# The Inclusion Web: a tool for person-centred planning and service evaluation

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Active citizenship is internationally recognised as contributing to the quality of life and positive relationships of people using health and social care services (World Health Organization, 2005; National Strategic Partnership Forum, 2007; Department of Health (DH), 2006). A report by the Government's Social Exclusion Unit (Office of the Deputy Prime Minister (ODPM), 2004) identified the causes of exclusion of people with mental health problems as lying in the stigmatisation of mental ill health and a focus on medical symptoms at the expense of allowing people to participate in their local communities. Since then, social inclusion, in the form of engagement with mainstream community activity and increase in social contacts of service users, has become embedded in the policy and practice of community and other mental health providers. Policy makers have listed a number of benefits for the service user for these aims including improved standard of living, health, self-esteem and wellbeing, and community responsibility (ODPM, 2006).

## Modernising mental health services

The promotion of social inclusion affects all professions working in mental health (Hankinson & Bates, 2007), but day services in particular have had to rethink the roles and responsibilities of their front-line staff. It is now common to find social projects working with statutory services to help people build or maintain valued social roles and relationships, through employment, learning, and social and recreational activities such as art groups, exercise and sport. Although the health and social care needs of every person experiencing a psychiatric episode are assessed by individual care plans, many long-term users of health and social care have spent most of their lives within the 'services' sector and have only minimal involvement in other areas of community life (ODPM, 2006). Meanwhile, another group of isolated people with 'mental health needs' is coming into focus and those in this group are not well connected to services either.

Among the key goals for modernised day services are increased community participation, reduced social isolation and maximised self-determination through supporting people to retain existing roles and through involving clients in a variety of mainstream community settings as a desirable component of a good and healthy life (National Institute for Mental Health in England (NIMHE)/Care Services Improvement Partnership,

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2006; DH, 2006). These social *inclusion* policy goals seem desirable, but have largely been theorised as solutions to their polar opposites, the effects of social *exclusion*, and there is still little consensus on the parameters of social inclusion, its relation to social quality or what the network patterns of an included individual should look like (Sayce, 2001; Hacking 2005; Spandler 2007).

Spandler (2007) has recently exposed a lack of evidence linking improvement in mental health with inclusion in mainstream settings. She points out that although social inclusion initiatives are intended to promote choice in living a desired life in the community and emphasise involvement in social life, the main outcomes being measured in response to policy objectives are paid work. This focus ignores the fact that, generally, for socially excluded people, paid work in mainstream settings is not always a positive outcome, being often temporary, stressful, uncertain and likely to increase the poverty of dependence, not least because of difficulties and delay in stopping and starting benefits. Quality of life itself, for mainstream society, particularly in Britain, does not depend on work or involvement in large numbers of community groups (Hacking, 2005). Spandler outlines a real danger of subjecting people with mental health problems to a construct of a healthy or normal life that is not representative of mainstream society itself. She calls for more attention to user involvement in shared perspectives, a call which echoes that of Sayce (2001), who recommended as part of clinical practice the measurement of users' aspirations for work, education, relationships and other chosen journeys of recovery.

In 2005, NIMHE brought together the Mental Health and Social Inclusion Research Coalition, a group of academics and others, including the authors, to bring a new focus to this area, and this work is now becoming available (see, for example, Secker *et al*, 2007; reviews by Morgan *et al*, 2006; Huxley *et al*, 2006). This article offers development potential for both practice and research in the introduction of a measurement tool, the Inclusion Web as a strategy to work with the service user and which records and isolates changes in social networks and environment over time.

Most importantly this article also opens a discourse about context and an argument to explore the wider detail surrounding human geography that might lead to a more complex valuation of significant and valued social engagement. If research aims to develop deeper understanding of service users' recovery of quality and meaning to life in society, we must offer accessible and meaningful feedback that fits with people's life interests and aspirations rather than a model of 'normality' that might not actually be helpful. This simple instrument uses observable data that can represent quantitative change in social and community engagement for an individual or for a group. The Inclusion Web has been used previously in a small sample study of service users from Oxford (Corbett and Howe, 2007). It is relatively content free, therefore it can be adapted and defined in partnership with service users, commensurate with principles from the *National Service Framework for Mental Health* (DH, 1999) in 'doing with' rather than 'to' service users. It provides minimal essential feedback data only about two features of a participant's involvement in community groups that have potential to indicate aspects of inclusion.

## Scope of this paper

This paper does not go far beyond the formulation of hypotheses and issues for practice to support the Inclusion Web as a workable data collection and analysis tool. We introduce a framework to support the methods and practice use, alongside an example research study with a single group of service users. Perspectives quoted are from service users and staff who received Inclusion Web training sessions facilitated by the second author over the past two years and were not part of the pilot research. This work is at an early stage and further work is needed; in particular, a thorough review of attempts to document changes in social activity to appreciate properly the context of practice development in empowering service users.

## Introducing the Inclusion Web

The Inclusion Web (**Figure 1**) was designed as an easy-to-understand tool that facilitated collaboration between the service user and the practitioner. It is a monitoring tool, in that it can be used with an intervention, but it also acts independently as a feedback tool. It therefore sits within the tradition of action research, where it is difficult to separate out the effect of using the measure from the effect of the intervention.

The Inclusion Web has two scales: *people* covers personal relationships, while *places* covers the institutions that matter to the individual. *Clockspread* is a summary measure of both of these scales. *People* and *places* are tallied within the eight sectors shown on the outside of the circle (life domains), representing the domains of social contact and community where interventions are likely to be aimed. Summary numbers of *people* and *places* for each section are recorded in the two cells forming each section of the diagram. An increase in the number of *people* and *places* located in each section and in the spread of contacts around the Inclusion Web (*clockspread*) is usually desired.

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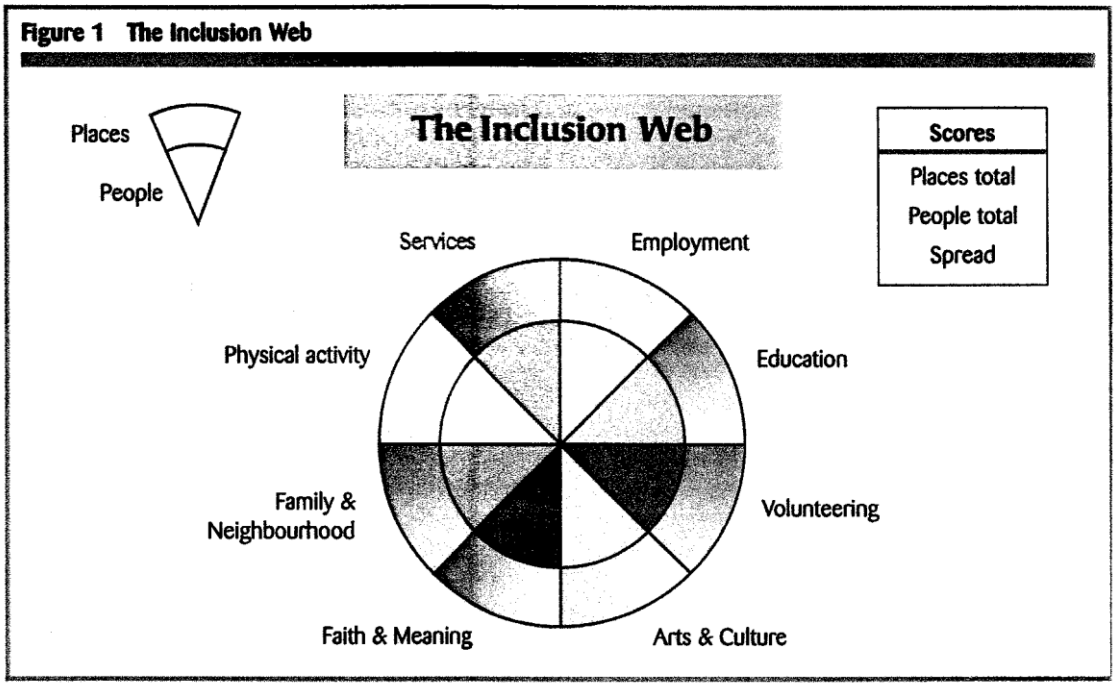
**Figure 1 The Inclusion Web**




## Support for practitioners using the Inclusion Web

The Inclusion Web itself is only the records part of a suggested method of conceptualising the service user's perception of inclusion. The Web manual (Bates, 2007a) offers detailed support and advice for practitioners, including a subsidiary list of questions to help structure the process, recommendations on timing and frequency of use, double counting, spurious changes, consistency, procedures for data coding, analysis, and research ethics guidance with standard forms for participants suitable for a small service-based study. Bates *et al* (2006) have also summarised frequently asked questions and common errors and misunderstandings. Bates and Hacking (2006) have developed analysis software so that practitioners can analyse their own data. Training in the use of the Inclusion Web is also available as one module within a larger programme of social inclusion training (Bates, 2007b). A simple, informative user guide, *Introduction to the Inclusion Web* (Gibb, 2005), is available.

Data collection is not expected to be a neutral exercise; both staff member and service user can be actively involved in an open-ended and wide-ranging conversation touching on many personal details. The Inclusion Web generates a map of the person's personal network of places and relationships and, through repeating the exercise, enables the person and the practitioner to monitor change together. For some, this is a deeply personal, self-disclosing exercise that demands sensitivity from staff. The method deliberately aims to provoke reflection, insight and action by people using services. It can help people to think about their lives and set plans for the future. The Inclusion Web fits with this method because it can help clients take ownership of their own Web, by thinking about which domains *they* wish to engage in. This helps deter staff from imposing on the person their ideas of what constitutes 'a good life'.

The diagram is easy to understand and offers service users the chance to mark, score or draw on the Inclusion Web for themselves, making it unlike the limited number of circumscribed questions composed by an expert, the answers to which are recorded by the practitioner in professional language. The Inclusion Web is also friendly to the visual thinker and those with limited literacy skills. There are obvious limitations in that some people do not relate well to pictures and few of us divide our lives evenly between these eight domains.

The Inclusion Web has spawned a number of variations. One project has switched the outer and inner circles as the larger area of the outer circle was needed for *people* rather than *places*. Another has used the diagram to map community facilities and networks (see the Trafford Services map at www.bluesci.org.uk), while another researcher uses the uncompleted Inclusion Web as a visual prompt

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to get respondents talking. One practitioner uses it in single-contact sessions with people who then take it away as a prompt for further self-directed action.

## Philosophical base

The Inclusion Web has its roots in several places, including the visual device used to demonstrate *Circles of Support* (Bates, 2000), thinking about the importance of place (Pinfold, 2000), personal support (Poel, 1993) and the development of the concept of Life Domains (Bates & Butler, 2004). Using a visual device to explore life experiences and aspirations has a number of advantages. Representing life by a circle is a familiar symbol (circle of friends, circle of life) that *encompasses* all the people, places and activities that compose one's life. It suggests balance and completeness. The circle *encompasses* but is also a *compass*, pointing beyond itself to further opportunities. Segmenting the circle into Life Domains with an equal amount of surface area suggests a balanced spread of activities and social contacts in which activity in one segment impacts on the others. Focusing on the Life Domains helps people to recognise that receiving a service is just one aspect of life, rather than an engulfing whole. It recognises previous and current roles rather than ignoring them, and can validate internet and telephone contacts as well as face-to-face connections. It proposes a life plan rather than a care plan, and validates and records information about the person's life beyond services that might be neglected in traditional assessments. Thus, it strengthens a person-centred, recovery focused and inclusive viewpoint.

## Life Domains

Socially inclusive practice demands a thorough understanding of communities. While this can be done by attending to *personal communities*, ie the individual's network of places and people, or by attending to *neighbourhoods*, the Inclusion Web also utilises the concept of Life Domains. These cover the majority of activities that most people engage in and reflect what people regard as valuable in their lives. Used well, they prompt reflection on present and past engagement in the community and the structure helps clients to identify the types of activities they may wish to take up. The Inclusion Web gives equal space to each Life Domain and so respects lifestyles that are not dominated by work and family commitments. For example, some long-term unemployed people focus on volunteering or their cultural activities.

**A Web user's viewpoint**

*'It's useful visually ... helped magnify the activity in my life ... it's helpful when you're struggling ... you see your capabilities and hope for the future ... it helped prevent work taking over [my life].'*

Service user comment on completing the Inclusion Web

**Getting connected**

Soon after graduating from university, Adam was admitted to a psychiatric unit. On discharge he was referred to John, a community bridge-builder. Initially lacking confidence and self-esteem, Adam was positive about using the Inclusion Web as he had been unable to specify his areas of interest. Spending time on the Inclusion Web led to an exploration of Adam's previous roles and experience, including his old passion for sport.

The Inclusion Web helped Adam recognise that despite his current isolation, he had led an active life as a student, and restarted his interest in becoming a sports coach. He began participating in a basketball league, obtained a coaching certificate, passed his driving test, began to sell basketball sessions to schools and began work on setting up his own coaching business. Starting one new activity led on to a whole range of possibilities.

## Staff and users' views

When introduced to the Inclusion Web, staff often suggest that its use will cause distress to people who are profoundly isolated and suicidal by making a stark representation of the person's poverty of activities and connections. However, some service users are already aware of the reality of their lives and prefer an honest conversation about how to move forward. The Inclusion Web can motivate people or awaken them to a need for change. For others who are currently isolated, it can be a helpful framework for exploring past experiences and future aspirations. Most service users find it attractive; in the Oxford study (Corbett and Howe, 2007), from 51 service users invited to complete a first Inclusion Web, only one refused. In training, staff are encouraged to use it to map their own personal and social status, and this inclusive approach inevitably interacts with their work with people using the service.

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## Engaging staff in data collection

Some staff feel protective of service users' privacy, and can resent the fact that personal information is accessed through the Inclusion Web and that this may be seen by researchers or commissioners, even in an anonymised, aggregated format. The resistance of some staff to data collection is often the result of feedback or evaluation that does not relate directly to practice and where measures are complex and difficult to use or explain to the service user. Analysis should be carried out close to frontline staff so that the process is comprehensible and the findings are immediately useful. Throwing open the opportunity to analyse and understand their own data is helpful for data quality, staff development, commitment to the process and feedback – all essential for capable teamwork.

## Research study methods

### Sample and setting

Our sample were registered users at the Mainstream project in Liverpool, which assists people with long-term mental health problems to engage with community activities. Staff do not run groups or buildings themselves but instead advise and support people to locate places and people beyond the mental health system where they can make a personal connection. Some individuals receive an enhanced service, which includes a multi-professional team such as a psychiatrist, social worker and community psychiatric nurse, and others a standard service where one professional works with the individual. The project was established in 2001 by Imagine, a voluntary sector organisation, with funding from the local mental health NHS trust. Between 2001 and 2006, 1,234 people were referred to the service.

### Ethics

Procedures for this pilot study were approved by the Department of Nursing's ethics review panel at University of Central Lancashire. For this pilot study, the service agency made available anonymised quantitative data from participants who had been using the Web diagram as part of their personal development protocol. Their personal data and notes were confidential to their service relationship.

### Statistical tests and procedures

We used the same test as that in our Excel workbook developed for practitioners (for samples less than 50) (Hacking and Bates, 2006), the non-parametric Wilcoxon Matched Pairs Signed Ranks Test, to examine the differences between baseline and follow-up data. This is more appropriate than the parametric t-test because the t-test assumes normal distribution of data, whereas scores of no *places* or no *people* are quite common in our population. Our data were highly skewed, with high Kurtosis results for almost all variables and there were large individual variations, particularly at follow-up, which affects the mean score. For sophisticated users of statistics, a procedure known as log transformation can be applied to correct skew in distribution, but most practitioners are testing small samples and find it less complex to interpret results that relate to real numbers. The Wilcoxon is a non-parametric test so does not require data to be normally distributed and has about 95% of the power of the t-test for these type of data.

There are three overall measures of total scores: sum of all domains for *places*, sum of all domains for *people* and *clockspread*. The *clockspread* is the number of domains in which there is a positive score for either or both the *people* or *places* cells (the possible range of *clockspread* scores is therefore 1-8). Data were analysed using SPSSv14.

### Hypotheses tested

We needed to ask three questions:

- to evaluate whether the service had made an overall significant difference, we used the Wilcoxon test to find out whether average scores increased for places and/or people on each domain and total scores. Increase in personal relationships and participation in more diverse community events and locations indicate greater community inclusion
- to evaluate how many people responded to the intervention and whether changes occurred for most people, we used a simple count of how many people had increased their score and how many people had decreased or not changed their score
- to understand if the thinking behind the measure was coherent and related – whether the overall measure of *clockspread* made sense – we used a correlation analysis (Spearman R) to test the association between *places* and *people*. In other words, people might visit more places in order to contact more people, but also contacting people might lead to visiting more places.

We also examined the magnitude of change between baseline and follow-up (percentage difference) and calculated Cohen's D, for the size of effect (using a method by Thalheimer and Cook, 2002).

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# Results

## Sample

One hundred male (67%) and 49 female (33%) service users over the age of 16 had completed Inclusion Web diagrams on at least two occasions. Eighty-three (56%) were receiving an enhanced service and 66 (44%) were receiving a standard service. Proportions of respondents were representative of the service users attending the centre. **Table 1** shows detailed information. Respondents provided baseline data at the start of their participation and follow-up data after an intervention period of around six months. The intervention period varied a little from one person to another as it depended upon staff availability coinciding with the active commitment of the service user to participate in the process.

## Did average scores increase?

There was a statistically significant increase in mean scores for both *people* and *places* and therefore also in the total measure, *clockspread*. **Table 2** and **Table 3** show that at baseline, service users included an average of six *places* and 18 *people* in their Web diagram over all the sections and this increased to eight *places* and 28 *people* at follow-up (34% and 54% increase respectively). Because we have no control group it is helpful to look at the magnitude of change, which represents the difference in *people* or *places* at follow-up, as a percentage of baseline scores ([follow-up-baseline]/baseline) as a complement to significance testing.

**Table 2** shows *places* scores. Changes were highly statistically significant in Volunteering (163% increase in baseline score), Education (90% increase), Faith (83% increase), Sport (63% increase) and, to a lesser extent, Family and Neighbourhood (21% increase).

**Table 3** shows *people* scores. The largest and most significant increases appeared in Sport (205% increase in baseline scores), Volunteering (125% increase), Education (99% increase) and Family and Neighbourhood (13% increase). Employment, Arts and Faith domains fell just short of significance levels.

There were no significant differences for Employment and Services, in either *places* or *people* but these are domains where it is difficult to increase the number of places visited and the number of people where there is a meaningful contact would probably tend to be more stable.

**Table 1 Sample**

| | Male | Female | Age group | | | | | Care Programme Approach | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 16-25 | 26-35 | 36-45 | 46-55 | 56-64 | Standard | Enhanced |
| Number | 100 | 49 | 21 | 44 | 42 | 30 | 12 | 66 | 83 |
| Per cent | 67% | 33% | 14% | 30% | 28% | 20% | 8% | 44% | 56% |

**Table 2 Places**

**Results of Wilcoxon matched pairs Signed Rank test pre- and post-intervention for *places* totals and for each domain of the Inclusion Web.**

| N=149 | Mean number of places: baseline (SD) | Mean number of places: follow-up (SD) | Z value | P Value (sig) | % change | Effect size |
|---|---|---|---|---|---|---|
| Employment | 0.1 (0.34) | 0.18 (0.58) | -1.49 | 0.1352 | 80 | 0.17* |
| Education | 0.28 (0.50) | 0.5 (0.75) | -3.95 | 0.0001 | 90 | 0.39* |
| Volunteering | 0.16 (0.52) | 0.4 (1.01) | -3.55 | 0.0004 | 163 | 0.33* |
| Arts & Culture | 0.4 (0.76) | 0.67 (0.90) | -3.23 | 0.0012 | 59 | 0.30* |
| Faith & Meaning | 0.16 (0.42) | 0.3 (0.69) | -2.81 | 0.0049 | 83 | 0.24* |
| Family & Neighbourhood | 2.7 (2.29) | 3.26 (2.96) | -3.31 | 0.0009 | 21 | 0.21* |
| Sport & Exercise | 0.66 (0.83) | 1.08 (1.13) | -4.64 | 0.0000 | 63 | 0.42** |
| Services | 1.5 (1.00) | 1.59 (1.08) | -1.24 | 0.2132 | 6 | 0.09 |
| **Total overall** | **6 (3.36)** | **8 (4.30)** | **-6.67** | **0.0000** | **34** | **0.53**** |

*Relative size of effect: [no sign] no noticeable effect *small **medium*

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**Table 3 People**

**Results of Wilcoxon matched pairs Signed Rank test pre- and post-intervention for *people* totals and for each domain of the Inclusion Web.**

| N=149 | Mean number of places: baseline (SD) | Mean number of places: follow-up (SD) | Z value | P Value (sig) | % change | Effect size |
|---|---|---|---|---|---|---|
| Employment | 0.4 (1.9) | 1.1 (4.9) | -1.82 | 0.0687 | 173 | 0.19* |
| Education | 1.6 (4.6) | 3.2 (6.2) | -3.46 | 0.0005 | 99 | 0.29* |
| Volunteering | 1.5 (8.2) | 3.4 (15.9) | -3.01 | 0.0026 | 125 | 0.15* |
| Arts & Culture | 0.8 (2.8) | 1.3 (5) | -2.00 | 0.0452 | 67 | 0.13 |
| Faith & Meaning | 0.7 (4.3) | 1.3 (6.1) | -1.91 | 0.0562 | 81 | 0.11 |
| Family & Neighbourhood | 7.1 (9.5) | 8 (10) | -3.45 | 0.0006 | 13 | 0.09 |
| Sport & Exercise | 1.6 (3.9) | 5 (11.6) | -5.42 | 0.0000 | 205 | 0.39* |
| Services | 4.3 (4.3) | 4.4 (4.4) | -0.29 | 0.7754 | 3 | 0.03 |
| **Total overall** | **18 (21.0)** | **27.8 (31.0)** | **-6.23** | **0.0000** | **54** | **0.37*** |
| ***Clockspread*** | **3.4 (1.2)** | **4.1(1.3)** | **-5.94** | **0.0000** | **20** | **0.57**** |

*Relative size of effect: [no sign] no noticeable effect *small **medium*

## How big were the changes?

A significance test (p-value) only indicates how confident we can be that a difference identified is not due to chance; it does not tell us whether that difference is large or small. The size of effect is calculated from t-test results, but we have indicated non-parametric testing was more appropriate so we can assume conservative bias. The only difference in results of statistical significance was for the increase in *people* scores under Volunteering, which the t-test found non-significant, probably due to variation in scores. The effect size indicates the relative strength of the difference on a 0-1 scale so that effect sizes may be easily compared over different studies. It is a convention that values from 0.4 to 0.75 are considered medium, and above that, large.

Most domains show a small effect in increased *places*, with only Sport and Exercise showing a medium range effect. Combining all domains into a single total also reveals a medium effect increase in the *places* people visit, while the *people* score falls just short of medium. Overall, the total measures showed the largest effects. This is because the combined measures are made up of multiple repeated measures and are thus more reliable than a single domain.

## How many people increased their scores?

Mean data do not show the whole story and there were large variations in individual scoring, particularly for *people*. **Table 4** shows the number of participants who increased and decreased their scores, in every domain.

Eighty-six service users showed an increase overall (*clockspread*) over the two domains compared with 63 who stayed the same or decreased their scores overall. The total scores show that 99 clients overall increased the number of *people* included in the web, compared with 50 people who did not change or decreased the number of *people*, and 101 clients increased the number of *places*, compared with 48 people who showed no change or decreased their *places*. Within single domains, more clients increased their scores than decreased them, but the vast majority showed no change at all; this indicates that clients focused on a few areas rather than across the board. This is important because the indications for practice here are that the guiding professional should focus more on increasing participation in particular areas of interest identified by the client than on global support for 'gaps' in the clock.

**Table 5** counts the numbers of domains in which clients increased their scores. Over the whole of the 'clock', only 14 (9%) clients did not increase the number of *places* they recorded and 15 (10%) did not increase the number of *people* in at least one domain. Therefore only 22 (14%) of 149 people did not increase numbers on both scales. Of these only seven service users overall increased neither *places* nor *people*. The majority (56%) of service users increased *places* in one or two domains; only four increased places in five out of the eight domains. It was almost the same story for contacts with *people*: the majority (55%) increased contacts in one or two domains but five service users increased *people* in five domains and one increased *people* in six domains out of the eight possible.

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**Table 4** Number of service users showing changes over time in the numbers of *places* and *people* included in the Web diagram by each domain and by total scores

| Number of service users showing changes at follow-up (N=149) | People | | | Places | | |
|---|---|---|---|---|---|---|
| | Decrease | No change | Increase | Decrease | No change | Increase |
| Employment | 7 | 125 | 17 | 9 | 124 | 16 |
| Education | 21 | 84 | 44 | 13 | 93 | 43 |
| Volunteering | 7 | 112 | 30 | 7 | 108 | 34 |
| Arts & Culture | 18 | 95 | 36 | 18 | 88 | 43 |
| Faith & Meaning | 9 | 121 | 19 | 4 | 126 | 19 |
| Family & Neighbourhood | 30 | 63 | 56 | 26 | 65 | 58 |
| Sport & Exercise | 16 | 72 | 61 | 18 | 70 | 61 |
| Services | 51 | 50 | 48 | 30 | 79 | 40 |
| **Total overall** | **39** | **11** | **99** | **30** | **18** | **101** |
| ***Clockspread*** | **25** | **38** | **86** | | | |

**Table 5** Increases in Inclusion Web domain scores for individuals

| Number of domains showing increases | Places | People |
|---|---|---|
| No increase | 14 (9%) | 15 (10%) |
| 1 | 38 (26%) | 43 (29%) |
| 2 | 44 (30%) | 39 (26%) |
| 3 | 28 (19%) | 25 (17%) |
| 4 or more | 25 (17%)* | 27 (18%)* |
| **Total N** | **149** | **149** |

**Table 6** Correlation between *people* and *places* for each domain

| N=149 | Correlation between people and places (Pearson's R) | Significance (p-value) |
|---|---|---|
| Art & Culture | 0.110 | 0.18208 |
| Faith & Meaning | 0.138 | 0.09366 |
| Family & Neighbourhood | 0.254 | 0.00176 |
| Services | 0.323 | 0.00006 |
| Sport & Exercise | 0.338 | 0.00002 |
| Employment | 0.514 | 0.00000 |
| Education | 0.525 | 0.00000 |
| Volunteering | 0.529 | 0.00000 |
| **Total scores people/places** | **0.367** | **0.00000** |

## Coherency: association between *places* and *people*

Now we come to the issue of validity of the approach; whether change in number of *places* was associated with change in numbers of *people* recorded on the measure. This is important because even though the assumption behind the intervention is that increase in *people* contacted will be associated with an increase in *places* visited, it does not necessarily follow; people can use a facility but not interact. Correlation analysis showed that a positive change in *places* was usually, but not always, associated with a similar positive change in *people*. **Table 6** shows significant correlations for *people* and *places* in all domains, except that of Art and Faith. This means that clients scoring fewer *places* tended to

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|---|---|---|---|---|---|---|
| | Decrease | No change | Increase | Decrease | No change | Increase |
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| Education | 21 | 84 | 44 | 13 | 93 | 43 |
| Volunteering | 7 | 112 | 30 | 7 | 108 | 34 |
| Arts & Culture | 18 | 95 | 36 | 18 | 88 | 43 |
| Faith & Meaning | 9 | 121 | 19 | 4 | 126 | 19 |
| Family & Neighbourhood | 30 | 63 | 56 | 26 | 65 | 58 |
| Sport & Exercise | 16 | 72 | 61 | 18 | 70 | 61 |
| Services | 51 | 50 | 48 | 30 | 79 | 40 |
| **Total overall** | **39** | **11** | **99** | **30** | **18** | **101** |
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| 4 or more | 25 (17%)* | 27 (18%)* |
| **Total N** | **149** | **149** |

**Table 6** Correlation between *people* and *places* for each domain

| N=149 | Correlation between people and places (Pearson's R) | Significance (p-value) |
|---|---|---|
| Art & Culture | 0.110 | 0.18208 |
| Faith & Meaning | 0.138 | 0.09366 |
| Family & Neighbourhood | 0.254 | 0.00176 |
| Services | 0.323 | 0.00006 |
| Sport & Exercise | 0.338 | 0.00002 |
| Employment | 0.514 | 0.00000 |
| Education | 0.525 | 0.00000 |
| Volunteering | 0.529 | 0.00000 |
| **Total scores people/places** | **0.367** | **0.00000** |

## Coherency: association between *places* and *people*

Now we come to the issue of validity of the approach; whether change in number of *places* was associated with change in numbers of *people* recorded on the measure. This is important because even though the assumption behind the intervention is that increase in *people* contacted will be associated with an increase in *places* visited, it does not necessarily follow; people can use a facility but not interact. Correlation analysis showed that a positive change in *places* was usually, but not always, associated with a similar positive change in *people*. **Table 6** shows significant correlations for *people* and *places* in all domains, except that of Art and Faith. This means that clients scoring fewer *places* tended to

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## Developing a summary statistic

The number of *people* and *places* recorded on the Inclusion Web varied from person to person and the variation was wider on the *people* score than the *places* score. The total scores (overall total *places, people, clockspread*) are a more consistent indicator of group participation because they sum the details and we suggest they have the advantage of relating more holistically to the life of the client. *Clockspread*, the combined measure of *people* and *places,* was the only measure where the skewness statistics indicated a normal distribution (Skewness 0.36; Kurtosis -0.54), so it becomes possible to compare statistics such as the effect size with other studies and other measures.

# Discussion

In our sample, the largest impact was achieved in Sport and Exercise activity, which increased significantly with a medium effect and this activity was matched by an increase in sport-related social connections. This suggests that support services increase measurable elements of community participation, particularly for sport-related pursuits and thus have potential to impact not only on social inclusion but also on health in a wider sense.

Volunteering and Education also increased significantly, along with Family and Neighbourhood. While the findings for Employment show that *places* correlates with *people* it is an area that has particular difficulties in achieving statistically significant change in both these scores. However, results support the conclusions of Bates *et al* (2005) that the organisations in the Volunteering, Education and Employment domains were most likely to provide support to participants themselves, while organisations in the other life domains tended to assume that people would bring their own support along with them. It is a commonly held assumption that getting a job will increase engagement in other life domains and conversely that improvements in other Life Domains will improve employability. Tracking Inclusion Web data into Time 3, 4 and beyond could be used as part of a test of these assumptions.

In our present study, Arts and Faith showed statistically significant increases in the *places* score, but the increases did not quite reach significance levels in the *people* score. Furthermore, correlations did not indicate an above-chance association between *places* and *people* in either of these domains. Recent research findings from a national evaluation of mental health, arts and social inclusion (Secker *et al* 2007) may also support this suggestion that arts participation has limited effect on participants' wider social networks. It seems that settings that expect and structure interaction – both with the person in charge and co-participants – may provide the best environment for building a social network. On the other hand, some of us from time to time enjoy places where there is no expectation of interaction.

It is interesting to note that a larger number of people reduced their scores in the Services segment than in any other Life Domain (**Table 4**). Clearly, we would expect many people to hold on to their contact with mental health services, and especially while they are settling into new activities. Our results show, however, no overall significant reduction of connections with mental health service *places* or *people*; around half the sample reduced their scores but half the sample increased them. Information about the frequency and significance of connections with clinicians or other service users would help to analyse these results. However, Secker *et al*'s (2007) arts participation survey similarly found no reduction of mental health services, and concluded that reduction of services and medication were not necessarily a positive or appropriate outcome for community-based services.

Finally, relating back to the measure, there is a consistent pattern that inclusion (represented here by *clockspread*, as the spread of connections in the number of *people* and *places*) increased between baseline and follow-up for 127 out of 149 people (78%) in our sample of service users, together with significant correlations between both scales. These findings go against previous research suggesting that social integration only slowly follows physical integration (TAPS 1980–1990s). However, Life Domains vary in the extent to which involvement in the *place* leads automatically to an increase in *people* connections and this study does not allow causative interpretations, since a third issue could affect both variables. The strong relation between *people* and *places*, demonstrated in the correlation analysis provides good reason to combine these scores and *clockspread* looks like a good summary statistic for this measure that can be treated parametrically. This has considerable advantages for analysis.

# Limitations of the study

The tool is at an early stage of development and this pilot study only reports associations between the main fields for a single group of service users engaged in a programme to increase their community links. People referred to Mainstream may be on the brink of self-directed change, so our findings do not prove that the change was caused by the intervention of Mainstream, or tell us what staff did to support the positive change efforts of the service user.

Our findings do not report the success of the programme; for that a control group would be desirable or more information about the users and types of engagement in the programme. There is a great deal of further work to be done to establish whether the Inclusion Web is an effective tool for measuring inclusion, including test/re-test reliability, inter-rater reliability, external validity, internal validity and redundancy and criterion validity. There were large differences in individual scoring on the *people* domain and using categories of individuals rather than counts (such as a category of 1-10 contacts) would reduce this variation. More detail about the procedure would reveal whether people were interpreting contacts in different ways.

The Inclusion Web offers no information about the nature of participation in the places that are identified or the quality of connection with the people. Specifically how people interpret their connections with people or places may change as they widen their social circles and it would be useful to track this in a more detailed exploration. In this study we did not investigate the meaning of changes in the life of the individual. An attempt to do this has been made by the Crisis Day Service in Oxfordshire that used the Canadian Occupational Performance Measure alongside the Inclusion Web to find out about the client's view of which domain is most important and where they would most like to see change (Corbett & Howe, 2007).

## Conclusions

Although promoting the social inclusion of people with mental health problems continues to be a key focus of UK government policy (Social Exclusion Task Force, 2006), conceptualisation and measurement of the construct is yet at an early stage but social theorists suggest that recovering quality and meaning in life is more complex than simply joining in mainstream activities. The measure described here represents a small contribution aimed at practitioners and others seeking to measure and value a range of social networks in the context of service evaluation and potentially generates some important further questions for research.

The underlying assumptions for the intervention and measurement system for the Inclusion Web were supported. The measure is reasonably straightforward to complete and the two scales were sensitive to change and measured relevant concepts in domains of social contact and community networks where interventions are likely to be aimed. Results of the tests it has been possible to carry out to date suggest endorsement of at least part of the theory behind the practice: that an increase in *places* corresponds to an increase in *people* scores.

Our findings of statistically significant increases in Sport and Exercise, Volunteering, Education, and Family and Neighbourhood domains for both scales are positive for the sample as a whole, as we assume that, in general, an included, connected life is better than an isolated one. Although limitations in the methods do not allow us unequivocally to attribute change to the effects of the intervention, our results should encourage the staff that their service goals are being met during the time people are engaged in the project.

Our results showed no change at all in only seven users, but most people increased their scores in one or two areas, rather than across the board.

The implications for practice are:

- practitioners need to focus on increasing participation in particular areas of interest identified, rather than increasing activity across the board. A focus on quantity of activity is probably not helpful to the individual.
- these areas of community participation for people with long-term mental health needs are measurable, particularly for settings that expect and structure interaction
- support services thus have potential to impact on the institutions and networks of social inclusion
- arts and faith participation seemed to suggest more passive participation with less social interaction but this area might benefit from more detailed exploratory research.

Research into how services can promote and measure social inclusion is in its infancy and a great deal of work is yet to be done. The Inclusion Web is just one way of exploring the topic with people using services, and we have provided a context and an argument to introduce a discussion of the domains of engagement within the community that suggest this research is worthy of further development. The role of community activities and social participation in the recovery of social quality, purpose and meaningful activity for people with mental health problems may be more complex than providing bridges to employment. Further development of this research offers a framework to track an individual's social networks to help researchers to understand the role of community participation in helping an individual recover hope, purpose and meaning in life and its limits. Signposts for future development of links with employment would include examination of the relationship between life domains, how good

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connections may help an individual build links towards employment potential, particularly in employment-related categories like Volunteering, and whether an individual with a good fit in their life interests would be more likely to remain unemployed.

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