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DR. PETER ANDREW BAKER (Orcid ID : 0000-0003-1421-9639)

An examination of the addition of video informed reflective practice to the Active Support toolkit

Accessible Summary

Active support is one of the best ways of getting people with learning disabilities to be busy and to look after themselves.
Good relationships between staff and people with learning disabilities are important.
This study looked at organising staff to be better at supporting the person with a learning disability. We also and got them to record on video how they worked with the person. They watched these videos back so they could find out how to improve their support.
The results showed that the staff were better at helping service users do things for themselves and that service users were busier. It is also showed that staff had better relationships with the service users.

Abstract

This study evaluated a package of Active Support (AS), which included standard training with additional video informed reflective practice. The training package was implemented as part of a service improvement initiative in four residential intellectual disability homes, using a concurrent multiple baseline across environments design. Training consisted of a one-day workshop, and follow-up coaching. Momentary time sampling was used to measure engagement levels and staff assistance. A new observational tool was piloted to code the presence of positive and negative interactions between staff and the people with intellectual disabilities. Results showed that service user engagement levels and staff assistance increased significantly following the training. There was also a significant increase in positive interactions, and a significant decrease in negative interactions between staff and service users. The implications of these results are discussed.

Introduction

Active Support (AS) is a model of care that focuses on helping staff in community homes to deliver practical support to people with intellectual disabilities. The support focuses primarily on helping service users to engage meaningfully in activities that make up 'everyday life'. The approach has become one of the best evidenced models of care in the field of intellectual disabilities (Mansell & Beadle-Brown, 2012). The fundamental components of AS were first developed and evaluated in demonstration projects in the UK during the 1980s, at a time when England's first community homes for people with intellectual disabilities were being piloted (Totsika, Toogood & Hastings, 2008). The drive for community care arose out of the recognition that institutions were often barren, un-stimulating and lacking in meaningful and varied activities for the service users who lived there. Deinstitutionalisation promoted the idea that people with intellectual disabilities should live in ordinary places, and do ordinary things with ordinary people. With the move to community based homes there was an

expectation that quality of care and access to 'normal' patterns of everyday life would improve (Ashman, Ockenden, Beadle-Brown, & Mansell, 2010).

Structural components of AS

Although AS has been described as a family of approaches (Toogood, 2008) with subtle differences of emphasis, it is generally agreed that here are four main components (Mansell, Beadle-Brown, Ashman, & Ockenden, 2005). First, staff members take a proactive approach to planning activities in advance. Most households have regular 'routines and rhythms': systems in place for ensuring that activities get completed and individual people's interests and needs are fulfilled. In AS, a similar system is developed to map out and plan everyday activities and routines (Totsika et al., 2008). Second, staff organize the support that they provide. This involves a clear allocation of staff to duties and service users, and clear communication about division of responsibility. Third, staff use an 'enabling' style of interaction to promote engagement in activities. This involves staff providing graded levels of assistance to ensure success in a task, with help progressing from explicit verbal instruction, to gestural physical prompts, to demonstration, to physical guidance. Staff are also encouraged to find the 'doable' steps from within a complex task and to be opportunistic about looking for the potential within all 'moments'. Finally, staff monitor the opportunities that they provide and use procedures to monitor and reflect on their own practice in order to improve the quality of care that they provide.

Effectiveness of Active Support

Jones et al (1999) undertook the first experimental evaluation of AS, by examining its effects in 5 group homes in Wales. Staff and service user behaviour was observed by researchers and a momentary time sampling procedure was used to record service user's engagement in activity and the attention they received from staff. The results demonstrated that following AS training, service users received significantly more assistance from staff and were significantly more engaged in meaningful activity. Service user's engagement was shown to increase from 33.1% at baseline to 53.4% after AS intervention and 57.2% following 8-12 months follow-up, demonstrating proportional increases of 61% and 73% respectively. Importantly, these improvements were shown to occur without any additional staff, suggesting that AS resulted in a more effective use of staff resources (Jones et al 2001). Other studies have gone on to replicate these findings and there is now a fairly comprehensive literature to show that AS increases service users engagement in activities of daily living, and improves the amount and type of support that staff provide (Jones et al, 2001; Smith, Felce, Jones & Lowe 2002; Mansell, Elliot, Beadle-Brown & Macdonald, 2002; Bradshaw, et al, 2004; Stancliffe, Harman, Toogood, & McVilly, 2007).

There is also evidence that AS improves not just the *quantity* of staff attention, but also the *quality* of the interaction between the service user and staff. AS emphasises training staff to provide more effective assistance, by tailoring their style of support to the needs of service users. For example, staff are encouraged to use gestural or physical prompting, demonstration, and guidance, and to avoid repeating verbal instructions when they are ineffective (Jones et al 2001). Smith et al (2002) showed that staff trained in AS became more efficient at matching support strategies to service user's need, particularly their use of non-verbal assistance.

Relationship Building

The AS model has a strong focus on developing and promoting styles of staff support that help service users engage more meaningfully in activities of daily life, with being busy clearly an important part of leading a 'good life'. In recent years, there has been increasing recognition that while doing meaningful activities is important for a good quality of life, it is not the only component. The social relationships that people develop clearly has an impact on their emotional and mental wellbeing, and this factor tended to be overlooked in the earlier AS literature. People with intellectual disabilities often have limited opportunities to develop social relationships with their peers, and many in residential services have limited or no contact with family members. For this reason, the relationship that they develop with staff is often their main source of social contact.

While the quality of the relationship between people with intellectual disabilities and their caregivers is increasingly being recognized as an important variable, there has been surprisingly little focus on how to quantify or improve it. In recent years, staff service user relationships have been systematically investigated within the context of the Positive Behavioural Support (PBS) model using the concept of 'rapport' has begun to be examined. These studies explicitly moved away from defining relationships in subjective terms such as "likeability" and "empathy". It was argued that although such terms have considerable face validity, they have not been sufficiently operationalised. This body of work has been based on the premise that rapport is a combination of qualities that emerge from interactions or dyads (Grahe & Bernieri, 1999) and has sought to design specific methodologies to capture the quality of relationships between people with learning disabilities and their caregivers and use these to develop strategies to improve relationships. This body of work used ratings of rapport made by the staff member themselves, service users and other staff members. For example, McLaughlin and Carr (2005) conceptualized poor rapport as a potential setting event for demand related challenging behaviour and demonstrated that when a demand was presented and rapport was poor, levels of problem behavior were high, and when rapport was good, levels of problem behavior were low. They went on to devise an intervention package designed to improve rapport. Poor rapport staff members were trained in a number of strategies designed to improve their responsiveness to service user's communications. Following this intervention, staff members who were previously assessed to have poor rapport showed an improvement – they were chosen more often as 'preferred staff' by service users, and their peer ratings of rapport improved. When rapport improved, so too did service user's compliance with and completion of tasks, and there was a decrease in problem behavior. Interestingly, the staff members themselves also described improved levels of satisfaction in their relationships with the service users that they had received rapport training with. The authors highlighted the usefulness of investigating the role of rapport in conjunction with other well established interventions. Whilst not specifically referring to AS, the relevance here is clear.

More recently, Mansell and Beadle-Brown (2012) have explored a similar idea of an 'enabling relationship' in the context of AS in more detail, recognising that the relationship that staff have with service users is pivotal to implementing AS well, and looking at what it is about the relationship that is important. They identified three elements that they see as key to facilitating enabling relationships. The first is the values and attitudes that staff bring to the job. This relates to the extent to which staff believe that people with intellectual disabilities can, and should have opportunities to participate in meaningful activities, and a willingness to be involved in this process. The second element is that of matching staff and service users to maximise opportunities for positive rapport, not just in terms of similar interests, but also in terms of a staff member's ability to empathise and create emotional connections with the person that they support. The third key element is ensuring that staff have the ability and the

support to critically reflect on the relationships that they develop with service users. By highlighting the importance of the reflective process, there is a recognition that the enabling relationship is not necessarily a process that happens spontaneously, but rather one that requires a commitment to ongoing reflection and adjustment. Mansell and Beadle-Brown (2012) describe this as potentially a more demanding and creative role than just being focused on the activities and tasks of AS.

Traditionally training in AS involves a 1-2 day classroom based workshop followed by individualised onsite coaching. Toogood (2008) concluded that whilst this onsite coaching element is a critical component of AS, it had received less attention in terms of operationalisation and evaluation. He evaluated interactive training (IT) as an onsite training procedure independent of AS workshops, with increases in staff assistance and client engagement. Whilst IT focussed on many aspects of relationships and staff client interactions, the stated goal was not the improvement in these interactions in themselves, but as a vehicle for increasing client engagement. This distinction although subtle, is considered important and a focus on improvement in the quality of interactions to build more positive relationships between staff and clients would be more in keeping with the change of rhetoric referred to earlier in the AS literature (for example, Mansell & Beadle-Brown 2012).

Measuring Aspects of the Quality of Interaction between Staff and Service Users

More systematic approaches have been developed to quantify the characteristics of both positive and negative social interactional style between caregivers and service users in the field of dementia services. Dementia Care Mapping (DCM) is an evaluation tool developed by Kitwood and Bredin (1992). It focuses on measuring quality of care from the perspective of the recipient. The tool has prescriptive coding frames and clearly defined rules for observations, and places particular emphasis on aspects of social interactions (Persaud & Jaycock, 2001). DCM uses two coding frames, which address both positive and negative aspects of caregiving practice. 17 dichotomous categories describe the style of support provided, with particular emphasis on aspects of the social and emotional interaction. During observations, interactions are rated on the categories using a 4-pointscale. This information is then analysed and fed back to staff teams with the aim of facilitating quality improvement in care practice. There is a growing literature base regarding its use in dementia services, demonstrating changes in quality of care over time (Jaycock, Persaud, & Johnson, 2006). To date there has been limited application of the tool in intellectual disability settings (Jaycock et al, 2006; Persaud & Jaycock, 2001). However, interest in its potential application is growing, with a recognition that dementia care and intellectual disability services face similar challenges in promoting positive relationships between staff and service users.

More recently, a new observational tool called the 'Positive Interactions Checklist' has been piloted in an intellectual disability setting (Vanono, Dotson, & Huizen, 2013). It focuses on operationalising 'positive interactions' between staff and service users. The tool consists of eight categories of positive interactions that have been derived from the work of Mansell and Beadle-Brown (2005), and Carr, Smith, Giacin et al (2003). It has been used in a recent study to evaluate the effects of 'positive interaction training' on staff members working in a day service setting. The tool holds some similarities to the DCM tool developed for use in dementia care services. However, unlike the DCM measure it does not have any capacity to evaluate 'negative interactions' that might occur between staff and service users. Arguably, a modified version of the Positive Interactions Checklist, that contained categories for recording 'negative interactions' could provide a useful, more comprehensive way of assessing the process of building relationships within the context of AS.

As part of a routine service improvement initiative an AS package, which combined a standard training package was developed with an additional coaching aid aimed at helping staff to reflect on specific elements of interaction with the service user, in particular focusing on the subtler elements of the quality of the interaction that might establish good relationships. This involved the routine video recording of staff support and the use of a structured set of prompts designed to facilitate improvements that might be made during the review of the video as part of the 'on the job' coaching element of AS.

Aims of the Current Study

The aims of the current study were fourfold:

1. To pilot a version of AS comprising a one day classroom based training, video reflection and 1:1coaching and direct support for implementation.

2. To measure the effects of the training package on the quality of interactions between staff and service users, using a modified version of the Positive Interactions Checklist.

3. To measure the effects of the training package on service user's level of engagement in meaningful activities.

4. To measure the effects of the training package on staff assistance.

Method

Participants and Settings

The service users of four staff community houses participated in the study. A total of 25 people lived in the houses, 5 in house (a), 6 in house (b), 8 in house (c), and 6 in house (d)**.** With staffing levels in house (a) 3 or 4 (1:0.7), (b) 5 (1:0.8), (c) 3 or 4 (1:0.4), (d) 2or 3 (1:0.4). Twelve service users were male, and 13 were female. The ages of the service users ranged from 22-69 with a mean age of 45. Level of adaptive functioning was measured by the Adaptive Behaviour Assessment System (ABAS–II) (Harrison & Oakland 2003). This is a measure of adaptive functioning that is normed on the general population, and has a mean of 100 and a standard deviation of 15. Scores below 70 are generally considered to be indicative of an Intellectual Disability. The houses had mean ABAS-II scores of (a) 40 (40-41) , (b) 40 (all scored 40, this is the lowest possible rating on the measure), (c) 53 (43-65), and (d) 45 (40-50). 54 staff were included in the training. Two managers had responsibility for managing the four houses.

Consent

Ethical approval to undertake the study was obtained from the States of Guernsey Health and Social Services Department Ethics Committee. Consent to participate in the study was sought from all clients who were deemed (by service managers) to have the capacity to provide it. Four service users were able to provide informed consent**,** using an accessible information sheet. In the absence of a local legislative framework the UK's Mental Capacity Act (2005) was followed as best practice in relation to conducting research with people who lack the capacity to consent.

Intervention

Managers of the houses were involved in the planning stages to encourage successful implementation. Active support training consisted of a one-day classroom based training session, with each staff team. The materials for the workshop were based on a training package developed by Mansell et al (2005). The training workshop also included video footage of service users (from the relevant house) that had been collected by trainers prior to the workshop. The rationale for including video footage was twofold: to make the training as relevant as possible to the individual houses, and to introduce the reflective video feedback process, that formed the basis of the follow-up coaching sessions. The workshop training was delivered approximately a month apart for each of the 4 houses.

Following the training workshop, each individual staff member received a follow-up coaching session. Each coaching session lasted for approximately 2 hours. These sessions took place within a one-month period following the workshop training. Coaching sessions took place in the house environment. A coaching session consisted of coach and staff member identifying an appropriate activity to support a service user with, and then carrying out the activity. The coach videoed the activity. Coach and staff member then reviewed the video together, using a Video Reflection Checklist as a prompt to guide the reflection process. The prompts in the checklist items in relation to presentation, assistance and style of support (see appendix).

The staff member then identified one goal for improving their style of support, and completed another videoed activity, focusing on the goal that they had identified. The video was reviewed again by coach and staff member, and general goals for future practice were discussed. Examples included the use of objects of reference, reducing verbal prompts, better preparation of the environment, task simplification, etc. The staff member received a completed copy of the Video Reflection Checklist for future reference. The coaching process was based on a facilitative style, whereby the coach facilitated the staff member to reflect critically on their own practice, rather than offering 'expert' opinion or 'teaching' about the process. This approach is in keeping with the principles of reflective practice and facilitating the practitioner in being self-aware and critically evaluating their own responses to practice situations (Finlay 2008). The coaching phase lasted for approximately one month in each house. During this time, coaches worked more generally with the staff team, to encourage the development of shift planners, and other organizational aspects of AS. Following the coaching phase, the house managers and senior staff assumed responsibility for implementing and maintaining AS.

Experimental Design

Concurrent baseline data was collected as part of a multiple baseline across environments design in all services over approximately 5 months. The workshop and coaching intervention was introduced consecutively to each house with no overlap at predetermined intervals of approximately one month apart. The design determined that the length of baseline ranged from 4 to 7 months depending on the time the workshop coaching intervention was introduced. The coaching phase lasted approximately one month for each house and no data was recorded for that house during that period. The multiple baseline design demonstrates the effects of an intervention by intervening on several baselines at different points in time

(Kazdin, 2011). Effect sizes were estimated using the Tau U statistic. Tau U combines non-overlap between baseline and intervention phases with considerations of trend within the intervention phase and optional control of undesirable baseline trend (Parker, Vannest, Davis, & Sauber, 2011). Interpretation of effect sizes were based on the guidelines reported by Ferguson (2009).

Data Collection

Data was collected in one-two hour sessions, in the houses. Data was collected across three different time periods, which included a morning, early afternoon, and late afternoon session. The proportion of data collected during each time period was equal across houses, to ensure consistency across environments. Data collection sessions commenced across the four houses in September 2013, and continued until July 2014, a month after the last house had completed the coaching phase. Approximately two observation sessions per week were conducted in each of the four houses. A total of 166 hours of observational data were gathered, carried out in 95 60-120 minute sessions over 11 months.

Observations of service user and staff activity:

Momentary time sampling with 1 minute intervals was used to observe service user and staff activity. Observers rotated evenly around service users during the observation period. Five staff codes (assistance, praise, restraint, other conversation and processing) and 6 service user behaviours (social engagement, non-social domestic, non-social personal, non-social other, challenging behaviour and disengagement) were measured according to the definitions developed by Jones et al (1999).

Observations of staff: service user interactions:

14 dichotomous categories were developed, to measure aspects of staff's interactional style with service users. The codes were developed based on the Dementia Care Mapping Tool (Kitwood & Bredin, 1992), and the Positive Interactions Checklist (Vanono, Dotson & Huizen, 2013)**.** The categories measured the following 7 dimensions: Attention, Verbal Warmth, Humour, Non-verbal Warmth, Choice, Facilitation, and Management of Challenging Behaviour based on PBS model. There was a dichotomous positive and negative category for each dimension.

At 5 minute intervals during the observation session, the observer rated the predominant mode of staff interaction with service users, on each of the 7 dimensions. A choice of 3 ratings could be made for each dimension: positive interaction, negative interaction, or neutral (neither clearly one nor the other). All neutral ratings were discarded during the data analysis.

Inter Observer Agreement (IOA)

Each observer completed a training session in one of the houses, prior to commencing observations. The training session continued until there was 80% IOA (with the main observer) for a continuous period of at least 20 minutes. IOA for the direct observations was then assessed by the presence of a second observer, in 11 two hour sessions representing 18% of observation sessions. Cohen's kappa was used to calculate level of IOA. This provides an estimate of agreement between two independent observers once levels of chance agreement have been taken into account. Kappa values of 0.94 were calculated for staff behavior codes

0.92 for service user behavior codes and 0.74 for interaction checklist categories. Suen and Ary (1989, cited, in Jones et al, 1999) suggest that a kappa value of 0.6 or higher is acceptable for observational research.

Results

Service User Engagement Levels

Four service user behaviour codes (social engagement, non-social engagement-domestic, non-social engagement-personal, and non-social engagement-other) were added together to give a measure of service user engagement level (Jones et al, 1999). Figure 1 shows the percentage of time that service users were engaged in meaningful activity before and after the introduction of AS training. Service (a) saw a rise in percentage engagement from 52% to 65%, service (b) 39% to 60%, service (c) 71% to 73% & service (d) 48% to 69% with the combined services engagement rising from 55% to 70%. Tau U effect size estimates indicated that the intervention had a moderate effect on service user engagement with a range of strong to minimal across services (table 1).

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Insert Fig 1 about here

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Staff Assistance

The percentage of time that staff provided assistance (the help staff give people to be engaged in meaningful activities) are illustrated in figure 2. Service (a) saw a rise from 20% to 26%, service (b) 13% to 35%, service (c) 15% to 16% & service (d) 7% to 16% with the combined services assistance rising from 13% to 24%. Tau U effect size estimates indicated that the intervention had a moderate effect on staff assistance with a range of strong to minimal across services (table 1)

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Insert Fig 2 about here

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Staff: Service User Interaction

The percentage of positive and negative interactions was calculated for each house, before and after the introduction of AS training. Percentage of positive interactions was calculated using the equation:

<u>Total number of positive interactions</u>

Total number of positive + negative x 100

Percentage of negative interactions was calculated in the same way (figure 3). Positive interactions increased in service (a) from 29% to 36%, service (b) 32% to 40%, service (c) 26% to 31% & service (d) 13% to 40%. With an overall service increase from 22% to 37%.

Negative interactions decreased in service (a) from 28% to 17%, service (b) from 38% to 12%, service (c) 37% to 24% and service (d) 44% to 19%. With an overall service decrease of 43% to 18%. Tau U effect size estimates indicated that the intervention had a moderate effect on both positive and negative interactions with a range of strong to minimal across services (table 1)

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Insert Figure 3 and Table 1 about here

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Discussion

The aim of the current study was to pilot a version of AS comprising one day classroom based training, video reflection and 1:1coaching and direct support for implementation. The study also aimed to measure the effects of the training package on the interactions between staff and service users, using a set of behavioural codes which focused on positive and negative aspects of staff interactional style. Finally, the study aimed to measure the effects of the training package on service user's level of engagement in meaningful activities, as consistent with other studies of AS.

The results indicated that all four houses demonstrated an increase in service user engagement level following training with strong effect sizes in three of the four services. House (c) appeared to show a ceiling effect, with high baseline engagement (71%) before intervention commenced. Although this house had the largest number of service users, the staffing ratio did not differ notably from the other houses. Overall, the service users in this house were more able than in the other houses, and this is reflected in their mean ABAS-II score, which was higher than all the other houses. Previous research highlights that the more able service users are, the more support they tend to receive (Jones et al, 1999; Jones et al, 2001a; Smith et al, 2002). As a result, AS has often been found to be less effective, than it is for more severely disabled service users. This is likely to be the most plausible explanation that would account for the limited change observed in house (c). Of note is that since the study was completed those people living in this service are now all in supported living with approximately two hours staff support per day. This finding is not unique, for example Jones at al. (2001b) found that people with high adaptive behaviour scores experienced limited benefit from AS. Mansell & Beadle-Brown (2012) reviewed 24 AS studies and of these, even after training, only 3 had comparable levels of engagement to this particular service at baseline. Looking at the effect of the intervention across environments, the multiple baseline design helps to highlight the apparent relationship between the timing of the intervention and the increase in engagement levels. With the exception of house (c), all of the other houses showed an increase in engagement levels which coincided with implementation of the training.

The levels of staff assistance also increased significantly from baseline to follow-up across the service. Again house (c) showed little change, and it could be hypothesised that with less dependent service users there was less requirement for staff assistance in order for them to

take part in activities. Mansell & Beadle-Brown (2012) also reviewed 10 studies of AS where staff assistance following training was reported. This would indicate that even prior to training, staff assistance was at levels at least comparable to that found in 'trained' services and the overall percentage staff assistance was higher than in any of these studies.

On the interaction checklist the results also showed a significant change in percentages of positive and negative interactions between staff and service users, following AS training. Only service (a) showed no significant effect in terms of positive interactions, albeit that they had increased from 30% to 36%.

Future Directions

The study adds to the existing literature which supports the general effectiveness of AS. It also raises the importance of the interpersonal context in which services are delivered to people with intellectual disabilities. Whilst the AS literature has recognised the role of relationships, there has been little research that looks systematically at how staff can build positive and enabling interactions, or objective methods for evaluating this aspect of staff support. The current study is limited in that the observed effects were part of a wider package and the design does not allow statements regarding causal effects between individual elements of the intervention and staff-service user interactions. However, it is a preliminary step in this direction. Clearly, further research is warranted, and there is an expectation that the research community can build on the initial steps that have been undertaken in this study. In particular, it would be helpful to explore in more detail how changes in positive interactions might be related to the variable of engagement. Delineation of the extent to which any of the multiple elements influenced the outcomes of this study is limited by the design, and again the additional video refection element measure would benefit from further evaluation independently from class room based AS training and consequent further refinement, to maximise the opportunity for staff to reflect on the key components of positive relationships.

Statistical significance is of course not the same as 'clinical' or meaningful difference. A possible weakness in this study was the failure to systematically collect a broader range of data in regard to the impacts of the training package. Although not systematically collected the following quotes were offered by staff.
> "The video coaching helps us to see things from a different perspective".
> "I found video feedback better than verbal feedback...we can see for ourselves what we need to improve on..and what we do well".
> "Watching the video, I could see that I was talking too much..and that didn't help X know what to do"
> "I could see why X got frustrated..it helped me to understand how he was feeling"

A family member observed that
> "the staff keep a record now of all the time that they spend with him (son)...now his day is filled with activities rather than being left to his own devices...he's a lot happier in himself".

Any further research might consider such factors as the subjective experience of service users and staff, emotional wellbeing, challenging behaviour, etc. In addition, the extent to which such interventions reported here can be sustained over the long term is crucial and any future research would need to look at long term follow up.

This study took place in a real-world service improvement context with no extra resource available and as such, suffered from real world exigencies. Amongst these was the ability to collect data at precise intervals, meaning that in some services, in spite of the plan, resource did not allow data to be collected every week. In addition, the extent to which the introduction of the intervention in each of the houses was completely independent was compromised as Guernsey is a small island and staff often were required to work across a number of services. These factors dictate that the results of this study showed be viewed with some caution. However, in some ways, these limitations can also be seen as a strength and good external validity. Clearly research in human services ultimately needs to be applicable to the improvement of human services.

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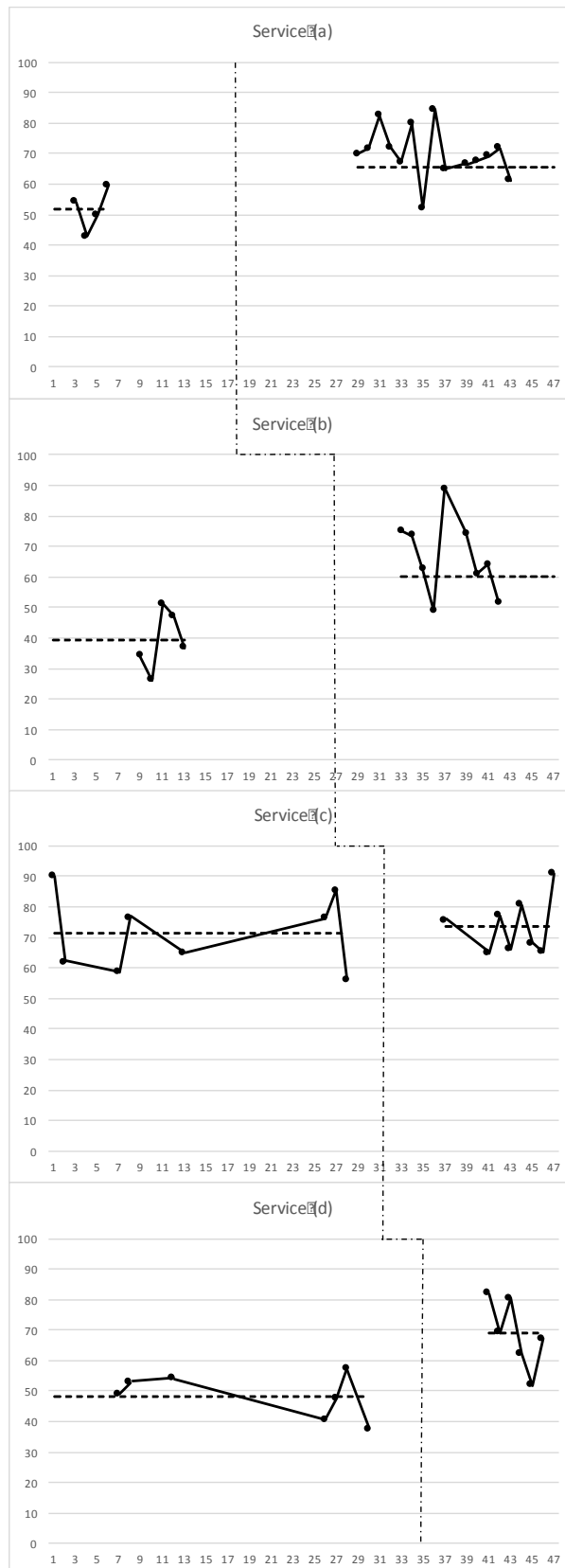
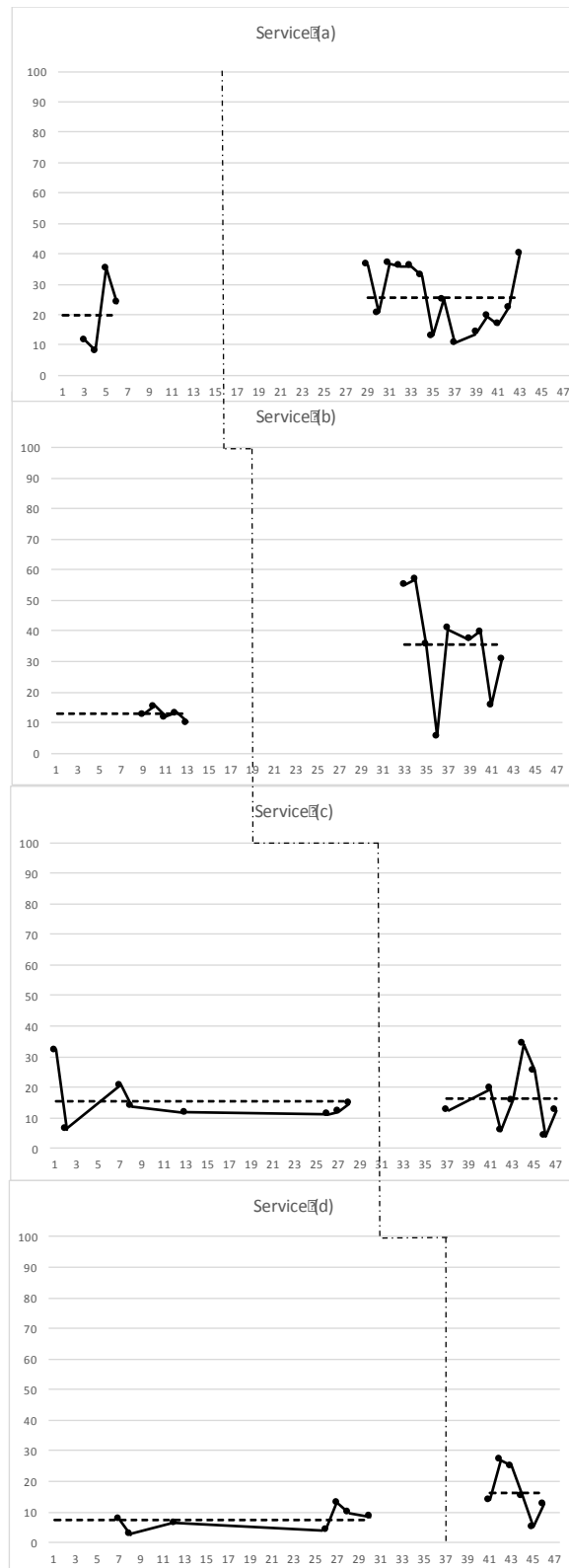Figure 1 Percentage engagement scores across service environments

Figure 2 Percentage staff assistance scores across service environments
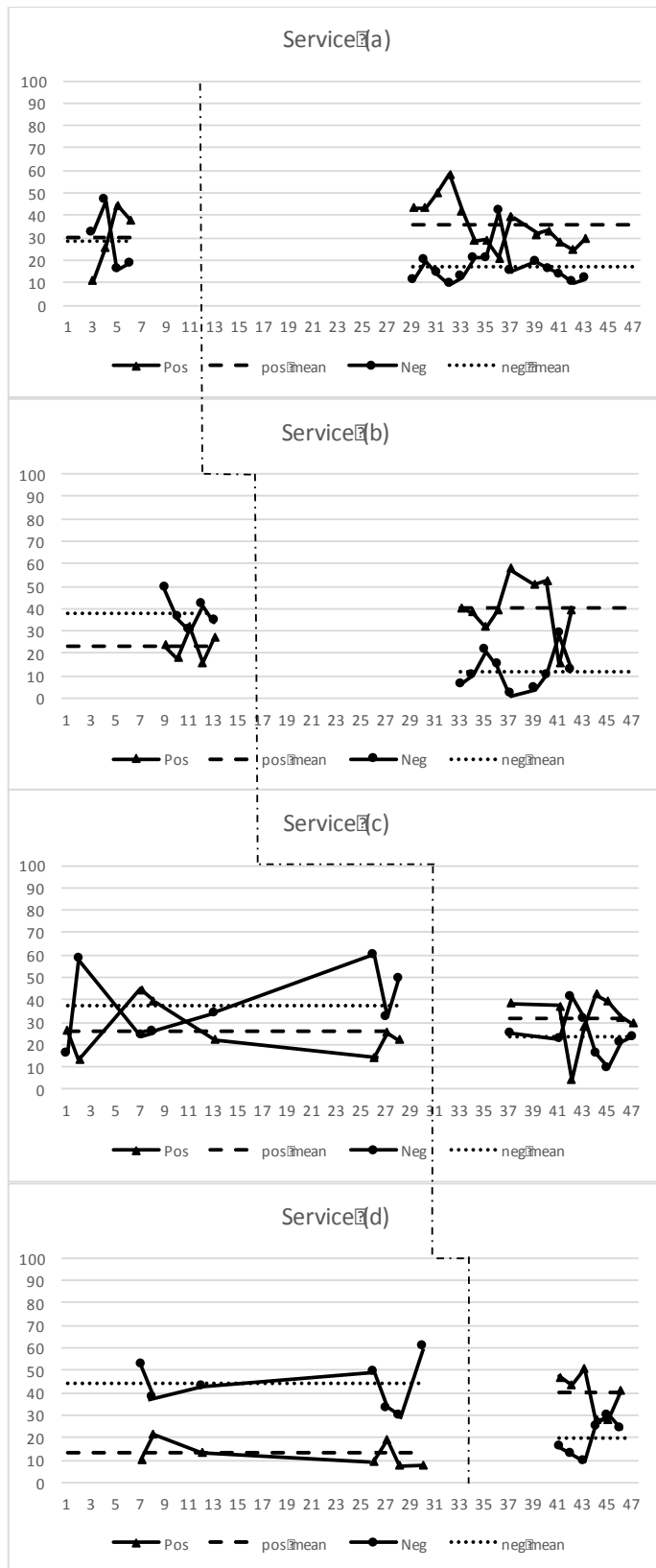
Figure 3 Percentage positive and negative interactions across service environments