Computers in psychiatry

Information technology for child and adolescent psychiatry

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The purpose of this paper is to examine existing information technology (IT) options for child and adolescent psychiatry (CAP) and to propose a strategy for continuing developments in the light of current NHS policy and priorities. It is the outcome of discussions among a group of colleagues within the South West Thames Association for Child and Adolescent Psychiatry. I offer it for discussion as the issues facing us have obvious wider relevance to the profession. The case for investment in health care IT systems has been made most recently in *Working Paper 11: Framework for Information Systems* (HMSO, 1989). The priorities spelled out in the paper are for management of contracts, measurement of quality of care, costing of services and management of resources.

Child and adolescent psychiatry (CAP) is a small subspeciality within mental health delivering a vital service to families, children and young people. Child psychiatrists work usually in child guidance clinics, in hospital departments of CAP, and often with numerous consultative attachments to education and social service facilities in the community where there are children at risk for emotional and behavioural problems. Within the SWTRHA there are also three in-patient units which provide services for more severely disturbed children. Child psychiatrists operate in multi-disciplinary therapeutic teams alongside, for example, social workers, psychologists, child psychotherapists and nurses. The composition and funding of these teams does vary in pattern between districts.

Budgets within CAP are mainly devoted to staff salaries and the maintenance of office facilities and clerical support. Treatment methods are generally psychological or psychotherapeutic in type and there is little investment in expensive equipment or much use of drug therapy. The exception to the former remark is the growing use in some centres of video recording of interviews which does require some small capital investment.

The tasks required of IT

The principle resource to be managed within CAP as a specialty is the time spent in face to face contact with clients (who can be patients, referrers, or other professionals seeking help through consultation). A priority task for an IT system within CAP should be to monitor the disposition of this 'therapeutic time' and to relate it to patterns of identified epidemiological needs, expressed demand for services, efficacy and quality of service and available resources and skills. To meet all these requirements suitable software packages will consist of two basic elements with a variable number of additional facilities which may vary in usefulness in different settings (Berger, 1989a; Jones, 1990).

The first element is a clinical patient-orientated database with full search facilities which parallels the patient's medical or psychiatric record. The second element is an appointment/attendance logging system with linkage to both patient and staff files. The aim here is to enable time logs to be attached to individual patient records and to provide reports for individual therapists and managers on work loads related to clinical problems, severity, and types of treatment offered. Although current contracts by providers for CAP services are likely to be of a block type, these facilities will enable more detailed costings to be achieved within the sub-speciality leading eventually to the possibility of cost per case contracts.

In addition to these features among available programmes there is a wealth of additional features and functions. There is not room in a short paper to appraise these features in detail.

Current CAP programmes available

A number of clincians in different centres in and around the region have been developing programmes to meet the requirements described above. It has been possible to identify only two programmes which offer full facilities for CAP and which are available for installation on sites distant from the service of origin. Before discussing these it is important to mention systems which do not meet these criteria but potentially may do so in the future.

Ealing DHA Mental Health Unit has developed a comprehensive system for adult psychiatry. I have discussed the system with the author, Dr Mike Morgan. It does not contain a module for child psychiatrists and there is currently no development work going on in this area. In Wessex, a group of child psychiatrists around Dr Margaret Thompson has developed its own clinical and research database on IBM PCs and is actively engaged in clinical audit with this facility. Although documented in a recent ACPP paper (Thompson, 1989) this programme is not supported by the authors for installation on other sites. They are willing, however, to offer advice to other clinicians who wish to set up a system using commercially available databases.

The two systems which are available for purchase or use by licence from the author are P-CARD and CRAMS. The following is a description of the principle features of each system.

CRAMS: Clinical Research Administration and Management System

Medasyst Ltd, Newcastle. Author: Dr Edward Sein, Senior Lecturer in Child Psychiatry, University of Newcastle upon Tyne.

This is an integrated software package which allows transfer of data between modules, e.g. database to word processor. Thus Medasyst claim that CRAMS provides a complete office system providing a word processor facility which can be used for routine office work as well as with access to the database. CRAMS offers coverage of the information needs for the whole speciality of psychiatry and is organised around the daily working practices of current unit/department secretaries. The CAP module is part of a series of subsystems which can be flexibly co-ordinated into a whole tailored to local requirements. Subsystems on offer include: patient medical records, Korner data set, clinic booking and attendance log, standard letters and reports, a patient welfare system, ward information system, pharmacy, and community psychiatric nurse modules. Full multi-user networking capacity is claimed for the system. The CAP module is on sale with a combined hardware and software package with technical support.

SWTRHA does not have any CRAMS users as yet. It has been installed in CAP professorial units in Newcastle and Leicester and according to the company in eight other NHS locations. So far no reports by independent users of CRAMS reliability in practice have been published.

CARD: Clinical Administrative and Research Database

Author: Dr Michael Berger, District Psychologist, St George's Hospital.

P-CARD is a specialist database application written in D Base III + for CAP and psychology services. It is now running in a Clipper compiled version and offers networking facilities in a single user mode (i.e. only one work station in a network can gain access at a time). The programme is organised around a patient clinical record which embodies three data entry points: referral details, registration, and closure. Clinical details are recorded as symptoms/ problems and not as ICD-9 diagnoses although fields are available for this coding. Standard appointment letters can be constructed quickly using data imported from the database. A wide range of standard report formats are provided which generate lists of referrals for allocation, waiting lists, and monthly/ annual statistical reports. Search facilities allow listings of patients with any clinical problem and multiple other search criteria, e.g. type of referrer/age/sex (Berger, 1989b).

With P-CARD direct data transfer to WP or spreadsheet is not as yet possible although a disc file can be prepared so that data files can be imported into a statistical package such as SPSS (Statistical Package for the Social Sciences). Data and text cannot therefore be combined for the purpose of writing reports and letters. A diary/appointment logging module and data fields for recording ICD-9 diagnosis is now available. This system has not been marketed commercially and cannot be fully supported by the author except by personal arrangement with him. It has been installed at St George's Department of Child and Adolescent Psychiatry, Croydon Child Guidance Clinic, and Charing Cross Hospital. In Croydon the system has been fully implemented since March 1989 and we have gained considerable experience in using this system.

Comments on Option Approval

In reality, clinicians who work beyond a certain radius from St George's Hospital have only a single option at the present time if they are considering obtaining an IT system. Only CRAMS can be purchased on the open market. Secondly P-CARD does not seem to offer quite the same range of facilities across departments. (Although continuing development work tends to put such comments at risk of being out-of-date.) If clinicians/managers in mental health are considering an IT system for the unit, then CRAMS will be attractive as it may solve problems for CAP by making it part of a complete system for

psychiatry. However, many districts are finding it difficult to agree unified IT strategies which encompass the needs of whole administrative units.

CAP services are thinly spread and have a generally weak administrative structure. Budgets are small and represent usually a tiny part of the overall district mental health budget.

A second consideration is that CAP services are mostly discrete within MH facilities in general and maintain separate psychiatric records. Our local experience with existing systems suggests that child and adolescent psychiatrists could fall behind in introducing IT if they wait for mental health units to buy a total system (Byrne, 1989). In this situation the advantages of a system specifically designated for CAP will be large in terms of autonomy and flexibility of use by clinicians who are involved in management of their own service. Finally, with only one real commercial application in the field, future costs could be affected by the emergence of a monopoly supplier.

Future strategy

There is a powerful argument that IT strategies for small specialities will be restricted if confined to the resources of individual DHAs. In the new White Paper environment IT and audit facilities will be the key to successful contract writing. CAP services which are unable to generate the interest and finance for IT in their own districts may well find that come full implementation of NHS reforms they may be vulnerable to competitive bids from other departments or even entirely new consortia based on psychology or social work backgrounds.

There is a need here for a regional or even national dimension to facilitate IT developments for small sub-specialities such as child and adolescent psychiatry. This brief survey shows that there is valuable programming and hands on expertise within centres around the country, but these efforts need financial and technical support.

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Afterthought

Poetry

There is a traditional type of Japanese poetry in which, through the evocation of perfection in a single moment, the poet clears the mind and touches the heart. These poems of 17 syllables are called Haiku.

> Deep in the mountains
> Solitude . . . serenity,
> Silence, stillness, peace.

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