Facilitating Practitioners to apply newly-acquired skills in Medication Management: evaluation at the follow-up stage

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ACTION RESEARCH

Introduction:

There is a considerable and growing body of research available providing evidence of the effectiveness of psychosocial interventions for the severely mentally ill, which include: case management; cognitive-behavioural intervention; family work; and medication management. However, these approaches have still not been well recognised or accepted into routine clinical practice by practitioners (Slade & Haddock 1996).

With this in mind, together with a co-facilitator colleague, I have been offering a short skills-based course for qualified mental health practitioners on medication management within Bedfordshire since April 2002. Also known as compliance, concordance or adherence therapy (Kemp et al 1997, Gray et al 2002, Harris 2002), medication management training requires the active participation of course members and uses more novel and innovative teaching and learning methods (Bradshaw 2002), in helping participants to develop the knowledge, skills and attitudes to support their practical application of this evidence-based intervention within the clinical workplace (Gray et al 2002).

Offered as a five day course over five weeks, with one follow-up day held 10 – 15 weeks after course completion, this course has proved to be in considerable demand by mental health practitioners with the support of their clinical managers, with three courses having been completed in the first year, and a fourth course being offered as a component of a local degree-level module in psychosocial interventions. Whilst each course has proved to be evaluated very positively by participants through a short post-course evaluation questionnaire, formal follow-up evaluation had not been undertaken. In the absence of any robust follow-up evaluation, the need to establish the extent to which participants actually apply newly-acquired skills within practice has increasingly become an important issue (Bailey et al 2002).

Conducted for the purpose of my own professional development, and in the context of the national drive to implement psychosocial interventions (DoH 1999, DoH 2001), I have planned and undertaken a local small scale study using

the action research approach, with the following broad aim: to investigate the extent to which newly-acquired knowledge and practical skills in medication management are being acquired and applied by mental health practitioners following their completion of a short skills-based course.

From this, a series of more specific study questions were formed:
Following a short five-day practical course in medication management, do participants: gain knowledge and new skills?; and, apply newly-acquired skills within the workplace / practice setting?
What are the obstacles to the effective application of medication management skills within the workplace?
How can facilitators best help participants to apply newly acquired medication management skills within the workplace?

Educational Issue: *supporting the application of new skills*
Although there are now a number of course programmes offering training in psychosocial interventions (Gournay 2000), some of the literature on evaluating this training has included criticisms of the failure of completing students to apply newly acquired skills within clinical practice, with a number of reasons being cited (Brooker & Butterworth 1991, Brennan & Gamble 1997, Gamble 1997, Kavanagh et al 1993, Leff 2000, Bailey et al 2002):

- an unwillingness or lack of confidence in applying newly-acquired skills;
- the unrealistic expectations of employers and completing students;
- a lack of support from service managers;
- difficulties in integrating new skills with current caseloads or other work responsibilities;
- a perception that psychosocial methods and interventions cannot be applied with particular clients or within working roles
- limited access to required support, supervision and consultation to enable the consolidation of learning;
- a lack of access to co-facilitators and co-workers, especially important if offering family interventions; and,
- the isolation of completing students within teams, especially where other team-members are closed to the application of these interventions.

To highlight the scope of the problem, it is worth considering Fadden's (1997) survey of 86 therapists trained in family intervention: only 70% were applying the approach within their work, with the mean number of families seen per therapist being only 1.7, and with 40% of families being seen by only 8% of the therapists.

Whereas a variety of evaluation methods and strategies have been used to determine the achievement of the aims of university-based course programmes in psychosocial interventions, invariably leading to favourable outcomes for the care of the client and clearly enhancing the skills of students (Gamble 1997), the evaluation of short course programmes has been far less robust and much more variable. Furthermore, there is little evidence of training being evaluated beyond the level of the trainee's reactions, with an assumption that monitoring the transfer of learning to practice would occur through subsequent workplace supervision (Bailey et al 2002).

Methodology: *the action research approach*

As practice orientated practitioner research, involving structured self-reflection (Denscombe 1998), conducted to help improve my own practice and lead to my personal development and improved professional practice, I considered the action research approach to be appropriate and potentially valuable in investigating, understanding and influencing the impact of education and training on the practical application of skills.

Medication Management: *an action research spiral*

To illustrate the continuous and progressive process of action research, incorporating a self-reflective spiral, I have represented the main focus of my study, that of developing a follow-up evaluation method and process, in *Fig.1*. Most useful for disciplining and organising the action research process, McNiff et al (1996: 22-23) also suggest that action research cycles be transformed into dynamic spirals of action, which allow other issues to be investigated as side spirals, an example of which concerned my use of demonstrations within the workshop setting, one of which proved rather difficult during course 3. The outcome of this investigation formed part of a related study of my teaching methods, to be reported in a separate paper.

Methods of Data Collection

Webb (1991: 160-161) and Winter (1996: 15-16) highlight the value of using a variety of methods of data collection in enhancing the validity of research findings – in fact a fundamental aspect of the action research approach. This process of triangulation helps to achieve the aim of building a complete and detailed picture of the research issue. Linked with this process is the need for methodological eclecticism, freely choosing from a range of different data-collection methods, off-setting the limitations of selecting only quantitative or qualitative methods. With this in mind, I planned to use several methods in attempting to gain insights into my research questions, being conscious of what would be possible in practice.

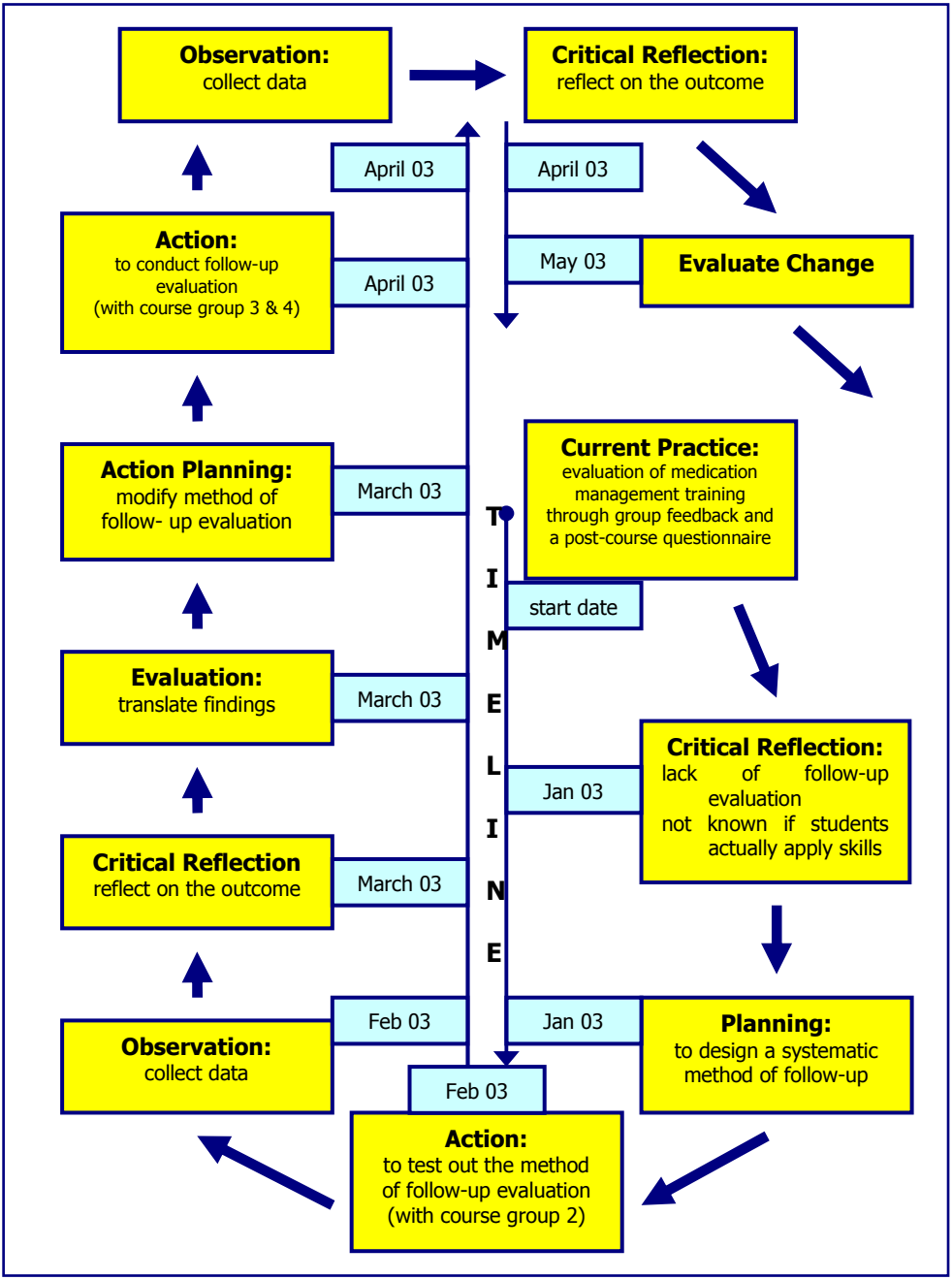
- Short multiple choice questionnaire on medication management (*quantitative*)

Adapted from the Knowledge about Medication Management Questionnaire, a tool with good content validity and good test-retest reliability (Gray 2001: 292-295), participants were asked to complete a 15-item multiple choice questionnaire related to short client vignettes, on Day 1 and Day 5 of the course, as a method of assessing change in their level of knowledge at the end of the core 5-day course. Participants were not permitted to keep copies of the questionnaire in an effort to minimise any influence on the outcome of training by enhancing the participants' motivation to study for the test (Gray 2001: 82).

- Post Course Evaluation Questionnaire (*quantitative & qualitative*)

In addition to a short post-course evaluation questionnaire consisting of fixed response and open comment items, which has been used routinely for all courses on Day 5, a short fixed response skills checklist was developed, based upon Gray's (2001) medication management training evaluation questionnaire, as a method of capturing each participant's actual or intended practice of medication management skills.

Fig. 1: action research spiral – evaluation of skills application



- Skills Application Checklist – follow-up version (*quantitative*)

Based upon the afore-mentioned tool, I designed, tested out and modified a short fixed response follow-up skills checklist, for completion by participants at the planned course follow-up day.

- Case Presentations (*qualitative*)

A scheduled component in the follow-up day of the course provides the opportunity for participants to present some aspect of their clinical work involving their initial application of the medication management approach with a client(s). I decided to take notes of these short 10-15 minute informal presentations by group-members, in gathering evidence of the successful application of skills and any reported obstacles / problems to practicing newly acquired skills, to be complemented with more formal course evaluation.

- Semi-structured Group Interview with participants (*qualitative*)

A short semi-structured interview was developed to gain feedback from participants on their perceptions of the helpful and unhelpful methods of teaching and learning, style of teaching delivery, the obstacles / problems that they face in applying medication management within clinical practice and their views about what would help their application of skills within the workplace. As a respondent interview (Powney & Watts 1987), a set of open questions was developed and used flexibly as the basis for a short group interview (Robson 1996: 231), as an efficient, non-threatening way of gathering data with the potential for discussions to develop (Watts & Ebbutt 1987).

Viewed as reflective practice 'akin to Schon's (1983) reflection in action' (Bryant 1996: 115), the action research process clearly requires critical self-reflection: a theme throughout my research activity.

Implementation: *data collection and analysis*

For this report, I have summarised and highlighted some of the key findings.

Change in the mean total scores on the medication management questionnaire at pre & post training is shown in Table 1 (maximum score on questionnaire = 15), highlighting significant improvements in the knowledge of participants in all course groups.

Each group evaluated the course very positively and all participants provided some evidence of applying one or more of the key medication management interventions at the post-course stage. In summary, participants thought that the course was well presented, following a logical sequence at a good pace, was supported by helpful written resources, and some highlighted the value of group work / role play. A number of claims concerning the application of skills were made by participants at this post-course stage:

- 80% reported that they were now systematically monitoring the side-effects of medication;
- 70% reported that they were managing side-effects;
- 45% & 25%, respectively, reported that they were now using problem-solving strategies and testing clients' beliefs towards treatment, with as many reporting an intention to begin using these collaborative techniques.

Of course, none of these claims were verified at post-course evaluation. Furthermore, many participants requested supervision and training updates in supporting their application of knowledge and skills.

Table 1: Change in Knowledge following Training

	Pre-Training Mean Score / 15 (sd)	**Post-Training** Mean Score / 15 (sd)	**p value** (2-tailed paired t-test)
Group 1 (N= 14)	*Ques. not used*	*Ques. not used*	*Ques. not used*
Group 2 (N=13)	5.46 (2.3)	10 (1.6)	p=0.0002
Group 3 (N=15)	6.53 (2.17)	10.13 (2.1)	p=0.0001
Group 4 (N=9)	6 (2.87)	9.78 (2.2)	p=0.0009

Version 1 of the follow-up skills checklist was tested with three participants at the follow-up day for course group 2. This highlighted some weaknesses of the tool, in that participants would tick more than one column thus giving confusing and unclear responses. Version 2 of this skills checklist was completed by 14 participants at the follow-up day for course group 3. Whilst a number of participants claim to have been practicing some of the skills before commencing the course, between 7 (50%) & 10 (71%) participants confirmed their practice of 11 of the 14 key skills since commencing the course. However, whilst encouraging, again this finding is limited to self-report.

Participants presented short case presentations at the respective planned follow-up day for each of the first three courses, with 25 / 40 participants attending these follow-up days. There is considerable and encouraging evidence from these presentations of participants returning to their workplace and practicing one or more medication management interventions.

It is noteworthy that whilst only 8 / 14 participants from course group 1 and 3 / 11 participants from course group 2 attended the respective follow-up days, 14 / 15 participants from course group 3 attended. Course group 3 was sent a reminder memo for the follow-up day, unlike for the previous two groups, even though the dates for follow-up days had been set on each final course day (Day 5) with the whole group present.

Whilst participants chose what to present, the popularity of particular skills reflected participant self-report on the skills checklist. As shown in Table 2, these presentations highlighted evidence of the use of a wide range of skills.

Of particular interest were the reported obstacles and problems encountered in applying skills in the workplace, particularly for those working within in-patient areas:

- the problems of shift-work, client leave periods and the early discharge of clients, impacting on the practitioner's ability to complete an intervention;
- the problems of particular mental health symptoms such as low motivation or impaired insight;
- the attitude of the family towards treatment;
- the inability of some clients to make informed choices.

My ensuing discussions with the group and my co-facilitator proved very illuminating, in considering some of the potential solutions for effective implementation:

- the need to adapt medication

Table 2: Summary of Key Skills covered in Case Presentations (follow-up)

Key Skills Presented	N / 25	Key Skills Presented	N / 25
Using assessment tools	9	Collaborative working	16
Psycho-education	4	Behavioural tailoring	1
Stress vulnerability model	2	Reviewing the illness timeline	11
Explaining psycho-pharmacology	9	Exploring ambivalence	3
Reviewing medication	10	Problem-solving	2
Challenging prescribing practices	7	Planning for the future	1
Monitoring side-effects of medication	8	Goal setting	1
Managing side-effects	1	Relapse prevention	2
Positive risk taking	1	Planning / reviewing / adapting strategies	4

management strategies for use in in-patient settings;

- the need to integrate the approach into routine clinical practice;
- the need to carefully select and apply the right strategy at the right time;
- the need for realistic expectations, both for practitioners and clients, irrespective of the care setting;
- the need for continuity of approach between in-patient and community teams, requiring close liaison or, preferably, joint working.

Group Interviews

Prior to conducting any group interviews, a briefing sheet and consent for participation was developed (McNiff et al 1996) and a short interview guide was written, which was tested out with three participants from course 2 and my co-facilitator. The interview guide was later modified to include more specific questions on the obstacles / problems in applying medication management interventions. An audio-recorded group interview was subsequently held with six participants, as an optimal group size, for about 40-minutes, as an acceptable length (Robson 1996: 229). A full transcription of this recording was made.

Participants highlighted a number of key learning points and areas of further need, as shown by their comments – *selected comments are shown*:

Increasing knowledge

'I can now safely think along the lines of proper drug administration… when I'm giving drugs, there's some effects and side-effects that I'm now observant of which I didn't quite understand before'

The value of reflective practice & self-feedback

'a good thing to take back into practice (is) to stand back and to say to yourself: 'OK, well I did OK in that situation and, you know, next time I could do differently, but what I did was OK"

'Being aware of the pros and cons of using medication management

strategies, highlighting the need for the selective and careful use of strategies, and where necessary, the need to offer further support and care to the client'
'I talked… about someone who did a timeline exercise… who found it very useful in terms of practical application, but also found it very distressing because it highlights just how serious their symptoms are and how many times they've been admitted to hospital, and how difficult their life has become as a result, and what a profound effect it's had on their ability to have anything in their life… and also how useless this particular person felt in being able to do anything about it'

Obstacles to Practice
'I think the length of time you have contact with the patient on an acute ward… it's difficult to fit this in around the other things that are going on for them at the time as well… it's quite difficult to have individual time for people when you've got (X) people in all'
'The treatment plan can be an obstacle as well, as far as acute in-patient structure is concerned… leave is considered as therapeutic… so where a patient is going on this leave… you're not able to engage with them…'
'there are several issues to do with the service such as (the need to) reducing caseloads'
'It's more about caseload… having appropriate clients… and what you can fit in'

The value of follow-up days
'This day (follow up day) would help… I've got to try some of this out because I've got to come back and talk about it… helps to focus the mind'
'Having a follow up day helps us to realise that… how much we're actually using it'

Some of the solutions in promoting application
'(It's) *a matter of experience and trial and error… learning and gaining confidence from experience and practice… and gaining some successes'*
'Having more members of staff going through this type of course'
'to provide supervision on medication management issues'
'It could be quite helpful for clinical supervisors to go through this type of course'
'Make consultants aware of what is being learned…'
'to consider doing a roadshow (on medication management) *to teams'*
'(Having) *something like a network'*
'The website'
(www.medicationmanagement.org)
'The CD-ROM' (this was created and given to participants)
'A kind of auditing system'
'We audit all the time… it's just a way of supporting… yes, what you're doing is right'

Confirming the evidence from the case presentations, interviewed participants thus further confirmed and added to the list of obstacles and problems encountered in applying medication management interventions within clinical practice:

- high caseloads;
- limited time available;
- whilst some clients find practical strategies useful, they can also find them distressing.

However, interviewed participants also proved able to generate a number of potentially helpful methods of encouraging the application of newly-acquired skills, reinforcing and further illuminating those ideas identified in the case presentations.

- to be flexible in applying the

approach;

- to make ongoing supervision available;
- to make up-to-date information available through CD-ROM and website media;
- through further planned follow-up days;
- by developing an audit system.

Conclusion & Discussion:

Through quantitative and qualitative methods of data collection, there is considerable evidence to support my claim that many participants are returning to the workplace and applying medication management skills within clinical practice following their completion of a short 5-day course.

I have become aware of a number of client-related and service-related obstacles and problems faced by the practitioner in attempting to transfer newly-acquired skills to practice, learning much from the case presentations and participant interviews. It is worth noting that much of this sounds familiar, confirming the findings reported in the wider literature (Bailey 2002). However, the methodology adopted has proved helpful in involving participants in generating some practical solutions to these perceived or actual obstacles and problems, and in identifying a number of areas for further action in supporting the application of skills by practitioners:

- planning events for supervisors and managers;
- creative ways of making up-to-date information available, using multimedia resources;
- establishing audit activity for quality improvement, as suggested and viewed positively by interviewed participants;
- emphasising the flexible and individualised nature of planning interventions with clients, with future course groups;
- the need to provide participants with guidance on the practice of skills within different care settings;
- and, the value of follow-up days.

However, as I cannot make any claims about the quality of skills application by participants within clinical practice, there is a need to consider ways of involving and preparing workplace clinical supervisors in supporting and consolidating skilled intervention by participants.

Of course, the action research process also appears to have a number of drawbacks: my close involvement in the process may have limited the scope and scale of my research; having a vested interest in the findings for resolving problems, I cannot claim to have been completely impartial; the localised nature of my research clearly limits the generalisation of my findings; and whilst I have clearly found the process beneficial, this has certainly required considerable time and effort (Denscombe 1998: 65)

However, on balance, I believe that I was able to adopt a reflexive approach (Webb 1991: 161-162, Winter 1996: 13-14) in presenting my data, being conscious of the effects of my personal involvement as practitioner–researcher, and supporting and questioning my judgements with examples from my direct experience and through discussion with my mentor.

Conducting this study has been illuminating, stimulating (Webb 1996: 156) and motivating, in terms of integrating research activity with teaching and practice, with the aims of enhancing participant learning and my own insights and understanding.

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