

## Using Q Methodology to Evaluate a Day Service for Younger Adult Stroke Survivors

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**Abstract:** *Q methodology was used in programme evaluation of the Cardiff Day Service, which was launched in July 1995 specifically for adult stroke survivors 18-55 years of age. The aim of the Service was to offer participants an opportunity to identify and pursue meaningful and realistic situations within the community that would enable them to meet their personal aspirations, and develop their full potential. The purpose of this study is its application as a tool for understanding, evaluating, and extending or redirecting this Day Service. A 41-item Q set pertaining to perceived benefits of the Cardiff Day Service was sorted by 18 Helpers, yielding five factors (psychological gains, social confidence, encourages communication, respite for carers, and sense of purpose). The Q set sorted by Users was reduced to 33 items, after pilot testing indicated that Users could not concentrate long enough to complete the longer sort. Seventeen User Q sorts resulted in six factors (new experiences, feeling valued, social recovery, security, prevents isolation, and general recovery). The evidence from this aspect of the programme evaluation suggests that the Service is a welcome initiative. Reconsideration of its structure led to a suggestion to establish two distinct branches, one to provide social support and another for rehabilitation support. Q methodology can continue to provide important input into the evolution of the Service by addressing questions about how best to meet the needs of pre-retirement individuals after stroke.*

### Introduction

*Stroke is the acute onset of neurological deficit that potentially disrupts all aspects of motor, sensory, language, cognitive, and social functions, lasts for more than 24 hours, or leads to an early death. The origin is presumed to be vascular (Aho 1980; Falconer, et al. 1993; Bogousslavsky, et al. 1998).*

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*Operant Subjectivity, 2003 (October), 27 (1), 1-23.*

A stroke can result in physical and psychological impairments, and may contribute to individuals not achieving their expectations for participation and quality of life. The Stroke Association (1996) considers a stroke to be a life-threatening illness that constitutes a major life event for families and carers as well as patients. They estimate that approximately one-third of stroke survivors recover their former level of physical function, whereas one-third of patients die within the following six months. The remaining third of patients will recover a proportion of their function, but will be disabled to some degree for the rest of their lives (Stroke Association 1996). According to Phipps (1991), of those who survive a first stroke, 50% are expected live at least 5 years. Reports indicate that stroke can affect self-care and cause decreased functionality in daily activities, thus jeopardising the ability to live independently (Mathias et al. 1997; Bogousslavsky et al. 1998; Pound et al. 1998; Roding et al. 2003).

Of the 130,000 incidents of stroke per year in the UK, 7.6% (10,000) occur in those under age 65 (House of Commons 2003). Australia has 24,000 incidents of stroke each year in individuals under age 70; 10% (2,400) occur in those under age 45 (National Stroke Foundation 2003). The nature and consequences of stroke mean that life may be very different afterward. The effect on younger individuals could result in a life-long disability (Anderson 1992). There is a dearth of literature relating to service provision or the impact of a stroke on the lives of those in the 18-55 age group. There may be differences in impacts on the lives of those not yet of retirement age, including career development and raising a family (Bevan, 1990). According to Thompson and Coleman (1988), a young stroke survivor with no major complications is likely to regain some previous skills more quickly than an older person. Kittner (1998) identifies career development and rearing a family as issues.

A stroke in a younger person often results in a change in employment circumstances. It can devastate a career and result in a reduction of professional activities (Stroke Association 1999; Bogousslavsky et al. 1998). Returning to work after a stroke is a major factor for life-satisfaction and high subjective evaluation of personal well-being (Vestling et al. 2003). After a stroke, there is often a reduction in the participation in previous leisure activities (Atler and Gliner 198; Bogousslavsky et al. 1998; Neau et al. 1998; Pound et al. 1998). According to Soderback et al. (1991) as many as 50% of stroke survivors do not continue their previous leisure activities. An illness such as stroke involves not only the individual but all family members and social networks (Burton 2000). In addition, Ellis-Hill and Horn (2000) suggest that following stroke individuals have a negative sense of self resulting in low expectations of life encumbered by disability.

Most post-stroke support occurs in in-patient rehabilitation services, although the Stroke Association (1996, 5) found these to be "haphazard,

fragmented and often sub-optimal.” Roding et al. (2003) found that young stroke patients are frustrated, as services are not tailored to their needs. Outpatient- or community-based services may be provided, but are not specifically targeted at those under retirement age or intended for long-term support (Gresham 1995, Kersten et al. 2002). Currently in the UK two voluntary organisations, Different Strokes and The Stroke Association, provide individual support post stroke. Statutory services specifically for younger adults do not appear to exist. Different Strokes aims to change attitudes toward stroke, and create awareness that it does not affect only old people (Different Strokes 2001). Networks and informal support groups have been established throughout England, with one of each in Scotland and Northern Ireland, but none in Wales. The Stroke Association (1995) has a long history of developing services and support groups and funding research for all aspects of stroke. They established the only service that exists specifically for adults 18-55 years of age, the Cardiff Day Service, in 1995. This Service meets weekly for full-day sessions with the aim of offering participants the opportunity to identify and pursue meaningful and realistic opportunities within the community. The purpose of these opportunities is to help individuals to meet their personal aspirations, and enable them to develop to their full potential. The inclusion criteria for attending the Service (and thus recruitment to the study) were:

- aged between 18 and 55 years
- independent use of and transfer on/off toilet
- living within a catchment area of 5 miles of the Service venue

The Service was provided one day a week, staffed by one paid employee (an organiser) along with volunteers. Health and social care professionals were not involved. The venue for the Service was a large multi-purpose room in a community setting, with a range of facilities including kitchen, practical activity area, social area, computer area, an additional small meeting room, and toilet facilities. Service users were invited to participate in any of the activities provided, including arts and crafts sessions, social events, outings, and some opportunities to learn new skills such as computer training. An evaluation was undertaken to establish the benefits of the Service. The findings would inform future planning and provision with respect to long-term care post stroke. It would also provide a greater understanding of the needs of younger adults, thus facilitating the provision of services most appropriate to address these needs.

One purpose of the evaluation was to determine the perceptions of benefits to Users and Helpers at the Cardiff Day Service.<sup>1</sup> Q methodology

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<sup>1</sup> ‘User’ and ‘Helper’ are capitalized only in specific references to participants in this Q study, but not when their applicability is more general.

was employed, as it uses a unique method of data collection and statistical analysis techniques drawing from quantitative and qualitative backgrounds (Brown 1996). It is helpful in identifying understandings of illness and disability from a patient/client perspective, and has already been used to examine the diverse ways individuals explain health and illness (Stainton Rogers 1991). Q methodology was also selected, because it provided an opportunity for all those involved in the Service (users, volunteers, carers, and organisational personnel) to participate. The method allowed the attitudes towards the benefits of the Service to be identified. Phillips et al. (1994) suggest that conventional data collection methods have limitations in establishing the intensity of opinions. They advocate considering alternative methods to determine subjective views. This method provided an opportunity for users to have an active role in the evaluation of the Service they attended, an important issue according to Martin (1986).

## Method

### Participants

The population for this study included both *Users* of the Service and *Helpers*. The *Users* were all individuals who were referred to the Service, met the Service criteria, and subsequently attended the Service between July 1998 and February 2001. Nineteen individuals were eligible to take part, their mean age was 46 years, and 12 were men. The average length of time since they had their stroke was 25 months.

The *Helper* group consisted of 18 individuals. Four of these were carers who were approached within 6 months of their relative/spouse attending the service. Seven of the *Helper* group were personnel from the funding agency. (Of these, two were directly involved in the day-to-day operation of the service, three were senior management, and the remaining two were post-stroke contacts who often referred people to the service.) Five of the service volunteers participated, and the remaining two *Helpers* were individuals who occasionally ran sessions at the service and were paid per session.

### Developing the Q Set

Initially 360 statements were generated from several sources pertaining to the perceived benefits of the Cardiff Day Service. Group interviews were conducted with representatives of the Service users, their carers, volunteers, fund holders, and those who referred clients to the Service. Each group was asked for impressions of the benefits of the Service. Literature sources were also explored, especially those relating to the provision of day services, as well as the Cardiff Day Service documentation outlining its aims.

The statements were checked for duplication. Those describing the *process*, as opposed to the *benefits*, were removed, as advocated by Martin (1986, 94):

...questions about the process of service, and particularly about the consumers' opinions of staff and intervention procedures, must be clearly separated from questions about the effects of the service as judged by the consumers. Positive feelings expressed about the efforts of staff to help can too easily appear to be positive assessment of results achieved; confusion of the inputs and outputs of service may be generated by gratitude, loyalty or personal regard for dedicated practitioners.

The statements were examined to ensure that they were appropriate, applicable to the study, and sufficiently comprehensive to include all relevant aspects of the study (Stainton Rogers 1995). A Q set of 47 statements was pilot tested.

### **Pilot Test**

Pilot testing of the Q set was undertaken in two phases: one focused on the validity and clarity of the statements and a second on the procedure.

**Phase One:** In the first phase, the 47 statements were sent in questionnaire format to eight representative individuals for evaluation. Two of the evaluators were users of the Service prior to the commencement of the evaluation, two were carers of Service users, two were volunteers at the Service, one was an information officer for the Stroke Association who referred potential users to the Service, and one was an independent researcher in stroke rehabilitation. Although all eight were returned, one was completed incorrectly and was not used. Respondents were invited to comment on the appropriateness of the statements in relation to perceptions of Service benefits. They were asked to indicate the extent to which they agreed with each statement, comment on wording, identify duplication, and comment on comprehensiveness of the set. Phase one of the pilot testing identified duplications and ambiguous wording. Duplicates were removed, reducing the Q set to 41 statements, and some were re-phrased for clarity (Appendix 1).

**Phase Two:** Three Users and one carer were involved in the second phase of the pilot process. The participants were informed that the statements related to benefits of the Day Service and were asked to sort (rank order) them in accordance with the direction and intensity of their feelings. The carer had no difficulty understanding the task of sorting the statements, and completed the sort in 20 minutes. Each of the Users, however, struggled and became tired. Even those with communication difficulties understood the concept of indicating their level of agreement with the statements, but had difficulty concentrating for the length of time it took to complete the task. They appeared reluctant to be negative or critical of the Service, and therefore had difficulty placing statements in the *most disagree* category.

### **Sorting the Statements**

In response to the pilot test findings, the condition of instruction was changed slightly to address concerns of the sorters regarding negative responses. This

was done by altering the parameter of agreement, so that instead of *most agree to most disagree*, the participants were asked to sort the statements from *most agree to least agree*. The instructions indicated that the centre was neutral. The Helpers, that is the carers, volunteers, and other key players, sorted the 41 statements at their convenience during a 12 month period. (See Appendix.)

**Sorting Grid for Helper Pack (41 statements)**

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
2	3	3	4	5	7	5	4	3	3	2

Also as a result of the pilot testing, the statement pack sorted by the Users was reviewed and further reduced to just 33 (Appendix Statements 1-33). Each User conducted the Q sort approximately two weeks prior to the end of six months attendance of the Service. Seventeen of the 19 Users who attended the Service participated. One User did not complete the Q sort, and the other was too ill to take part.

**Sorting Grid for User Pack (33 statements)**

-4	-3	-2	-1	0	+1	+2	+3	+4
2	3	3	5	7	5	3	3	2

### Analysing the Data

The data analysis was carried out using a combination of a Q sort data-inputting package (Qcom), which allows the entry of data in the distribution pattern format, and SPSS<sup>2</sup> into which the data is imported. Factors were identified if the eigenvalue was one or greater (Wigger and Mrtek 1994). As is common practice in Q analyses, the extraction method was Principal Component Analysis and Varimax with Kaiser Normalisation the rotation method (Brown 1980). This process identified six particular viewpoints (factors) for the Users and five for the Helpers. These reflect 71% and 70% of the variance of views held by Users and Helpers respectively. Sorts that loaded above 0.6 on only one factor were weighted and merged to produce a representative Q sort for that factor (Mrtek et al. 1996). The criteria for inclusion were in accordance with general practice in factor analysis which considers 0.6 to be a very good correlation whilst 0.3 is judged to be a poor one (Lee and Comrey 1992; Tabachnick and Fidell 2001).

### Factor Interpretation

Effective programme evaluation needs to document viewpoints of significant stakeholders from their own perspective of the programme, thereby establishing an environment and agenda for evolutionary programmatic improvement. The positives were important and illustrated in each factor

<sup>2</sup> SPSS for Windows. 1998. Chicago: SPSS, Inc.

interpretation noting similarities and differences and these serve as valuable guides for researchers and funders in terms of understanding the programmatic beneficial impacts on users. While there are similarities in perceived benefits across factors, there are also noteworthy differences among the perceived benefits.

Qualitative programme evaluation data is valued by stakeholders, because of the ability to suggest clear pathways for changes and alternative strategies to reshape the programme, reduce inefficiencies, increase sustainability and programme capacity, and illuminate beneficial trends that may have been anticipated by the original mission and goals or that may be unanticipated, but useful as serendipitous leads for effective new programmatic directions.

**Factor 1: New experiences**

User Factor 1 identified *new experiences* as benefits to the Service, in particular opportunity to make new friends and try new activities.

**Salient Statements User Factor 1: New Experiences**

No.	Statement	Rank
24	The Service has enabled me to make new friends.	4
31	It gives carers a regular break.	4
11	There is an opportunity to try new activities.	3
19	I learn from others.	3
13	It encourages people to communicate with each other even if there are speech problems.	3
16	Going to the Service is the only time I get out of the house.	-3
7	Counselling is available for users and their carers.	-3
26	I now use community services that I discovered through the Service.	-3
9	The Service provides information relating to benefits.	-4
33	The Service helps me to fight for my rights.	-4

The least agreed statements of this factor reflect a view that the Service did not facilitate participation in the wider community, including explanation of one’s rights and entitlements. Users with this viewpoint, however, did not depend on the Service for contact with the community.

**Factor 2: Feeling Valued**

User Factor 2 identified psychological benefits to the Service, including an environment where Users felt they had value and a sense of purpose. The least agreed statements reflect a view similar to Factor 1, but with the addition that the Service did not provide a sense of security or respite for carers.

***Salient Statements User Factor 2: Feeling Valued***

<b><i>No.</i></b>	<b><i>Statement</i></b>	<b><i>Rank</i></b>
23	I feel of value.	4
14	The Service stops me just thinking about myself and makes me think of others.	4
21	It's drawn me out of myself.	3
24	The Service has enabled me to make new friends.	3
10	The Service gives me a sense of purpose.	3
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9	The Service provides information relating to benefits.	-3
26	I now use community services that I discovered through the Service.	-3
31	It gives carers a regular break.	-3
16	Going to the Service is the only time I get out of the house.	-4
2	Our carers know we are safe.	-4

***Factor 3: Social Recovery***

User Factor 3 identified the chance to get out of the house and help with overall recovery from stroke as benefits of the Service. The least agreed statements reflect a view that the opportunity to get support to return to work or counselling was not available.

***Salient Statements User Factor 3: Social Recovery***

<b><i>No.</i></b>	<b><i>Statement</i></b>	<b><i>Rank</i></b>
22	Going to the Service has helped Users recover from their stroke.	4
16	Going to the Service is the only time I get out of the house.	4
28	It gives me something to talk about when I get home.	3
19	I learn from others.	3
24	The Service has enabled me to make new friends.	3
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26	I now use community services that I discovered through the Service.	-3
12	Carers get support at the Service.	-3
1	The activities at the Service are mainly focused on leisure and hobbies.	-3
7	Counselling is available for users and their carers.	-4
15	There is the opportunity to train/retrain for work.	-4



**Factor 4: Security**

***Salient Statements User Factor 4: Security***

<b>No.</b>	<b>Statement</b>	<b>Rank</b>
18	You see others improve and deal with similar situations.	4
17	I feel safe there.	4
33	The Service helps me to fight for my rights.	3
24	The Service has enabled me to make new friends.	3
5	People don't feel alone.	3
16	Going to the Service is the only time I get out of the house.	-3
31	It gives carers a regular break.	-3
3	I am now able to carry out some everyday activities.	-3
29	Attending the Service encourages me to be less reliant on carers.	-4
15	There is the opportunity to train/retrain for work.	-4

User Factor 4 identified as benefits of the Service a feeling of security, in particular feeling safe and being among others who shared similar experiences. The least agreed statements reflected a view that the Service did not facilitate independence; it did not enable Users to be less reliant on others or facilitate abilities to perform more activities or return to work.

**Factor 5: Prevents Isolation**

User Factor 5 indicated that the Service had the benefit of preventing isolation, as reflected in the statements of not feeling alone and being encouraged to communicate with each other despite difficulties. It also illustrated the benefit of opportunities to try new activities, in particular hobbies and leisure activities. Despite the feeling that the Service prevented isolation, the least agreed statements suggested that the Service did not prevent Users from focusing more on themselves and less on others.

**Factor 6: General Recovery**

User Factor 6 identified a contribution to Users' general recovery following their stroke as a strength of the Service. In addition, these individuals felt it encouraged communication and provided information. This factor reflected a positive attitude that the Service allowed views to be expressed without judgement while, at the same time, least agreeing with the view that the Service did not draw Users out of themselves. Another negative point indicated that the Service did not facilitate the use of community services or opportunities to return to work.

***Salient Statements User Factor 5: Prevents Isolation***

<b>No.</b>	<b>Statement</b>	<b>Rank</b>
11	There is an opportunity to try new activities.	4
5	People don't feel alone.	4
13	It encourages people to communicate with each other even if there are speech problems.	3
1	The activities at the Service are mainly focused on leisure and hobbies.	3
2	Our carers know we are safe.	3
12	Carers get support at the Service.	-3
24	The Service has enabled me to make new friends.	-3
3	I am now able to carry out some everyday activities.	-3
14	The Service stops me just thinking about myself and makes me think of others.	-4
29	Attending the Service encourages me to be less reliant on carers.	-4

***Salient Statements User Factor 6: General Recovery***

<b>No.</b>	<b>Statement</b>	<b>Rank</b>
22	Going to the Service has helped Users recover from their stroke.	4
6	It's a place to express views without being judged.	4
20	Detailed information on stroke and its prevention is available.	3
13	It encourages people to communicate with each other even if there are speech problems.	3
2	Our carers know we are safe.	3
15	There is the opportunity to train/retrain for work.	-3
28	It gives me something to talk about when I get home.	-3
26	I now use community services that I discovered through the Service.	-3
8	It's the only time I feel a sense of achievement.	-4
21	It's drawn me out of myself.	-4

**Helper factors*****Factor 1: Psychological Gains***

Helper Factor 1 identified psychological benefits of attending the Service, including gaining confidence and feeling of value. The least agreed statements saw the Service as not providing specific therapeutic assistance, be that rehabilitation, information, counseling, or support for carers.

**Salient Statements Helper Factor 1: Psychological Gains**

<b>No.</b>	<b>Statement</b>	<b>Rank</b>
38	Users develop confidence.	5
23	Users feel of value.	5
6	It's a place to express views without being judged.	4
13	It encourages people to communicate with each other even if there are speech problems.	4
31	It gives carers a regular break.	4
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36	Users are able to use their arms and legs better since coming to the Service.	-4
12	Carers get support at the Service.	-4
9	The Service provides information relating to benefits.	-4
8	It's the only time users feel a sense of achievement.	-5
7	Counselling is available for users and their carers.	-5

**Factor 2: Social Confidence**

Helper Factor 2 reflected a viewpoint that the Service facilitated development of confidence, particularly in a social context, such as making new friends and participating in leisure activities. The least agreed statements suggested that the Service was not providing rehabilitation.

**Salient Statements Helper Factor 2: Social Confidence**

<b>No.</b>	<b>Statement</b>	<b>Rank</b>
24	The Service has enabled users to make new friends.	5
38	Users develop confidence.	5
1	The activities at the Service are mainly focused on leisure and hobbies.	4
13	It encourages people to communicate with each other even if there are speech problems.	4
31	It gives carers a regular break.	4
<hr/>		
7	Counselling is available for users and their carers.	-4
3	Users are now able to carry out some everyday activities.	-4
33	The Service helps users to fight for their rights.	-4
15	There is the opportunity to train/retrain for work.	-5
36	Users are able to use their arms and legs better since coming to the Service.	-5

**Factor 3: Encourages Communication**

Helper Factor 3 presented a view that encouraging communication was a benefit to the Service. This is reflected in statements that suggest that the environment was safe, and therefore even those with speech difficulties were

encouraged to communicate. However, there did not seem to be a carryover to bring these new abilities out into the community according to the least agreed statements.

***Salient Statements Helper Factor 3: Encourages Communication***

<b>No.</b>	<b>Statement</b>	<b>Rank</b>
13	It encourages people to communicate with each other even if there are speech problems.	5
18	Users see others improve and deal with similar situations.	5
24	The Service has enabled users to make new friends.	4
17	Users feel safe there.	4
22	Going to the Service has helped Users recover from their stroke.	4
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34	The Service has increased users awareness of community services.	-4
39	Users have had the chance to learn basic skills that enable them to be independent.	-4
6	It's a place to express views without being judged.	-4
26	Users now use community services that they discovered through the Service.	-5
15	There is the opportunity to train/retrain for work.	-5

***Salient Statements Helper Factor 4: Respite for Carers***

<b>No.</b>	<b>Statement</b>	<b>Rank</b>
41	The Service provides an essential function in the recovery from a stroke.	5
31	It gives carers a regular break.	5
13	It encourages people to communicate with each other even if there are speech problems.	4
25	Attending the Service brightens up life and makes users feel happy.	4
6	It's a place to express views without being judged.	4
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15	There is the opportunity to train/retrain for work.	-4
29	Attending the Service encourages users to be less reliant on carers.	-4
2	Carers know that the users are safe.	-4
8	It's the only time users feel a sense of achievement.	-5
35	It's a place to forget troubles.	-5

***Factor 4: Respite for Carers***

Helper Factor 4 reflected a view that the benefit of the Service was respite for carers, allowing them to have a break. Despite being supportive to carers in

this way, this factor suggested more could be done, as they believed the Service encouraged Users to be less reliant on carers.

**Factor 5 Sense of Purpose**

The final Helper factor considered providing a sense of purpose to be a benefit of the Service along with acceptance, as it was perceived as a place where views could be expressed. Despite these positives, the least agreed statements suggested that it did not provide security or a sense of achievement.

***Salient Statements Helper Factor 5: Sense of purpose***

No.	Statement	Rank
38	Users develop confidence.	5
10	The Service gives users a sense of purpose.	5
6	It's a place to express views without being judged.	4
13	It encourages people to communicate with each other, even if there are speech problems.	4
18	Users see others improve and deal with similar situations.	4
20	Detailed information on stroke and its prevention is available.	-4
8	It's the only time users feel a sense of achievement.	-4
40	Users can get things 'off their chests' there.	-4
17	Users feel safe there.	-5
28	It gives users something to talk about when they get home.	-5

**The Statements**

Because the two Q sets were not equivalent (although they were similar in content) comparisons across Q sorter groups is not a valid exercise. For this reason, the reader is cautioned to keep this distinction in mind when considering how each statement was rated in each factor. (See Appendix.)

- Statement 3 (I am now able to carry out some everyday activities) was not rated highly in any factor, indicating that there was neither strong agreement nor disagreement that the Service enabled users to perform everyday activities more independently.
- There was a contrast of placing for Statement 6 (It's a place to express views without being judged), with five out of the six User factors rating it '0'. The Helper Factors 1, 4, and 5 rated it strongly (+4) with Factor 3 rating it -4, and Factor 2, +1.
- Although most ratings for Statement 8 (*It's the only time I feel a sense of achievement*) were negative, two Helper factors rated this especially negatively (-5). This indicates that some believe a sense of achievement

is gained at the Service. Users, on the other hand, indicated that the Service is not the only place where feelings of achievement can be experienced.

- Helpers rated the free environment for communication much higher overall than do Users (Statement 13: *It encourages people to communicate with each other even if there are speech problems*).
- The ratings of Statement 15 (*There is the opportunity to train/retrain for work*), indicates that this issue was not being addressed according to both Users and Helpers. The Helpers did not consider the Service to be the sole opportunity for Users to get out of the house, whereas one User factor loaded this highly, indicating that this was the case for some.
- Learning from others (Statement 19: *I learn from others*), was not perceived as an important Service benefit by either Q sort participant group.
- Only two factors, one User and one Helper, indicated feeling of value (Statement 23: *I feel of value*) was an important benefit. Others were ambivalent about it.
- One Helper factor indicated strongly that community services discovered through the Service were not being used (Statement 26: *I now use community services that I discovered through the Service*). The other factors rated it negatively with only one rating it positive (+1).
- Three factors, two User and one Helper, rated as the least agreed Statement 29 (*Attending the Service encourages me to be less reliant on carers*).
- There were mixed views on the place of the Service in providing respite for the carers (Statement 31: *It gives carers a regular break*). Three Helper factors rated it very highly. Most User views did not.
- Of the additional statements in the Helper set, Statement 38 (*Users develop confidence*) is one worthy of comment, as three factors rate this very highly and consider it a key benefit to the Service. We have no opportunity for a similar test among the Users, unfortunately.

## Discussion

The use of Q method in the evaluation of the Day Service programme was considered appropriate, as it enabled a breadth of perspectives relating to the benefits of the Service to emerge. Eleven factors were found among the 2 groups studied — Service users and those who help them. The findings of this study are not generalisable to other services, as this Service is unique. However, the results do allow some insight into what features of this Service these individuals considered beneficial, and what their priorities were regarding programmatic services. It is acknowledged that as the time since

stroke varies between the users, their needs from such a Service may also differ. However, since a stroke affects individuals in different ways, the actual time since stroke may not be an accurate reflection of its impact. Therefore variability between the time since stroke is not a limitation of this study, as it ensures awareness of the inter-patient variability of need. The use of two different Q sort packs was necessary. Although this reduces the ability to compare User and Helper perspectives, the reduced pack was vital in ensuring the Users participated in the study.

### **Psychological benefits**

The Q process identified a range of psychological benefits attributed to attending the Service. Helper Factor 1 (psychological gains) found an increase in confidence to be a benefit of the Service. A further finding that links to positive feelings is User Factor 2 (feeling valued). This factor described benefits of the Service in terms of feelings: *feeling of value* and *having a sense of purpose*.

There was agreement that counselling was not available through the auspices of the Service. During the sorting process, one User commented on the need for individual structured counselling to assist with the emotional problems following a stroke. In addition to adjusting to life after their stroke, life events such as the break-up of relationships, death of parents, and coping with raising children complicated the course of recovery. It would appear that expert psychological support is required for individuals after stroke. The incidence of depression post stroke is well documented (Stroke Association 1996; Neau et al. 1998). Although the Service appears to promote psychological gain in a small way from the User perspective, further support is required.

### **Social interaction**

User Factor 3 (social recovery) and User Factor 5 (prevents isolation) felt that the social interaction aspect of the Service was beneficial. It is seen as an important (in some cases, the only) place outside the home where Users go. It provides conversation material when outside the Service and enables individuals to meet new people and to make friends. It also provides social contact so people don't feel alone, and encourages communication even if speech problems are present. Helper Factor 2 (social confidence) also presents the view of the Service as the venue to promote confidence in social circumstances. Loneliness and isolation are consequences of a stroke according to Charmaz (1983), Warlow et al. (1998), and Pound et al. (1998). It would appear that the Cardiff Day Service contributes to a reduction in these feelings.

### **Environment**

The provision of a secure environment emerged as a perceived benefit. This suggests an environment where people felt accepted as they are with

whatever difficulties have arisen from their stroke. Statement 6 (*it's a place to express views without being judged*) was rated highly in one User factor and three Helper factors, contributing to an agreement that the environment of the Service was widely perceived as secure. Also the placing of Statement 24 (*the Service has enabled Users to make new friends*) adds to this view of a secure environment, as it was rated highly in three factors. No other literature refers specifically to the importance of providing a secure environment. The American Stroke Association (2000) acknowledges the benefits of peer support, in particular, to demonstrate that recovery can occur. Rather than considering the need for a secure environment, Servian (1996) suggests the need for services to provide an empowering environment. He suggests that professionals and carers are the ones who reinforce the powerlessness of individuals. By describing the environment as secure, the users of the Cardiff Day Service may be suggesting that although they feel safe and not judged, they may also be discouraged from gaining independence by fellow users, carers, and volunteers.

This raises questions as to how the Service empowers users to meet their personal aspirations and enables them to develop to their full potential, as suggested in the Service aims. A number of elements are influential here, including the skills, environment, equipment, and attitudes of the Service as well as the user's level of depression and perception of the future. Skills and resources are required to address the broad needs of all users so that they are specific to each individual. As the areas of need cross psychological, physical, social, and occupational dysfunction, expertise in all of these areas is required to provide a service that is truly *needs led*.

The environment of the Cardiff Day Service also contributes to individual progress. The types of activities suggest that the predominant focus was on outings and socialisation. The environment seems to have been more focused on providing opportunities for participating in activities in the community as a group, rather than providing opportunities to meet individual goals and feel empowered to pursue activities independently. It may be that the environment was too safe, and users felt so comfortable that they were cushioned from taking responsibility to use the skills they already had or to try to gain new ones. There is little agreement on Statement 21 (*the Service draws users out of themselves*). An implication of this is that the Service was not sufficiently encouraging or enabling for users to achieve their full potential. Responses to Statement 26 established that the participation in the Service did not result in utilisation of community services identified through the Service. In addition, there was little agreement that attending the Service encourages users to be less reliant on carers; again emphasising that the environment is not one that focuses on users taking responsibility or control.



## Carers

Not all Users had carers; and those without carers found some statements in the Q pack irrelevant. They were, however, encouraged to sort the statements from the perspective of potential benefits to one who had a carer. Nevertheless, of the five statements relating to carers, only Statement 31 (*it gives carers a regular break*) was rated highly by any factor. Three Helper factors rated it highly, indicating a strong perception on their part that the Service had a respite function. Positive feelings about this statement were so widespread that only one User factor saw other benefits as more important. It could be suggested that the Helpers considered the Service to provide respite for carers because they were aware of the effect of caring on carers, as stated in the literature (Ebrahim and Nouri 1986; Evandrou 1993; Van den Heuvel et al. 2001). The Users seemed clear that the Service was not focused on carers' needs and was not of great benefit to carers, whilst the Helpers acknowledged that the Service gave carers a break.

The Service's statement of aims does not in any way suggest that it addresses carer needs. If the Service wishes to provide more constructive and specific support to carers, it should consider the findings of Van den Heuvel et al. (2000) because it reports on 257 carers, suggesting that services for carers should be aimed at "teaching them appropriate coping strategies and providing relevant information" (Van den Heuvel et al. 2000, 119). Bugge et al. (1999) also advocated support for carers. They found Service utilisation to be low, and therefore recommended investigations focused on what carers thought about services, so that these concerns could be incorporated in planning and providing services carers would actually use.

## Overall recovery

The Service as essential to overall recovery from a stroke was also a perceived benefit. User Factor 3 (social recovery) and User Factor 6 (general recovery) rated Statement 22 (*going to the Service has helped Users recover from their stroke*) as most important from their perspective. In addition Helper Factor 4 (respite for carers) rated Statement 41 (*the Service provides an essential function in the recovery from a stroke*) as the most important benefit. Literature suggests that some kind of recovery usually occurs after stroke, but the most rapid recovery occurs in the first few months (Freemantle et al. 1992; Birkett 1996; Bogousslavsky et al. 1998). Adaptive recovery, however, where individuals develop techniques to compensate for long-term impairments, is a longer-term process (Chang and Hasselkus 1998). It may be that Users refer to this type of adaptive recovery in relation to physical abilities, but also in relation to the psychological adjustments that inevitably are required in order to cope with life changes as a result of the stroke.

## Conclusion

The evidence from this aspect of the programme evaluation suggests that the Cardiff Day Service is a welcome initiative, although the perceived benefits of the Service could be considered small. The environment was considered a *safe* one, which prevented isolation, promoted social interaction, and aided general recovery. However, it did not empower Users to acquire community services they were made aware of or encourage them to be more independent and less reliant on their carers. It appears necessary to reconsider the structure of this Service. One suggestion is the establishment of two distinct arms, one to provide social support and another for rehabilitation support. The social aspect could continue to provide peer support and a *safe environment*, while the rehabilitation services could provide occupational therapy to facilitate an increase in independence. Further research is required to continue to identify how best to meet the needs of pre-retirement individuals after stroke, and in particular to establish the best way to enable these individuals to replace lost roles and, if they wish, to return to work. Q method may have a place in addressing these questions.

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**Acknowledgment:** The Stroke Association funded Susan Corr.

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## Appendix

**Table 1: Q statements\***

<i>No.</i>	<i>Statement</i>
1	The activities at the Service are mainly focused on leisure and hobbies.
2	Carers know that the users are safe.
3	Users are now able to carry out some everyday activities.
4	It helps to keep users sane.
5	People don't feel alone.
6	It's a place to express views without being judged.
7	Counselling is available for users and their carers.
8	It's the only time users feel a sense of achievement.
9	The Service provides information relating to benefits.
10	The Service gives users a sense of purpose.
11	There is an opportunity to try new activities.
12	Carers get support at the Service.
13	It encourages people to communicate with each other even if there are speech problems.
14	The Service stops users just thinking about themselves and makes them think of others.
15	There is the opportunity to train/retrain for work.
16	Going to the Service is the only time users get out of the house.
17	Users feel safe there.
18	Users see others improve and deal with similar situations.
19	Users learn from others.
20	Detailed information on stroke and its prevention is available.
21	It's draws users out of themselves.
22	Going to the Service has helped Users recover from their stroke.
23	Users feel of value.
24	The Service has enabled users to make new friends.
25	Attending the Service brightens up life and makes users feel happy.
26	Users now use community services that they discovered through the Service.
27	Users feel more able to participate in social situations.
28	It gives users something to talk about when they get home.
29	Attending the Service encourages users to be less reliant on carers.
30	The Service occupies users time constructively.
31	It gives carers a regular break.
32	Users have the chance to gain insight to their situation.
33	The Service helps users to fight for their rights.
34	The Service has increased users awareness of community services.
35	It's a place to forget troubles.
36	Users are able to use their arms and legs better since coming to the Service.
37	The Service provides the opportunity to participate in community activities.
38	Users develop confidence.
39	Users have had the chance to learn basic skills to enable them to be independent.
40	Users can get things 'off their chests' there.
41	The Service provides an essential function in the recovery from a stroke.

\* Note: The User Q set was reduced by omitting Statements 34-41 from the Helper Q set.

Table 2. Statement Array\*

No.	User factors						Helper factors				
	1	2	3	4	5	6	1	2	3	4	5
1	-1	1	-3	1	3	2	-2	4	1	-2	-1
2	1	-4	1	-1	3	3	2	0	-1	-4	-3
3	0	1	0	-3	-3	0	-3	-4	0	-1	3
4	2	-1	1	-2	-1	-1	2	-1	3	1	-2
5	1	1	1	3	4	-1	0	2	3	0	0
6	0	0	0	0	0	4	4	1	-4	4	4
7	-3	-1	-4	0	1	1	-5	-4	-2	2	1
8	-2	-2	-1	-1	-2	-4	-5	0	-1	-5	-4
9	-4	-3	-2	2	2	-2	-4	-2	-2	3	1
10	1	3	2	1	0	1	0	2	2	1	5
11	3	1	-1	0	4	-2	1	2	1	2	3
12	-1	-2	-3	-1	-3	1	-4	1	-3	0	-3
13	3	2	0	2	3	3	4	4	5	4	4
14	-1	4	0	1	-4	0	0	1	1	3	2
15	-2	-1	-4	-4	1	-3	-3	-5	-5	-4	-3
16	-3	-4	4	-3	0	1	-1	0	0	0	0
17	0	-1	1	4	1	-1	-1	-1	4	-1	-5
18	2	1	0	4	-1	2	1	0	5	-1	4
19	3	2	3	0	-2	0	2	2	2	0	0
20	-2	0	0	-1	2	3	-1	-1	-3	1	-4
21	-1	3	2	-2	0	-4	-1	3	0	0	-1
22	0	-2	4	-2	0	4	3	-2	4	-2	1
23	0	4	0	0	0	-1	5	1	0	-3	0
24	4	3	3	3	-3	0	1	5	4	2	3
25	2	0	1	2	-1	0	0	3	2	4	0
26	-3	-3	-3	1	-1	-3	-1	-1	-5	-2	-2
27	0	0	-1	0	2	-2	2	-3	0	-1	-2
28	1	0	3	1	1	-3	0	-3	0	1	-5
29	1	2	-1	-4	-4	1	0	-2	-2	-4	-1
30	0	0	-2	0	-2	0	-2	1	-1	-3	-2
31	4	-3	-1	-3	-1	2	4	4	-1	5	0
32	-1	-1	2	-1	0	0	3	-1	-1	1	-1
33	-4	0	-2	3	1	-1	-2	-4	-2	-1	0
34							1	-2	-4	2	2
35							-2	3	0	-5	-1
36							-4	-5	1	-2	1
37							1	0	-3	0	1
38							5	5	3	0	5
39							-3	-3	-4	-3	2
40							0	0	1	3	-4
41							3	0	2	5	2

\* Note: The User Q set was reduced by omitting Statements 34-41 from the Helper Q set.