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GEOGRAPHIC INEQUITY IN THE AVAILABILITY OF COGNITIVE BEHAVIOURAL THERAPY IN ENGLAND AND WALES

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Abstract. Delivery of cognitive behavioural therapy (CBT) is limited by a scarcity of resource. In England and Wales, there are not enough practitioners appropriately trained in CBT to meet the needs of those who might benefit from treatment. In addition, there are reasons to believe that available therapists are inequitably distributed across the country. We investigated the distribution of British Association of Behavioural and Cognitive Psychotherapies (BABCP) members, accredited CBT practitioners, and BABCP members who are nurses or clinical psychologists in England and Wales by postal code. This analysis demonstrated a 20-fold discrepancy in availability of accredited CBT practitioners between the best and least well-served population deciles. Despite limitations, these findings are highly indicative of ''postcode availability'' of the best qualified CBT practitioners. We discuss possible strategies to remedy this inequity, which further challenges the ability of conventional methods of CBT delivery to meet public health requirements.

Keywords: Cognitive behavioural therapy, inequity, service delivery.

Introduction

It is widely acknowledged that there are not enough practitioners appropriately trained in cognitive-behavioural therapy (CBT) in England and Wales (Lovell & Richards, 2000).

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Demand exceeds supply for CBT services. One index of the scarcity of CBT practitioners is a waiting time to first appointment for NHS specialist psychological therapy services ranging from 2–3 months to 18 months (Clinical Standards Advisory Group for Depression, 1999). The public wants psychological treatments (Angermeyer & Matschinger, 1996; Tylee, 2001), but patients cannot access them within an acceptable timeframe.

Given the recognized effectiveness of CBT for common mental health problems (Roth & Fonagy, 1996; Department of Health, 1999, 2001), and the major health concern these problems represent (WHO, 1999; Goldberg & Huxley, 1997; Melzer, Gill, Petticrew, & Hinds, 1995), the shortage of CBT practitioners in England and Wales presents a challenge both to CBT professionals and policy makers.

Just how many CBT practitioners there are is not simple to determine. By the most restrictive definition, there are only 602 therapists in the United Kingdom accredited by the British Association for Behavioural and Cognitive Therapies (BABCP; BABCP accreditation directory). The profession is expanding at a rate of approximately 13% per year in England and Wales, with BABCP gaining 67 accredited members in the 12 months to October 2002.

However, these are not the only CBT practitioners working in the United Kingdom. Accreditation and registration as a therapist is voluntary and many members of BABCP are accreditable CBT practitioners but choose not to seek accreditation. Accreditation is disproportionately sought by private practitioners (BABCP; BABCP accreditation directory). BABCP has a further 3371 non-accredited members who are largely health professionals with an interest in behavioural and cognitive psychotherapies. Most of these additional members may be assumed to offer therapeutic services, without having chosen to become accredited. Many of these may lack the extent of specialist training required for BABCP accreditation. Others, particularly within the National Health Service, may possess professional credentials such as approved training in clinical psychology or mental health nursing that are sufficient to permit them to practise behavioural and cognitive therapies in the course of their professional work, thereby reducing the incentive to become accredited with BABCP.

Not only are there too few CBT practitioners, but also there is reason to suspect that availability of CBT to the population is further reduced by their uneven distribution across the country. Lomas' (2000) figures indicate a concentration of therapists in clusters around CBT centres of excellence at the University of Manchester and the Institute of Psychiatry, Kings College, London, which might not be proportionate to the populations served. In contrast, other areas, not all of them rural, are represented by only a handful of BABCP-accredited therapists.

The present analysis was designed to investigate the geographical inequity of CBT availability in England and Wales, by comparing postal code availability of CBT practitioners with Office of National Statistics population figures.

Method

To evaluate systematically the extent of inequity in the distribution of CBT practitioners, for 105 postal code areas of England and Wales we cross-tabulated four counts of CBT practitioners derived from BABCP membership lists as of October 2002 with the population for each area from 1991 Census data provided by the Office of National Statistics. We

considered postal code areas (the letters in the first group of characters) an appropriate geographic unit because they generally map quite closely the distances and transportation links determining ready accessibility of services to clients.

The membership records of BABCP include the postal code area of the member's postal address. Using these data, we obtained for each postal code area the number of CBT practitioners per 100,000 of population, according to each of four definitions in turn (accredited therapists, all members, all members who are nurses, all members who are clinical psychologists). We ranked the 105 areas from most to least well-provided with CBT practitioners according to each definition. We then grouped the postal code areas into deciles (10 groups, ordered according to the number of therapists per 100,000 of population, each containing about one tenth of the total population of 49.89 million) with respect to each criterion in turn. The exact population size of each decile varied somewhat around the average value of 4.99 million, since we assigned the entire population of areas falling at the boundaries between deciles to a single decile. Such assignments were done in such a way as to minimize the variation in population size between deciles.

Results

Tables 1 to 4 show the distribution of therapists according to each definition from the most, to the least, well-provided decile of the population of England and Wales. Table 1 shows that the distribution of accredited therapists is highly inequitable. Almost one-third of the accredited therapists are based in postal code areas occupied by 10% of the population, and nearly half the therapists are based in areas occupied by 20% of the population. In contrast, the least-provided 40% of the population live in postal code areas hosting a total of just 13% of the therapists. The best-provided 10% of the population has 20 times more therapists available within its postcode area per 100,000 of population than does the worst-provided 10%.

Similarly, Table 2 shows that the distribution of all BABCP members is highly inequitable. More than one quarter of the members are based on postal code areas occupied by 10% of the population, and more than half the therapists are based in areas occupied by 30% of the population. In contrast, the least-provided 40% of the population live in postal code areas housing 100 fewer therapists than the best-provided 10%. The best-provided 10% of the population has six times more therapists available within its postcode area per 100,000 of population than does the worst-provided 10%.

Table 1. Distribution of population and BABCP accredited CBT therapists across 105 postal code areas in England and Wales

Population decile	1	2	3	4	5	6	7	8	9	10
Population (millions)	4.94	4.84	5.10	5.22	5.20	4.97	4.93	4.55	5.16	4.99
Accredited CBT therapists	179	103	83	67	51	38	30	22	20	9
% of therapists	30	17	14	11	8	6	5	4	3	1
Cumulative % of therapists	30	47	61	72	80	87	92	95	99	100

Note: Total population served: 49.9 million. Populations of postal code areas are grouped in deciles each containing approximately 4.99 million people, from most- to least-provided with therapists per 100,000 of population.

Table 2. Distribution of population and all BABCP members across 105 postal areas in England and Wales

Population decile	1	2	3	4	5	6	7	8	9	10
Population (millions)	5.06	4.96	5.09	4.54	5.32	5.02	5.00	4.44	5.15	5.32
BABCP members	1026	563	442	345	363	319	292	232	217	174
% of therapists	26	14	11	9	9	8	7	6	5	4
Cumulative % of therapists	26	40	51	60	69	77	84	90	96	100

Note: Total population served: 49.9 million. Populations of postal code areas are grouped in deciles each containing approximately 4.99 million people, from most- to least-provided with BABCP members per 100,000 of population.

Table 3. Distribution of population and all BABCP members who are clinical psychologists across 105 postal code areas in England and Wales

Population decile	1	2	3	4	5	6	7	8	9	10
Population (millions)	4.90	5.09	4.77	5.27	4.70	5.19	4.78	5.20	4.86	5.14
Clinical psychologists	406	222	146	142	108	109	86	70	5	27
% of therapists	30	16	11	10	8	8	6	5	4	2
Cumulative % of therapists	30	46	57	67	75	83	89	94	98	100

Note: Total population served: 49.9 million. Populations of postal code areas are grouped in deciles each containing approximately 4.99 million people, from most- to least-provided with clinical members per 100,000 of population.

Table 3 shows that the distribution of BABCP member clinical psychologists is also highly inequitable. Thirty percent of the BABCP member clinical psychologists are based in postal code areas occupied by 10% of the population, and almost half of the BABCP member clinical psychologists are based in areas occupied by 20% of the population. In contrast, the least-provided 30% of the population live in postal code areas housing a total of just 11% of the therapists. The best-provided 10% of the population has 16 times more BABCP member clinical psychologists available within its postcode area per 100,000 of population than does the worst-provided 10%.

Table 4 shows that the distribution of BABCP member nurses is also highly inequitable.

Table 4. Distribution of population and all BABCP members who are nurses across 105 postal code areas in England and Wales

Population decile	1	2	3	4	5	6	7	8	9	10
Population (millions)	5.17	4.78	4.90	4.91	5.39	4.69	5.04	4.84	5.41	4.75
Nurses	259	175	134	112	113	86	79	66	54	28
% of therapists	23	16	12	10	10	8	7	6	5	3
Cumulative % of therapists	19	39	51	61	72	79	87	93	97	100

Note: Total population served: 49.9 million. Populations of postal code areas are grouped in deciles each containing approximately 4.99 million people, from most- to least-provided with nurse members members per 100,000 of population.

Forty percent of the BABCP member nurses are based in postal code areas occupied by 20% of the population. In contrast, the least-provided 20% of the population live in postal code areas housing a total of just 8% of the therapists. The best-provided 10% of the population has 8.5 times more BABCP member nurses available within its postcode area per 100,000 of population than does the worst-provided 10%.

Discussion

These findings are highly indicative of ''postcode availability'' of CBT practitioners. Depending on how CBT practitioners are defined, there are between 6 and 20 times more therapists per 100,000 of population serving the best vs. worst-provided 10% of the population of England and Wales. Several factors probably contribute to this inequity, such as resource levels of mental health services, variations in treatment choice strategies on the part of local commissioners and providers (Bindman, Glover, Goldberg, & Chisholm, 2001), and proximity to CBT training centres.

Limitations

On the population (denominator) side, our analysis concerned only geographical equity at postal code area level and took no account of variations in need for care based on social deprivation (Carr-Hill et al., 1994). Rather, we made the simplifying assumption that individuals meeting clinical thresholds for the most common mental health problems (anxiety and depression) have broadly similar needs for mental health care, irrespective of the part of the country in which they live. In terms of the numerator (therapists), the analysis was restricted to the availability of BABCP members, member nurses, member clinical psychologists and accredited therapists. However, given the impact of local professional networking, it is reasonable to take the availability of BABCP members and accredited therapists as indicative of the level of provision of high quality CBT within a locality. We also necessarily make the simplifying assumption that all accredited CBT practitioners provide equal amounts of care. Despite these limitations, the observed differences between areas are too large to be dismissed; they warrant a clear conclusion that CBT is inequitably available to clients according to their area of residence within England and Wales. We also acknowledge that such inequitable availability of health care is not confined to CBT or to England and Wales, and is reflected in continuing policy discussion of ''postcode prescribing'' (Smith, 2000).

Implications

So, what could be done to mitigate the effects of geographic inequity in the availability of trained CBT practitioners? It is likely impractical to relocate existing therapists to underprovided areas, not only because of personal impediments to relocation but also because of the uncongenial professional isolation that relocated therapists might face. Similarly, widening the catchment areas served by individual therapists or services would present logistic difficulties of journey times and costs for either clients or therapists. More promising, however, are changes to the mode of delivery of CBT. Three approaches suggest themselves.

First, therapists could serve clients remotely via telephone or video conference. There is

limited evidence concerning the efficacy of telephone-administered CBT. Sandgren, McCaul, King, O'Donnell and Foreman (2000) evaluated telephone CBT for breast cancer patients, and found that whilst most CBT participants liked the telephone treatment sessions they showed only modest improvement (less anxiety and confusion) compared with women in the control group. In contrast, Mohr et al. (2000) reported favourable outcomes of an 8-week telephone-administered CBT programme for the treatment of depressive symptoms in multiple sclerosis patients. Swinson, Fergus, Cox and Wickwire (1995) found telephone behaviour therapy to be a cost-effective and efficacious treatment for agoraphobics in remote regions where specialist anxiety disorder services are not readily available.

Second, CBT trainers and centres of excellence could work to reduce geographic inequity by fostering CBT expertise across the country. By building strategic partnerships between centres of excellence and training locations in service impoverished areas therapeutic resource can be redistributed. In addition, a distance learning model could be adopted by CBT training centres, alongside local strategies to recruit trainees based in unserved areas.

Third, we might look to redistribute CBT resource via modes of delivery with reduced therapist input, making CBT principles available to clients without face-to-face contact via self-help materials or computerized therapy.

Trials have found self-help programmes to be effective treatments for a wide range of mental health problems. Meta-analytic reviews (Scogin, Bynum, Stephens, & Calhoon, 1990; Gould & Clum, 1993; Marrs, 1995; Cuijpers, 1997) have revealed effect sizes for self-administered treatments comparable to those achieved by therapist-administered treatments. Keeley, Williams and Shapiro (2000) found that almost 90% of CBT practitioners accredited by the BABCP used self-help materials, although only 36% had received training in their use. Those who had received such training made more extensive use of these materials.

Computer therapy programs have been used successfully in the treatment of depression (Selmi, Klein, Griest, Sorrell, & Erdman, 1990), panic (Newman, Consoli, & Taylor, 1997), obesity (Burnett, Taylor, & Agras, 1992), smoking (Burling, Seider, & Gaither, 1994), phobias (Ghosh & Marks, 1987), chronic pain (Kenardy & Adams, 1993), sexual dysfunction (Binik, Servan-Schreiber, Freiwald, & Hall, 1988) and obsessive-compulsive disorder (Greist et al., 1998). Computerized CBT suggests itself as a potential remedy to inequity that can be more rapidly and less expensively implemented than the conventional approach of workforce planning and development. Recent studies have reported some success in using computerized CBT programmes to reduce contact time and professional skills required to deliver standardized treatment packages for anxiety and depression (Kenwright, Liness, & Marks, 2001; Proudfoot et al., in press).

In broader policy terms, our demonstration of geographic inequity of CBT availability supports the growing critique of conventional service delivery models as wholly incapable of meeting the public health needs for evidence-based psychological treatments such as CBT (Haaga, 2000; Lovell & Richards, 2000).

The extent of such needs may be estimated from Meltzer et al.'s (1995) adult population point prevalence figure of 13% for anxiety and depression. On this basis a 20% period prevalence (i.e. some 7 million people) over one year is conservative. Current provision of CBT services in the UK is estimated to deliver some 70,000 treatments by qualified therapists (not all of whom are accredited) each year (Gournay, in Lovell & Richards, 2000). Thus, even were it equitably distributed, conventionally delivered CBT could only be made

available to some 1% of those with anxiety and depression. The inequity highlighted here intensifies the need for alternative delivery modes if CBT is to fulfil its public health potential.

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