Interprofessional Education for Community Mental Health Services in England: the longitudinal evaluation of a postgraduate programme.

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Abstract

We report a comprehensive, longitudinal evaluation of a two-year, part-time postgraduate programme designed to enable health and social care professionals in England to work together to deliver new community mental health services, including psychosocial interventions (PSIs). The study tracked three successive cohorts of students (N = 111) through their learning. Outcomes were assessed according to the Kirkpatrick/Barr framework using a mixed methodology, which employed both quantitative measures and interviews.

The students evaluated the programme positively and appreciated its focus on interprofessional learning and partnership with services users, but mean levels of stress increased and almost one quarter dropped out. There was considerable evidence of professional stereotyping but little of change in these during the course. Students reported substantial increases in their knowledge and skills in multidisciplinary team working and use of PSIs (p< 0.0001). Experiences in the implementation of learning varied; in general, students reported significantly greater role conflict (p = 0.004) compared to a sample of their team colleagues (N = 62), but there was strong evidence from self-report measures (p<0.001) and work-place interviews that the students' use of PSIs had increased considerably.

Users with severe mental health problems (N = 71) randomly selected from caseloads of two cohorts of students improved over six months in terms of their mental health (p = 0.01), social functioning (p<0.001) and life satisfaction (p = 0.004). Having controlled statistically for differences in baseline score, those in the intervention (programme) group retained a significant advantage in terms of life skills (p<0.001) compared to service users in two non-intervention comparison groups (N = 109). Responses on a user-defined measure indicated a high level of satisfaction with students' knowledge and skills and personal qualities.

We conclude that that there is strong evidence that a well-designed programme of IPE can be effective in helping students to learn new knowledge and skills, and to implement their learning in the workplace. Further, we consider that there is encouraging evidence of the benefits of such learning for service users.

(350 words)

Interprofessional Education for Community Mental Health Services: the longitudinal evaluation of a postgraduate programme.

Introduction

This paper reports a comprehensive, longitudinal evaluation of a two-year, part-time postgraduate programme designed to enable health and social care professionals in England to work together to deliver new community mental health services, including psychosocial interventions.

The organisation of mental health services in England

By the end of the last century, as part of the government policy of 'community care', almost all long-stay psychiatric institutions had been closed. The great majority of users of mental health services who had severe and enduring mental illness were living with family carers or by themselves 'in the community'. The policy has however proved controversial. The 1998 government White Paper *Modernising Mental Health Services: Safe, Sound and Supportive* (Department of Health, 1998a) emphasised that whilst care in the community had benefited many, there had also been too many failures. These were attributed to the poor management of resources, underfunding, the overburdening of families, service users losing contact with services and problems in recruiting and retaining staff. The government stated that a modern mental service should:

> *"...provide care which is integrated, and which is focused on the individual, recognising that different people have different needs and preferences. It will be evidence-based and outcome driven."* (p.21)

The means of achieving this goal were set out in the *National Service Framework for Mental Health* (NSF) (Department of Health, 1999) which established a template for mental health services. It introduced new models of services and reinforced the principles of interprofessional care:

"Such a comprehensive programme of change cannot be achieved by a single agency or a single profession working in isolation. One of the defining characteristics of mental health services is the range of disciplines who frequently need to be involved in the care plan of a single individual; suitable accommodation, adequate income, meaningful occupation and family support all play a part alongside competent diagnosis, treatment and care." (Department of Health 2001a p7)

The NSF further specified that all education and training should be evidence-based, stress the value of multidisciplinary team working and involve service users in its evaluation (Department of Health, 1999, p109).

The Birmingham Programme in Community Mental Health

The Birmingham programme was one of a number established to provide postgraduate level education to staff working in mental health services (Brooker et al., 2002). It was nevertheless distinctive because of its strong emphasis on interprofessional learning and on partnership with service users. It had three key objectives:

- To train staff in the use of a range of evidence-based psychosocial interventions with people with severe and enduring mental health problems

- To improve understanding of, and skills in, interprofessional working

- To increase awareness of the need to work from a service user's perspective.

The curriculum comprised modules including user participation and self-help, assessment, interprofessional working in community teams, interagency collaboration, and psychosocial inventions (PSI) such as cognitive behaviour therapy and family therapy. These were assessed by assignments based on practice and work-based activities such as community assessments, analytical case studies and audiotapes of therapeutic interventions.

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According to Barr's (1996) classification of interprofessional education, the Birmingham programme was *explicit* in its focus on learning to promote collaboration. It was *integrated* into multiprofessional education as a distinct emphasis reflected in the design, content and learning methods. Explicit interprofessional education however comprised only *part* of the programme which also emphasised learning about psychosocial interventions and user participation. It was of course *particular* in its concern for people with severe mental health problems. The learning methods and assessments were generally *individual* rather than collective. Although all participants were working in mental health services, the teaching programme was *college-based*, but with work-based assignments. It was a *long* course, lasting one day a week for two academic years and at a *later* stage of education; participants had been qualified practitioners for at least two years. The curriculum contained both *common* elements, such as learning about PSIs and *comparative* study of respective roles and responsibilities and perspectives to inform interprofessional practice. It contained both *interactive* and *didactic* learning methods.

We have previously presented in this journal a detailed qualitative study of efforts to involving service users in every aspect of the programme (Barnes et al, 2000a); an update is in preparation.

The programme took a multidisciplinary approach to course management, co-ordination and teaching. It recruited a multidisciplinary intake of mental health professionals from psychiatric nursing, social work, occupational therapy and, to a lesser extent, psychology and psychiatry, as well as workers from the voluntary sector and service users. In a previous paper we reported that there was considerable evidence of professional stereotyping by participants on the programme, but little evidence of change (Barnes et al., 2000b); a further report is forthcoming.

In this paper we first present an overview of the evaluation methodology. We then describe the methods used to determine the impacts of the programme on students' learning, its implementation in the workplace and, finally, the outcomes for service users with whom the students worked.

Design and Methods

The West Midlands region of the NHS Executive, which had funded the programme itself, commissioned the independent external evaluation. This was required to inform the development of the programme throughout the five year contract period and to contribute to knowledge of the outcomes of interprofessional education in mental health, including the outcomes for service users.

The external evaluation team adopted as a core principle working in partnership with stakeholders. This was expressed in terms of developing a constructive working relationship with the programme staff and students so that they could feel empowered rather than oppressed by the evaluation. The evaluation was formative as well as summative, giving regular feedback to the programme itself and to an evaluation steering group comprising the commissioners, service user representatives and senior agency staff as well as independent academics. A key feature of the partnership approach was the participation of service users described in Barnes et al., (2000a).

In order to structure a comprehensive evaluation of the programme we used Kirkpatrick's (1967) well-known framework, as expanded by Barr and his colleagues (1999). We employed a wide range of qualitative and quantitative methods to investigate the process and outcomes of the programme, including the implementation of learning in practice. These included structured individual and group interviews, questionnaires with standardised measures and participant observation. The methods are presented in relation to the Kirkpatrick/Barr framework in Fig. 1.

Figure 1 about here

Questionnaire data were collected from course participants at three time points: on the first morning of the programme (T1) and at the end of the first and second years (T2 and T3 respectively) as indicated. Members of the research team conducted group and individual interviews at the university at T2 and T3, and in students' workplaces at various times as part of a programme of team visits. During these visits, team colleagues also completed the questionnaire measures of attitudes and team functioning; this provided a comparison group for cross-sectional analysis.

We developed a 'core competency' measure based on the capability framework for mental health practitioners (Sainsbury Centre for Mental Health, 2001 p8) in order to assess changes in students' perceptions of their knowledge and skills. Using a 10-point rating scale, students were asked to rate the importance of each of the core competencies and to assess their own levels of skill and knowledge at the beginning (T1) and end of the programme (T3). This measure covered a number of areas including partnership working with service users; multidisciplinary working; and psychosocial interventions.

In order to evaluate outcomes for service users, we selected at random from the students' caseloads a number of service users with whom they intended to practice the methods and approaches which they were learning on the course. As part of the curriculum, students were trained by members of the research team in the use of standardised measures of mental health and quality of life (Fig. 1). They were required, as part of the course academic assessment, to complete an assessment of the chosen service user at two time points six months apart[1]. The time period and the measures chosen were the same as for a concurrent study of the outcomes of community mental health services in the North of England. This study provided a useful

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[1] The West Midlands Region Multi-centre Research Ethics Committee approved the procedures for this component of the evaluation, including informed consent and confidentiality. Service users who declined to participate were replaced by others randomly selected from caseloads in the same way. Further details of procedures and measures are given in Carpenter et al. (2003).

non-intervention comparison group because the equivalent staff in the study districts had not received any postqualifying interprofessional education in mental health. Consequently, any differences in outcomes for users in these districts and those served by students could be attributed to the effects of the programme.

In addition, we sought users' views of the outcomes of training using a 16-item, 4-point rating scale especially designed for this evaluation (Barnes et al., 2000a). This assessed what users considered to be important outcomes of postqualifying education, such as: the user's professional relationship with the trainee; the extent to which the user felt involved in their own care and treatment; the quality of the information and advice given; and whether they worked effectively with other agencies. Users were offered the choice of not participating, participating by returning the questionnaire anonymously by post, a telephone interview, being interviewed by a trained user-researcher or by a member of the evaluation team.

Data Analysis

The reliability of scales were assessed using Cronbach's alpha and the theta co-efficient. Statistical analyses undertaken employed both parametric and non-parametric approaches in order to estimate the robustness of the conclusions. Methods used to detect differences over time and between groups included parametric (t-test, ANOVA) and non-parametric (Mann-Whitney, Kruskal-Wallis) methods. In order to assess differences in outcomes between groups of service users we employed Analysis of Covariance (ANCOVA) with scores at time 1 as a co-variate, enabling us to control statistically for differences in baseline scores (Dugard and Todman, 1995). Scores on the 4-point service user satisfaction questionnaire were investigated using Chi-square and Fisher's exact test.

Qualitative data, including interview transcripts and field notes were analysed thematically using NVIVO software (Searle, 2000).

Findings

It will already be apparent that we do not have space in this paper to give a detailed account of all the findings from this evaluation. We shall provide only brief summaries of: students' reactions to the programme (Kirkpatrick/Barr Level 1) and modifications in attitudes, including interprofessional stereotypes (Level 2a). Detailed reports on these aspects of the programme are in preparation. This report will focus primarily on changes in students' perceptions of their knowledge and skills (Level 2b), the extent to which they were able to implement their learning (Level 3), changes in organisational practice (4a) and the outcomes for service users (Level 4b).

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Participants

The evaluation project commenced after the start of the first year of the programme in 1998 and therefore the first cohort of students (Co1) participated in the piloting of approaches and measures. Data are presented for the following three cohorts for whom it was possible to obtain full returns over two years.

Participants were generally well-established professionals (mean length of time in present profession < 5 years, range 1-29 years). Over two thirds (69%) were women. One in eight

students designated themselves as black or South Asian. The largest group of participants was nurses (Table 1), mainly community psychiatric nurses, but including some staff from specialist rehabilitation centres and others from acute in-patient wards. There were similar proportions of social workers and occupational therapists (OTs), together comprising one quarter of the student group. There were only two psychologists and one psychiatrist in these cohorts. The programme also recruited a number of project workers and staff from the voluntary sector without professional qualifications, and two declared service users. Nearly one in four (24%) of those who began the programme subsequently dropped out at or before the end of the first year, without completing any qualification. In addition, 15 students (10%) left at the end of the first year with a postgraduate certificate.

Table 1 here

The dropouts and early finishers had an impact on the numbers of questionnaires returned at the three time points (Table 2). For Cohorts 3 and 4, there were a number of students who joined the programme after its start and were therefore unable to complete the measures at T1. The statistical analyses reported below refer to the matched pairs for which we had complete data.

Table 2 here

The comparison group of staff working in community mental health services who did not take part in the course comprised 62 people, 43 (69%) women and 19 (31%) men. Compared to programme participants, a significantly lower proportion described themselves as black or Asian (6%, $p = 0.002$).

Level 1: Learners' reactions.

Students welcomed the chances to exchange ideas and experiences with colleagues from other disciplines and from other mental health services. The multi-disciplinary make-up of the programme was valued but there were regrets were that the disciplines of psychology and

psychiatry were not more fully represented, restricting some work on interprofessional aspects of mental health practice. The taught programme was well appreciated by successive cohorts of students: the material was considered relevant and up-to-date and to have been presented effectively. The emphases on evidence-based practice, values, and user perspectives were highlighted. It was evident, however, that supervision arrangements were rather variable. When these worked well, they were a very important factor in enabling students to apply their learning and to manage the demands of course and work, but not all students felt adequately supported in this respect.

There was strong evidence that students found the programme stressful. The proportions of students scoring above the threshold on the GHQ-12 increased substantially from the beginning of the course to the end of the first year (Fig. 2). In Cohort 4, the proportion experiencing stress at T1 was twice that of students in the previous two cohorts. It was however similar to the proportion of team colleagues experiencing stress during the same year, suggesting that other systemic factors such a services change were involved. Nevertheless, at T2, the proportion experiencing stress in this cohort had also increased significantly, to over 50%. The increases in mean stress scores were statistically significant ($p = 0.03$) but there were no differences in change scores between cohorts, in other words, the pattern was consistent. Through interviews, students reported stress in three areas: the workplace; with assignments; and at home; it was often a combination of these issues which caused the greatest difficulties.

Fig 2 about here

Level 2 a: Changes in attitudes and values

Students from all disciplines generally began the course with positive attitudes towards the principles and values underpinning community mental health services, but they reported benefits from having been required to reappraise their value base. The most significant

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changes reported were in their attitudes towards service users; students believed that this had made important differences to the ways in which they approached their practice.

Learning on a multidisciplinary course appeared to have only a marginal effect on students' professional identification; they did not re-define themselves as generic 'mental health workers' but retained an appreciation of professional differences.

There was considerable evidence of professional stereotyping but little evidence of change in these stereotypes during the course. Positive stereotypes were not strengthened appreciably, nor were negative stereotypes reduced. Having examined possible reasons, we concluded first, that the students tended not to see fellow course members as 'typical' members of the other mental health professions and therefore did not generalise their positive experiences of fellow students to their professions as a whole. We should also note that because there were so few psychiatrists and psychologists on the programme, there was little opportunity for students' negative stereotypes to be disconfirmed.

Level 2b Changes in knowledge and skills

In interviews, students reported greater confidence in their jobs, derived from evidence-based and up-to-date teaching across a range of topics. Self-ratings on the 'core competency' measure indicated substantially increased knowledge and skills in the key areas of partnership with users, psychosocial interventions and multidisciplinary teamworking. In respect of the latter, students gave very high ratings for its importance and indicated statistically significant ($p < 0.001$) and substantial increases in their knowledge of the core roles and tasks of other professions and of the principles and skills in multidisciplinary team working (Fig. 3).

Figure 3 about here

In the area of psychosocial interventions, students were clear that they had not been trained to the level of competence of a skilled practitioner of CBT or behavioural family therapy; the modules were much too brief to enable this. Rather, the modules were considered to have provided a basic introduction; the students then required support and supervision in their

work places in applying their knowledge and skills. These views are summarised in the competency ratings (Fig. 4): students perceived PSIs to be very important and indicated statistically significant gains in knowledge (p < 0.001), at the end of the taught programme the median rating was just below 8 on the 10 point scale, indicating 'moderate' expertise.

Figure 4 about here

Level 3: Behavioural change

There was strong significant evidence from the self-report measure that the students' use of PSIs taught on the programme had increased over time. On the scale (1 = "never" to 5 = "very frequently") the mean rating for the use of CBT increased from 2.83 at T1 to 3.13 at T2 (p = 0.01) and to 3.59 at T3 (p = 0.004). Similarly, reported use of family therapy increased from 2.53 at T1 to 3.83 (p = 0.04) at T2, to 3.46 (p = 0.001) at T3. Nevertheless these ratings for PSIs at T3 equated to mid way between "sometimes" and "frequently" on the scale and these interventions were clearly used less frequently than the core tasks of assessment and care planning, and care co-ordination (mean ratings at T3 = 4.37, 4.24 respectively). We consider students' ability to implement their learning about interprofessional working below, at the level of organisational change.

There was evidence that students experienced role conflict, defined in Rizzo et al.'s (1970) measure as personal conflicts arising from competing demands, inadequate resources and incompatible requests (Fig. 5). Students in general gave significantly higher ratings than their team colleagues (p = 0.004) with nurses giving lower ratings on average than the other professions (p = 0.006). At Time 2, there was a small but statistically significant overall increase in role conflict (p = 0.01), most noticeably for students in Cohort 3. This suggests that the demands of the course on participants to change their practice and implement their learning may have increased the difficulties in performing their roles.

Fig 5 about here

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The problem with role conflict was confirmed in interviews when students explained that the implementation of their learning often challenged their traditional role in their team or aspects of practice. The lack of professional support could add to the conflicts, e.g.:

Confidence levels have been very up and down on this course as I have struggled with role conflict. My ASW [approved social worker] *role is in conflict with therapy. From the social services department I got no support, so this created serious difficulties.* (Co2 Y2 Group discussion 9)

However, the challenges were not necessarily viewed negatively, many perceived conflict as a sign of change, viz.:

Students claimed that, although they received a lot of support from some quarters, often from quite key people, there were other areas where they received none, either because people were not interested or were very against it. The increase in role conflict they saw as a positive as it 'shows we are doing something'. (Cohort 2 T2, Group discussion 2)

Level 4a: Change in organisational practice

Analysis of interview data showed that many students were able to make use of their learning and take a more assertive part in the multidisciplinary team, e.g.:

I think the course has improved the way I work with other professionals. I am able to discuss things with them much more confidently, especially with doctors. I am now able to challenge them and throw research papers in to back myself up. I also give advice and suggestions in dealing with service users. The team are quite welcoming of suggestions and they are very good with sharing information. (CPN Interview 18)

Some team colleagues noticed the change in approach brought to their team by students; these teams seemed to be open to new ideas and to welcome their contributions.

As a team we have always placed a lot of emphasis on not letting hierarchy get in the way…. We have always tried to break down barriers between professions. I think everybody has been committed to that, but this is where the Programme has fed into the team – where the value base departs from the medical model. (Team interview 4)

In other teams, strongly held rigid beliefs about professional roles apparently prevented progress towards more effective interprofessional working, e.g.:

It may be easy to forget what discipline someone is from on the course, but at work it is very different as people have 'professional preciousness'. Comments are not always welcome from you if the topic discussed is not considered to be an area in which your profession holds expertise…. (Co2 T2 Group discussion 3)

This led some students to question the meaning of 'multidisciplinary' in the context of teams. They questioned the number of representatives of a profession needed to make a multidisciplinary team truly interprofessional and how minority professions can best protect the positive characteristics of their profession without retaining single discipline teams.

There is a wider question about multidisciplinary working. Is it multidisciplinary only having one OT in a team? It is really difficult to battle against others who do not understand our approach, so it becomes generic. Then why have an OT in the team anyway? We are seen as a precious empire here [OT Department] who don't mix with others. Multidisciplinary working depends on attitude doesn't it? (Team interview 2)

A few students felt powerless to bring about change in their teams. In the first years, many students believed that if enough team members were to go on the Programme, then change might be possible, but students in Cohort 4 still felt their lack of status and numbers were barriers:

It was felt that the course was having little impact on teams but where there is an impact, it had been due to a student. There was a feeling that the teams that need to

know are the ones which do not want to know. It was felt necessary to have a critical

mass of students who have been on the course in teams. (Co1 T2 Group discussion 4)

The course has made me more aware of the roles of other professionals, but it has also

been frustrating to see how multidisciplinary working can be compared to the reality.

The system is too big for us to change. (Co4 T1 Group discussion 1)

This range of views was generally supported by findings from the Team Climate Inventory (West and Anderson 1998). Overall, ratings from both students and team colleagues were very similar and indicated only moderate levels of team functioning in relation to scale norms. Average ratings did not change over the duration of the programme and there were no differences between students and team colleagues. In other words, neither the wider organisational changes in mental health services, nor the students' learning about team functioning had any demonstrable effect on students' perceptions of team functioning.

Level 4b: Outcomes for service users

Participants

Service users in the two programme intervention ("cohort") groups and the two non-intervention ("district") groups were similar in terms of average age and gender mix (Table 3). However, Cohort 4 contained a higher proportion of users from black and minority ethnic groups compared to the other groups. The programme groups also had higher proportions of users with a diagnosed psychotic illness and this is reflected in the higher mean scores on the Brief Psychiatric Rating Scale (BPRS), which is sensitive to psychotic symptoms and in lower mean scores on the Life Skills Profile. In addition, the summary measure (M3) of problems, risks and psychiatric service use supports the view that the programme group users had, in general, more severe mental health problems compared to the non-intervention groups. This observation of differences in baseline ratings confirms the appropriateness of

employing ANCOVA to detect differences between the intervention and non-intervention groups. But first we investigate changes over time in the intervention group alone.

Table 3 about here

Findings

There was evidence from the tests of Analysis of Variance (ANOVA) (Table 4) that users in both the intervention groups had improved significantly over six months in terms of their psychiatric symptoms (as measured by the BPRS) and their general mental health (Health of the Nation Outcome Scales). There was strong evidence of improvements in social functioning as measured by both the global indicator (GAS) and the Life Skills Profile (LSP) and in the service users' satisfaction with various aspects of their lives (Life Satisfaction Scale, LSP). There were no significant differences between the two intervention groups, indicating that users in both groups had, in general, improved to an equivalent extent.

ANOVA with the two non-intervention groups (not shown here) indicated that these service users had also improved in the above measures, albeit to a slightly lesser degree. The application of ANCOVA showed that the intervention groups retained a strongly statistically significant advantage in terms of life skills, but not for the other measures (Table 4).

Table 4 about here

Overall, responses to the user-defined questionnaire were quite positive. Responses were categorised as positive or negative (Table 5). Almost all users believed that the students treated them with respect and understood them and their experience of mental ill health. For example:

> *She makes one feel that what a person thinks matters.* (Student (S)1 Cohort (Co)3)

> *My worker understands me because she is trained to understand. She understands me because she cares about me*. (S4 Co3)

She treats me as how I am - as an individual and not an illness. (S6 Co3)

In these respects, findings were very similar in the non-intervention groups.

Table 5 about here

Users also considered that they had been encouraged to explain their problems and needs:

She always listens carefully and does not just like the sound of her own voice. (S11,
Co2)

Over three quarters stated that they had been involved in care planning as much as they
wished. This proportion compares quite favourably to users in the non-intervention districts.
One programme group user commented:

She does encourage me, but at the same time I don't feel pushed, which is a good thing.
(S35 Co4)

Significantly higher proportions of users in the programme group gave positive or very
positive responses about care planning compared to users in the comparison groups.
Programme group users generally thought that the students could answer questions about
their medication (a subject taught on the programme); proportions were significantly higher
compared to the non-intervention groups.

With regard to multi-disciplinary working, around three-quarters of programme users
considered that the student had worked with other agencies to ensure that their needs were
met. One user explained:

*If I feel if I may need something she either knows or knows somebody who could advise
me on that situation.* (S23 Co3)

There was no statistically significant difference between the programme and comparison
groups in this respect, or in terms of consistency of information and advice from different
professionals; over two-thirds reported consistent advice. Similar proportions reported that

their named worker checked that they had been able to get the help the user considered that they needed from services. Again, differences were not significant.

Four out of five users believed that the students used their power appropriately and that they let the user take sensible risks in meeting new challenges.

> *She has never used her power by being forceful. She respects me.* (S 23 Co4)

> *It is up to me the risks I take, but she will try and guide me the right way.* (S12 Co3)

Intervention group users were very significantly more likely to report being asked if they wanted their carers or family involved in care planning than comparators. Only half believed that the student had considered their cultural or religious needs and one in four did not.

> *I am religious but we've never discussed it.* (S6 Co4)

A few service users took the opportunity to explain how positively they felt towards the students as individuals and also about the specific help which they and their families had received. For example, one user explained:

> *I feel like my named worker is the kind of person that I would like as a friend. However,*
> *I know that it is not her job, but the fact that I can tell her anything and I am not judged.*
> *She brought me videos, which helped me and my parents to understand my illness, and*
> *even when I was unsure whether I was ill at all, told me I was, and until I began to feel*
> *better for longer periods of time I was unable to see this for myself. She has been a*
> *lifeline for me and I am always pleased when she comes.* (S15 Co 4).

Discussion

This study, which examined the outcomes of the programme at all levels of the Kirkpatrick/Barr (Barr et al., 1999) framework for the evaluation of training, is the most comprehensive evaluation of a postqualifying training programme in mental heath yet to be

undertaken (Bailey et al., 2003). It is also quite possibly the most comprehensive

longitudinal evaluation of any programme of interprofessional education to date. It had a

number of important additional characteristics. First, unlike many other studies, it was

carried out by an independent external research team. Second, it was conducted over five

years, tracking three cohorts of students through the full two years of the course, as well as

investigating the outcomes for two successive groups of service users; it was thereby able to

assess, and confirm, the consistency of findings over time. Third, the evaluation of outcomes

for service users employed a quasi-experimental design with a comparison group of service

users.   Fourth, it used a range of validated instruments and measures as well as qualitative

research methods to examine change.

The Programme was long and intensive but was highly appreciated by those students who

lasted the course (Level 1). However it should be remembered that there was quite a high

drop-out rate and that many participants found the experience stressful. There was little

evidence of change in professional stereotypes (Level 2a). Students reported a substantial

increase in knowledge of working in partnership with service users, multidisciplinary

working and psychosocial interventions (Level 2b). This showed, in particular, in the greater

confidence with which they approached their work as part of multidisciplinary teams. One

important limitation of this study is that there was no independent evaluation of students'

acquisition of knowledge and skills in PSIs, which relied on self-report. An improved design

would involve the assessment by experts of videotapes of clinical interviews, such as in a

study of the effectiveness of a nine-month programme in cognitive therapy (Milne et al.,

1999). In this case, experts made ratings oblivious to the timing of the videotapes and rated

students as being more competent at the end of the training.

Similarly, the extent to which students implemented their learning was measured by self-

report, although this was generally corroborated in interviews with team colleagues and

managers (level 3). The knowledge gained on the programme did not make the students

expert practitioners of PSIs, nevertheless, they appeared reasonably successful in implementing these approaches. There was also some evidence from interviews with students and managers of changes in organisational practice which was attribute to students' learning on the programme (Level 4a). So, if students appreciated the course, considered that they had learned and implemented new knowledge and skills, was there evidence that this led to improved outcomes for service users?

The evaluation provided quite strong and consistent evidence that service users did indeed benefit, improving in terms of their mental health, social functioning and self-perceived quality of life (Level 4b). In general, the size of these improvements, which were measured over a six-month period, were modest, but would be recognised by most practitioners as 'clinically significant.' However, we must be careful in interpreting this finding. First, we cannot attribute this effect to a singular aspect of the programme such as the students' use of PSIs because we cannot be entirely sure (because we relied on self-report) that the students actually applied the PSIs learned on the course faithfully. The users' views survey and their comments show that good user-professional relationships were significant; the course with its emphasis on values and user-centred practice may have had an impact on this aspect of the students' work as well. Students considered that their interprofessional knowledge, skills and practice had improved and service users gave quite good ratings for these aspects of their practice, so it is possible that this also made a contribution. As in most research in this field, it is likely to be a combination of many factors, not least the personality and motivation of the students themselves, which can account for these positive outcomes.

The quasi-experimental design employed in this evaluation allows us to consider the positive outcomes for service users in a comparative light. Having applied a stringent and conservative statistical analysis, we can say that these is evidence that users in the "programme" groups improved very significantly more in terms of their life skills than users in comparator districts. These 'life skills', which include such aspects as personal

communication and social relationships as well as 'daily living' skills are essential to service users with severe and enduring mental health problems living settled lives in the community. They were very much a focus of teaching and learning on the programme and consequently this result may be considered a successful 'level 4b' outcome of the programme.

Programme group users did not however improve significantly more that the comparison groups in terms of psychiatric symptoms and mental health. The most recent review of postqualifying training in mental health (Bailey et al., 2003) found only two small scale controlled or comparative evaluations of (uni-professional) training for staff working with users with severe mental health problems (Brooker, et al., 1992, 1994). These studies did report improvements in psychiatric symptoms as well as in social functioning in the programme groups compared to the controls, which were attributed to the behavioural family therapy taught on the programme. This method of intervention, which was also taught on the Birmingham programme, aims to decrease relatives' 'critical comments' and 'overinvolvement' which as believed to exacerbate the symptoms of schizophrenia. The difference in outcomes between the two programmes may be because the course which Brooker and colleagues evaluated was a much more focused and intensive skills-based programme.

In conclusion, we consider that that this comprehensive, longitudinal evaluation provides quite encouraging evidence of the positive outcomes of interprofessional, post-qualifying education at the various levels of learners' reactions, knowledge and skills, implementation of learning and of benefits to users and carers. These we attribute to the careful design of the programme and the quality of the teaching and learning opportunities provided as well as to the resilience of the students who undertook a long and rigorous course.

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