

**Quality of Staff-Service User Interaction in Two Day-Centres
for Adults with Learning Disabilities**

Derek Skea¹

¹ University of Huddersfield

Quality of Staff - Service User Interaction in Two Day Centres for Adults with Learning Disabilities

Derek Skea

Abstract

This study involves quality of interaction between Day Centre staff and Service-Users with Learning Disabilities in two Day Centres (Dc1 n=50, Dc2 n=247). The Quality of Interactions Schedule (QUIS) was applied within an eight month prospective design, involving 32 visits which constructed a 'typical day' composed of 20-30 minute observational sessions within each Day Centre.

The largest proportions of interactions were of a positive nature (87%) across both Day Centres. More positive care interactions were seen in Dc1 and significantly higher rates of positive interactions in Dc1. The greatest use of Verbal and Non-verbal interaction was observed in Dc1. Service users initiated more of the interactions in Dc2. Lengthier verbal interactions were seen in Dc1 and conversely greater amounts of short verbal interactions were seen in Dc2. Within both centres time-tables that were inspected indicated similar proportions spent in: Work, Leisure, Education, Community and Social skills sessions. In comparison to previous studies a relatively low proportion of activities were community based and social skills orientated.

Results are framed within comparable observational studies in Day Centres; differences in measurement characteristics employed (Cummins, 2000, 2002) and service evaluation of quality of life in Day centres for adults with Learning Disabilities. Reliability and validity of results were also examined.

Keywords: Quality of Interactions, Quality of Life, Day Centres, Learning Disabilities, Engagement.

Introduction

At the time of the 1971 White paper 'Better Services for the Mentally Handicapped' (Department of Health 1971) there were 24,000 places in Adult Training Centres; by 2000, this had increased to 49,600 with a further 6,630 NHS places being utilised (Department of Health, 2001). The 2001 White Paper proposed that Day Centres made a 'limited contribution to promoting social inclusion or independence' and mentioned key areas in which Day Centres along with residential services could 'help people develop social skills and the capacity to form friendships with a wider range of people'. It was the present Government's explicit aim to see Day services modernised by 2006.

By comparison with the substantial body of research examining residential services in the U.K., existing day services have received little attention from researchers. At an organisational level Seed (1988) studied 15 Scottish Adult Training Centres using broad categorisations of activities and policy areas; staff were interviewed to gauge their perceptions of what their centre was about. Their findings showed that ten percent of all activities could be

rated as work. Sport and games accounted for twenty percent, and the largest grouping was subsumed under the broad category of 'education'. There was considerable variation in these relative percentages between locations.

Seed (1988) found seven broad models of practice:

1. Work, providing work experience and preparation for employment
2. Social care, which emphasised normal living and the social skills needed for community living
3. Further education, provision of further education and adult role responsibilities
4. Assessment and throughput, appropriate placement of people
5. Recreation, development of a range of interests and activities
6. Shared living, developing a sense of community and breaking down staff-user barriers
7. Resource, giving access to a range of normal community based facilities

More recent research evaluating the quality of day centre provision has focussed on two areas. Firstly, the extent to which service users are engaged in meaningful activities, and the extent and nature of staff: service user interactions (Felce, de Kock & Repp 1986). The second involves O'Brien's (1987) key service quality principles; of particular importance here is O'Brien's concept of the 'status' of service users.

From the present authors Symbolic Interactionist view, poor quality of interaction can decrease self-perceived status and have a detrimental effect on self esteem (Carnaby 1999; Hewitt 1994).

Collins and Toft (1999) conducted an eight year prospective study of twelve adults and found improvements in their day centres in terms of: decreased group sizes, increases in the range of activities and an increase in 'engagement' defined by Collins and Toft (1999) as per Emerson and Hatton (1994) as: 'appropriate non-social activity or social interaction between the user and others'

McConkey, Morris and Purcell (1999) used a coding frame that concentrated on 'communication per se' to analyse videotapes of interactions between a self selected sample of staff and service users in both day service and small scale residential settings. Their results showed staff were four times more likely than clients to initiate a communicative act, and that staff made twice as many verbal communicative acts than the clients. Principal components Factor Analysis on communication measures yielded 4 main factors: 'directive' including instructions, gestures and reinforcements, 'conversational', 'clarification' and 'facial signals'. Analysis of the number of communication acts within each category produced some evidence that participants shifted their communicational strategy according to context. Directive strategies were used more in shared activity and

instructional sessions and less in chat sessions, while conversational strategies were seen more often in chats than in shared activities and instructional sessions. Importantly, no evidence was found that participants modified their communicational style in response to the abilities of the service users with whom they were conversing. Neither the number of acts in each of the above four categories, nor the number of verbal communications, nor the number of non-verbal communications, differed according to whether staff members were interacting with verbal or non-verbal service users.

Expert ratings of social interactions concluded that participants had few opportunities to engage as 'equal partners' in the communication process. Staff over-verbalisation was seen particularly when the residents were predominantly non-verbal, a high level of verbal directives and questions were used and a lack of adjustment to the clients' linguistic level noted.

In view of the limited amount of research on staff: service user interaction and levels of engagement in U.K. day services, hypotheses regarding the factors which might influence these variables may be drawn from the literature on residential services. A consistent finding in the literature is that of a smaller quantity and a higher proportion of neutral and negative interaction in hospital settings when compared with community settings (Felce & Perry 1995). Prior (1979) found staff in traditional institutional settings use more controlling, directive speech rather than positive social conversations.

The staff to resident ratio is an important factor in determining levels of staff: client interaction. Mansell, Felce, Jenkins & De Kock (1982) found that in community based units, as the number of staff increased in the observational field, the amount of interaction with residents seen as a proportion of staff time, decreased. Felce, Repp, Thomas & Ager (1991) compared rates of interaction in four large institutional settings, three large community based units and two groups of small homes in the community. In all settings, increasing staff numbers while keeping client group numbers stable, did not increase the quantity of interaction seen.

Research from residential services suggests three possible hypotheses to be tested in evaluating influences on staff: client interaction in day centres:

1. Rates of staff: client interaction will be higher in smaller day centres than in larger centres.
2. A greater proportion of interactions will be positive (as opposed to neutral or negative) in smaller day centres than in larger centres.
3. Higher rates of interaction will be observed in services which are arranged so that a single staff member works with a group of clients than in those arranged so that groups of staff work with groups of clients, even if the overall staff: client ratio is similar.

Much of the research conducted in residential services in the U.K. has assumed a broadly behavioural perspective from which the quality of staff: client interaction is judged by how effective that interaction is in supporting task engagement in the service user. A Symbolic Interactionist framework however provides another perspective for evaluating the quality of

interactions. From this perspective, it is proposed that more self-affirmation will ensue from positive social and care interactions; that is: *quality of care is more determined by quality of social interaction as opposed to the physical aspects of care or engagement in activity per se.*

The Quality of Interactions Schedule (QUIS) (Dean, Proudfoot and Lindsay 1993) offers one possible structured approach to examining staff: client interactions. The QUIS was developed within the Domus evaluation projects as a further measure of Quality of Life/Care in residential settings, for people suffering with Dementia. QUIS is a non-participant time-sampling process where the number and quality of interactions are estimated from a series of (20-30 minute) observational slots spread over a number of visits and giving a 'typical' day within that particular environment. QUIS has been applied by the writer in previous studies in psycho-geriatric traditional hospital wards and new NHS community based environments (Lindsay and Skea 1997; Skea and Lindsay 1996).

Two hypotheses were examined:

1. Service users in the smaller day centre would receive a higher rate of interaction from staff than those in the larger centre.
2. The proportion of interaction in the smaller day centre which is of a Positive type, as opposed to Negative or Neutral, will be higher than in the larger day centre.

Method

The Day Centres and Participants

Both consenting centres were financed, managed and planned by a single shire county Social Services department. Leisure, recreation and work experience/college activities and programmes were expected to be broadly similar, due to the single nature of the planning involved.

Day centre 1 (Dc1) had at the time of the study, a capacity for 50 attendees (over the observation period the actual number ranged between 46 and 50). Day centre 2 (Dc2) had a capacity of 250 (247 actual attendees at the time of the study). Dc2, located nearer the City centre, was a large congregate facility, purpose-built as a day centre, with a mainly open plan design. Dc1, located in the Suburbs, was a converted private residence and the activity areas and the dining area were, accordingly, much smaller.

Although no formal assessment either of the abilities of service users, or of the level of training of staff, was available, there was no reason to expect systematic differences between the centres in this respect. Both centres were run by the same management team, and attendance was determined on a catchment system by the address of service users.

The Observational Instrument: Validity, Reliability and Scoring of the Quality of Interactions Schedule

Quality of Interactions Schedule scoring/transcript sheets consist of:

1. Time
2. Context
3. Verbal/Non-verbal
4. Interaction type coding columns.

The context column allows for reporting on further aspects such as which type of activity session is being observed, any extra numbers appearing in the observational field and further details of non-verbal interactions. Paper and pen transcripts of what is said and done are completed and are then used to code the interactions observed as Positive Social (PS), Positive Care (PC), Neutral (N), Negative Protective (NP) or Negative Restrictive (NR). Examples of the verbal content of interactions coded into Quality of Interactions Schedule categories (taken from the present study) would include:

Positive Social (PS) (highest scoring)

'Are you going to the cinema tonight then X, the one on y street, down town?'

Positive Care (PC)

'Shall we put that back in your Lunch-box, there you are some cream and jam, here can I help you with that, you seem to be struggling a bit'

Neutral (Ne)

'You alright' Neutral interactions are usually short, cursory and not very involved with the service user

Negative Protective (NP)

'X don't do that please' rather typical, involves concern/worry over the service user's safety or that of the staff or another service user, though does not explain that concern fully.

Negative Restrictive (NR) (lowest scoring)

'X come and sit down' always said in a negative way, control based interactions where the service user is seldom given any explanation.

Each interaction is scored (contemporaneously or post hoc) from 5 = Positive Social to 1= Negative Restrictive, i.e. Positive Social interactions are regarded as the most desirable form of interaction and Negative Restrictive the least desirable. Frequency counts of the numbers of each type of interaction can also be derived, as well as ratio of interaction scores which are calculated as the number of interactions observed in an episode, divided by the number of residents present, which gives a measure of interactions per resident.

The Quality of Interactions Schedule has proved to reliably discriminate between different types of settings and over time; within settings it also exhibits good inter-rater and intra-rater reliability coefficients ($k= 0.67$ and 0.73 respectively, by interaction types, Dean, Proudfoot and Lindesay, 1993).

Procedure

Following the granting of Medical Ethics Board approval, two Day centres

were approached serving a large city of an English Shire county, identified as Dc1 and Dc2.

Day centre managers were contacted by phone-calls, letters and a follow-up visit to obtain approval and discuss the observation to be done. Staff and Service-users were informed about the nature of the study and consent was obtained collectively and via Day Centre management.

Observation of a 'typical' day was built up from 20 minute long observational episodes taken over an eight month period, this was the case with both Day Centres. The 'typical' day ran from 9.30 a.m. to 3.00 p.m., thus requiring fifteen twenty minute observation sessions in each day centre, and a last session being 30 minutes long as the final sixteenth observation episode making up the day.

On each visit, the observer chose a public location within each centre to observe from. Each of the observation episodes were not pre-planned regarding which area within the Day Centres to observe and who was to be observed, as a pseudo-random selection is implicit in the QUIS method of observation. Practical points such as how clearly people could be heard and background noise made observation in the larger congregate areas of Dc2 more problematic.

When larger groups were observed this meant effectively concentrating upon a small group within the larger group, this was done opportunistically. It is an important point of procedure that no pre-planning of observation areas or the service-users/staff to be observed was applied, within the obvious constraints outlined above. Private areas were not observed

The observer attempted to sample each observable area possible over the 8 month period of 16 visits, in each day centre, in order to increase levels of confidence that the data collected represented interactions in the whole centre, rather than over-representing interactions in one location of the centre or one particular activity.

Information on the programmes, policies and procedures of each centre was obtained through collecting the literature available from each participating day centre, followed up by short, informal discussions with Managers.

Data analysis

In line with the above hypotheses, overall rates of interaction were compared between both Day Centres and proportions of interactions falling into each category were analyzed. Characteristics of observed interactions such as verbal and non-verbal features, who initiated interactions and length of interactions were also examined. Programmes, policies and activities were looked at to give further contextual information.

Results

QUIS results are expressed both as a simple count by each QUIS category by location and ratio of interactions for each setting. Any differences in rates of interaction between staff and residents in the two centres was

examined by using the interaction ratio (derived from the number of interactions observed and the number of residents present per episode) for each observational slot and applying the two sample Kolmogorov-Smirnov test due to a wide discrepancy in ranges and disparities in sample distribution (see Figures 1a and b). The mean interaction rate in DC1 was 1.77 (range 0.9 – 11.5), the mean interaction rate in Dc2 was 0.72 (range 0.002 – 5.29). The test demonstrated a significantly higher rate of interaction in Dc1 ($z=1.95$, $d.f.= 1$, $p<0.001$).

Figure 1a: Stem and Leaf Plot by Day Centre Setting

Interaction Ratios Stem-and-Leaf Plot for Day Centre 1 (n=50 service users)

```

Frequency  Stem & Leaf
          1.00 Extremes  (= <.10)
          4.00      9 . 0899
          1.00     10 . 0
          2.00     11 . 00
          4.00     12 . 0000
          1.00     13 . 0
          1.00     14 . 0
          2.00 Extremes  (>=2.20)
    
```

Stem width: .100
 Each leaf: 1 case(s)

Figure 1b. Interaction Ratios Stem-and-Leaf Plot for Day Centre 2 (n=247 service users)

```

Frequency  Stem & Leaf
          10.00  0 . 0000000014
           3.00  0 . 789
           2.00  1 . 44
           1.00 Extremes  (>=5.3)
    
```

Stem width: 1.000
 Each leaf: 1 case(s)

Table 1 charts the frequency of observed QUIS category counts by day centre. This is done for category totals over the six hours of observation in each setting (for sixteen fixed time samples, fifteen of which were twenty minutes, the last sample 3.00–3.30 p.m. was thirty minutes long). Very few negative, and few neutral, interactions were observed in either setting, and these interactions were therefore collapsed into an overall Neutral/Negative category, giving the totals seen in Table 2.

Table 1: Quality of Interactions Schedule Categories, Percentages and Totals by Day Centre Setting

<i>QUIS Category Type</i>	Dc1 (n=50)	Dc2 (n=247)	Totals
<i>Positive Social</i>	66	77	143
<i>Positive Care</i>	28%	45%	35%
<i>Neutral</i>	138	75	213
<i>Negative Protective</i>	59%	43%	53%
<i>Negative Restrictive</i>	23	18	41
<i>Totals</i>	10%	10%	10%
	1	0	1
	.5%	3	7
	4	2%	2%
	1.7%	173	405
	232		

Table 2: Positive Interaction Categories, Percentages and collapsed Neutral/Negative category by Day Centre

<i>Location</i>	Dc1 (n=50)	Dc2 (n=247)	Total
<i>Positive Social</i>	66	77	143
<i>Positive Care</i>	28%	45%	35%
<i>Neutral/Negative</i>	138	75	213
<i>Total</i>	59%	43%	53%
	28	21	49
	12%	12%	12%
	232	173	405

Although the persons involved in each interaction were not recorded in the QUIS observations, it was assumed that observations could be regarded as independent. Given the nominal/categorical nature of the data and assumption of independence (see Discussion section), chi-square analysis was undertaken on the association between Day Centre and the distribution of observations across categories.

A significant difference is seen between observed and expected frequency counts: ($\chi^2=12.1$, d.f.=2, $p<0.01$), indicating an association between Day Centre setting and the amount of interaction falling into each category. By comparison with the expected values, there were less Positive Social, and more Positive Care, interactions in Dc1, but more Positive Social, and less Positive Care, interactions in Dc2. Further aspects relevant to quality were examined, these included the characteristics of interactions such as Interactions which are verbal, non-verbal or both verbal and non-verbal.

Table 3: Verbal and Non-verbal Aspects of Interactions and Percentage of Totals by Setting

<i>Setting</i>	Dc1 (n=50)	Dc2 (n=247)	Totals
<i>Verbal</i>	137	138	275
<i>Non-verbal</i>	59%	80%	68%
<i>Verbal + N.V.</i>	9	2	11
<i>Totals</i>	4%	1%	3%
	86	33	119
	37%	19%	29%
	232	173	405

Over twice as many interactions which were both non-verbal and verbal in nature were seen in the smaller centre Dc1 (n=50). A difference between observed and expected frequencies is seen regarding whether the interaction is verbal, non-verbal or both, by location ($\chi^2=19.89$, d.f.=2, $p\leq 0.001$). By comparison with expected values, in Dc1 there were less purely verbal but more purely nonverbal interactions, and more interactions involving both verbal and nonverbal aspects. In Dc2, by comparison with expected values there were more purely verbal interactions and less of both other categories.

Who initiated the interactions was examined by setting, Table 4 charts this Staff→Service-user and Service-user→ Staff initiation pattern by setting.

Table 4: Staff and Service-user Initiation of Interaction by Setting

<i>Setting</i>	Dc1 (n=50)	Dc2 (n=247)	Totals
<i>Staff</i>	220	153	373
<i>Service-user</i>	95%	88%	92%
<i>Totals</i>	12	20	32
	5%	12%	8%
	232	173	405

Chi-square analysis showed a significant relationship between day centre and pattern of initiations ($\chi^2=6.37$, d.f.=1, $p\leq 0.02$). In comparison with expected values, there were more staff and less client initiations in Dc1, with the opposite pattern in Dc2.

A further aspect was length of interaction expressed as: 1-2 words (very short), 3-5 words (intermediate) and 6 and over (longer interactions), the premise being greater involvement as the verbal length of interactions increases (see Table 5).

Table 5: Distribution of Lengths of Interactions by Setting

<i>Settings</i>	<i>Dc1 (n=50)</i>	<i>Dc2 (n=247)</i>	<i>Totals</i>
1-2 words	10	24	34
3-5 words	4%	14%	8%
6 words and over	51	31	82
	22%	18%	20%
Totals	171	118	289
	74%	68%	72%
	232	173	405

An association was seen between centre and distribution of interaction lengths ($\chi^2=12.02$, $DF=2$, $P\leq 0.01$). In Dc1 the period between 11.30 am - 3.00 pm was when longer interactions occurred. These were in-depth and relatively complex, often explanatory or instructional in nature; embedded within activity sessions, structured activities and the lunch period. The same was true of Dc2, though relatively less interaction per-se was seen over the lunch period. An artwork session in Dc2 instructional/demonstrational by context, showed the longest interaction observed with more than 28 words. Not surprisingly an association is seen between involvement/engagement and engagement in the above structured activities as witnessed by Seed (1988) and Collins and Toft (1999).

Programmes, Policies and Activities

Both centres had a wide and varying range of activities programmes, where a relatively high degree of community locations were used. The information gathered is a 'snap shot', and comes from printed centre time-tables and short interviews, though the observer through many visits over time got a clearer picture of how the centres appeared in terms of their programmes, policies and procedures. Seed (1988), and Collins and Toft (1999) point out that Day Centre policies vary both between settings and (my italics) *over time*. Policy change within Day Centres has been a key Department of Health and Government goal instigated in 1971 and still evolving (Valuing people, Government White Paper, Department of Health, 2002)

Programmes and activities were assessed in each centre as a percentage of total weekly allocated group time-table slots in each respective Day centre's timetable of weekly activities.

The results represent basic community visits/contact as: 'out and about, shopping, outdoor pursuits, environmental projects and community visits' and as social skills in form such as 'social training, personal presentation and interaction/communication' in the day centre timetables. Leisure, Work and Education were also assessed (see Table 6).

Table 6: Percentage of Group Time-Tabled Activities by Type and Location

<i>Location</i>	<i>Dc1 (n=50)</i>	<i>Dc2 (n=247)</i>	<i>Totals</i>
Leisure	20	20	40
Work	23	28	51
Education	1	1	2
Community	3	5	8
Social	5	6	11

Regarding the ethos of both Day Centres, they produced written material, which laid down their basic principles and aims. Informal interview and meetings obtained some information on Dc1 and Dc2, though a printed 'Quality Framework' pamphlet served as the main guide for the text that follows.

Eleven objectives of these centres were listed within this document; they concerned mainly meeting racial, cultural, and individual day-service planning needs for service users. Areas concerning safety, dealing with challenging behaviour in a 'creative' way, encouraging independent action and generally encouraging positive public perception of those with Learning Difficulties through use of community resources, were given high priority. Service standards were also set concerning: provision of a prompt response to a request for service, providing a non-oppressive service, equal access, efficiency and cost effectiveness, high quality information for users and carers, complaint handling procedures and planning objectives.

Discussion

The observational results show both a difference in overall rates of interaction between service users and staff, with a higher rate of interaction in the smaller day centre. Associations between day centres and tendencies towards particular styles of interaction were noted. Few negative or neutral interactions were observed in either day centre, but when categories of positive interaction were examined, the smaller centre showed a higher proportion of "care" oriented interactions, and the larger centre a higher proportion of "social" interactions, than would be expected by chance. When mode of communication was examined, the smaller day centre showed more interactions involving non-verbal aspects, and the larger centre more purely verbal interactions, than would be expected by chance. When initiation of interactions was examined, in the smaller Day Centre there were more staff-initiated and fewer client-initiated interactions than would be expected by chance, with the converse pattern in the larger centre. Finally, the smaller day centre showed less, and the larger centre more, very short (1-2 word) interactions than would be expected by chance.

The first hypothesis of this study, that there would be a higher rate of interaction between staff and service users in the smaller when compared with the larger centre was supported. The second hypothesis, that there

would be an association between centre size and tendency towards positive, rather than neutral or negative, interaction was not supported; the overwhelming majority of interactions observed in both centres were classed as positive.

Detailed examination of the relationship between the centre in which interactions were observed and the style of the interaction, however, suggested a complex pattern of association which may be summarised overall by suggesting interactions in the smaller centre showed a tendency to be care-oriented, to involve non-verbal interaction, to be extended, and to be initiated by staff, while in the larger centre more interactions than would be expected by chance were purely social in nature, purely verbal, very brief, and initiated by service users.

The current study has a number of limitations both in terms of the measures used and in terms of the overall design of the study. Cummins (2002) offers the suggestion that to advance understanding of subjective features of Quality of Life (QoL), researchers and service delivery agencies "understand the measurement characteristics of the subjective QoL instruments that they employ". Validity and reliability limitations concern first and most significantly the independence of observations, since the analysis (Chi-square) assumes independence of observations. Given that 232 interactions were coded in Dc1 (with 50 service users attending), and 173 in Dc2 (with 247 attendees), and given that the numbers of staff involved were smaller than the number of service users, it is certain that some of the interactions observed involved the same participants, and likely that they involved the same pairs of participants, thus potentially compromising the independence of the observations coded. I have however argued elsewhere (Lindesay and Skea 1997; Skea and Lindesay 1996), that in the analysis of interactions between large numbers of service users and staff in congregate settings, the number of potential interacting dyads is sufficiently large, and the context of each interaction likely to be sufficiently unique, that observations can usefully be regarded as independent and chi-square analysis be used to explore associations between settings and tendencies towards particular styles of interaction.

A second methodological limitation of the present study was that unlike the study of Collins and Toft (1999), no assessment of inter-observer reliability was undertaken, the author being the sole observer. The Collins and Toft (1999) study used two observers and also looked at diary data as convergent validity/reliability material). The present author however was trained on the QUIS method where inter- and intra-rater reliability statistics were computed as an intrinsic part of this training to ensure correct categorisation of observations and agreement between observers.

Comparison between the results of this study and earlier studies in day centres for people with learning difficulties is also complicated by differences in observational coding categories. Previous studies have used a variety of measures. Pettipher & Mansell (1993) presented estimates of the percentage of service users' contact time in which they were in contact with staff based on momentary time-sampling data. Estimating that their least able group of clients were in interaction with staff for 14% of their time, with the most able group receiving staff contact for 5% of the time. The rates of interaction observed in this study (mean 1.77 interactions observed in Dc1 and 0.72 in Dc2 in sessions of approximately 20 minutes' duration),

assuming a notional mean duration of 60s per interaction, would appear to broadly correspond to those observed by Pettipher & Mansell (1993). The difference between studies in measures (percentage time versus count of interactions) however makes exact comparison impossible. McConkey, Morris & Purcell (1999) counted the number of “communicative acts” observed in sessions lasting approximately 15 minutes, and reported apparently much higher rates of interaction; staff members produced a mean of nearly 50 verbal communicative acts and over 18 nonverbal acts, the corresponding figures for service users being over 20 verbal acts and 16 nonverbal acts, within the 15 minute period. McConkey, Morris & Purcell (1999) however observed members of staff in 1:1 interaction with service users, whereas in this study, as in that of Pettipher & Mansell (1993), observations were conducted with many fewer staff than service users present.

One fundamental limitation of the present study is that because only one smaller and one larger day centre were studied, the possibility cannot be discounted that any effects observed were associated with other unknown characteristics of the two centres, possibly wholly unconnected with their size. Because staff client ratios were not calculated in the present study, and the abilities of service users were not formally assessed, the extent to which differences in interactions between the two centres were due to these factors cannot be assessed. Given the common management and admission policies of the two establishments, however, it seems unlikely that there would be radical differences in this respect. A strong possibility therefore is that the higher rates of staff-client interaction seen in the smaller centre result from the fact that the physical layout of the smaller centre favoured day-to-day organisation with small groups working with a single staff member. Whereas in the larger spaces of Dc1 pairs of staff often worked with larger groups of service users. This possibility would correspond to the findings of several studies of residential services which have found that adding staff but keeping the client group size the same has no effect or only little effect on the amount of engagement/interaction (Felce, Repp, Thomas & Ager 1991; Mansell, Felce, Jenkins & De Kock 1982).

With regard to the quality of interactions, previous research (Felce et al 2000; Jones et al 1999; Shepherd, Muijen, Dean & Cooney 1995) suggests that when users are less able and the environment is particularly large (as in Dc2), then more negative interactions can be observed. Very few negative interactions were noted in this study in either day centre. Associated with the smaller day centre were increased probabilities that interactions would be care-focussed, longer, involve nonverbal communication, and be initiated by staff. Associated with the larger day centre were increased probabilities of interactions being purely social, shorter, purely verbal, and client-initiated. This pattern of associations probably does reflect an increased probability of “richer” interactions in the smaller centre.

Engagement in meaningful activity, physical presence in the community, and range and quality of social interaction with non-disabled people appear to have emerged as consensus indicators of quality of residential provision and have enabled researchers to assemble a body of data which facilitates comparisons between alternative service models in terms of quality and costs. The development of such a consensus, together with more and

better information on the performance of traditional day centres, would appear to be essential if alternative models of service are to be subject to rigorous evaluation.

The present results are however consistent with the argument that in day services as well as residential services, the quality and quantity of social interactions between staff and service users will be affected by management and staff deployment as well as by the overall service 'model' and levels of resourcing. Although Collins and Toft (1999) note that increases in levels of engagement observed were due to sessions with 'high staff ratios, i.e. crafts, social skills.....', Felce (2000) states that

'Clear allocation of staff to duties and arranging the setting so that staff work alone with residents rather than being in the company of other members of staff has been shown to be more important in increasing staff interaction with residents than increasing the number of staff'

Increasing the quality of staff-client interaction, rather than just its quantity, may require that staff be trained in communicational skills in addition to 'active support' (Jones, Perry, Lowe, Felce, Toogood, Dunston, Allen & Pagler 1999; McConkey, Morris & Purcell, 1999).

Aspects of planning and procedure observed in the current study are broadly comparable with data from Seed's (1988) Scottish study and Collins and Toft's (1999) information from staff's activity diaries. As expected, and reflecting some service goals, the greatest planned allocation of sessions was for work in both centres; aspects which may improve quality of interaction such as community contact and social skills based activities were poorly represented. With community activities occupying no more than 5% of session time in either centre, the present study demonstrates the scale of change which must be achieved if future day services are to meet the aspirations expressed in 'Valuing People' (Department of Health, 2001).

The author has done some provisional work applying findings such as the above into staff training and awareness programmes. It is possible to implement the QUIS behaviours exhibited by staff above as basic materials in systematic role play exercises (Ments 1986) and staff awareness raising sessions. Further issues concerning what staff consider QoL to 'mean' for the people they look after is a further under researched area of interest to the present author.

References

Carnaby, S. 1999. Designs for living: A comparative approach to normalisation for the new millennium. Ashgate publishing.

Collins, G. J. & Toft S.L. 1999. A day in the life: a long term evaluation of a day service for people with learning disabilities. Journal of learning disabilities nursing, health and social care. Vol 3. (2). pp 92-97.

Cummins, R.A. 2000. Objective and subjective quality of life indicators: an interactive model. Social Indicators Research. Vol. 45. pp 234-269.

Cummins, R.A. 2002. The Validity and Utility of Subjective Quality of Life: a reply to Hatton and Ager. Journal of Applied Research in Intellectual Disabilities. Vol.15. pp. 261-268.

Dean, R., Proudfoot R. & Lindsay, J. 1993. The Quality of Interactions Schedule (QUIS): Development, Reliability and Use in the Evaluation of Two Domus Units. International Journal of Geriatric Psychiatry. Vol 10, pp. 819-826.

Department of Health. 1971. White Paper: Better Services for the Mentally Handicapped.

Department of Health. 2001. White Paper. Valuing People: A New Strategy for learning Disability for the 21st Century. March.

Emerson, E. & Hatton, C. 1994. Moving Out: Relocation from Hospital to Community. HMSO. London.

Felce, D., Bowley, C., Baxter, H., Jones, E., Lowe, K & Emerson E. 2000. The effectiveness of staff support: evaluating Active Support training using a conditional probability approach. *Research in Developmental Disabilities*. Vol.21, pp. 243-255.

Felce, D., de Kock, U. & Repp, A. 1986. An Eco-behavioural Analysis of Small Community Based Houses and Traditional Large Hospitals for Severely and Profoundly Mentally Handicapped Adults. Applied Research in Mental Retardation. Vol. 7, pp. 393-408.

Felce, D. & Perry, J. 1995. Quality of life: its definition and measurement. Research in developmental disabilities. Vol. 16, No 1. pp. 51-74.

Felce, D., Repp, A. C., Thomas, M & Ager, A (1991). The relationship of staff: client ratios, interactions and residential placement. Research in Developmental Disabilities. Vol. 12, (3) pp. 315-331.

Hewitt, J. P. 1994. *Self and Society: a symbolic interactionist social psychology*. Allyn and Bacon. Boston. London. Singapore.

Jones, E., Perry, J., Lowe, K., Felce, D., Toogood, S., Dunston, F., Allen, D. & Pagler, J. 1999. Opportunity and the Promotion of Activity Among Adults with Severe Intellectual Disabilities Living in Community Residences:

the impact of training staff in active support. *Journal of Intellectual Disability Research*. Vol. 43, Part 3, pp. 164-178.

Lindesay, J. & Skea, D. 1997. Gender and Interactions Between Care Staff and Elderly Nursing Home Residents with Dementia. *International Journal of Geriatric Psychiatry*. Vol. 12, pp. 344-348.

Mansell, J., Felce, D., Jenkins, J. & De Kock, U. 1982. Increasing staff ratios in an activity with severely mentally handicapped people. *British Journal of Mental Subnormality*, Vol 28, pp. 97-99.

McConkey, R., Morris, I. & Purcell, M. 1999. Communications Between Staff and Adults with Intellectual Disabilities in Naturally Occurring Settings. *Journal of Intellectual Disability Research*. Vol. 43, Part 3, pp.194-205.

Ments, V. M. 1989. *The Effective Use of Role-Play: a handbook for teachers and trainers*. Kogan Page. London.

O'Brien, J. 1987. 'A guide to life style planning: Using The Activities Catalogue to integrate services and natural support systems', in B. W. Wilcox & G.T. Bellamy (Eds). *The Activities Catalogue: An alternative curriculum for youths and adults with severe disabilities*, Baltimore: Brookes.

Pettipher, C. & Mansell, J. 1993. Engagement in Meaningful Activity in Day Centres: an exploratory study. *Mental Handicap Research*. Vol 6. No. 3, pp. 263-262.

Prior, M. 1979. Verbal Interactions between staff and residents in an institution for the young mentally retarded. *Mental Retardation*. Vol. 17, pp. 65-69.

Seed, P. 1988. *Day care at the Crossroads: an evaluation of the local authority contribution to day care services for adults with mental handicaps in Scotland*. Costello: Tunbridge Wells

Skea, D & Lindesay, J. 1996. An Evaluation of Two Models of Long-term Residential Care for Elderly People with Dementia. *International Journal of geriatric Psychiatry*. Vol. 2, Number 3, pp. 233-241.

Shepherd, G., Muijen, M., Dean, R. & Cooney, M. 1995. 'Inside Residential Care' *The Realities of Hospital Versus Community Settings*. The Sainsbury Centre for Mental Health. London.

