

PRiSM Psychosis Study

Thro' a glass darkly: a distorted appraisal of community care[†]

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As we approach the end of the 20th century we are witnessing major changes in the techniques and delivery of health care, especially in modern industrialised societies. Contemporary psychiatric care, by contrast, continues to be dominated by thinking and practices which have their origin in the last century. One of the few advances in psychiatric care, which has led to undoubted improvement in the quality of patient care and the outcome of mental illness, has involved a reconceptualisation of the nature and type of services offered to persons with severe illness and the introduction of community-based care to replace hospital-based custodial care. The Programme of Assertive Community Treatment (PACT; Stein & Test, 1980) or assertive community treatment (ACT) is recognised as the most important and critical ingredient within community care and, more than any other form of psychiatric service (including the traditional hospital-based service), this model has been tested and evaluated over the past quarter of a century (Stein & Test, 1980; Burns & Santos, 1995). In this context, the publication in the *British Journal of Psychiatry* of ten papers describing one study conducted in London – along with an uncritical editorial which claims that “the exact model of community care being offered, whether assertive, intensive or standard, is really unimportant” (Tyrer, 1998) – is, to say the least, somewhat puzzling. These papers demand a response, and we provide one that involves a fair degree of scepticism concerning the results and pays critical attention to the methodology.

Quite apart from the scientific merits and validity of the study and its findings, there are two other issues which require attention. These concern the editorial policy of the *Journal* and the political context in which the success or otherwise of community care is being evaluated and presented

by researchers working in this area. For a prestigious scientific journal such as the *British Journal of Psychiatry* to publish a cohort of ten papers from one group of investigators, along with an editorial that is almost a eulogy, would probably be appropriate in the event of a major discovery or breakthrough, but the papers comprising the PRiSM Psychosis Study fall far short of such expectations. However, these papers, which essentially describe a quasi-experimental study, are concordant with headlines and comments in the popular press resulting from the moral panic that has been created around ‘the failure of community care’. The publication of these papers at a time when a newly elected British government is contemplating significant changes in the care and treatment of people with severe mental illness living in the community cannot be seen as a total coincidence.

It is important in any scientific debate to reconcile the differences between competing positions if the scientific advances which are being tested, evaluated and reported in journals are to be understood and implemented in the context of treatment and care. The essential argument of the authors in the PRiSM Psychosis Study is that although a particular form of community care (the ACT model) has been proved to be effective in the context of rigorously evaluated scientific studies, the effectiveness of such a model is highly problematic in day-to-day transactions within ordinary clinical settings. For those of us working within community mental health care, it is essentially counter-intuitive to argue that assertive or intensive models of working with people with severe mental illness do not have any appreciable benefits over less intensive forms of community-based intervention. The conclusions of this study, if true, could lead to a fundamental change in the way in which mental health services are provided, and could have huge financial and policy implications. It is therefore vital that we examine the findings

of the PRiSM study with critical attention to the way in which it was set up and conducted.

EFFICACY VERSUS EFFECTIVENESS

The design of the PRiSM study was justified by the authors in terms of evaluating the effectiveness of ACT for severe mental illness. The premise was that the *efficacy* of treatment under optimal research conditions over-estimates the *effectiveness* of such treatment under conditions of normal clinical practice. The “efficacy/effectiveness gap” (Lehman, 1996) refers to the gulf between “scientific measurements based on RCTs [randomised controlled trials] and the benefit measurements in the community”; the implications of this gulf for clinical practice and policy decisions about treatments are currently arousing a great deal of interest (Wells, 1999). As a result of this, it is rightly claimed that the results of controlled clinical trials should only inform, not dictate, clinical practice.

However, this argument is largely based on our understanding of circumscribed and unitary modalities of intervention, such as the use of particular types of medication. The assumption here is that RCTs, which continue to form the basis of much of the evidence in relation to efficacy, seem, to some extent, to be divorced from reality by the unnatural process of randomisation, by diagnostically clean samples, the ideal settings of the study and an inability to accommodate individual differences within experimental constraints (Hogarty *et al*, 1997). Although such criticism may well be justified within strictly controlled clinical trials involving drugs or other discrete therapeutic interventions, it is far from clear whether such problems consequent upon the characteristics of RCTs are equally relevant in the evaluation of service innovations such as ACT, which was born out of normal clinical practice and which is, essentially, a set of principles that inform a broadly based approach to delivering clinical care. The PRiSM Study authors take it as a given that past efficacy studies in relation to ACT were distorted by sampling bias, treatment settings and the enthusiasm of the original researchers, a questionable belief that continues to be reflected in the rationale for clinical services evaluation in general. As Hogarty *et al* (1997) have argued, such demeaning of results from RCTs could, in this era of therapeutic minimalism, give

[†]See pp. 501–503 and 508–513, this issue.

managed care proponents a rationale for neglecting beneficial treatments.

The justification for effectiveness research is of necessity narrowly based, especially regarding the potential for translating small-scale clinical studies that attest to the effectiveness of particular forms of service delivery to more general clinical practice. The argument that inexperienced workers, in the context of the reality of service delivery within ordinary settings, will somehow fail to adhere to procedures of treatment or service delivery proven to be effective in RCTs is not necessarily a criticism of the model itself but might well have something to do with the disorganised way in which services are developed in particular settings. This is more likely to be the case with mental health services, which are undergoing rapid and unprecedented change, especially in the UK. To set aside efficacious methods of treatment because of such an apparent lack of effectiveness is akin to keeping the bath-water while throwing out the baby. Effectiveness research should be about examining in an empirical way the particular factors which constrain a proven treatment when it is applied within ordinary clinical settings. Such treatment should not be trivialised or inappropriately withheld because its effectiveness has not been demonstrated in the 'real world' of routine clinical practice undertaken by inexperienced providers, or of administratively neglected settings and atypical patients who are likely to require their own novel interventions and control studies (Hogarty *et al*, 1997). Our contention is that the PRiSM Psychosis Study papers echo the sentiments which are routinely expressed in the more general and public debates about community care for people with severe mental illness: that 'community care does not work', and let us therefore abandon this rather wasteful enterprise. The important scientific question, one that is fundamentally related to the effectiveness argument, should surely be to ask why community care, components of which have been proved to be highly efficacious, does not appear to work in the hands of British psychiatrists.

METHODOLOGICAL PROBLEMS

There are two major methodological weaknesses in the PRiSM Psychosis Study, which both cast serious doubts on the robustness of the findings. The first concerns the design

and methodology used by the researchers, in particular the quasi-experimental study design and the assumption that the two conditions being tested were sufficiently dissimilar. The second weakness concerns the representativeness of the sample chosen for the surveys and the very high attrition rate in the follow-up, with just over a quarter of the overall eligible sample providing interview data at the start of the study and at follow-up.

Sampling

The purpose of this quasi-experimental study was to examine the benefits that patients gained in one locality (Nunhead) where it was claimed that community care along the lines of ACT was implemented as compared with the 'standard' form of community care available in a neighbouring area (Norwood). The researchers compared the outcome of mental health interventions in a selected sample of patients diagnosed as suffering from 'psychoses', which were used as an indicator of 'severe mental illness'.

The authors chose 514 people as fulfilling the criteria for any psychotic disorder, using conventional case identification criteria, from an overall prevalence sample. The sample to be interviewed was randomly chosen from this group. One of the major problems with the study is that of the original group of 514 people identified as suffering from 'any psychotic disorder' living in the study areas, not all were necessarily in contact with services or likely to have been experiencing the kind of mental health problems that are considered to be most amenable to ACT. For example, of these 514 people, only 287 (56%) were on the Care Programme Approach (CPA). This indicates that nearly half of the sample identified as having a psychotic disorder either were not in contact with services or were not considered to be ill enough or to show a level of disability which would have warranted their inclusion under the CPA – inclusion in which usually indicates the need for sustained psychiatric intervention.

The PACT was set up to target those individuals with a diagnosis of severe mental illness, usually with a long history of involvement in psychiatric services involving repeated hospital admissions, involuntary care, disengagement from services and additional problems such as violence, persistent offending and residential instability. Over the past two decades, further and varying categorisations of this

target group have emerged, but the research evidence that ACT is effective is largely based on studies of people with severe mental illness with a multiplicity of other needs. Despite variations, consensus exists regarding the criteria for inclusion in ACT: that it is for those with severe and enduring mental illness. Client characteristics matching these criteria and previous admission histories have been found to be critical factors in the success of PACT (McGrew & Bond, 1995).

In the PRiSM study, the entry criterion was that of 'psychosis', a loose and unsatisfactory case definition. Case inclusion was irrespective of disability, persistence of symptoms and previous or current service usage. Of the eventual sample recruited to the study, only 50% had ever been detained under the Mental Health Act 1983 and only five cases in the intensive sector and a single case in the standard sector had Social Behaviour Schedule (Wykes & Sturt, 1986) scores reflecting high disability (30 or more). While the authors suggest that the intensive intervention teams focused on the 'long-term mentally ill', no evidence or detail is provided to support this claim. Such information, of course, would be immensely helpful in considering whether the experimental intervention was focused on 'severe mental illness'. In many ways, the sample selected – on the basis of a loose, over-inclusive and inherently problematic definition of psychosis with characteristics (as reported) which do not necessarily amount to severe or persistent problems – falls far short of the ideal client group that would be best suited for PACT. This suggests that any benefit that one would normally expect from PACT would be diluted as a result of the lack of rigour in case definition and the subsequent problem in the analysis and interpretation of the data resulting from client characteristics correlated with treatment specificity. A more accurate description of the quasi-experimental nature of this study would be that it was 'quasi-PACT' – and so, not surprisingly, the study demonstrated marginal advantages for PACT over standard care management. An appropriate analogy would be a study of the effectiveness of intravenous antibiotics in the treatment of septicaemia that recruited a sample of all those with 'fevers'.

Follow-up

Three hundred and two individuals were selected from the prevalence sample of

514 people, and the intention was to follow them up. The original aim was that each subject would complete a baseline interview and would be re-interviewed two years later. As the authors themselves acknowledge, not all assessments at each time point were completed; however, for the purposes of analysis, the following three domains, which together constituted the 'core interview' were chosen: an inventory of the services received by the patient, using the Client Service Receipt Inventory (Beec-ham & Knapp, 1992); a measure of satisfaction with services received, the Verona Services Satisfaction Scale (Ruggeri & Dall'Agnola, 1993); and a quality of life measure, the Lancashire Quality of Life Profile (Oliver, 1991). From the numbers (and percentages) completing the measures at Time 1, Time 2 and at both time points given in the papers, it is immediately clear that nearly a third of the sample selected did not complete the core interview at baseline, and that this proportion increased to nearly a half when attempts were made to re-interview them two years later. It is also clear that the attrition rate was quite significant by the end of the study, with less than half of the original sample chosen for the survey completing the core interviews at Time 1 and Time 2. The authors do not give further details about the attempts that they made to trace the large number of people 'lost to follow-up'. The baseline-follow-up comparison, which essentially addresses the research question – namely whether intensive community treatment has any greater beneficial impact than 'standard care' provided in the community – is based on an eventual sample of 140 people with a diagnosis of psychosis within two catchment areas. Clearly, the numbers that the authors managed to study are much smaller than the overall numbers included in some of the earlier efficacy studies, thus raising serious questions about whether the PRiSM Psychosis Study was a 'real' examination of effectiveness, in the 'real world' of community psychiatric care.

Baseline equivalence did not apply between the sectors with respect to a number of important variables. There were significant differences between the groups on disability (Johnson *et al*, 1998), histories of violence, perceived potential for violence, criminal convictions, histories of suicide attempts or assessment as being of high suicidal risk. The inference that such differences persisted throughout the study, despite the 'intensive' service available in Nunhead, is

hard to accept at face value. It is left to the accompanying editorial (Tyrer, 1998) to make this inference explicit by concluding that intensive community services paradoxically increased rather than reduced the incidence of violence.

FIDELITY

A fundamental requirement for the success of the PACT model, when implemented within an ordinary clinical setting, is that the interventions should remain faithful to the original model. Unlike case management, PACT should be practised according to a defined and validated model (Marshall & Lockwood, 1998). A large measure of the success of the PACT model, when replicated in different centres, is attributable to fidelity to the original model. The elements which constitute successful PACT have been agreed by an international panel of experts (McGrew *et al*, 1994). One of the major drawbacks of the PRiSM study is that the authors provide nothing in the way of fidelity scores for their 'intensive treatment' and for how faithful they had been to the original PACT model, particularly in relation to components of team structure, case loads, treatment goals, client involvement in treatment planning, programme capacity, continuity of care, etc. In fact, the only reference to the actual PACT model that we could find in any of the PRiSM papers was in the form of a BSc dissertation. If we were to apply a 'fidelity scale' to the information on the components of services provided through 'intensive treatment' which could be gleaned from the papers, only 10 of the 54 items seen as constituting the PACT approach were fulfilled by the Nunhead PACT team. Most disappointingly, there was no reference to adherence to the central features of the PACT model, with its emphasis on severe and persistent mental illness, low staff to patient ratio, team-based working and shared responsibility.

Similarly, the study includes an examination of a 'psychiatric care and emergency (PACE) team'. This description is equally problematic. The PACE team described was not a 24-hours, seven days a week team dedicated to both crisis intervention and home treatment for acute psychiatric presentations. Apart from the team's evolutionary status during a considerable part of the study period, the description of the PACE team and its difficulties suggests a

progressive community mental health team struggling to liaise with mainly fund-holding primary care groups. No detail is provided regarding the nature and characteristics of the referrals, or the success of diversions of cases destined for hospital admission.

CONCLUSION

Given the lack of clarity about the intensive sector component of the service and the likelihood that it fell far short of the PACT model (which is the one most rigorously evaluated and found to be effective in the treatment of serious mental illness), and given the similarity between the two methods of community care provided in the experimental and control areas, the purpose served by evaluating the two approaches is highly questionable. The case for studying the 'effectiveness' of an intervention is not advanced by examining diluted forms of that intervention and comparing them with a downgraded version of a similar intervention found to be effective in RCTs. When specific guidelines already exist from empirical research as to the detailed nature of what is effective, namely (PACT), to ignore them seems to be an oversight which is difficult to justify unless this is the clearly stated aim of the study.

The already confused etymology of community care models – the spectrum includes 'case management', 'intensive case management' and 'assertive community treatment' – is further compromised by a poorly designed study which does not examine what it proposes to examine and advances an argument about effectiveness (probably *post hoc*) by way of justification for the chosen approach.

The summary editorial on the PRiSM Study (Tyrer, 1998) is both biased and inaccurate. It states that the intensive service almost certainly resembled the United States PACT model (which it almost certainly did not), ignores the confounding effects of baseline measures so as to conclude that intensive models involved increased violence on the basis of the data provided (they did not), and counter-intuitively dismisses the components of service provision as unimportant (despite them having been recognised elsewhere as being most critical to success within the PACT model). We are left wondering why such a flawed evaluation of community care models (far removed from models of community

treatments of proven efficacy) was considered to be worthy of publication. We can also ask how the cause of community care could be advanced by publishing an editorial summary expressing scepticism about the effectiveness of community care models which have been shown to be highly effective and eminently suited to the treatment of severe mental illness. In many ways, mental health services in this country are poised for fundamental and radical change, with a major shift of resources from psychiatric hospitals to community settings. The professional debate about community care should be informed, authoritative and based on rigorous evaluation. Publication of studies such as this, which have more in common with the general public's perception that community care is either 'profligate' or 'dangerous', does not help.

Despite the impressive history of major advances in social psychiatry in this country, the reluctance of British psychiatrists to embrace community care models of proven value, benefit and acceptability by service users and carers is becoming increasingly clear. The publication of the PRISM Psychosis Study papers is part of a disturbing trend: that having failed to strangle the infant of progressive community care in the UK, psychiatrists in this country appear to be keen to marshal whatever evidence they can in the way of 'scientific evaluation' in order to diminish its significance and arrest its progress. It is no wonder that, while we are in the midst of some of the most significant changes to affect mental

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health care in this country for nearly a hundred years, the psychiatric profession is often accused of heading in the opposite direction.

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