# The Mental Health Matrix

## *A Manual to Improve Services*

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# Aims, concepts and structure of the book

## 1.1 The purpose of the book

The reform of mental health services is now a prominent issue in most economically developed countries and also in several countries of Central and Eastern Europe. Although the speed and the precise local detail of these changes vary between countries, there is a clear need for an overall conceptual framework, which can assist both those leading and those who are affected by these changes. In a sense this book acts as a guide, providing a map of the territory and a compass to orientate the direction of reform.

The process of re-modelling mental health services is a reform in two senses: it is a profound change in the values informing how treatment and care should be provided to people suffering from mental illness, and it is also a radical structural change in the physical shape and pattern of services. This book seeks to provide an overall conceptual model, and acts as a pragmatic manual to help those who are involved in changing mental health services and those who wish to learn from evidence and experience accumulated elsewhere.

In this volume, we shall selectively present evidence for the clinical effectiveness of community-based mental health services, including the results of research studies, such as randomised controlled trials. We shall also include a range of other types of evidence, such as knowledge based on the experience which has accrued from good clinical practice, especially in those areas not yet subjected to formal evaluation.

A clear limitation of this book is that it does not include information from large parts of the world, including Africa, Asia and South America. We believe that the situation in less economically developed countries needs to be separately addressed by those with the relevant direct personal experience. At the same time we hope that the framework and the methodology we propose in this book will be of some assistance to others undertaking that task (Ben-Tovim, 1987; Desjarlais *et al.*, 1995).

## 1.2 A conceptual framework: the 'matrix model'

We believe that a conceptual model is necessary to help formulate service aims and the steps necessary for their implementation. To be useful such a model should be simple. We have therefore created a model with only two dimensions (each of which has three levels), which we call the 'matrix model'.

Our aim is that this model will help people to diagnose the relative strengths and weaknesses of services in their local area, and to formulate a clear course of action for their improvement. Such a service development plan will involve judgements about the risks and benefits of competing alternative courses of action. We also expect that the matrix model will assist in producing a detailed step-by-step approach which is clear and flexible enough to be relevant to different local circumstances.

The two *dimensions* of this conceptual framework, which we call the matrix model, are the geographical and the temporal (see Figure 1.1). The first of these refers to three *geographical* levels: (1) country/regional, (2) local and (3) patient. The second dimension refers to three *temporal* phases: (A) inputs, (B) processes and (C) outcomes. Using these two dimensions we construct a $3 \times 3$ matrix to bring into focus critical issues for mental health services.

We have chosen to include the geographical dimension in the matrix model because we believe that mental health services should be primarily organised at the local level. This level can act as a 'lens' to focus policies and resources most effectively for the benefit of individual patients. In our view decisions at this local level should be informed both by the larger-scale public health context and by the smaller scale of direct clinical encounters.

We have selected a temporal axis as the other organising dimension. This is because although we consider that outcomes are the most important aspect of service evaluation, nevertheless these outcomes can only be interpreted in the context of their prior temporal phases, namely inputs and processes.

The matrix model allows us for the first time to use these two dimensions simultaneously, and the consequent $3 \times 3$ framework is intended to clarify the analysis of problems and solutions in developing mental health services.

Such a conceptual framework both sets the boundaries within which useful explanatory models can be articulated, and gives a context for the definitions of key terms, which are particular to a given historical period (Kuhn, 1962). A conceptual framework for health service research, for example, is important to help avoid two types of risk: general descriptions

referring to large areas, which are difficult to use in any particular site; and data from a specific service, from which it is difficult to extrapolate. This framework can be useful because it facilitates the bridging of information between different levels of analysis. Indeed, in practice the lack of a conceptual map of this kind, both to analyse problems in the functioning of mental health services and to locate specific interventions, often produces inappropriate responses to dysfunctional services, as described in examples reported in the next section.

This model is not intended in any way to be prescriptive, but has to be taken as an explanatory tool, first for understanding and then for action to improve services. Those readers who want to use the book for practical purposes need to adapt this matrix model in ways that maximise its relevance to each local situation. These situations vary so much that a rigid explanatory system will not be useful in this respect. Mental health care is different from those medical specialities which continue to be more hospital based, such as surgery, in which treatment protocols and guidelines may be applied in a more exacting manner.

We therefore encourage readers to adjust this model to suit their own situation, and we consider that the success of this model will be measured by how far it is useful in practice.

## 1.3 **Examples of the use of the matrix model**

The application of the matrix model will be the central theme of this book. We present here three early examples of the use of the matrix model. The first illustration refers to how the model can assist in understanding the possible causes and effects of episodes of severe violence committed by psychiatric patients. In practice the causes of such incidents are often described primarily at the patient level (the patient and the direct care staff ), but the consequences seldom remain at that level, and may affect both the local and country levels. Characteristically these extreme adverse events are multi-causal and so the use of a clear multi-level framework, such as the matrix model, allows many concurrent factors at different levels in the mental health service system to be taken into account. In other words, when the analysis is complex, then the response must be commensurate to that degree of complexity.

For instance, in an inquiry into an individual adverse outcome, namely an incident of severe violence committed by a patient (Cell 3C in Figure 1.1), we may need to analyse the precursors to the event in terms of the lack of a local method to establish and maintain maximum clinical case loads (Cell 2B)

for community-based staff, an inadequate degree of targeting of most severely disabled patients (Cell 2B), and poor local staff training (Cell 2A), in the wider context of low national rates of investment in mental health services (Cell 1A). As a consequence the required responses should be placed at precisely those locations (Cells) where the weaknesses have been recognised.

This method of analysis can therefore allow the formulation of a more complete preventative strategy which combines actions at more than one level. This can reduce two risks: over-specification and over-generalisation. On one hand, conceptualising the problem only at the patient level can more easily lead to the attachment of blame to individual clinicians. In effect this reduces complex multi-level causal influences to only the patient level. On the other hand, there is a risk of over-generalisation, that is to attach to the whole psychiatric system (at the country level) the blame for failing to prevent such tragic events, and of therefore failing in all aspects of the service.

This use of the matrix model is to identify key contributory factors in such sentinel events, and to direct an inter-related series of responses to address policy, organisational and clinical weaknesses at their appropriate levels.

A *second example* of using the matrix model refers to how information from services in one site, both from direct visits and from published descriptions, can be translated to be relevant to another. What people do in practice is to adapt experience from other centres and information from the research literature to make a diagnosis of the relative strengths and weaknesses of services in their local area, and to formulate a course of action for their improvement. Without a conceptual framework, this process, essentially one of translation, often presents difficulties in deciding which aspects of 'foreign' data are relevant to local circumstances, and also knowing how to implement the service requirements identified from the system diagnosis.

The outcome of such a local translation process may lead to several possible courses of action. Commonly the information conveyed consists of visible local service inputs, including physical and staff resources (part of Cell 2A in Figure 1.1), and some limited process details on the style of working and clinical contact rates (Cell 2B), along with limited data on outcome variables at the patient (Cell 3C) or local levels (Cell 2C). What we need in fact is a standardised account of the small number of most relevant features in every cell of the matrix, so as to understand more fully any particular local service which demonstrates good practice, and to appreciate how best to transfer such practice to other settings.

An example of the translation of one service component from North

America to Britain is the introduction of case management (CM) and assertive community treatment (ACT). At the national level, there has been a prioritisation of the severely mentally ill (Department of Health, 1994) which has encouraged CM and ACT; at the local level specific procedures (called the Care Programme Approach) have been established to require the allocation of case managers to patients and the organisation of regular clinical review meetings; while at the patient level widely differing interpretations of CM have been made in practice.

The *third example* is how the matrix model can help in understanding why some clinical interventions of proven efficacy have not been implemented on a widespread basis (the gap between efficacy and effectiveness), while other forms of treatment, which have not been subjected to proper evaluation, have become common (claimed effectiveness in the absence of both proven efficacy and proven effectiveness).

Family psycho-social interventions for patients with schizophrenia and their carers, for example, are now established as being of proven efficacy (Mari & Streiner, 1996; Dixon & Lehman, 1995). These psychosocial family interventions have seven components: (a) construction of an alliance with relatives who care for the person with schizophrenia; (b) reduction of adverse family atmosphere (that is, lowering the emotional climate in the family by reducing stress and burden on relatives); (c) enhancement of the capacity of relatives to anticipate and solve problems; (d) reduction of expressions of anger and guilt by the family; (e) maintenance of reasonable expectations for patient performance; (f) encouragement of relatives to set and keep to appropriate limits whilst maintaining some degree of separation when needed; and (g) attainment of desirable change in relatives' behaviour and belief systems. Such psycho-social interventions are applied extremely rarely in routine clinical practice. To implement these complex components requires co-ordination of inputs and processes at the patient level (Cells 3A and 3B) and at the local level (Cells 2A and 2B). From this perspective a new treatment has a decreasing likelihood of widespread dissemination if it requires changes in inputs and processes at more than the patient level. More examples of the application of the matrix model will be provided throughout the book.

## 1.4 The structure of the book

This book will draw upon both theoretical and practical contributions. When possible we have structured each chapter by presenting first our own interpretation of the most useful theoretical framework available,

followed by practical examples from service planning or from clinical practice. In this way we attempt to bring a greater degree of synthesis and coherence to each step of our argument.

We cannot deny that our paradigm is European, and to be more precise stems from Western Europe, and we are aware that this has profoundly influenced our way of conceptualising mental health care. For this reason we have asked five colleagues to add a wider, critical international perspective on re-forming mental health services, in relation to Australia, Canada, Central and Eastern European countries, Nordic European countries, and the United States.

We also use special feature boxes with relevant quotations, for ease of retrieval for the reader, and because we see these quotations as the essence of the concepts that we employ, and because to paraphrase the originals would only diminish their clarity and impact.

The fields of mental health research and practice are littered by jargon, in a way that may often be confusing for those from different traditions, even in translating from American to English! To avoid as far as possible such confusion we have included a glossary to explain our own understandings of the meanings of key terms.

In spite of the fact that we have attempted to make balanced and fair use of the available research evidence, at the same time we are not neutral. We therefore need to make explicit for the reader our own bias. While we have both undergone a medical training, we place ourselves in the traditions of epidemiological psychiatry, and public health medicine. From these traditions we value the importance of an evidence-based approach. In addition we believe, from our own experience, in the importance of a direct interplay between research and clinical practice, which should be mutually beneficial. Indeed we consider that the medical model alone (without taking into account contextual social, psychological and economic factors) is insufficient to understand the full complexity of mental disorders, their antecedents and their serious consequences in terms of disability and suffering.