside microwave.	
9:00	eat breakfast. Clear away & load dishwasher. Clean teeth.	Wakes. Choose clothes. Dress. Make bed.	Make bed. Choose, prepare & eat breakfast. Clear away & load dishwasher.	Wakes. Toilet. Shower. Choose clothes. Dress. Change bed linen.	Clear away & load dishwasher. Toilet. Clean teeth.	Kitchen rubbish to Otto.	
		Choose, prepare & eat breakfast.	Clean teeth.	Make bed.		Wash up.	Video
10:00	Clean bedroom.	Clear away & load dishwasher.		Wash hands. Make lunch.		Put appliances away.	Music
	(Returns from visiting family every	Clean teeth.		Choose, prepare & eat breakfast.		Clean kitchen floor.	Cat
			Home to family every 2nd Sunday	Clear away & load dishwasher. Clean teeth.		Chairs under table.	
11:00						Hang out washing.	
	Outing	Outing	Outing	Outing	Outing	Clean windows.	
						Clean office.	
12:00						Clean verandah.	
						Sweep/vacuum floors.	

Activity and Support Plan

SUNDAY AFTERNOON

Support Staff Shift Times:

1._____from____to___. 2._____from____to___
3._____from____to___. 4._____from____to___

DATE

Time	Resident 1	Resident 2	Resident 3	Resident 4	Resident 5	Household	Options
1:00	Buy lunch out.	Buy lunch out.	Buy lunch out.	Buy lunch out. Toilet.	Buy lunch out.	Local shop (IGA). Fold clothes. Put clothes away. Prepare dinner. Cook dinner. Serve dinner. Set table. Bring in washing. Fold washing. Put washing away Ironing. Tidy kitchen	Walk. 1:1 activity Personal shopping Video. Music. Craft activities (beadwork, glueing, peg board). Puzzles. Play with cat. Feed cat. Read book, magazine. Radio controlled car. Card game.
2:00							
3:00	Back from outing	Back from outing	Back from outing Wash/clean van.	Back from outing	Back from outing		
4:00	Afternoon tea on request. Video	Afternoon tea on request.	Afternoon tea on request.	Afternoon tea on request.	Afternoon tea on request		
5:00				Toilet.			
	Wash hands. Take dinner to table.	Wash hands. Take dinner to table.	Wash hands. Take dinner to table.	Wash hands. Take dinner to table.	Wash hands. Take dinner to table.		

Activity and Support Plan

SUNDAY EVENING

Support Staff Shift Times:

1._____from____to___. 2._____from____to___
3._____from____to___. 4._____from____to___

DATE

Time	Resident 1		Resident 2		Resident 3		Resident 4		Resident 5		Household	Options
6:00 7:00 8:00 9:00 10:00 11:00	DINNER. Clear own dishes. Shower/bath. Medication. Bed.		DINNER. Clear own dishes. Shower/bath. Medication. Bed.		DINNER. Clear own dishes. Shower/bath. Medication. Bed.		DINNER. Clear own dishes. Shower/bath. Medication. Bed.		DINNER. Clear own dishes. Shower/bath. Medication. Make lunch for next day. Bed.		Family telephone contact. Clear table. Load dishwasher Wipe place mats & put away. Wipe kitchen benches. Wipe table. Kitchen rubbish to Otto. Clean & tidy kitchen. Wash up pots & pans. Unload dishwasher. Clothes, towels to laundry basket. Sweep. Mop. Clean bathroom	1:1 activity. Walk. Coffee. Video. Music. Craft activities (beadwork, glueing, peg board). Puzzles. Play with cat. Radio controlled car. Card game.

Handover

Notes and Messages

Appendix 8: Support Protocol

This appendix presents a protocol for an *individual* resident used to help ensure that the activity (in this case bed making) is done the same way with *that individual*, regardless of which staff are on duty.

Protocols can also be used to provide a standard way of completing a task for *all* members of the household. For example, a table-setting protocol could be followed by *all* residents and staff when setting the table.

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Name Alana*
Date written

Item:	Making the bed
When:	Morning (am) after dressing
Where:	Bedroom
•	1. Alana* stands on side closest to the door
•	2. Staff stand opposite Alana* by the window
•	3. Staff to demonstrate by straightening fitted sheet on their side
•	4. Alana* to mirror staff
•	5. Verbal prompting if not completed
•	6. Repeat steps 3, 4, 5 for top sheet
•	7. Repeat steps 3, 4, 5 for blanket (in winter)
•	8. Staff fold back blanket and sheets
•	9. Alana* to mirror staff
•	10. Verbal prompting if not completed
•	11. Staff tuck in bedding
•	12. Alana* to mirror staff
•	13. Verbal prompting if not completed
•	14. Staff pull up Doona and tuck in at base
•	15. Alana* to mirror staff
•	16. Verbal prompting if not completed
•	17. Alana* to fluff and position pillow
•	18. Verbal prompting if not completed
•	19.
•	20.

* Not her real name