

American
Medical
Association

*Television
Handbook*

Bureau of
Health
Education

A. M. A.
Television Handbook

by

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and

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Price, 50 cents. Quantity prices supplied
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535 N. Dearborn Street
Chicago 10, Illinois
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Introduction

The American Medical Association pioneered in health education by radio, making its first broadcast over the facilities of WBBM, Chicago, and the Columbia Broadcasting System in 1925. Since then it has had series broadcasts on Columbia, National, and Mutual and many "one-shot" broadcasts on the former Blue Network, now the American Broadcasting Company. Numerous state and county medical societies have prepared their own broadcasts and many more have used electrical transcriptions furnished by the American Medical Association and placed on radio by local medical effort. The substance of the radio experiences of the American Medical Association will be found in a booklet companion to this which may be had on request. It is entitled *RADIO HANDBOOK*.

With such a background it was but natural that the Association should desire to be in the forefront of the rapidly developing and expanding art of television. The Bureau of Health Education accepted the offer of Station WBKB, the Balaban and Katz experimental television station in Chicago, to participate in a series of experimental telecasts featuring health education topics.

The development of television ideas and technic was turned over to Dr. William W. Bolton, associate

director of the Bureau, who developed cooperation with the radio station through the courtesy of its director, Miss Beulah Zachary and Miss Lorraine Larson. The ideas and procedures developed have been set forth very effectively in the pages of this booklet. Success in telecasting would have been impossible if it had not been for the liberal cooperation of physicians, surgeons, specialists, allied scientists and representatives of commercial organizations in the health field. These men and women contributed liberally of time and went to considerable trouble to bring to the screen numerous properties, even including living venomous reptiles. The station staff provided scenic backgrounds, actor personnel and all the technical accessories for successful broadcasts.

We started television with the knowledge that our audience would be small, because when we began there were only 400 receivers in the Chicago area. Most of these were audio-viewed by groups of 10 or more so that one might conservatively estimate an audience of 4,000 persons per telecast. Small as this was in comparison with radio, it was large in contrast to the possibilities in sending speakers to assembled groups. Regardless of audience, however, our main purpose was to develop technics and ideas for the inevitable time when state or county medical societies

would ask us "What do you know about television?"

What we have learned is embodied in this booklet. We shall continue to experiment in order to learn more, and we will be glad to correspond with any medical society contemplating television. As new television stations are established in population centers (already receivers will be found in homes and public places) and as the range of telecasting is increased by technological improvement, the audience will grow.

Needless to say, television offers the advantages of radio plus some of the advantages of the stage. It may be expected to take its place among other media for the dissemination of health information and the motivation toward more healthful living.

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October 1947

I. A New Medium for Health Education

REALIZATION of an important aim in health education appears nearer with developments in the newest medium of sight-and-sound communication, television. That aim, more frequent presentation of living lessons in daily health attitudes and activities, can be attained with television.

Increase in the frequency and effectiveness with which the public can be contacted is intriguing to health educators. And as television advances steadily it is rapidly becoming possible to reach such large segments of the general population so often that the implications are almost beyond belief at first glance.

No longer will the familiar "one-night-stand" of health education, the once-a-year roundup of interest and enthusiasm—deeply submerged or at least dormant the rest of the time—be necessary. Instead, there will be available to constantly increasing numbers of people health lessons offered once a week or at some other regular interval and possessing a timeliness and naturalness that will increase their value many-fold.

Predecessors to television health education have done yeoman service, and there can be no question

that all still have important aids to render. There is the possibility that public meetings, for example, could be timed to television shows and the subject matter developed more fully by local speakers after the telecast program is finished.

Motion pictures... either silent, with a speaker to keep observers oriented, or sound pictures... have a wide field of usefulness and will continue to hold that field, especially so far as relatively small groups are concerned. Recent development of scientific films for educational purposes is especially significant.

Radio has proved an extremely important medium for health education. And technics in that field are not standing still. Effective utilization of this, with development and perfection of new technics makes a fascinating story in the history of modern health education activities. There can be no question that radio will continue to be a significant health education modality.

To all of these, television offers a possibility for enhanced effectiveness. Television itself stands as a new, additional channel for health education.

First of a series of television programs was presented by the Bureau of Health Education over Station WBKB, Chicago, on 2 April 1946. These were continued at two-week intervals until 1 July 1947, with plans to resume after an interval.

All programs are given on a sustaining basis, the station providing free time as a public service contribution.

Helpful advice and liberal cooperation from the studio's technical staff have resulted in development of a variety of acceptable methods for this form of health education. Acknowledgment must also be made to the many physicians as well as scientists from allied fields who have contributed their time and services, and through whom authoritative health education programs were made possible.

II. Television Problems

TELEVISION is perhaps best described as a combination of radio and motion pictures. Seen on the screen in a home, it is much like the picture shown at the corner theater. Although it has an "aliveness" beyond that of the "talkie," at the same time it has the strong competition of trained professional performance by screen actors. Standards of the general public are set at that level, and television must meet those standards as part of its test of acceptance. *It is important that health education workers recognize that, while television offers much, it is a medium not easily mastered.* It is waste of a golden opportunity to assume that "it's just like a talk or lecture except that you can't see your audience," and, proceeding on that assumption, to utter a few platitudes about health. That failed on radio, and it fails even more emphatically on television.

So far as the auditory part of television is concerned, it is like radio . . . but only in a remote sense. *For unlike the radio studio setup, participants in television programs do not stand or sit with script in hand for constant reference.* The reason is obvious, though not always appreciated by the occasional participant in television programs. Those on the production end of television know all too well the deadly effect of seeing anything

read over the air. Because the speaker knows he is "on view," all naturalness seems to vanish . . . apparently radio listeners accept the fact that lines are being read by the actors chiefly because they do not see the actors.

Television is, as has been suggested, also like the movies . . . but again with at least one important technical difference. That is the fact that *the finished motion picture may represent retake after retake, the product of laborious polishing and smoothing.* *But there are no retakes in television.* Despite painstaking preparation and careful rehearsal, what goes to the public is not subject to correction or improvement once it has been done.

Equally as undesirable in television as reading a script is recitation of a talk that has been painstakingly memorized and is delivered with a fixed, do-or-die expression. However, the television participant need not worry about that too much . . . for program producers will not permit such a situation to arise. It is a fundamental rule that "solo" talks must be kept at a minimum, and whenever possible they are converted into dialogues or round-table discussions.

From the cooperation of physicians and others in scientific work a significant fact has been developed. It can be summed up best by paraphrasing a somewhat worn saying: Familiarity breeds familiarity. This is ex-

tremely important in television, for the factor that contributes most toward a smooth, acceptable program is naturalness, ease of manner, an unhurried, casual discussion...in fact, the familiarity of personal conversation. When it comes to "breaking down" a medical subject for public consumption, it is the well-trained specialist, familiar with all aspects of the subject, who can serve best. The tendency to stray too far into technical fields usually presents little difficulty. Review of the outline script with the participants serves to eliminate aspects of little or no interest to the general public.

Another fundamental creed of television is that, since the visual part is there it should be utilized to the utmost. This implies variety in scenery, not fixation on one face, one chart or one diagram for endless moments. And as in radio, only a few moments are required to give the impression of endlessness. This is not a difficult problem so far as health education is concerned; anatomical diagrams and charts, models, films, gadgets, living subjects, both human and animal, special instruments and illustration of their application insure sufficient material for the average program.

III. The Form of Presentation

IN general, three chief methods of presentation have been developed in the Bureau of Health Education television work. These are *dramatization*, *demonstration* and *interview*. They may be used separately, but are usually most effective in various combinations.

Quite frequently brief dramatic episodes serve effectively to introduce the subject under discussion and to orient the viewing audience. Application of the term dramatization in a broader sense merges it gradually with perhaps the most effective procedure in health education, demonstration. This has an almost unlimited range of usefulness. With it, all types of special equipment used in medicine, from the simple blood pressure apparatus to complicated devices for measurement of muscle power, basal metabolism machines or laboratory equipment, can be shown and operated.

In the majority of instances when apparatus is being demonstrated or charts and models of the human body or certain special organs are under examination, the individual giving the show talks as he performs. But it is possible to have an "off-the-camera" speaker comment as charts or series of diagrams are shown. This procedure fits in especially satisfactorily when dem-

onstrations are being carried out on living subjects, as, for example, application of various treatment measures in "patients" receiving physical therapy.

As much variety as possible is desirable in all presentations. This is usually not too difficult. For example, a subject may be introduced with a brief dramatic episode, the guest specialist appears next to provide more exact orientation, charts and diagrams are shown serially, large-size models may be utilized, and in many instances living patients can be employed. This progressive development of the subject keeps the program moving and permits inclusion of many aspects.

Motion pictures covering not only scientific subjects but many allied activities also are used frequently. Short sections can be shown intermittently throughout a television presentation, with script read by an announcer or perhaps a participant in the program and timed to the length of the selected portion or portions of the film.

Proper length of a health education program on television is still a matter of considerable conjecture. The television public is in such a formless state that its reaction to scientific entertainment cannot be determined accurately. Programs of the Bureau of Health Education have been limited to approximately

fifteen minutes. Longer programs, if used, would need to be of exceptional quality and unusually high listener interest.

Another form of presentation that has been used experimentally has been reporting of "spot news" in health. In this, items of general interest, taken from the AMA clip sheet selection of articles appearing in the current JOURNAL of the American Medical Association, are discussed. The fact of timeliness adds to the audience value of such a procedure, but frequently difficulty is encountered in providing satisfactory visual material with which to support the discussion. Nevertheless, with improvements in technic this should prove entirely satisfactory as a brief, once-a-week health news feature. Such presentations have been limited to three or four minutes.

In view of the recent FCC rejection of proposals for color television, there is a strong probability that black and white will continue as the accepted medium for some time to come. This must be taken into consideration when certain colors are involved. For example, a chart that is impressive in black and contrasts may lose much of its impressiveness upon reproduction on television because the red details appear as black. Red, yellow and black photograph dark, while blues and greens photograph light.

PROGRAM SUMMARIES

EVOLUTION OF THE STETHOSCOPE: Development of the principle by Laennec, who at first used simply a roll of paper, was demonstrated. Charts were presented to show how the sounds are intensified by their transmission through a vibrating membrane. Early types of stethoscopes, including the straight wooden one still in use in some European countries, were displayed.

MEDICAL USES OF X-RAY: Discovery of the penetrating power of these rays was described, with a non-technical discussion of how they are produced. It then was brought out that ability of x-rays to bring about helpful changes in the activity of various body tissues, including especially inhibition of too rapid growth, is now used widely in treatment of a variety of diseases as well as cancer.

BASAL METABOLISM: Early work in the determination of body energy production and its measurement was discussed, with photographs showing some of the pioneer apparatus. Two modern machines for basal metabolism testing then were displayed. One of these was used on a "patient," its adjustment and operation being described in step-by-step detail.

BLOOD PRESSURE: This opened with a dramatization in which a worried husband "blows his top" over business problems, is reminded by wife of what the doctor advised to keep his blood pressure down. The physiology of blood pressure then was demonstrated with the aid of a rubber bulb and a length of rubber tubing through which a dark solution was pumped. Taking of blood pressure was demonstrated.

CONTAGIOUS DISEASE PRECAUTIONS IN THE HOME: Routine measures to be employed in general, such as isolation of the sick person and protection of other members of the family were demonstrated, followed by specific examples

of sick room care, including making of the bed, washing the patient, administration of medicine, feeding, and disposal of excretions. Live models were employed.

ANESTHESIA: Development of anesthesia was described, with a scene in which actors showed the first use of ether as an anesthetic agent. The wide range of modern anesthetic agents then was described, and the elaborate apparatus now available for their administration was demonstrated. Interest was heightened by the demonstrator's giving himself borderline anesthesia.

MEDICAL FAKES: This opened with dramatization of the old-time medical "barker" proclaiming the merits of some mysterious panacea. The methods of various notorious quacks then were discussed, with descriptions of the battle waged by the AMA to curb their activities. A variety of fantastic apparatus, including magic belts, special caps, bracelets, amulets, and electrical devices, was shown.

ALLERGY: This opened with a botanist examining a collection of vegetation, including ragweed, and discussing the general subject of allergy, and specifically hay fever, with a young lady companion. A specialist from a pharmaceutical house then was introduced. He described the general effects of pollens on sensitive members of the population, and showed how pollen counts are taken.

PHYSICAL MEDICINE: Development of physical therapy into a recognized medical specialty was discussed, with a series of illustrations of early forms of this type of treatment, including massage, baths and electric treatments. Modern scientific application of the principles then was described. A patient was given various forms of massage, with discussion timed to the manipulations.

MEDICINES IN THE HOME: Proper care in the giving of medicine was emphasized by a dramatization in which a

child actor gave his younger brother something from the medicine cabinet, from which serious results might have resulted. The importance of having dangerous drugs properly labeled, out of reach of children, and the bottle armed with a pin or wire was emphasized. Proper methods of administration were illustrated.

PENICILLIN: This was introduced with a battle-scene film. Over the film was read comment emphasizing the value of penicillin in war wounds. Next, a film showing Dr. Fleming in his laboratory was presented briefly, and the narrator described the discovery and development of penicillin. From this, the scene shifted to a laboratory specialist from a pharmaceutical house, who described mass preparation of penicillin.

PHYSICIAN PLACEMENT: This opened with a farmer-actor soliloquizing about growing present-day needs for more widespread medical and hospital services. From this the camera switched to a round-table discussion of needs demonstrated by AMA surveys and to plans prepared to meet these needs most satisfactorily. Establishment of a special Bureau for this work was described.

SNAKES AND SNAKE VENOM: This opened with a film showing a jungle scene, including several snakes. Narration over the film emphasized that poisonous snakes are found also in this country. A zoo curator was introduced, and he discussed various types of poisonous snakes and their distribution. He then demonstrated milking for venom, using a live rattlesnake. First aid was discussed by a medical commentator.

HEALTH AND FITNESS—BOYS AND MEN: A film showing armed forces personnel doing calisthenics provided the introduction. Then two typical examples of good and poor physical development (actors were used as subjects) were introduced. Their general physical characteristics were discussed

by a physician and their ability to perform formal exercises, by a physical educator. Emphasis also was given habits and diet.

CARE OF THE TEETH: A film showing the high percentage of tooth decay in the general population introduced the program. An ADA representative then discussed the general subject of tooth development and the importance of good nutrition and habits. Large models were used to illustrate his explanations. The routine of dental attention plus regular brushing was emphasized in a closing film.

VISITING NURSE SERVICES: This opened with a closeup on a portrait of Florence Nightingale, from which the camera dissolved to a modern nurse writing at a table. Narration emphasized the great importance nursing has acquired. Next, a representative of the visiting nurses was presented. She unpacked her nursing kit and discussed briefly routine activities in the home.

PLASTIC SURGERY: This opened with a closeup of a girl's face, normal on front view but with a slight bony elevation of the nose observed on side view. Narration was to the effect that such abnormalities are common, some of them extremely disfiguring. Plastic surgery benefits were then described by a surgeon specialist, who commented on "before-and-after" slides of various patients.

RHEUMATIC FEVER: A motion picture of children at play introduced this, with narration bringing in the subject of rheumatic fever as a childhood menace. A specialist from an institution caring for such children was introduced, and after discussing the problem he interviewed two child "graduates" and their parents, chief emphasis being on need for long-continued care and restricted activity.

INDUSTRIAL MEDICINE: Film shots of a first-aid office in an industrial plant introduced the subject. The narration then introduced a round-table discussion between AMA representatives and an official of the state industrial doctors' organization. Chief emphasis was on the tremendous development of industrial medicine as a specialty.

CHILD HEALTH CLINICS: This was a round-table discussion in which physician placement, medical education and the survey of child health services by the American Pediatric Society were considered. Integration of all these activities was emphasized. Introduction consisted of a nursery scene with a child at play, and the same scene was used under brief windup remarks.

PLASTIC EYES AND CONTACT LENSES: A film of a theater audience was used to orient this program, the narration centering on eye problems as an out-of-focus effect was produced on the screen. An eye specialist was introduced, and with the aid of charts and models she demonstrated the use of contact lenses. A wearer of this type of lens also was interviewed. Plastic eyes were discussed briefly.

ORAL SURGERY: At the opening a toothache sufferer was shown on the screen, and the camera dissolved from this to eight successive pictures illustrating the development of dentistry. An ADA official was then introduced. After speaking briefly on the modern problems of dentistry he introduced a specialist in oral surgery, who discussed cleft palate correction and other types of dental surgery.

PHYSICAL MEDICINE: This was an elaboration of an earlier program on physical therapy. The program opened with a discussion by a physiatrist of the new concept of physical medicine as a many-sided medical problem. This led to discussion of the thoroughness with which the patient referred for such treat-

ments is classified. The same narrator discussed various types of treatment given actor patients.

DEAFNESS AND HEARING AIDS: Orientation was provided by a film scene of a theater audience, with narration stressing the problem of decreased hearing ability. A specialist in ear diseases and one in speech training were then introduced, and between the two a discussion of the cause of deafness and its correction or compensation was presented. Large models and an audiometer were shown.

CANCER: The significance of cancer as a disease that can be controlled by proper, early attention was emphasized in introductory remarks by a health educator, who then introduced a pathologist. The latter prepared a frozen specimen of tissue for rapid diagnosis, and described the pathology of cancer with the aid of charts. He then reemphasized the importance of prompt medical attention.

ENDOCRINOLOGY: For orientation, a circus scene was presented on a film, with a background of calliope music. Narration established the fact that many sideshow performers are actually endocrinology problems. A specialist in endocrinology then was presented, and he described various forms of abnormal development, presenting examples in living subjects and slides of "before-and-after" cases.

FITNESS IN GIRLS AND WOMEN: A film showing a girls' athletic program served as orientation. A medical specialist in this field then spoke briefly on the modern implications of health and fitness in women, and introduced an instructor from a girls' physical education school. Under her supervision, various activities were carried out by girl students of the school, singly and in groups... dancing, exercise and sports.

pletion of a proposed 600-foot broadcasting tower and installation of "booster" towers. Similar developments may be expected to take place in most city areas. A recent news item reported completion of the first coast-to-coast television hookup.

Health education has at hand a significant medium. It is hoped that extensive use of it will be possible by the state and county medical societies.

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