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CLOSED-CIRCUIT TELEVISION IN A MENTAL HOSPITAL

BY

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When this new hospital for the mentally subnormal was under construction a closed-circuit television unit was installed which covered the combined day- and dining-rooms of two wards and two rooms in the occupational therapy department. This plan was intended to cover a patient's conduct and activities during the whole day if necessary.

It was hoped that this equipment would be of value in the following fields: (1) Observation for prolonged periods by trained personnel such as medical staff, psychologists, sociologists, etc., of various types of mental aberration found among the subnormal, particularly psychotic states in children, which result in intellectual arrest. (2) Controlled trials of drugs in a variety of psychiatric conditions. In many hospitals the results of drug trials rely greatly on the reports of nurses, and some features may be missed when a high proportion of the nursing staff are inexperienced in this field. (3) Side-effects of new drugs such as dystonic reactions, ataxia, Parkinsonism, etc. (4) Observation of patients undergoing abreactive treatment with drugs, such as lysergic acid diethylamide. (5) Observation of parent-child relationships during visiting periods.

The experiences gained in installing the equipment may be of help to others.

Television Equipment

The first problem was how to cover a large day-room measuring 45 by 45 ft. (13.5 by 13.5 m.), yet when necessary focus on one particular patient and follow him about the ward. This was solved by installing remotely controlled cameras which move laterally 180 degrees, horizontally 180 degrees, and also change the focal length of the camera lens (pan, tilt, and zoom). The cameras employed are quite small, measuring 10 by 6 by 6 in. (25 by 15 by 15 cm.), and are mounted in a corner of each room on a wall bracket at about a height of 7 ft. (210 cm.) (Fig. 1). They incorporate staticon tubes 625 lines per inch in a fully interlaced system. A 23-in. (58-cm.) observation monitor was installed in the central hospital block in a consulting-room and the television apparatus was built into what looks like a normal office desk at which the operator sits (Fig. 2). There are four controls on the desk—two for fine focusing and zoom, a four-way switch to change from camera to camera, and a short lever resembling the control column in an aircraft which moves the cameras in any direction.

Background sound effects were obtained by installing a polydirectional microphone in the centre of each room; a switch on the control desk changes the sound effects from ward to ward. A special telephone was installed beneath each camera so that an observer can speak to the nurse in the ward about her cases.

Initial Experience

The apparatus has been in use for four months and has so far proved to be robust, no mechanical difficulties having been encountered. It can be operated by a completely unskilled person. At one period the question of putting some kind of guard round the cameras in the ward was contemplated in case a very disturbed patient might damage them, but this has not been necessary.

Apprehension expressed by a nurses' union because the nurses would also be the subject of observation was met by agreeing to notify the ward sister before the apparatus was switched on.

If incidents of special clinical interest occur a 16-mm. cine camera, which is kept adjacent to the monitor, can take cine film at 24 frames per second.

Some difficulty has been experienced in obtaining adequate overall lighting to cover the whole room, but so far no lighting additional to the normal ward lighting has been installed. The occupational therapy rooms have fluorescent lights and these give a better picture

FIG. 1.—Day room with a T.V. camera on wall bracket to the right of the wall picture.

FIG. 2.—Television desk and monitor. Monitor is normally 6 ft. in front of desk.

than tungsten lights in the ward day-rooms. The ward day-rooms have large windows on two sides, and bright sunlight has caused some difficulty, but in spite of this the picture quality has been quite good.

An unforeseen difficulty arose when the hospital began to increase in size. It would have been advantageous to move the cameras to other wards, but this could not be done because cables had not been installed. In retrospect, it would have been advisable to lay cables to every ward where the apparatus might be used so that the cameras could be moved at will. The cost of the cables is relatively small, but there may be difficulty in laying them once a building has been finished.

The total cost of the equipment was £3,500. It is expected to have a life of at least six years before requiring major replacements.

Results

It has been found that patients' conduct and behaviour is in many instances quite different when seen on the television screen from that observed when the doctor is in the ward. On the whole the patient is better behaved in the latter situation and the television screen shows more accurately his conduct to his fellow patients. The peculiar rocking, sucking, head rolling, and a variety of other movements seen in both severely subnormal and psychotic patients can be studied objectively on the television screen much better than by sitting in the ward. By using a long-focal-length lens it is possible to isolate optically a particular patient from his fellows while he is sitting with them. This cannot be done by direct observation even if the observer sits in the ward with the patients.

Certain types of clinical facies and other clinical features show up particularly well on a black-and-white screen, and some diagnoses—for example, myxoedema—have been made by this method. It may be that as most illustrations in medical literature are in black and white one tends to be more astute in some cases in this medium than in natural colours.

I wondered at first what the effects of this indirect observation would be on the patients. No attempt was made to conceal the fact that the cameras were on, and the patients always know when the cameras are operating because the control motors emit a slight noise. After about two days, when occasionally a patient would walk up to one of the cameras and look into it, they have evinced very little interest in them and their operation causes no disturbances to the ward routine.

The ward furniture had to be rearranged so as to bring the patients into a position from which they could be seen to best advantage by the camera.

All five original objectives have to some extent been successfully attained, particularly the first three, but it is felt that much more experience and experiment are required to get the maximum value out of this new tool. It is likely that the four rooms used, which have been regarded only as standard wards or therapy rooms, will gradually be used only as special observation units; that patients requiring this type of study will be moved from other wards for this purpose; and that other aids to good picture quality such as extra lighting will be installed as experience increases.

I am indebted to Pye T.V.I. Limited for supplying me with the details of the equipment and photograph of one camera.

Medical History

THE CHAIR OF PHYSIC IN TRINITY COLLEGE, DUBLIN, 1662 TO 1962

BY

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Trinity College, Dublin, was founded in 1591 with a Charter from Queen Elizabeth. The Corporation of Dublin granted to the new foundation the lands of the monastery of All Hallows, lying on the south bank of the river Liffey and to the east of the city walls. The

John Stearne, M.D., first professor of physic in Trinity College, Dublin.

original architect's plan for the College was sent to Lord Burleigh, the first Chancellor, in 1591 and is now in the possession of the Marquess of Salisbury. It shows the College consisting of one quadrangle, with its solitary spire described as a "Seamarke."

Since then the College—the one and only college in the University of Dublin—has expanded until now it provides facilities for 3,000 students in the heart of modern Dublin. Its history is an integral part of Irish history. In the seventeenth century, despite serious interruptions which included the flight of a Provost, the expulsion of Fellows, and the use of the College as barracks, men like James Ussher (Archbishop of Armagh) set a high standard of learning and provided the College library—one of the great libraries of the world—with the basis of its rich bookstock. The eighteenth century was in contrast a peaceful and prosperous era, and in it were built the magnificent collection of buildings which enclose the Front Square and extend beyond it.

The development of the College since then cannot be compressed into a few words; the last seventy years of