

The times

Interactive television in psychiatry

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Population movements away from large cities and congestion in urban areas create problems for the delivery of psychiatric care which are compounded by the move towards greater care in the community. These developing service patterns require adequate methods of communication between service components. There is a proliferation of new technology offering opportunities for improved national and international communication in psychiatry as in other branches of medicine. It will be important to decide which technological innovations will improve the efficiency of service delivery rather than end up as expensive 'gadgets', or solutions looking for problems to solve. In this paper the use of interactive television in psychiatry is reviewed and the implications for the evaluation of new communications technology are discussed.

The use of interactive television in psychiatry

Early uses of interactive television in delivering psychiatric care were described by Wittson & Affleck, (1961); Benschoter *et al* (1965 and 1967), Anon (1969).

Wittson & Affleck (1961) reported an evaluation of conducting psychiatric in-patient groups through close-circuit TV. A group of six patients sat in an 'inverted V' formation in front of a camera and monitor in one room while the therapist sat in front of a similar apparatus in another room. Eight televised groups were studied, four with each of two therapists. For comparison each therapist ran two control groups face-to-face. These authors reported general patient satisfaction except for one group out of the eight, who in a TV group whispered among themselves during the interaction to exclude the therapist. The initial impression of these authors was that the ratings were more influenced by the therapist and group selection than by the television technique. Therapist responses are not reported.

Solow *et al* (1971) described the use of interactive television to provide a community psychiatric service

where previously none existed. They studied the use of a microwave close-circuit TV link between the Department of Psychiatry of the Dartmouth Medical School in Hanover, New Hampshire and a community hospital in Claremont 26 miles away. The hospital in Claremont was run by general practitioners and at the time of the study there was no psychiatrist in the county. A physician seeking a psychiatric opinion on a patient in Claremont would telephone the teaching hospital where one psychiatrist was always on call for the study to arrange a mutually convenient time for the consultation. The physician would accompany the patient to the TV room at Claremont for the consultation and then observe the interaction from an adjacent room. After the psychiatrist had spoken to the patient, the patient would leave and the physician talk to the psychiatrist over the link. The whole session lasted on average 50 minutes. Some follow-up interviews were arranged over the link but the authors say that ongoing psychotherapy was avoided, although they do not give reasons for this. Over two years there were 199 consultations, 142 with new patients and 57 for follow-up. Only 40% of patients were diagnosed as having psychotic illness. In 90% of cases the psychiatrist was able to recommend maintenance of the patient in the community. The authors reported that patient acceptance was high; they noted that with paranoid patients the TV system did not become the object of psychotic elaboration. They concluded from their preliminary results that psychiatric interviewing through interactive television has a diagnostic and therapeutic effectiveness approaching that obtainable in face-to-face interviewing.

Dwyer (1973) described the psychiatric uses of the Telediagnosis system (TDX) linking the Massachusetts General Hospital (MGH) to the nearby (2.7 miles) Logan International Airport Medical Station. This was a microwave bidirectional television link which was used for a wide range of medical applications in addition to psychiatry. The medical station was administratively a unit of the MGH and manned by nurse-clinicians with

physicians present for a few scheduled hours each day. The aim of this initial study was to discover what psychiatric activities could be conducted effectively over interactive television. Approximately 150 patients were seen over two and a half years, the majority of consultations being with airport employees who had what are referred to as situational crises and who were consulting psychiatrists for the first time. In contrast to the study reported above (Solow *et al*, 1971) where psychotherapy was avoided, prolonged supportive and explorative psychotherapy was carried out with 7% judged to have character disorders or psychosis. Only 5% had severe psychiatric disorders. Group therapy was carried out in this study and judged to be especially effective. Dwyer pointed to the initial negative responses of psychiatrists, including himself. Most were apprehensive that the degree of personal contact would be reduced and that many of their interview skills might be rendered useless. Of the 30 psychiatrists who used the system, most ended up with favourable responses. Dwyer (1973) hints at some problems encountered with professional users and warns future researchers: "It is likely that the use of Interactive TV and its adoption by psychiatrists and patients will proceed quickly if the organisers cope with the irrational responses of some users". He also reports that certain subjects, including some schizophrenics, adolescents and younger patients appeared to find interactive TV easier than talking to a psychiatrist in the same room. None of the patients with delusions incorporated the television system into their distorted thinking.

Straker *et al* (1976) reported the use of a cable TV link by child psychiatrist in the Mount Sinai Medical School to interview families in a child guidance clinic 1.75 miles away. They argued that this link increased the accessibility of the psychiatrist's expertise without wasting the psychiatrist's time in travel. Previous deterrents to child psychiatry had been social and economic factors reflected in negative suspicious attitudes to the hospital psychiatrists among the clinic nurse practitioners, voluntary workers and patients. Professionals reacted favourably and patients showed a high level of acceptance of the psychiatrist's advice, whereas previously most families would refuse hospital referral.

Menolascino & Osborne (1970) reported the use of a microwave interactive television link between the staff of the Nebraska Psychiatric Institute in Omaha and the Norfolk State Mental Hospital 112 miles away. The link was used for a specialist in mental handicap to train staff at the hospital to develop a rehabilitation programme for a population of mentally retarded patients who were transferred to their care from another institution. The patients had been severely institutionalised at their previous hospital and the staff at the Norfolk State Hospital had no

experience in this field. The authors report the development of an effective rehabilitation programme via the link, noting that interpersonal relations established over the link were sensitive enough to resolve a power struggle among the staff at the state hospital.

In summary, the above studies show the feasibility of using interactive television to support psychiatric services. Why have such systems not been more widely used, despite these early positive results?

The failure of communications technology in psychiatry

The reasons for the failure of the wider uptake of communications technology in psychiatry are not immediately obvious.

Mosteller & Burdick (1989) have reviewed the general problems encountered in the assessment of any technology in health care. They pointed to the need for carefully planned randomised controlled trials and for the development of improved standardisation of outcome measures such as mortality statistics and quality of life measures. They also suggested that the methods of assessment themselves need refinement and strategies other than the clinical trial need to be addressed. Gutzwiller & Chrzanowski (1986) discussed factors they regard as important to the impact of technology on medical practice including the quality of the assessment, the form of dissemination of the results and economic and technical factors such as the availability of a supporting infrastructure and the cost of the technology.

The review of the industrial experience of teleconferencing by Egido (1988) offers important lessons. She explored the failure of the widespread uptake of teleconferencing despite proven feasibility and optimistic market forecasts in the early '70s. A major reason was the attempt to present teleconferencing as a substitute for travel and face-to-face meetings rather than developing new applications which add to current modes of communication. She also noted the failure to tailor teleconferencing systems to the particular needs of different organisations and asserted that teleconferencing systems have been used successfully where they have complemented current practices. For the future she suggests that the telecommunications infrastructure and economic conditions may be more conducive to the uptake of communications technology. This is certainly the situation in psychiatry where the combined pressures of service dispersal and technical advance have made communications technology attractive and accessible.

If the new technology is to be effectively tailored to the service requirements, a clear understanding of the current role of face-to-face communication in psychiatric care delivery is required.

Face-to-face communication

The importance of effective communication has been acknowledged in many different areas of psychiatric care. Watson & Bouras (1988) have recently reviewed the effects psychiatric ward environments have on patients and include the communication system under social environmental factors. They discussed the need for formal communication arrangements such as nursing handovers and multidisciplinary staff conferences to ensure that everyone at least knows 'what is going on' and who everyone is. Face-to-face interaction is particularly highly valued. Gould & Glick (1976) studied staff and patient assessments of beneficial treatment activities and found individual psychotherapy with a doctor was the activity most frequently preferred by both patients and nurses.

Effective communication between patient and doctor is also important in maximising patient compliance (e.g. Ley, 1982). The importance of communication in ward management has also been studied. Fewtrell & Toms (1985) reported how changing the make-up of the ward round by having an equal number of patients and staff attend and encouraging staff other than the doctor to interview, significantly altered the information exchanged towards social and domestic issues, showing that the communication which takes place is dependent on organisational factors.

This brief review illustrates the complexities of face-to-face communication and the wide variety of communication tasks which will have to be supported in a dispersed service

Technological advances

The studies reviewed above were performed using video cameras and cable or microwave links. The pictures produced were often of television quality but the systems were expensive. Computers can now be modified to generate digitised video images. These can be transmitted through broadband links which have the capacity to carry digital signals at high rates. A network of such links is already in existence in Europe and the UK and is expanding. This system requires a special interface between the computer and the broadband link.

A parallel development is the use of image compression techniques which allow video images to be transmitted at lower bit rates. This removes the need for special links as the information can be transmitted down digital telephone links. There are already networks of such links (ISDN) in existence and they are rapidly expanding. The compressed image is of poorer quality than that which can be sent down broadband links. Another disadvantage is that the image compression equipment is still relatively

expensive. The cost is likely to fall and the quality likely to improve in the near future.

The future of interactive television in psychiatry

The potential for using interactive television as a substitute for face-to-face communication in psychiatry has been clearly demonstrated for a range of tasks. This has not guaranteed its wider use. Undoubtedly cost and lack of available infrastructure have contributed to this. New technology, which will remove these obstacles, is rapidly becoming available. Cost is not the only factor and the attitudes of potential users still have to be addressed. The literature suggests that it may be more difficult for clinicians than patients to accept the use of interactive television.

Egido (1988) concluded, based on the experience in industry, that specific tasks for innovative technology should be clearly identified and attention paid to the culture of the organisation under study. Even at our current level of understanding, a wide range of communication tasks will have to be supported in a dispersed service. The apprehension of users cannot be ignored but must be analysed and addressed if the technology is not to gather dust. Individual user responses will need to be studied in detail, perhaps initially at the level of naturalistic observation. Any pilot applications will have to be carefully tailored to the existing service organisation and aim to offer novel benefits or complement existing elements. This may require further clarification of the role of face-to-face communication in psychiatric service delivery.

A thorough understanding is required of the impact that communicating via interactive television makes to the communication. Such understanding may not guarantee the acceptance of all who are sceptical about the benefits of communication technology but it will give a clearer picture of the nature of their objections.

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Psychiatric euphemisms

When faced with difficult and frightening matters, people employ a jargon tending to minimise these aspects. A recent example is the toy-like term “scud” missile applied to a weapon of awesome destructiveness. The effects of using certain terms on the attitudes of those using them has been highlighted by feminists, who have drawn attention to the covert sexism of much of everyday speech. In a similar way examples of psychiatric phraseology can minimise or disguise some unpalatable truths.

A patient admitted under compulsion or detained against his wishes is described in a polite, well-mannered fashion as a “formal patient”. The term “informal” is applied to the more relaxed and casual arrangement for voluntary patients. If a “formal patient” objects enough to his status it may be necessary to transfer him to an “intensive care unit” (or locked ward).

The word “patient” has been widely criticised as burdened with connotations of patronising paternalism. The term “client” is becoming increasingly fashionable and different terms may suit different therapeutic situations. “Consumer” perhaps best describes clients on regular oral medication, while “user” may be more appropriate for those being served by the addiction services. A more generally applicable label could be developed from the word “care”. We have care managers and carers so why not describe recipients of care as “carees” (pronounced as in dental caries).

To return to our formal client, once he has settled down and begun to take an active part in ward-based activities (watching television and washing up), he can be moved to a more open environment (unlocked ward). Once there, a combination of judicious psycho-pharmacology (drugs) and the “talking cure” (listening) will hopefully consolidate his improvement. It will then be necessary to develop an individualised therapeutic package (treatment plan) through multiprofessional discussion at the multidisciplinary meeting (ward round). Such a package may include input from occupational therapy (basket weaving) and psychology (waiting list). In these days of redirecting the focus of care and prioritising need (closing hospitals), discharging our client must be our earliest consideration. A supportive system of community care will need to be established (out-patient clinic) and sheltered accommodation (somewhere with a roof) located.

The client may be disappointed later when, to avoid problematic side effects, a “drug holiday” is suggested as this is not as much fun as it may sound.

As years go by and our client celebrates his 65th birthday, things change. He has now, or soon will be (depending on geography), entering the phase of life covered by the psychogeriatricians or the mental health care of the not-as-young-as-they-once-were service. It is then only a matter of time until he is admitted to ward 13 (dies).