PROJECT CORK

A CASE STUDY IN DESIGNING and IMPLEMENTING AN ALCOHOL CURRICULUM FOR MEDICAL EDUCATION

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PREFACE

Project Cork was a four year grant program at Dartmouth Medical School funded by Operation Cork, a program of the Kroc Foundation. Its charge was to develop a model curriculum for undergraduate medical education in alcohol and alcoholism. Initiated in 1977 it was successfully concluded in 1981.

Unlike other alcohol education efforts in medical schools, Project Cork was then unique in several respects. For one, it was a school-wide effort, which involved, in some fashion, most of the faculty of the medial school. For another, it was concerned not only with making modifications in the core curriculum, but in also understanding the obstacles to improving medial education on what was clearly a very major public health problem. In utilizing the existing faculty, many of whom had national reputations as researchers and medical educators, Cork brought into the arena of alcohol education individuals whose primary interests were elsewhere. In this way, broad and diverse talents were brought to bear on a topic which had not been in the forefront of academic medicine or medical education.

In the founding of Project Cork, there was a second charge which was to disseminate the results of the experiment to other medical educators. Accordingly, in the course of the four year project, considerable energy was devoted to the development of curriculum materials, the preparation of reference and bibliographic materials as well as presentations at national meetings. At the same time, none of these seemed to adequately convey the richness of the Cork experience. Upon receipt of request from colleagues such as “please send me all you have on Project Cork,” we were often at a loss as to how to respond.

This compilation is an attempt to remedy that. It pulls together not only the content of the Cork curriculum and the nature of the changes initiated, but also describes the process of initiating change, the materials produced, evaluation instruments devised, the approaches used in clinical teaching, and the resource materials collected.

In chronicling the efforts of Project Cork, there is in no sense the belief that we have hit upon *the* formula. It would our presumption that though there will be much in common between endeavors by medical educators to improve alcohol/alcoholism

curricula, there will also be significant differences dictated by the we have some confidence that we have identified the questions which others, who would be embarking upon similar efforts, might do well to consider.

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INTRODUCTION

The Opportunity

In 1977 Operation Cork, a program of the Kroc Foundation, approached Dartmouth Medical School to explore the possibility of developing a model alcohol curriculum for medical education. Unlike other foundations, Operation Cork does not solicit or accept grant proposals. Rather it selects groups of individuals who can be engaged in a collaborative effort to mount its programs. Operation Cork had been established the preceding year by Mrs. Kroc with the purpose of reaching families touched by alcoholism. To accomplish this, Operation Cork had conceived of two major types of programs. One used media and public information/education campaigns to reach family members directly, informing them of the possibility of help and hope. The other programming initiative was geared to improve the professional training and education of those who could/should be in a position to identify and intervene in alcohol problems. To Operation Cork, physicians were an obvious choice. In approaching the Dartmouth Medical School, the Foundation's vision was that Dartmouth faculty would develop and implement a model curriculum which could be adapted, in whole or in part, by other institutions.

In the initial discussions with Operation Cork, Dartmouth Medical School set forth two conditions. While a reflection of its educational philosophy, these conditions also had important strategic implications. The first was that the model curriculum was to be an integrated one, with material infused throughout the existing curriculum rather than inserted in "add-on: fashion, e.g. by establishing a separate course on alcohol and alcohol abuse. This in turn meant that the task would fall to existing faculty of the institution. The second condition was that the effort was to be approached as an experiment in medical education. This meant including a research/evaluation component to identify those factors which facilitated or impeded efforts at curriculum change, as well as the factors which influenced student performance.

The Setting

The Medical School as an Organization Phenomenon. In the literature of organizational development and institutional change,

very little has been written about higher education, much less the professional school. Professional schools are distinguished from traditional bureaucratic organization by particular characteristics. [Weisbord, 1975]. The medical school in not a hierarchically structured institution. It is more correctly described as a loose confederation whose members, the departments, function autonomously. The medical school administrative structure functions primarily as the mechanism for negotiating the boundaries and relationships between the component groups. From the departmental vantage point the medical school is a convenient way of securing and sharing essential support services.

The medical school is further distinguished by the multiple and divided “loyalties” of its members. Or, in organizational theory, the external environment of the organization strongly influences internal workings. Chief among the external forces that have a large impact on the function of organization are the hospitals which serve as clinical training sites, the professional subspecialties, and organizations which represent peer groups, such as the Liaison Committee for Medical Education, the Association of American Medical Colleges, or the medical school trustees. These external groups represent potent variables which must be accounted for not only in long-term planning, but also in understanding the day-to-day medical school operation.

Finally, although the medical school is ostensibly in existence to be the vehicle for training and education physicians, paradoxically undergraduate medical education is rarely the top priority. This is true both at the departmental level, as well as being true for individual faculty members. Not uncommonly, greater energy is expended in mounting and conducting residency training, undertaking research, and providing clinical services.

The implications of the above should not be lost on one who would attempt changing a medical school curriculum. First, it is naïve to assume that one must or can achieve an institutional-wide mandate to initiate change. One must be prepared to deal separately with the various fiefdoms and cultivate appropriate incentives for each. One must also take into account that faculty members, in their capacity as educators, are vested by tradition with virtual autonomy. While other facets of their existence may be subject to considerable external pressure — to provide clinical care, to secure grant funding for research, to participate in administrative roles — when they step up to the lectern, at least for that moment, they are total masters in the kingdom of the lecture hall. This last sure, and

perhaps sole, bastion of independence is guarded by faculty with a primitive ferocity, which must not be underestimated. With this as a given, how to broach the need for change with individual faculty members is a matter of some delicacy.

Any effort to initiate curriculum change carries, at least implicitly, the suggestion of some deficiency. Since faculty are the guardians and arbiters of content for their respective areas, since the educational process is organized along disciplinary line, who would dare to make such a charge? How does one avoid even the appearance of challenging faculty competence? It is probably not accidental the "the problem" being tackled when many curricular changes are discussed is the "lack of synthesis" or the "need for integration" or the need for "better coordination" of what is described as an "interdisciplinary concern." Through such formulations, competence of faculty is unchallenged, and a ground work is laid for collaborative efforts to address difficulties.

The above is confounded who one comes to alcohol/alcoholism curricular change. Who are authorities or experts? Whose judgments are acceptable to the faculty? To whom can the faculty comfortably defer? Unlike other efforts to change medical curricula — be it around the teaching of sexuality, death an dying, gerontology or medial ethics — changes which are spearheaded by experts located in academic medicine or at least in academia, what distinguishes the alcohol effort is that the well established alcohol field lies clearly outside the structure of academic medicine. A significant majority of practitioners are non-physicians. Often they are alcohol counselors, the most senior of whom entered the alcohol field largely on the credential of their being recovering alcoholics. The treatment field has been described as organized around "craft" rather than "professional" lines. In many instances the field has a strong anti-scientific and anti-physician bias [Kalb and Propper, 1976]

Environmental Variable: The Alcohol Field

If the medical school is described as having an anomalous organizational structure, "the alcohol field" can be viewed as an uncoalesced, poorly differentiated amalgam of special interest groups. Historically, one can trace an evolution in understanding of the phenomenon of alcoholism, along a number of dimensions — be it as a scientific issue, medical problem, or social and legal problem —. The "modern" treatment era dates from the founding of Alcoholics Anonymous in 1935. This self-help group emerged

on the heels of the abandoned national experiment of Prohibition. Both directly and indirectly, AA defined the system of care for alcoholism treatment which predominated through the early 1960s and which exited outside the medical and social service systems. Early members of AA, as individuals, engaged in public education and founded national voluntary organizations, e.g. the National Council on Alcoholism. These efforts eventually led to some marginal involvement in the alcohol field by established care-givers, e.g. the American Medical Association's Panel on Alcoholism.

Prior to the 1960s, in large part the alcohol treatment field developed in isolation from the medical mainstream. The backbone of alcohol treatment was what were commonly referred to as "drying-out farms." Often founded and staffed by recovering alcoholics, the "rehabilitation" program was predicated largely on introduction to AA and placement of the alcoholic in an environment in which drinking was impossible. Without medical staffs, these facilities relied upon sympathetic community practitioners. At the same time other forms of alcohol treatment were largely unavailable and alcoholics were routinely denied admission to hospitals.

With the creation in 1970 of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) the alcohol field was provided real impetus. The infusion of federal dollars for treatment, research, training and education provided a mantle of professional legitimacy and changed the landscape of the alcohol field. There was an influx of professionals bringing with them disparate viewpoints. The decade of the 1970s was marked by lively, and at times strident debate, particularly over what constitutes "appropriate" treatment, and credentials for those in the field. A variety of professionals organizations also emerged (.i.e. AMERSA, AMSA).

Being sensitive to medicine's historical lack of interest in alcoholism, the alcohol field has adopted medical education as one of its major agenda items. At various times this was translated to mean to teach doctors and/or to "shape up" medicine. The NIAAA for example identified the improvement of physician education as a priority. It initiated its Career Teacher Program to educate and support junior factory of medical schools in alcohol and substance abuse, and then to encourage these individuals to develop an alcohol and substance abuse curriculum within their schools. The program appears far more successful in accomplishing the former than the later.

Strategies for Broaching Curriculum Change

A careful reading of the report evaluating the Career Teacher program is instructive for those contemplating curriculum change [CONSAD, 1977]. It provides a primer, as it were, or unsuccessful strategies. The Career Teachers, generally junior faculty with little power or status, were at the outset, despite senior "sponsors," poorly positioned to influence their organization systems. In planning the Career Teacher Program it appears that little attention was directed to the nature and dynamics of the medical school environment upon which the individuals were intended to have an impact. For the most part, they functioned in isolation within the institution, their curriculum innovations generally being restricted to courses which they themselves taught. Not unexpectedly the peer group which emerged for such individuals and was fostered by NIAAA was comprised of faculty in similar circumstances at other institutions. These peer group relationships appeared to be far stronger than the professional relationships within their institutions. Although those Career Teachers who were most successful in initiating changes within their institutions were thought to be successful for "idiosyncratic" reasons, they were actually proceeding in accordance with principles of institutional change.

A monograph *Competency-Based Curriculum Development in Medical Education* [McGahie et al. 1978] outlines the advantages and limitations of three principal methods through which educational changes are accomplished: power, rationality and re-education.

Power strategies require decrees by those who are vested with authority to implement changes, either after winning support of colleagues or after determining their willingness to pay the costs of proceeding despite opposition. While having the advantage of rapidly initiating change, there is a real question about how lasting such changes will be if they are not supported by the organization. Changes for which there is little support entail ongoing monitoring to assure compliance and probably will be subject to subversion at every opportunity.

Rationality as a strategy is considered particularly appealing to academics. It is based on data assembly, investigation of alternatives, through dispassionate reasoning, developing recommendations which are open to further modification on the basis of experimentation or experience. McGaghie comments that a plan, while to be taken seriously, cannot omit logic or reasoning, it is

imperative to recognize that logic alone rarely produces or sustains significant change.

Re-education as a strategy is seen as encompassing changes in attitudes, values, skills and significant relationships as well as changes in knowledge, information, and intellectual rationales. It is frequently a necessary accompaniment to the previous two approaches..

The experience of Project Cork at Dartmouth Medical School described effectively drew upon each of these three basic strategies, with one or the other playing a predominant role at various points in the evolution of curricular change. In respect to tactics, Bennis [1975] and Baldridge [1975] discuss approaches to orchestrating educational change. The tips being set out as marginalia in this monograph are supported by the "rules" and approaches outlined.

Planning Stage - Building a Mandate

When the Dean of Dartmouth Medical School accepted the Foundation grant that established Project Cork, he named the chair of the Department of Psychiatry as the Project Director. The selection of Psychiatry was not based on any particular theoretical view of alcoholism, i.e., that it was or was not proper to consider alcoholism within the rubric of psychiatric disorders. What alcoholism expertise existed in the school happened to be located in the Department of Psychiatry. The department had a Career Teacher and had conducted a successful alcohol counselor training program. However, there was not a stable of nationally recognized alcohol experts, the type of resources which one might usually expect in academic medicine if one haws aspirations of being a national model. The most compelling reason for selection of Psychiatry was administrative. The Department of Psychiatry enjoyed a reputation as one of the strongest departments in respect to undergraduate medical education; also its chair was the senior clinical chairman and an adept administrator. Later, though he assumed the position of Executive Dean of the Medical School, he continued as the Project Cork Director.

Rule # 1 aka the NFL guidelins to picking draft choices. Go for the best athlete, worry about position later.

Among the first administrative acts in getting Project Cork under-way was to work with the formal administrative structure of the medical school. The medical school's Executive Committee, com-prised of department chairs was requested by the Medical School's Dean to attend a planning meeting to determine how the Project would be engineered and structured. The Dean also attended this session. Thus, an early step was to define the project clearly as a school-wide, not a Department of Psychiatry-based, effort.

While a "power strategy" was employed to convene those parties whose official sanction or blessing was essential to the ultimate success of the effort, the tone of the first organizational meeting was collegial. In a real sense it established the tone which con-tinued throughout the life of the project.

The major topic of this initial meeting was generating guidelines for approaching the task: that it was being conceived as an educational experiment; that it was obviously an educational challenge, inasmuch as physicians themselves agreed that they were relatively poorly equipped to deal with a recognized major public health problem; that collectively both faculty and project

administration were starting from a position of ignorance; and that the immediate task was to develop and implement a workable plan. The project's goal was presented to the medical school's Executive Committee as an attempt to address an important educational problem, not as a call to humanitarian interest nor a call to redress past sins or to right wrongs. The discussion centered largely on various individuals' views of the task an educational problem. It was explicitly acknowledged by the Project Director that curriculum time was very tight, a constraint to be faced, and that carving out additional alcohol hours was not the objective. At the conclusion of the first meeting, the group agreed, for the time being, to consider itself a Steering Committee, and to meet again to explore further structuring of the endeavor. There was some preliminary discussion about approaching the overall task in steps, making eventual changes to keep pace with the students who would enter in 1978, a year hence.

Prior to the second meeting of the Steering Committee, an ad hoc group of faculty from the Department of Psychiatry was convened to brainstorm about details of organization and structure of the project, to identify priority tasks, and to build an agenda for the next Steering Committee meeting. In addiction before that meeting informal sessions were held with individual members of the Committee. At the second meeting of the Steering Committee, it was agreed that three ad hoc task forces needed to be formed: one to assess the current efforts around teaching; another to develop an ideal model curriculum (the Blue Sky Committee); and finally a group to begin considering educational research and evaluation. It was agreed that further meetings of the Steering Committee would not be scheduled until these task groups had completed their charges.

Rule #2. The team plays as well on Sundays as it practices; or productive meetings reflect the staff work preceding them.

Planning Stage - Defining the Content

The initial members of these task groups were drawn from the Steering Committee itself or from nominations by Committee members. As the task groups were convened, additional members were added, informally recruited by other members on the basis of interest or information. Thus efforts were made to foster maximum participation of interested individuals with different personalities and abilities. Becoming involved in an ad hoc fashion was acceptable, therefore no one needed to make a long-term, open-ended commitment. In the initial three month planning period, the blessing of the official structure was secured

and the task was defined as a school-side endeavor. Further, basic ground rules were established which fostered collaboration rather than competition. Squabbles over turf were avoided by not looking specifically for new "alcohol time," by not raising the specter of an outside authority coming in to declare how content should be handled, by providing good staff support to facilitate participation, and by holding out the promise of carrots being equitably distributed on the basis of effort.

In respect to the function and findings of the task groups, there are several noteworthy observations. The *Model Curriculum Committee*, quickly dubbed the "Blue Sky Task Force," attempted to define what a model curriculum effort would encompass. As a point of departure the group utilized the curriculum objectives which had been set forth by the AMERSA Committee on Curriculum Objectives. In the process of the Committee's deliberations these objectives were modified — with additions, deletions, and changes of emphasis. Beyond that, to complete its work, the Model Curriculum Committee identified the logical courses within the Dartmouth curriculum in which particular material would be appropriately addressed. It prepared a bibliography, supporting each of the one hundred items in the model curriculum which had turned out to be a very detailed document. In drafting an introductory statement to its report, the Committee made explicit its vision of goals for undergraduate medical education, and thereby provided a context in which to consider the suggested alcohol material. While ostensibly concerned with defining content, deliberations were not solely restricted to that. Discussion focused as well on pedagogical issues, e.g. the need for selective redundancy, or the implications for suggesting a specific locus for a particular body of information.

A copy of the Cork Model Curriculum is found in Appendix A

The *Assessment Committee*, charged with defining the medical school's alcohol-related teaching at that time, had the tedious task of contacting each of the course chairs to determine what material was then incorporated within each course. Interestingly, the Committee discovered that there were significant omissions in the alcohol-related teaching at that point. These discoveries proved useful at various points in "selling" the project to faculty . In the face of egregious omission, it was hard for anyone to dispute the need to systematically address alcohol teaching. For example, management of alcohol withdrawal syndromes was not covered in any way in the formal curriculum! This was not because it was considered unimportant. Rather, Medicine presumed that this was covered by Psychiatry; Psychiatry assumed that it was being included in Neurology; and vice versa. Neurology made the same

A summary of "pre-Cork alcohol material" is noted in Appendix A.

assumption about Psychiatry. Given other instances, one might make the generalization that when disciplines or individual faculty are forced to make judgments in isolation about topics to cover, they tend to include material which under *no* circumstances will be addressed elsewhere.

The *Evaluation Task Force* developed the research design (described in detail later) and also devised the associated instruments. One of these was a paper and pencil test known as the Global Survey. It included measure of attitudes, a self-rating of clinical competence, and an extensive knowledge section. The questions for the knowledge section, authored by faculty, paralleled the knowledge domains of the model curriculum. The Project Director was then the head of the Psychiatry Section of the National Boards. Under his direction, the project replicated the process of question development, and used the question format used by the National Boards. The generation of a pool of questions, their subsequent close examination, and either adoption, re-writing or exclusion, was a very time-consuming activity. Nonetheless, the process involved many faculty, and as it were through shared tedium, helped to further build a sense of camaraderie.

The instruments are located in Appendix B.

About four months into the planning process, the Foundation asked Project Cork to present an overall plan to its representatives and an advisory consultant group jointly selected by the Project and by the Foundation. This meeting, in January 1978, was held at the Foundation conference center. This meeting happened to follow a major blizzard, during what was, even for New England, an unseasonably cold snap. Thus, while busy faculty do not ordinarily welcome travel being inserted into their schedules, the weather significantly offset the sense of "inconvenience." The meeting served several functions. The external deadline imposed by the meeting forced the Project to coalesce and systemize its thinking. It also enabled persons who were working on the Project and who were drawn from different sections of the medical school-- many of whom had only a passing acquaintance with each other -- to become better acquainted. In turn this provided the kind of personal interactions essential for effective group functioning. Project Cork was represented by 11 persons, drawn from the Steering Committee, the three ad hoc task forces,. Department of Psychiatry faculty and individuals who would be in key positions to influence teaching within the first year curriculum.

Rule # 3. Training camp serves a purpose. Over the long haul, projects function largely on the strength of informal relationships and the sense of common purpose. Efforts to enhance relationships play dividends.

After the meeting in California, the major focus of the Project turned to planning for Year I implementation.

Building an Organizational Structure

Originally the administrative structure of Project Cork had rested upon the Steering Committee. But over time a different structure evolved. An Executive Committee was formed of individuals who were charged with coordinating efforts in each of the different functional areas: evaluation, Year I implementation, extra-curricular initiatives and electives. With the Project barely organized, the Steering Committee put itself on ice and delegated the work to this Executive Committee.

Rule #4. Free agents can become starters. The best plans are flexible and ought to be open to influence by serendipitous happenings.

Fortunately at this juncture in the Project's life, an "information specialist" who was looking for part-time work in the Medical Center approached the Project Director. Trained as a reference librarian, she had been involved previously in establishing person - alized information services in both corporate and higher education settings. The Project Director confessed to being uncertain what an information specialist did, but wryly noted that if business found them useful, that was sufficient. There was an awareness that staff required considerable library research support. In addition, the Project was beginning to generate materials which needed to be catalogued and indexed for easy retrieval. The Information Specialist began to establish what became known as the Project Cork Resource Center.

To the extent that the Project employed a re-education strategy, the Resource Center provided the underpinning. Rationality and re-education strategies have largely been the basis for dealing with individual faculty.

In respect to other staff, the Project had a full-time Associate Director, a social worker on the faculty of the Department of Psychiatry with experience in the alcohol field, and a full-time Administrative Assistant. Other part-time personnel were added at various points to assist with special projects. To compensate Departments for the effort of those faculty who were coordinating the areas of project effort noted above, the Project provided modest underpinnings for salary, in the range of 20% per faculty. In addition, block awards were made to the Departments to underpin the departmental teaching effort.

Implementation: Pre-Clinical Teaching

At the time Project Cork was initiated, Dartmouth Medical School had a three-year program leading to the MD degree. The curricu-

lum was comprised of three phases. For each of the two pre-clinical phases, Project Cork designated a Coordinator to meet with each faculty member teaching within that Phase. The Coordinator, prior to meeting with each of the faculty reviewed the material assembled by the two original Cork Task Forces, in order to be familiar with what was currently being taught in each course and what material the Model Curriculum Committee had suggested might be covered there. The Coordinator was thereby prepared to discuss additions, and offer the services of the Resource Center to supply relevant articles and materials.

The response of the faculty during the first year was generally positive, but the process needed "fine tuning." In addition to being familiar with the model curriculum and current teaching, the Coordinator needed to be knowledgeable about the faculty member's discipline — good will or enthusiasm alone did not suffice. Contact between the Coordinator and faculty during the second year and Phase II were far more successful.

Beyond being more conversant with the faculty's discipline, the Phase II Coordinator also reviewed course syllabi, and actual lecture outlines prior to meeting with the faculty. Thus, when meeting the Coordinator and faculty member together made a detailed assessment of what alcohol-related material was being taught and what was not. The Coordinator attempted to identify the reason for the latter — generally an issue of benign neglect or lack of awareness of important alcohol-related topics, as well as incomplete knowledge of what was or was not being covered elsewhere. The Coordinator solicited the faculty member's view of what additions, modifications, or changes might be appropriate and desirable. With these on the table, the Coordinator offered (and the faculty member generally eagerly accepted) current, relevant literature focused on the identified areas of curriculum deficiency. The Coordinator in turn provided the Resource Center with a personalized "shopping list" for each individual faculty member. The Resource Center staff, using its computerized information service, saw to it that the requested material was on the faculty member's desk within 24 hours.

Rule #5. Training camps need not be plush, but they do need to provide some amenities.

Supplying current, culled materials to the faculty, selected from the journals of each faculty member's discipline, the time-consuming task of lecture preparation was significantly eased. Had faculty been asked, on their own, to go the library, to do a literature review, to track down the articles, in order to evaluate whether the requested modifications to lectures were warranted, this would have represented a request for an overwhelming (and

probably unavailable) expenditure of time and effort. Project Cork believe that the outcome would have been far different had that been the scenario. The Resource Center's Information Specialist maintained an on-going relationship with the faculty members whom the Project had contacted. The Resource Center routinely and automatically forwarded new materials on topics known to be of special interest.

It provided assistance in locating teaching aids such as special slides. The Resource Center's services were extended to students as well. For example, in a special first year integrative elective in physiology, alcohol was selected as the "theme," with students choosing different body systems or functions for their reports. The faculty believed that use of the information services vastly improved the quality of the seminar. The students' presentations were better organized, more focused and more adequately covered the topic. Students, like faculty, have a finite amount of time to devote to any single effort. With the Resource Center providing easy access to the literature, more time was available to students to synthesize and master the material, thus facilitating and enhancing learning.

Faculty Development and Community Awareness: Also known as public relations.

Among the early concerns of the Project was building and maintaining interest and achieving some visibility for its efforts. The administrative offices of the Project were housed in the medical school, in space located between the Departments of Psychiatry and Neurology, and strategically located right next to the elevators. As a first step, for physical visibility, the Project invested in orange paint and transformed the gunmetal gray-brown office doors, making them stand out dramatically from their neighbors along the drab, tiled corridor.

Another successful device was a ten-week Cork Contest, modeled after the "X-ray of the week" contest, popular in many radiology departments. People could compete in one of two divisions, one for house officers and one for medical students. Questions related to alcohol and alcoholism were written by the senior faculty from the Department of Medicine and prominently posted outside the hospital cafeteria, probably the most frequented spot in the medical center. The person in each division who accumulated the most points at the end of the ten weeks was awarded a seventy five dollar gift certificate from the medical school book store. (That

was 1989 dollars.)

Beyond being a blatant public relations "gimmick," the Contest provided an indirect route for faculty development. The Resource Center assembled a packet of articles for the faculty members authoring the contest questions. Thereby the Project could "update" or "re-educate" a segment of the faculty to whom it otherwise would not have had easy access.

Another P.R. devise was the development of an in-house newsletter. Under the masthead "the erratically regular newsletter," complete with cartoons, it served to keep everyone posted on various Project activities.

In respect to the strategies for curricular change noted earlier, the Project after the outset, did not rely upon power strategies. There are limitations inherent in power strategies. It must be recognized too, that the formal structure has only so much power to expend. It is unlikely that a dean or department chair will be either inclined, or for that matter, well advised, to spend too many "chits" on promoting any single endeavor. Thus, much of the effort directed toward public relations was essentially efforts at re-education.

The Project also gave attention to sustaining the loose network of affiliated faculty. Every effort was made to provide, efficient, quality staff support. Secretarial support was offered by the Project so as not to tax other systems. Telephone calls were returned promptly, feedback provided, and general effort made to recognize faculty contributions. There was the belief that, in part, persons were attracted by the competence, expertise, and challenge set forth as well as by the stimulating, congenial environment which developed.

Creative Spending

From the outset it was explicit that no new faculty were to be hired for the Project. This decision was based on several factors. An educational model which is to be applicable to a variety of settings, would be severely limited if it is predicated upon the hiring of new personnel. To achieve the Project's goal of integrating alcohol teaching into the existing course structure, it was imperative that current faculty be trained/influenced/recruited to do the job. It was also presumed that the changes introduced by existing faculty would have more staying power because they would not be tied to, nor dependent upon, the presence of one or two people. The other

implication of this approach was that the grant monies available to underpin teaching, by going to existing faculty, were essentially budget relieving. The monies available from the Project budget to support faculty represented roughly 1.5 F.T.E. (Full Time Equivalent.) This money was provided some salary support for those faculty filling major coordinating functions, as well as underpinning the broad efforts of faculty throughout the institution. Since the Project's objective was to involve each department in the teaching efforts, it was decided to award "mini block grants" to each department to support its involvement. In these instances, financial support was not tied to specific activities. Each department block grant was controlled by the respective Chair and represented discretionary funds. Each Chair could expend the funds in a way which provide the greatest incentive to his faculty — for example, be it to cover faculty travel to meetings, or to purchase library books. The Project expected no special accounting for these awards, thus, from the Project's perspective, there was no point at which a department had expended its capital. It should be noted that Dartmouth Medical School faculty are on a "full-time system"; therefore the possibility or need to compensate individuals directly was not an issue.

In the second year, (then "Phase II) the bulk of the teaching within the Dartmouth curriculum was organized into a single course: The Scientific Basis of Medicine (S.B.M.). This is taught in subsections by teams of basic science and clinical faculty. Interestingly, the course director for S.B.M. refused a grant to assist in developing the alcohol teaching for this course. A man of strong beliefs and an educational purist, he saw the mini-grants as "buying the curriculum." He believed that curricular changes should be initiated on the basis of their merits. He stated that his course budget was already adequate given the support services available through the Project. In addition, it is suspected that he did not want to jeopardize the future of his own course budget, by getting into the business of using "soft" money. From time to time he suggested books the Project might purchase for the library; all such suggestions were promptly acted upon.

Although the Project was required to submit fiscal reports to the Foundation in accordance with college practice, it enjoyed broad discretion in the use of funds. It was this freedom which allowed block grants to departments. The Project was also able to provide small amenities, which promoted its efforts, e.g. free coffee in the

Project office which encouraged faculty to stop in, to chat, to browse in the Resource Center/Library. When finding a meeting time for the Executive Committee was difficult, due to scheduling conflicts, a 7:30 A.M. hour was seized upon with breakfast provided through the cafeteria. Such perks consumed very little of the budget and provided considerable good will.

Special Projects

While the main thrust of the Project was interjecting alcohol material into the core curriculum, opportunities also were needed to field test ideas and explore educational methodologies.

The first special project was a "bridge" experience for incoming students prior to their entering medical school. A model for it already existed at Dartmouth. Several years previously two of the most senior and respected faculty offered an elective on physical diagnosis to incoming first year students, during the month prior to their entering medical school.

The Bridge program is described in Appendix D (clinical teaching).

Interest in an alcohol Bridge Program was sparked by two Department of Psychiatry faculty. They had taught an elective on death and dying and had been struck by the students' ability and need to struggle with issues related to clinical care. Thus they proposed placing students in alcohol treatment settings for a four-week work-study program. A twice weekly evening companion seminar was planned to accompany the work-study experience. The idea was attractive to others as an opportunity to introduce students to issues involved in clinical care. It was also hypothesized that the early exposure to alcohol problems might sensitize students and increase their receptivity to alcohol education throughout their training.

However, informal discussions of the proposal ignited some strong negative responses. In one meeting the Dean, wearing his hat as medical educator spoke of the inappropriateness of medical students having clinical exposure prior to completing their basic science curriculum. In the face of this opposition, the Project opted to bypass the formal curricular structure and not to request formal recognition of the program as an elective, but simply to offer it as a work-study experience prior to matriculation. An unanticipated dividend was that by sending out an announcement and application to all incoming students for this work-study program, the Project received broad visibility in the incoming medical school class. This program, which proved both popular and successful, had the effect

Rule #6. Avoid unnecessary battles.

of creating within each class a cadre of students who were knowledgeable and interested in the topic. As advocates for the Project throughout their medical student careers, they served as informal experts/consultants to their peers and functioned as a low-key lobby with faculty.

Described in Gulke U; Landeen R; Meadows D. A comprehensive theory of pathogenesis of alcoholism. IN: Begleiter H; Kissin B, eds. *The Biology of Alcoholism,, Volume 6*. New York: Plnum Press, 1983: 605-675.

Another special project, undertaken in collaboration with experts in systems dynamics at Dartmouth's Thayer School of Engineering centered on developing a computer simulation model of alcohol use and alcoholism. While successful in producing a model, this para-curricular effort did not pay equivalent dividends in prompting organizational development. It never "tickled the fancy" of faculty or students, nor became a vehicle to work together. In considering why this project failed to produce such payoffs, several possibilities came to mind. One is that the modeling effort, while a legitimate academic endeavor, was too far afield from the major thrust of the Project. Those involved, primarily concerned with the technical aspects of the computer model, did little to pursue its potential as a teaching tool. Also, because those who created the model worked in relative isolation from other faculty, their enthusiasm and interest had little spill-over to other faculty or students. It too may well have been an approach that simply was ahead of its time!

Implementation: Clinical Curriculum

The discussion thus far has centered on the Project's efforts at changing the preclinical curriculum. When the Project turned its attentions to changes in clinical teaching, a different set of problems appeared. Clinical teaching inevitably involves multiple institutions, issues of patient care and clinical services, and a much larger group of faculty, many of whom have a marginal identification with the medical school. The Project, in electing to initiated curricular changes in a rolling, step-wise manner, effectively delayed having to assault the clinical teaching arena for two years. This allowed a cohesive working group to develop and build a consciousness of its presence in the academic medical center. The earlier official sanction which the Project had received from the Medical School Dean's Office did not extend into the new arena of clinical teaching sites. The school's power had to be exercised to secure the sanction of new key actors, e.g. the directors of clinical services and chairs of clinical departments.

The Project Director, who at this time had been appointed Executive Dean of the Medical School, became more involved in

the Project's day-to-day functioning. He and the Associate Director met with key persons in the clinical teaching sites, such as the hospital administrators, medical directors, and the chairmen of medicine. These discussions were generally considered informational, to let people know what was going on, to ask for suggestions, to ally any apprehensions and to assure everyone that the Project would respect their domains and would endeavor not to disrupt their operations. These conversations were friendly, often leading to discussion of how alcoholism has been a neglected problem, and they elicited a general blessing for the Project's work.

When it came to actual planning for clinical teaching, there were no volunteers from the faculty to serve as the Coordinator for Clinical Training. To fill this void, the Project formed a Clinical Teaching Task Force with representatives from each of the clinical departments. At this point, the Project had to deal head on with the lack of specific alcoholism treatment expertise among the physicians and within the medical school as a whole.

Previously, faculty saw themselves and each other as competent within their disciplines. They were able to amass and assimilate the relevant alcohol material easily. But alcoholism treatment and clinical expertise were perceived to be outside of everyone's area of specialization and also as having a certain mystique. For this reason no one was willing to assume the mantle of Coordinator for the clinical teaching year. Parenthetically, the Career Teacher who might have been the logical person for this position, has just assumed a position in an affiliated, though physically distant institution and was little involved in the Project at this time.

Eventually a member of the Department of Medicine volunteered to chair the Clinical Teaching Task Force. This individual was a widely respected clinical teacher who also conducted an active research program. If the Project were to continue its original plan of integrating teaching in the clinical curriculum as it had in the preclinical teaching, the Department of Medicine was a critical ally. As the Task Force Chair, however, he was primarily task oriented, eager to specify what needed to be done and where it could be done, and to distribute the plan as if that were the end of the task. He was not inclined to consider the political nuances or negotiation process required to assure that any proposal put down on paper were implemented. Therefore these process issues had to be raised by other Task Force members, usually by the Project Director, who was an active group member.

The Project Cork Co-Director (the Associate Director had been

"promoted") though a non-physician, had considerable clinical experience in alcoholism. She played an active, if behind-the-scenes, role, meeting with members individually, developing ideas to be considered by the Task Forced, setting the Task Force agenda and preparing the summaries of its meetings. The Co-Director used the latter to crystallize ideas which were in fact not fully formed, thereby guiding the planning process.

See Appendix A, page 58.

After several meetings the Task Force, having to abandon the "easy" solutions such as hiring an alcoholism clinician or creating an additional clerkship, began drafting a document entitled "Towards a Perturbation of the Clinical Curriculum" which specified discrete alcohol-related clinical skills to be taught. The Task Force also proposed a faculty development workshop for themselves and other clinical faculty to prepare them to teach this material, since by then it had become clear that if they didn't teach the material, nobody else would.

Rule #8. If you're #2, you try harder.

The absence of an "expert," to whom everyone could defer and who would be expected to do the job, in retrospect, is seen as fortunate. In an institutional setting with an alcohol expert on board, it is suspected that other faculty would be inclined to dissociate themselves. By default, the Dartmouth clinical faculty was forced to remain involved, to grapple with the issues and to assume responsibility for becoming more knowledgeable. (The challenge for an expert in this situation is to function as a consultant and a resource person. The danger is that the expert will not be able to resist taking over, rather than to allow those with less experience to "muddle through" and make mistakes. Alternatively, it is possible that he or she will find themselves having the total job dumped in his or her lap.)

The Project Director presented the proposal for the workshop to the clinical departmental chairs, asking each to designate five faculty and five house officers to attend. This proposal was not received enthusiastically by the chairmen. For the most part they seemed to expect great resistance to the idea. It had not occurred to them that faculty might be interest in the Project. In spite of these reservations they complied with the request.

Rule #9. Sometimes you must get beyond beeper range.

The day-and-a-half seminar was held off-campus at the college's conference center, an hour and a half's drive away and entailed an overnight stay. While the faculty were not pleased with the distant location, the Project did not want persons coming and going as inevitably happens in on-campus conferences.

While the mechanics of planning the workshop were left to the Project Cork staff, the task force identified course content and criteria for recruiting workshop faculty. For faculty they wanted persons engaged primarily in alcoholism teaching. In respect to content, three items were specified: natural history of alcoholism and recovery; the clinical management of alcohol problems; and issues for clinical teaching. The workshop, eventually attended by participants from four department, was a failure as a teaching exercise and a success from the perspective of organizational development.

The faculty were unimpressed by the presentations. They felt that thy had learned little that was new, that the special techniques of alcoholism treatment had not been well articulated, and that their own skills as clinical teachers were unrecognized. Because they had come with some commitment to clinical teaching on alcohol issues, the disappointment in the workshop translated itself paradoxically into more, rather than less, motivation. "We can do better than that," someone said. The shared experience, even a negative one, helped build a sense of cohesiveness and purpose.

Although the Task Force on Clinical Teaching had spent considerable time developing the goals for clinical curriculum and specifying component tasks, its work had never been intended as a grand design or binding document. Its importance was in the discussion it evoked, and its preparation served as the organizing vehicle. In meeting with the respective clinical departments, it served as a calling card. It was clear from the initial discussions with clinical clerkship directors, that the Project's focus had to be on alcohol topics as these related specifically to each of those clinical settings. One of the apparent, although never fully articulated, concerns of clinical faculty was that they were being asked to teach very important, but from the point of view of their discipline and their time constraints, somewhat extraneous material. This concern was at one point voiced as "Are we trying to turn the students into alcohol counselors?" In light of this, the broad schema, as developed by the Clinical Teaching Task Force, was further refined, focusing on the presentation of alcohol problems in the different clinical settings and the management issues which these presented in that setting.

The next task for the Project was to work with each department individually and to develop a plan for clinical teaching. The Project Co-Director assumed the responsibility for this. Because meetings with the directors of undergraduate training, clerkship directors, and other influential clinicians were very time consum-

ing, priority was placed on the Medicine, Family Medicine, and Psychiatry, and clerkships

The Project had specifically disavowed any interest in altering clinical services. As awareness of alcoholism increased, however, attention was inevitably drawn to the inadequacy of clinical care. Of the two major teaching hospitals, the private hospital had no alcohol treatment service. The other, a Veterans Administration Hospital, had an alcohol rehabilitation service, although it had never had a full-time medical director. Interestingly, just at the point of the implementation of the clinical curriculum, a Medical Director was recruited for that service. In part this occurred in response to the fact that the Project brought attention to the need and helped legitimize the position request. This individual recruited as Medical Director has worked closely with the Project and contributed a needed expertise in alcohol and substance abuse.

The changes in the formal clinical curriculum included additional lectures within the various clerkship's seminar series, and an interviewing tutorial during the Family Medicine-Primary Care clerkship. The hiring of an alcohol counselor for the Department of Psychiatry's consultation service also added clinical personnel. Subsequent to the initial tackling of the clinical teaching programs, there have been further additions and refinements to the clinical teaching efforts.

Evaluation

Appendix B includes copies of the instruments and protocol.

Recall that the total project was conceived and designed as an experiment in medical education. The central question to be examined were: What effect does the curriculum have upon students' alcohol-related knowledge, attitudes, and clinical skills: And, what impact did the Project have upon the curriculum? The evaluation design is schematically presented in Figure 1.

The evaluation employed a quasi-experimental design with non-equivalent controls. Changes in the alcohol curriculum at Dartmouth were introduced with the class that entered in 1978. Several control groups were used. To measure differences between pre- and post-Cork initiated curricular changes, one control group was Dartmouth Medical School students in the class preceding the Cork group. Other control groups were established to enable comparison of Dartmouth medical students to persons trained at other medical school. These controls included a sample of under-graduates from Dartmouth College who entered other medical schools, and also graduates of other medical schools who -

came to the Dartmouth-Hitchcock Medical Center for post graduate training.

Figure 1. Longitudinal Evaluation Design

In assessing the impact of the curriculum changes, the Project was interested in three domains: attitudes, knowledge, and clinical performance. The instruments to measure these are described below:

Global Survey. This instrument was administered to the Cork-trained students and the respective controls at three points: upon entrance into medical school, at the completion of the preclinical training, and at graduation. The Global Survey included the 40-item Marcus Attitude Scale [Marcus, 1980] and knowledge items in several domains including alcoholism, natural history, diagnosis and treatment; alcohol withdrawal and intoxication; biochemistry and pharmacology; and medical complications associated with chronic heavy alcohol use. The two later administrations of the Global Survey also included a 20 item self-rating scale of comfort in performing alcohol-related clinical tasks, demographic information, anticipated practice specialty and presence of alcohol or drug problems among family, friends, or peers.

Preliminary findings. Overall, the curriculum was shown to be effective in imparting the professionally desired knowledge and attitudes.

- Students' improvement in the five knowledge domains from matriculation to graduation was roughly equivalent. However, while initial knowledge levels were quite different, residual gain

scores did not differ substantially.

• Changes in attitude (or beliefs about alcoholism) within the group as a whole from matriculation to graduation occurred on three subscales. There was significantly more agreement with items for the “Alcoholics can never drink again” and “Alcoholics can’t control their drinking” subscales, and there was significantly less agreement with items for the “Alcoholism has an emotional basis subscale.”

• Overall, there was substantially more inter-scale correlation among attitude scales at graduation than at matriculation. (In part , this change reflects the education and socialization of students into the community of practitioners with a more uniform belief system than the population at large. For example, the scales “Alcoholism reflects a moral weakness” and “Alcoholism is not a disorder” were uncorrelated at matriculation but highly correlated at graduation. Group scores on the scales themselves did not change, but reflecting the integration of two initially independent domains of moral choice and somatic illness into a single polarized pair among the student group as a whole.

• Beliefs and attitudes at matriculation were generally unhelpful in predicting ultimate attainment of knowledge about alcoholism at graduation.

Clinical Performance. In view of the well-recognized lack of correlation of clinical performance with either knowledge or attitudes, several measures were developed to assess performance, each oriented to a different aspect of clinical activity.

Ability to diagnose alcoholism. A Detection Study was conducted during the medicine and primary care clerkships. It entailed comparing the results of an alcoholism screening test administered to the patients seen by the medical students with students’ diagnoses as determined by chart reviews. The screening test (Short MAST) was embedded in a Health Habits Survey, administered by a research assistant who also conducted the chart reviews. Charts were reviewed for explicit alcoholism diagnosis as well as the presence of signs and symptoms set forth in the NCA criteria.

Prevalence rates were within the range reported in similar settings by other studies. 16.4% of patients were “positive identification” and 32.8% were highly suggestive by the Short MAST. Using the NCA criteria, 33.6% were positive for alcoholism. However, only

2.8% of patients were formally assigned a diagnosis of alcoholism by students, whose assessments were essentially equivalent to their teachers. When "diagnosis" was construed to include detection of non-normative drinking as evidenced by explicit references in the chart such as "heavy drinker" and "problem drinker," students and staff together reported 22.3% Thus, the students as a group were found to detect an alcohol problem: but they rarely made the formal diagnosis.

°*Ability to manage alcohol problems.* A series of Patient Management Problems was developed, modeled after Part III of the National Board Examination, to examine students' abilities to manage patients with alcoholism or alcohol problems. The cases ranged from an acutely intoxicated person in the emergency room, to a child presenting to a school physician because of school behavioral problems, to a chronic alcoholic admitted to the hospital for pneumonia.

Interviewing Skills. To examine students' skills in interviewing and the ability to establish a therapeutic relationship with a patient, simulated patient interviews were conducted during the Community and Family Medicine-Primary Care Clerkship. These ere staged encounters, with the scenario of the student seeing, in a presumed ambulatory setting, a patient suspected to have an alcohol problem. The patient was depicted by a recovering alcoholic. The sessions were videotaped and the tape immediately reviewed with the student by the simulated patient, an alcoholism counselor, and a physician faculty member, all of whom were present during the interview.

The Tutorial using simulated patients is described in Appendix D.

The Project was quite successful in achieving a good response rate from the students. The first administration of the Global Survey was sent to students at their homes prior to their arrival at medical school and yielded virtually a 100% return. [The Project staff received several notes from parents! These were to explain that the student-to-be was unavailable to respond immediately, due to vacations or working away from home, but that the Survey would be returnd as soon as possible.) Subsequent administrations required more follow-up and ingenuity. For the second and third administrations, the project paid a modest subject fee (a ten dollar gift certificate for the medical school bookstore) for each completed survey. To capitalize upon peer pressure, when an 85% response rate was achieved, $150 was given to the class for a party.

Beyond interest in the impact of the Cork curriculum upon the stu-

dents, there was also an interest in examining in a systematic fashion the nature of the curriculum changes themselves. At the outset, a survey was developed, administered both to faculty and students to assess their perceptions of the material related to alcohol and alcoholism covered in each course. Administration to the first class of Cork students indicated there was substantial agreement between faculty and students as to what was taught. However, as constructed, the questionnaire categories were so broad as to be of little use in detailing the actual curriculum changes. Consequently, faculty associated with the project examined the course lecture notes for each session of each course and met with the individual faculty to establish exactly what alcohol-related material had been covered previously and to discuss what changes were anticipated.

This attention to research and evaluation enhanced the credibility of the Project as a genuine academic exercise. This also had other instrumental value. For example, in the Project's efforts to change the clinical curriculum, the detection study promised to provide data which the was considered by some within the Department of Medicine as essential to justify the requests being made by Project Cork for a stronger emphasis on alcohol within its seminar series. There were very disparate perceptions of the incidence of alcoholism. Those associated with the Project maintained that within the medical center's two teaching hospitals, the incidence was probably at least 20% in the private hospital, and possibly twice that in the Veterans Administration Hospital. The Medicine faculty would concede the latter figure, but considered the former a gross exaggeration. It was acknowledged that if the incidence were anything near what was presumed by the Project staff, obviously alcoholism would deserve the attention requested. Therefore, until the data were available and seemingly almost "to humor: the Project, the individual organizing the Medicine clerkship's seminar series agreed to insert a lecture on alcoholism: diagnosis and management.

The evaluation and research effort had instrumental value in other ways. Involvement of faculty in designing research instruments, drafting questions for the knowledge survey, participating in question review sessions, and preparing patient management problems provided one more vehicle for faculty development.

It must be noted that the research and evaluation component of the Project was also the locus of the biggest problems for the Project. While the rest of the project ran fairly smoothly and was well

served by the involvement of many persons in a part-time capacity, that was not true in the evaluation arena. A succession of Evaluation Directors and various research assistants caused a lack of continuity which impeded work and created strains. A tension developed between the views that the evaluation/research was primarily a "pure" research effort to answer ultimate questions regarding the impact of curriculum changes versus the view that it should be serving the organizational and developmental needs of the Project. For example, the Project Co-Director wished to be able to report back to faculty periodically, giving data as feedback on the teaching efforts. This wish met resistance from those who believed that this would contaminate the efforts and compromise the data collected.

Dissemination

As part of the original charge to the Dartmouth Medical School, the model curriculum was intended to be developed in such a way that it could be adapted in whole or in part to other institutions. At the outset, to facilitate eventual dissemination and to secure a group of consultants, a National Advisory Group to the Project was formed at the request of the Foundation, drawing upon national figures in medical education. Although Advisory Committee members met twice during the first year with members of the Project and Foundation staff, the group never coalesced as a functioning entity. Initially this group was formed to monitor and oversee the project, because medical education was a new venture for the foundation. Quickly however, the Foundation, the medical school administration, and the Project's representatives developed close working relationships and personal ties. The Advisory Group became superfluous. The Project was never able (or possibly never motivated) to redefine a charge for this group, and it faded away. From this point on, the Project called upon outside consultants with expertise in specific areas, e.g. evaluation or curriculum development, on an ad hoc basis.

Approximately a year and a half into the Project, a conference was organized by the Foundation to which the deans and faculty representatives of five other medical schools were invited. The purpose of this conference was to provide the Project with a forum to examine critically ideas, strategies, and plans. The schools invited by Dartmouth were selected somewhat arbitrarily, but with an eye to achieving a cross-section of institutions in terms of size, geographic location, public-private sector, old and new. Also in attendance was the Director of NIAAA.

The response to Dartmouth's activities was extremely positive, and from that enthusiasm, there came an unexpected development which introduced a new dimension into the Project's life. Federal money was being made available in the next fiscal year to support under-graduate medical education around alcohol. It was the understanding that if the Foundation awarded seed grants to the schools present, and if the schools began the process of curriculum change, drawing on Dartmouth's experience, presumably these schools would be in a favorable competitive position in competing for the new federal monies. Thus, a consortium of medical schools was formed, funded by Foundation seed grants.

Rule #10. Sometimes all you can do is muddle through.

This Consortium was structured informally, but with the expectation that Dartmouth would provide a coordinating role. Consequently, the Project found itself suddenly having responsibility for another major undertaking. Besides its own medical education initiatives, Dartmouth was . coordinating a network of medical schools with varying interests and approaches to the task of improving alcohol education. Simultaneously, this was an asset to the Project's efforts and a distraction.

The formation of the Cork Consortium provided greater visibility to the Project at Dartmouth and therefore gave it added stature. It also increased the visibility of the Project nationally. The major problem was that attention directed to the Consortium sapped considerable staff and administrative effort. This was compounded by the absence of a clear directive from the Foundation as to th responsibility of Dartmouth's Project Cork for administering and monitoring the Consortium effort. Paradoxically, the Project recognized that the value of the seed grants to the schools was in large measure due to their unrestricted nature. Therefore, "monitoring" per se was inappropriate. The Dartmouth group gradually came to see the Consortium's primary benefit as an effort to "field test" the Project's approaches, materials, and services to ascertain their utility in an eventual dissemination effort.

Within the first year of its formation, the Consortium held two further meetings. While on the whole productive, providing a forum for the exchange of ideas and discussion of problems, there were several areas of tensions. One arose form the ambiguity and lack of clarity about the group's raison d'etre and the nature of its interrelationships. For example, several schools were interested in developing a common Consortium-wide evaluation format, to allow eventual comparisons between the six schools different approaches to curriculum change. Others did not want to devote

that much attention and resources to such an endeavor. Another tension arose between individuals, those who identified themselves as alcohol" specialists" and those whose primary self-identification was with medical education. (This tension has arisen on other occasions and in other settings and will be amplified later.) And not unexpectedly, the issue of money, sources of future fiscal support, created a tension. This increased when the anticipated Federal money became available. It was awarded but under guidelines which placed Consortium schools as a definite disadvantage. Alcohol monies were yoked to monies to establish Departments of Family Medicine. Therefore, schools with either established Family Medicine Departments or those with an existing alcohol curriculum were not competitive. Only one of the Consortium schools received these federal funds.

Around the time of the Consortium's formation, the Project had reached the conclusion that the best method of influencing other schools' curricula would come from several activities: developing quality curriculum aids and materials, conducting a competent research/evaluation effort, and preparing scholarly articles, and presenting at meets. Project Cork, in its start-up period had been struck by the number of "complete packages" which were available and went unused. While many "packages" may have been of poor quality, that seemingly was not the root of the problem. The basic reason these were ignored stems from the fact that most faculty to not wish to merely deliver someone else's material. Faculty do appreciate materials for handouts, or slides, or other materials which can be used in preparation for their own lectures. This impression was clearly validated by the subsequent interactions with the Consortium schools. Therefore, the Project, in collaboration with the Foundation, began developing three different types of curriculum materials: an eight unit slide series, to serve as a resource for preclinical teaching; a series of clinical teaching films which depict the natural history of alcoholism and the clinical skills of interviewing and intervention; and a monograph series appropriate for student handouts.

Another route for dissemination was through presentations of papers at professional meetings, hosting visits by medical educators from other institutions, and participation in workshops. Not infrequently, the Project was approached by medical educators for information about the Project, advice and consultation. The Project was always in a quandary as how to adequately communicate the breadth and richness of the program. To address this dilemma, the Project, along with the Foundation, co-sponsored a workshop for medical educators held at the Foundation confer-

ence center. Invitations were extended to more than 60 medical schools which had had some contact with the Project. Participation was limited to 16 schools, with each school sending two faculty. Enrollment was on a "first come-first served" basis. The Workshop faculty were comprised of Dartmouth faculty plus two colleagues from the University of Washington, an institution involved in the Consortium. The University of Washington has placed emphasis on tackling curriculum revisions through the Department of Family Medicine.

The workshop went beyond the usual format of presentations and discussion. For one, each of the participating schools was provided with a four-inch thick notebook of resource materials. Also, the Resource Center had an extensive display of audio-visual materials, pertinent books and articles. Each institution had completed "homework" assignments to identify within their own institutions pressure points for change as well as obstacles to curriculum development. During the workshop sessions these were considered in a quasi "case study" format, using the Dartmouth and consortium school experiences.

Another important resource in dissemination efforts was the considerable efforts on the Project's behalf, extended by the Foundation's public relations firm, Holin and Harris. This firm's services were more personalized and extensive than the services which were/could have been provided by the College's own news service.

Relationship with the Alcohol Community

As alluded to earlier, at points the Project encountered friction between itself and alcohol professionals. This was evidenced at the first National Advisory Group meeting. It surfaced within the Consortium, at national meetings which involved Career Teachers and the professional association which they forged, [AMERSA (Association of Medical Educators and Researchers in Substance Abuse], around grant contract awards, and in the Project's relationship with NIAAA (National Association of Alcohol Abuse and Alcoholism). An example of the later was the "pink sheet" elaborating reviewers' comments for an unsuccessful contract proposal to develop a set of alcohol curriculum materials. The reviewers noted the following weakness: "Personnel had no prior work history in alcohol or alcohol abuse.

The alcohol professional community in the past has been a rather closed fraternity, functioning for the most part on the sidelines of academic medicine. Alcoholism professionals located in academic medicine found their major professional support coming not from colleagues within their own institutions, but from peers at other schools. The nucleus of those working in substance abuse/alcoholism in academic medicine was formed through the Career Teacher Program, a faculty development effort undertaken by the National Institute on Alcohol Abuse and Alcoholism and the National Institute on Drug Abuse. This group was the major voice in respect to medical education on alcohol. A fledgling professional association emerged (AMERSA), formed by alumni of the Career Teacher Program. AMERSA has a close, quasi-official connection with the Career Teacher programs until 1982, when the Career Teacher Program was terminated. AMERSA's annual meeting coincided with the Career Teacher meeting and was indirectly supported by NIAAA.

Ironically, the very qualities promoting the success of the venture internally at Dartmouth — that is was being undertaken as an experiment in medical education, by experienced faculty, though novices to the alcohol field — made it highly suspect to those who devoted their professional lives to substance abuse education. These individuals considered themselves professionals in the field and well beyond the point at which "experiments" were required. Also, the model adopted at Dartmouth was at odds with what heretofore had been the "traditional" approach; structured through the Career Teachers Program, alcohol and substance abuse education were organized under the aegis of and taught by an alcoholism "specialist."

In subtle and not-so-subtle ways, the Project found itself being alternately challenged and seduced. The Project's efforts to organize displays of audiovisual materials or other aids at national meetings were rebuffed. Although the Project Information Specialist had as much or more experience in working closely with faculty than anyone else, her expertise was ignored in favor of the conventional wisdom, "everyone knows that… ." On other occasions the Project, or Foundation was approached by national groups seeking program suggestions, and then as an after-thought, raised questions about financial support.

Another distinct "alcohol community" is composed of those physicians, for the most part trained a generation earlier and primarily outside of academia, who are clinicians, directing alcohol

treatment programs. This latter group tended to be less critical and generally more supportive of the Cork effort than the former who were primarily medical school based.

A major problem this presented to the project was how to avoid becoming caught up in the politics of the alcohol field. An eternal temptation is to become involved in “the politics,” in the hope of better positioning oneself for future grant support or ongoing funding. However, the project was at a distinct disadvantage in terms of competing for federal funds, because the physicians involved in the Dartmouth effort were not primarily working in the alcohol field. At the same time, inasmuch as the mandate was to influence the mainstream of medical education and given the fact that the alcohol field was to some extent on the outside looking in, the success of the efforts appeared to rely little on whether they were enthusiastically, moderately, or not at all supported and embraced by the alcohol field.

Winding Down, or Death with Dignity

Project Cork had been established as a four-year program with a timetable well known to all those involved. Nonetheless, as it moved into its final year, attention began to turn to “what next?” Faculty associated with Project Cork had, in the course of the Project, developed scholarly and academic interests in various alcohol related topics which they wished to pursue. Also, a strong sense of cohesiveness had emerged, which those involved wished to maintain. While the successful completion of Project Cork could be seen on the horizon, thee was an interest in continuing the work which the Project had sparked. How this might be funded was obviously *the* big question. Was there Foundation interested in continued funding for alcohol and medical education programs? What resources might the medical school itself commit to maintain the educational and administrative support systems for the Project? These questions were central not only to those wishing to maintain the Cork identity and programs; they were also relevant to other components of the medical school. The normal planning process provoked these questions as well; alternative fiscal support was needed for several of the faculty assigned part-time to the program, and space — the ever rare commodity — was up for re-assignment.

The prime moving force of any organization is said to be survival and maintaining its own existence. This seems to be true regardless of original charge or whether the original premises justify continuation. This curriculum initiative was no exception.

Many good and sufficient reasons surfaced, seeming — at least to those intimately involved — to justify continuation of the Cork group and its efforts. These included: (1) the growing recognition being accorded the project by medical educators; (2) the academic imperative to continue with fruitful lines of work; and (3) the realization that work in progress would not be completed if the Project were terminated.

A major frustration was the inability to complete the evaluation/research effort on schedule as intended. This was the result of several confounding factors, that seemed to be working together and, at that point, against the Project. While at the outset, much energy had been placed on the development of a research design and instruments, similar attention had not been paid to developing a corresponding detailed plan for data analysis. The problems introduced by this failure were compounded by a succession of evaluation-research directors, supplying a succession of views as to the appropriate methods for statistical analysis and differing stances as to what constituted minimal rigor. Inasmuch as Dartmouth is a small medical school, with limited academic support services, there was no office of education research which could provide technical assistance. In retrospect the fatal blow to the evaluation/research effort's being completed on schedule had been struck by the emergence of the Cork Consortium. It adopted Dartmouth's instruments as a common data base for all six schools. Project Cork assumed responsibility, without additional foundation funding, to provide instruments, to clean and enter data, and to provide modest statistical analysis. The research team therefore went from being concerned with several data sets of approximately 65 persons each, to a total group of over 1400 individuals. At the point that Dartmouth entered into this agreement with the other schools, the expectation had been that those schools would be receiving federal monies which could be used to contract with Project Cork for data management and analysis. When these monies did not materialize, while possibly having been well advised to drop the efforts and "cut the losses," Cork continued to manage the larger data analysis.

The final year of the Project was one of uncertainty and stress. With potentially diminished funding, various components of the Project began to see themselves in competition for limited resources, for example the evaluation effort, the Resource Center and pilot demonstration efforts. And, just at the point at which its efforts were receiving national recognition, its stock at Dartmouth seemed to be plummeting. The question arose as to the extent to which the Project continued to enjoy previous medical school institutional support. Were the interest of the Project still congru-

ent with those of the larger institution? Clearly, the larger institution wished to maintain its relationship with the Foundation.

The Project was aware that the medical school administration might believe its institutional goals could possibly be better fostered by other joint endeavors and establishing new and/or additional ties. The Project Director, having become the acting Dean of the Medical School, was seen as properly having to attend to larger issues: he could no longer be presumed to be an advocate or spokesman for the narrow interests of the Project. Whether explicit or implied, the message being conveyed to the Project was that it had been established as a time-limited program and should "go gracefully." The incoming Dean unfamiliar with the history of the Project, did not see the medical school as supporting it as an on-going enterprise, either by providing space or financial support.

The temptation in such circumstances, is to personalize lack of support or to attribute it to stigma by association, in this case that alcoholism is not a respected area of medicine. In point of fact, it is more accurate to see such lack of support as representing the state of affairs in medical education generally. The value placed on being a "national center" for education on any topic is probably directly proportional to the financial resources that such a reputation attracts. Such efforts need not only to be self-supporting, but also need to contribute to the support of the institution through indirect costs which accompany grants and contracts.

In this final period, the Project was in effect attempting to reach two incompatible goals — to complete its efforts and close down, and not only to continue, but to expand its activities. In attempting to optimize each of these goals, the central issue, was how many resources could justifiably be siphoned off, in the hopes of providing for the future, without compromising the ability to complete the original charge and bring closure to the Project.

In attempting to balanced these two items, the Project found itself having to factor in an additional unknown which was introduced by the informal structure of the Foundation. In contrast to federal grants and contracts, the rules of the game were less clearly spelled out. The Foundation does not solicit proposals and has no mechanism for review. The Project was uncertain about the interest of the Foundation in any continuation. A proposal was nonetheless submitted to the Foundation for further elaboration of the project effort. It focused on the Project's functioning as a resource to the wider academic community. While the Foundation expressed

interests in portions of the proposal it was not interested in the complete package. The level of future Foundation support, if any, was unclear.

At this juncture, some of the forces which had earlier been assets for the Project — the school-wide identification, and not being exclusively yoked to a single department — became liabilities. As the uncertainty continued, the Project was in danger of being dissipated by fruitless speculation and/or random activity. For example, at that time alcohol treatment seemed to be a major "growth" industry. There was a proliferation of for-profit treatment chains, a proliferation of consulting groups and education programs. A fleeting illusion of Project Cork was that there might be a market for academically based, quality education programs. While this may be true, after trying to mount several educational workshops to generate revenue, the Project realized its strength was its entrepreneur skills.

To provide some direction and refocus efforts, the essential task was to disentangle the mutually exclusive goals which had emerged. In some respects this was achieved by redefinition of goals and objectives.

For one, it was important to recognize that the efforts within the medical school in respect to education on alcohol did not need to be synonymous with Project Cork. Consequently one could complete "the Project" and simultaneously continue efforts and plan for the future. The Project faculty and staff began to re-identify with the their Departments, which for an essential core was the Department of Psychiatry, and to move toward establishing it as the base for future operations within the medical school.

EPILOGUE

Project Cork, as a pilot demonstration effort to develop a model undergraduate curriculum in medical education, was successfully concluded in December, 1981. However, largely as a result of the commitment and interest which had developed among the involved faculty, the Project "could not" or "would not" fold. Thus, Project Cork though no longer having a school-wide mandate continued , self-appointed, to coordinate and foster efforts of those interested in medical education on alcohol. Faculty expressed interest in maintaining the project's identity, having it as a vehicle for planning and as a forum for information exchange among persons who would have had no other occasion to come together. The bi-weekly 7:30 AM breakfast meetings continued.

Maintaining the Cork effort in this fashion was possible because continuing faculty involvement was solely dependent upon interest; and not contingent upon continued funding. Faculty associated with the Project, with the exception of the Project Co-Director, had received either no, or at best modest salary support from the grant monies. Consequently, as they had had primary service or teaching responsibilities elsewhere in the medical center, there was not an exodus of faculty from the institution due to their loss of primary funding source.

While able to maintain the status quo which had emerged, the Project was, however, unable to commandeer access to the amount of faculty time needed to mount new teaching initiatives, or develop new programs. Nor was it able to provide the level of academic support services extended earlier, e.g. research assistance, secretarial support, or the Resource Center's information services.

With the Project formally concluded, a major difficulty was funding support to maintain the Resource Center which had been seen as critical to earlier efforts. There were some discussion of meshing the Resource Center with the medical school library. The Project was reluctant to that step as there would not have been additional funds within the library to maintain its information service functions or database which were the heart of the Center's operation. The value of the collection came from the materials being current. Furthermore, recognizing that library and/or other education support services often go unappreciated, the Project was very reluctant to close down the Resource Center in the hope that it could be revived in the future. If funds couldn't be identified to

continue an existing service, the chances seemed close to zero that future monies would materialize to resurrect a discontinued service. It was continuing small, ad hoc award from Operation Cork which provided central to keeping the Resource Center functioning.

As it continued by what might best be described as a "string and baling wire" approach, the Project did become involved in several new programs. Faculty associated with Project assisted in the planning and development of a new alcohol treatment program conducted by the Department of Psychiatry in collaboration with a neighboring community hospital. An unexpected result of Project Cork had been, that in heightening institutional awareness of alcohol problems, the absence of a treatment capacity in one of the major clinical sties became a glaring and embarrassing gap in services. However, the hoped for earmarking for alcohol education of some of the alcohol clinical income from this new service, which in part motivated the involvement of Project Cork, did not occur. (The moral of that story is "get it in writing!"

Also, the Project, through a contract with the State of New Hampshire, developed and began to conduct an intensive weekend education and assessment program for persons convicted of DWI. The modest start-up funds for this were provided by the Department of Psychiatry and a small award from Operation Cork. The Program was modeled after one developed at Wright State University Medical School. The Weekend Program proved to be an excellent site for clinical teaching. The Resource Center began publication of *Alcohol Clinical Update*, a bimonthly subscription newsletter of highlights from the alcohol literature, and prepared annotated lists of resource materials. The Project and Resource Center continued to extend services and function as a resource to those beyond Dartmouth.

Appendix E includes a description and schedule for the Weekend Program.

In September 1984, the Joan B Kroc Foundation made a major gift to Project Cork and Dartmouth Medical School to transform Project Cork into the Project Cork Institute. This gift provided an endowment which assured the continuation of the educational efforts by providing support for the Project's basic administration, the Resource Center, and by providing seed monies to develop new initiatives.

Looking back: with 20/20 hindsight

In looking back and considering what was most critical to the success of the Cork experiment we would focus on two separate domains: those which deal with process and those which deal with content and educational issues.

Appendix A includes the alcohol curriculum at Dartmouth Medical School.

However, first some comment on what remains now , four to six years, since the curriculum changes were introduced. In some respect the basic question is "What evidence remains of Cork's footprints?" A follow-up survey of the course directors indicates that the curriculum changes which had been implemented have largely been maintained.

Erosion which has occurred is attributable to two factors. Ironically one of these reflects upon the very success of the Cork efforts. In several courses alcohol topics had been adopted as the vehicle for presenting major themes. An example is "Introduction to Health Care," a first year course which explores the health care delivery system through visits to a range of health care providers and follow-up small group discussion. With the advent of Project Cork, alcoholism and alcohol problems, had been adopted as the disease/medical condition through which students considered health care delivery. Alcohol issues were well suited to this. They. represent a significant public health problem, include both behavioral and physiological aspects, impact significantly upon the family and community, and require a range of interventions from prevention to identification of high risk individuals, to early diagnosis and treatment by an interdisciplinary team. But on the heels of Project Cork's having achieved such visibility, other successful "lobbies" emerged, advocating the use of other topics as themes for the course, namely geriatric medicine and hypertension.

Erosion also developed from the inevitable departure of faculty who had been involved in introducing particular changes. Their, replacements whom had not been indoctrinated by nor exposed to the 'Cork experiment.' It might be reiterated that in some instances the "changes" alluded to are not of the magnitude of entire lectures devoted to alcohol/alcoholism. Rather they typically represent incorporation of alcohol material which might have been ten to twenty minute segments within a larger lecture.

The Project had not established formal mechanisms to monitor th

Curriculum once put in place. At the conclusion of the Project with efforts being continued on a "skeleton crew" basis, the thought simply did not occur to place limited resources into initiating this. The manpower available within the administrative structure was limited. Nor was it a task for which a faculty member eagerly volunteers. In retrospect, it would have been worth the effort at least to keep track of who was "going and coming," arranging to meeting briefly with any new course directors, to review material introduced into that course and the rationale for using it.

Nonetheless, despite the absence of close monitoring and/or "policing," a survey conducted in 1985 showed that not only have the changes introduced had staying power, and not vanished at completion of the formal initial effort, there were also significant, subsequent additions.

See Appendix A for a summary of curricular changes introduced.

In conclusion, attention turns to the process and content issues which seem to have had particular relevance.

Process

An *integrated approach* seems to be superior to a "block" or segregated approach. For one, it follows the manner in which the bulk of medical undergraduate teaching occurs. One must presume that there is wisdom to that organization of material for teaching. It assures that content is handled by appropriate experts from their perspective vantage points, rather than by the generalist who is less familiar with the details. It allows for the needed repetitions, and reinforcement.

The *Resource Center* and other educational support services immeasurably eased the task of faculty cooperation and involvement.

The *engagement of faculty* as peers, rather than as a repository of ignorance or bad attitudes, was critical. The resistances to becoming involved in alcohol education reported by others simply did not surface. It was acceptable within the Cork project for faculty to incorporate alcohol material because of its utility as a paradigm, or vehicle to illustrate other concepts. It never became an issue that the material must be incorporated in the curriculum because to do so was a moral imperative.

Educational Issues

Project Cork rapidly moved beyond dealing only with alcoholism; its attention increasingly was devoted to "alcohol use." Not infrequently , alcohol curriculum is presumed to be synonymous with teaching about alcoholism. Within Project Cork, probably as a result of our own education, we have gradually broadened the focus to medical aspects of alcohol use, with ample reminders that alcohol is among the most potent self-prescribed medications, and that the use pattern which is non-problematic will vary from individual to individual and, for an individual, will vary throughout the life cycle.

Similarly we have arrived at the perspective that much of the value of focusing on alcoholism is that it provides an exceedingly useful model for the treatment of chronic disease in general.

A paper written at the conclusion of Project Cork by several faculty involved in the effort from its inception described obstacles to medical education on alcohol/alcoholism. The impediments are seen as related to the structure of academic medicine with its emphasis on disease states and pathophysiology; sophisticated and technologically complex diagnostic and treatment modalities; and an acute illness cure-oriented focus rather than a chronic illness, adaptational approach to illness. The second constellation of impediments relates to the alcohol field's failure to identify with other issues in medicine that similarly challenges the Flexnerian curriculum: the lack of a conceptual basis for defining the physician-alcoholism specialists in relation to other medical disciplines; the clinical treatment field's competing craft and professional orientations; and the absence of a scientific vocabulary suited to the existing biopsychosocial paradigms.

Project Cork did not encounter among our students the *"bad attitudes* as they are commonly described in the literature on medical education and alcoholism. The issue is, we believe, more complex. To the extent negative attitudes exist, they seem to be directed not to the alcoholic patient per se, but to the care of the chronically ill. Specifically, there is a devaluation of the skills which are central to managing patients with chronic disease. This is in conflict with a physician identify based upon the technological aspects of medicine. Therefore, a major conclusion drawn by Cork faculty is that efforts to improve physician education in respect to alcohol problems seem to be inevitably yoked to the larger issue of assisting students to become more comfortable and skilled in managing patients with chronic illness. If this be the

case, those concerned about alcohol education may find that there are more allies available to them than they had anticipated. At the same time, there is a potential for the alcohol field to provide leadership to an area of medical education receiving increasing attention. This opportunity has been recognized by others [Clare, 1984]

Another dilemma is that within neither academic medicine nor the alcohol treatment field is there a clear consensus as to the core clinical competencies for the physician in respect to management of alcohol problems. It is the position of Project Cork that the focus of teaching should be upon three major tasks: routine screening, identification of suspected alcohol problems; and referral for either differential diagnosis and/or treatment. These are presumed to be basic skills which one might reasonably expect of any physician providing clinical care.

See Appendix A, "Goals for Undergraduate Training."

In light of the results of Project Cork's detection study, focusing upon these skills would build upon students' strengths. Students demonstrate a reasonable level of competence in detecting non-normative alcohol use. If one applies the model that an objective in undergraduate medical education is for the student to recognize the aberrant and effect a consultation/referral for differential diagnosis and treatment planning, then the thrust of alcohol efforts becomes clear. The educational deficiency to be addressed is in the "follow-through," the referral for further evaluation and in providing support for any forthcoming recommendations.

There are two major difficulties in making the above tasks the primary focus of clinical teaching. One results from the relative absence of alcohol consultation services in academic medical centers. For the most part, the alcohol treatment community continues to be organized apart from academic medicine and represents a separate care system. So, there is a Catch-22. To utilize treatment personnel means in effect to move a patient into a different care system, which requires that the differential diagnosis not only be made, but be communicated to and accepted by the patient and family. The second difficulty is related to the sites most commonly employed in clinical teaching around alcohol. Such teaching is most frequently conducted in an alcohol rehabilitation and/or treatment center. Unless there is an associated consultation-liaison clinical service, (or the student is involved in intakes), there is relatively little exposure to the tasks associated with the identification of al alcohol problem and referral for diagnosis and treatment. Ironically, alcohol rotations may provide little opportunity to hone those skills which would be most

useful to the general physician.. A motive for Project Cork to become involved in the Weekend Program was to address these problems. Presently all students during their psychiatry rotation participate in the Weekend Program. They conduct the medical screening, which includes a medical history, a history of alcohol use, and conduct a physical examination. They also participate in the entire 48 hour program: attending lectures, participating in small groups and individual exit interviews with clients and their family members. This offers a unique opportunity to see persons prior to the onset of a clearly established disease process. It provides an opportunity to be involved in the differential diagnosis between frank alcoholism, alcohol problems, and situations which do not the meet the diagnostic criteria for either. In addition there is the opportunity to view techniques for dealing with client resistance, to work with non-physicians, and be in a clinical role in which the task is not to be the leader but to support and reinforce non-physician members of the therapeutic team.

The involvement of non-physician alcohol clinicians in teaching programs is essential. Beyond the fact that these clinicians will be the backbone of the alcohol clinical services to which one wishes physicians to refer, there is also the practical point that clinical teaching is labor intensive. For these clinicians to be successfully incorporated, it is imperative that they be adequately screened, oriented, supported, and otherwise helped to provide effective clinical supervision. However, there is an important caveat. Physicians must be clearly present and in effect modeling interactions with the non-physician team members.

An important component of clinical teaching is providing ample opportunity for students to reflect upon not only the content but the process. Opportunities too must be provided for students to reflect upon the frustrations which the alcohol patient may provoke. A hypothesis emerged from the experiences of the Cork faculty who were involved in the “bridge program.” This program placed students in a work-study program in alcohol treatment centers prior to their entering medical school. In brief the hypothesis is that there is a developmental process attendant to medical education and acquisition of the physician role. Therefore, it is to be anticipated that a significant portion of students will be particularly challenged by alcoholic patients. Alcoholics do not readily comply with the expected patient role; they are perceived as “manipulative” and deceitful:; their disease is without a known definitive cause or cure; and they repeatedly force the physician to confront the nature of the physician’s role, its limitations and to cope with that outside on one’s control. Alcoholic patients force

students, whether they are developmentally ready or not, to grapple with basic questions: the limitations of the physician's role, a perspective of illness that extends beyond the horizon of physiological abnormality, and medical care as encompassing more than technical procedures. How students fare in this clinical encounter may be highly dependent upon the supports available to them from mentors and clinical faculty.

One should anticipate as well that a significant number of students will come from a family with alcoholism, that a significant minority will be concerned about their own alcohol or drug use, and that a more sizable portion will have a close acquaintance with an alcohol problem. Responses by Dartmouth Medical School classes '81 and '82 and their respective controls, to the following questions on the Global Survey are instructive.

Have you, any member of your family, other relative, or close friend had an alcohol/chemical dependency problem?*

Close friend	50	(33%)
Parent	31	(20%)
Brother/Sister	13	(9%)
Other relative	61	(40%)
Medical student associate	38	(25%)
Yourself	0	
	151	

*Question extracted from for VII Operation Cork Medical School Consortium Study in Alcohol Information, 1981 and 1982.

Faculty and staff, particularly those involved in clinical teaching should be not surprised if this personal history influences a student's response to alcohol issues.

Concluding Observations

While Project Cork may have been unique at its inception, that is no longer the case. Many institutions have embarked upon similar systematic efforts, such as Morehouse School of Medicine, through the Cork Institute on Black Alcohol

and Drug Abuse, Johns Hopkins at the undergraduate medical education level funded by the Pew Foundation, and the Commonwealth Harvard Research and Teaching Program (CHARRT) for post-graduate training in general internal medicine. Other institutions have made significant innovations in teaching formats, such as Wright State University School of Medicine's Weekend Intervention Program. Within medical education, alcohol/ substance abuse training is being systematically addressed from a number of vantage points. It is no longer a novelty, nor is it seen solely as an elective offering.

Substance abuse education is receiving attention by professional associations. The Society for the Teachers of Family Medicine developed a model postgraduate alcohol curriculum in Family Medicine. NIDA and NIAAA have recently awarded contracts to the American Psychiatric Association, the Society for Research and Education in Primary Care Internal Medicine, Ambulatory Pediatric Association; the Society for Research and Education in Primary Care Internal Medicine, and the Society of Teachers of Family Medicine to develop model curricula from undergraduate training through continuing education. The *Annals of Internal Medicine* recently published a position paper, prepared by the American College of Physician's Health Policy Committee, on the physician's responsibilities in respect to chemical dependency. (1985)

As alcohol problems and alcoholism receive increased attention, we anticipate that much described here will have become commonplace, and indeed some of it may appear primitive.

As alcohol education efforts expand, our collective challenge becomes communicating with one another. We anticipate that the ongoing legacy of Project Cork may prove to be the Resource Center describe so often here as a major contributor to the work with Dartmouth Medical School. Its resources are available to researchers nationally. The most immediately accessible means is via Cork Online, a public database based on the Resource Center's collection. Trial use is welcome and arranged upon request. One of the strengths of the Resource Center collection is the inclusion of the "fugitive literature" and materials. The Resource Center welcomes copies of articles, protocols, and special reports, to be shared with colleagues.

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Appendix A

Project Cork: Model Alcohol Curriculum

Project Cork at Dartmouth Medical School was established in 1970 to develop and implement an integrated model alcohol curriculum for undergraduate medical education. The goal of the curriculum was to improve physician performance in dealing with what was widely recognized as a major public health problem.

The model curriculum was developed in 1978 by a specially designated Cork Model Curriculum Committee, comprised of faculty from both the basic science and clinical departments of the medical school. In organizing its work, the Curriculum Committee conducted a literature review, examined efforts at other institutions, and the programs and materials of the Career Teacher Pro-gram of the NIAAA. As a point of departure, the Committee used the teaching objectives set forth by the AMERSA Committee on Curriculum Objectives. IN some instances, there were expanded upon, in other instances, deletions were made, or changes in emphasis introduced.

Beyond specifying the core content of a model undergraduate curriculum, the Committee also indicated priorities for the various elements and provided a bibliography , both to support its choices and to identify source materials. The Committee also drafted an introductory statement making explicit its premises and views of the mission and challenges of undergraduate medical education. In this statement , the Committee set forth points which it saw as necessary considerations for any efforts to change medical curriculum. The Cork Model Curriculum was widely circulated within the institution. It survived as a blueprint for discussion with faculty around specific desired change is course content.

While the Model Curriculum was a general guide, it became apparent that both a re-thinking and further amplification of the objectives were required as the Project considered changes in clinical teaching. In 1980 a Clinical Teaching Task Force was developed to prepare detailed plans for clinical teaching within the clerkships. The Task Force's Report, entitled *Toward a Perturbation in Clinical Teaching*, functioned as the outline for work with the individual clerkship directors.

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Introduction to CORK Curriculum

We consider the basic objectives of this proposed curriculum to be similar to those which might reasonably be offered for any art of the medical curriculum.

First, the faculty should identify that portion of the total body of knowledge concerning alcoholism which it believes is essential important for physicians to know. As is the case generally in the medical curriculum, portion seem large and difficult to digest. Nevertheless, choice must be made by the faculty: decisions to include some information and to exclude other information. Furthermore, some factors, concepts, and hypotheses are of major importance and should be given greater emphasis, whereas other, although useful, are of lesser importance and may be treated more lightly. In a final version, the model curriculum should indicate these categories.

Second, the curriculum should identify clearly the limits of current knowledge regarding alcoholism and should identify those specific areas in which the original efforts of interested students might be expected to bear fruit. As art in scientific research is to ask questions what are answerable, given existent limitations of theory and technology; productive is pursuit of the soluble.

Third, the curriculum should enhance the self-awareness of the students. They should be stimulated to examine their own habits of alcohol ingestion and how and why these habits developed. And they should come to appreciate how and why they react to others who are alcoholics or have drinking problems.

Fourth, we think it essential that students come to appreciate the complexity of management of chronic alcoholism, especially to learn that physician alone cannot "do the whole job." In fact, they should come to realize that our current of modes of treatment are imperfect and other impermanent. Students should become aware of existent special programs for detection and treatment of alcoholism, of the roles played by social workers, counselors, psychologists, and others in treatment programs.

Finally, we believe that the ideal medical curriculum should arouse deep compassion and intense curiosity in the students. The grinding demand to master the burgeoning body of medical knowledge too often blunts the senses and leaves little time for reflection. A sense of wonder has no room in the cluttered mind. We need to do experiments to learn how awe and wonder can be rekindled and encouraged in medical students. Without them, the learning and practice of medicine become tedious, and original ideas fall on sterile soil. Perhaps, therefore, we should teach fewer facts. At the very least, the curriculum should include times when faculty and students take on the "big issues," knowing full well they will not be resolved.

Curriculum Committee (signed)

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James Bernat, M.D.
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In developing the model curriculum, the efforts of Project Cork were facilitated by use of *Physician Education in Substance Abuse: Curriculum Objectives.* The Project Cork Curriculum Committee gratefully acknowledges the effort of the AMERSA Committee on Curriculum Objectives, chaired by Donald Davis, M.D.

March 20, 1978

The Cork Model Curriculum

suggested course/ department	*Curriculum Objectives and Priority*
PSYCHIATRY	**A. Introduction/Orientation** 1. Identify and discuss factors which have molded your own views toward alcohol use and alcoholism. (1) 2. Describe a model format for helping others understand how their personal experiences with drinking and alcoholism influence their work with alcoholics. (3)
PHARMACOLOGY/ PSYCHIATRY	3. Definitions a. Abstinence (1) b. Abuse (1) c. Abuse potential (3) d. Addiction (1) e. Cross-tolerance (1)
EPIDEMIOLOGY	f. Dependence: psychological and physiological (1) g. Potentiation and synergism (1) h. Problem drinker (1)
BIOCHEMISTRY/ PSYCHIATRY	i. Prevention: Primary, secondary, and tertiary (1) j. Psychoactive (3)
BIOCHEMISTRY/ PHARMACOLOGY	k Tolerance: metabolic, pharmacologic, behavioral (1) l. Withdrawal syndrome (1)
PATHOLOGY/ BIOCHEMISTRY (CORRELATION CLINIC)	**B. Biochemistry and Pharmacology of Alcohol** 1. Be able to do the following: a. Compare alcohol as a nutrient to carbohydrates, protein and fat. (2) b. Describe the reasons for nutritional deficits occurring with a high intake of alcohol (1) c. Describe the effect of alcohol on vitamin metabolism, particularly: pyridoxal phosphate (Vit. B6), thiamine (Vit. B1), ascorbic acid (Vit. C) and Vitamin A (2)
BIOCHEMISTRY/ PHARMACOLOGY	2. Describe the pharmacology of alcohol (1) a. Describe the physiologic and behavioral effects b. Describe the absorption and distribution of alcohol c. Diagram the major metabolic pathways of alcohol degradation d. Describe the physiology of withdrawal e. Describe the action of disulfiram 3. Describe the physiology and biochemistry of dependence and addiction with special reference to the brain and liver. (1)

The number in parenthesis denote the priority of each item: first, second, or third. These are operationally defined as follows: #1= Essential; # 2= Nice, recommended, but… ; #3 = Extraneous, luxurious, “fluff”.

suggested course/ department	*Curriculum Objectives and Priority*
	B. Biochemistry and Pharmacology of Alcohol (continued)
PSYCHIATRY (PSYCHOACTIVE DRUGS)/ PHARMACOLOGY	4. Explain the alcohol-drug interactions of both commonly used over-the-counter preparation and prescription drugs on any kind. List clinically significant examples (2)
SCIENTIFIC BASIS of MEDICINE/ BIOCHEMISTRY/ (CORRELATION CLINIC)	5. Describe the possible adverse effects of acetaldehyde upon liver, heart, and brain. (1)
	C. Etiology of Alcoholism
GENETICS	1. Genetic factors: Describe evidence concerning the role of heredity in the development of alcoholism. (1)
COMMUNITY MEDICINE EPIDEMIOLOGY	2. Socio-cultural factors a. Compare and contrast alcohol use patterns related to demographic variables and ethnicity. (2) b. Discuss the relationship between culturally defined drinking patterns and the development of alcohol abuse and alcoholism . (2)
PSYCHIATRY	c. Describe the factors which make physicians especially susceptible to substance abuse. (2)
COMMUNITY MEDICINE	d. Describe some economic and political issues that related to alcohol use and alcoholism. (3)
PSYCHIATRY I or II	3. Psychological Factors a. Describe the changing views of the role of psycho-logical factors in the development of alcoholism. (1) b. Describe the concept of alcohol use as a coping mechanism, including (1) • Alcohol abuse as symptomatic of an underlying emotional disturbance, and • Alcohol abuse as self-medication, for sleep disturbance, depression, anxiety states, and psychotic disorders. c. Describe how alcohol use may serve differing functions throughout the phases of the life cycle. d. Describe the functions of denial in the alcoholic. Note the implications for the family interactions and the patient/physician relationship; and possible organic substrates (1) 4. Discuss the importance in each individual patient of the complex interaction f genetic, psychological, social, and pharmacological factors which bear upon and are influenced by alcohol use.

suggested course/ department	*Curriculum Objective and Priority*

SCIENTIFIC BASIS OF MEDICINE

MEDICINE (NEUROLOGY)

D. The Diagnosis of Alcohol Intoxication

Curriculum Objectives and Priority

1. Describe the "dose response" and "time action" characteristics of alcohol as a central nervous system depressant agent. (1)

2. Describe the findings on physical examination of the following states of alcohol intoxication and discuss their relation to dose. (1)
   a. Lowered inhibitions
   b. Cerebellar dysfunction
   c. Stupor, coma
   d. Pathological Intoxication

3. Describe why alcohol-induced coma is a medical emergency and outline a treatment plan. (1)

4. List the disease states that frequently accompany alcohol intoxication and describe how they increase morbidity and mortality.

E. Diagnosis and Treatment of Alcohol Withdrawal

1. Describe the pathophysiology of alcohol withdrawal (1)

2. For each of the following syndromes of alcohol withdrawal, list their symptoms, signs, and their time of occurrence relative to the period of abstinence: (1)
   a. Tremulousness
   b. Auditory hallucinosis
   c. Withdrawal seizures
   d. Delirium tremens

3. Discuss the role of anticonvulsants in the immediate and long-term management of withdrawal seizures. (1)

4. Describe why delirium tremens is a medical emergency and outline its prevention and specific treatment. (1)

5. Describe the method and value of prophylactic sedation in the patient undergoing alcohol withdrawal. (1)

F. Alcoholism: Natural History, Diagnosis, and Treatment

PSYCHIATRY/ MEDICINE (CORRELATION CLINIC)

1. Briefly describe some of the theoretical approaches to the understanding of drinking behavior. (2)
2. Describe the signs, symptoms, and diagnostic criteria for alcoholism. (1)
3. List the behavioral signs and symptoms of the progression of alcoholism. (1)
4. Discuss alcoholism as a chronic disease process. (1)

suggested course/ department	*Curriculum Objective and Priority*

F. Alcohol: National History, Diagnosis and Treatment (Cont'd)

5. Chart the recovery of function following abstinence, including the sub-acute withdrawal phenomena, and cognitive, memory, and social functioning. (1)

6. In the context of alcoholism as a chronic disease, discuss the treatment and rehabilitation and the role of the physician in these processes. (1)

7. Discuss the components of alcohol treatment in which the physician has a unique role to play. (2)

8. Distinguish between alcoholism treatment and treatment of the medical sequelae of chronic alcohol intake. (1)

9. Discuss strategies of intervention to initiate alcohol treatment. (1)

PSYCHIATRY/ MEDICINE

CORRELATION CLINIC

10. List the components of comprehensive alcohol treatment: (1)
    a. Note the community resources which might be able to provide each component of care.
    b. List patient characteristics which would indicate the need for each component.
    c. Outline the steps essential for a referral to each component

11. Discuss the importance of the teach concept in alcoholism treatment. (2)

12. Apply the concept of continuity of care to alcoholism treatment.

13. Discuss the need for family involvement in identification and treatment of alcoholism (1)

14 List some criteria for the diagnosis "alcoholism: in remission" (2)

15. Discuss the implication for the patient and the physician of the distinction between "the patient is a chronic drinker" and "the patient has alcoholism ." (2)

16. List special issues encountered by the physician in the consultative role with other physicians and other treatment staff if their work with alcoholics. (2)

17. Outline an alcohol use history and how it should be taken. Include techniques to identify the presence of other substance of abuse. (1)

PSYCHIATRY

18. Discuss interviewing techniques to increase reliability of data. (1)

19. Describe behavior common among alcoholics which might arouse feelings in the physician, such as anger, frustration, fear, and invite rejections. (1)

suggested course/ department	*Curriculum Objective and Priority*
PSYCHIATRY	20. List the characteristics of the active alcoholic which you would find most difficult to handle. (1)
	21. List some guidelines for the judicious use of psychotropic medications in the care of alcoholic patients. (1)
PHARMACOLOGY	22. Describe specific diagnostic tests, such as breathalyzer, blood alcohol levels, which would suggest acute and chronic alcohol use. (2)

G. Major Medical Complications of Alcohol Use

SCIENTIFIC BASIS OF MEDICINE & REVIEW CLINICAL CLERKSHIPS

1. List abuse and chronic adaptive and toxic effects of alcohol on the following.
   a. Central Nervous System (1)
      Wernicke-Korsakoff Syndrome (1)
      Cerebellar Degeneration (1)
      Amblyopia (2)
      Marchiafava-Bignami Syndrome (3)
      Central Pontine Myelinolysis (3)
      Hepatic Encephalopathy (3)
      Hepatocerebral Degeneration (3)

   b. Peripheral Nervous System (1)
      Peripheral Polyneuropathy (1)
      Myopathies (2)
      Acute Rhabdomyolysis (2)
      Sub-acute proximal (2)

   c. Gastro-Intestinal Tract (1)
      Esophagus: L.E.S. incompetence (3); Esophagitis
      Stomach
      acute effects: enhanced gastric acid, damage to mucosal barrier, and gastritis (1)
      chronic effects: gastric ulcer (3)
      Small intestine
      acute effects: inhibition of mucosal digestive systems (3)
      chronic effects: impaired absorption (3)

   d. Liver (1)
      acute effects: metabolic redox potential and sequelae
      Lipid disposition; Adaptation of SER
      Toxic acetaldehyde, damaged mitochondria (1)
      chronic effects: central hyaline necrosis and sclerosis, alcoholic hepatitis, alcoholic cirrhosis (1)
      Complications of cirrhosis: portal hypertension (esophageal varices, hemorrhoids, bleeding); hepatic coma; feminization syndrome; peptic ulcer; altered homodynamic status; disordered renal function, including RTA and oliguria (1)

suggested course/ department	*Curriculum Objective and Priority*

SCIENTIFIC BASIS OF MEDICINE & REVIEW CLINICAL CLERKSHIPS

e. Pancreas (1)
Chronic effects: Pancreatitis and its complications

f. Cardiovascular system (2)
Acute effects: cardiac arrhythmias (3)
Chronic effects: alcoholic cardiomyopathy (2)

g. Respiratory System (2)
Acute effects: aspiration pneumonia, depress WBC and humeral immune
Chronic effects: chronic bronchitis and COPD
Complications of alcoholism: hypoxemia, secondary to A-V shunts; tuberculosis, ventilation profusion abnormalities

h.. Hemopoietic System (1)

- Anemias
  - Megaloblastic
  - Fe deficiency
  - Zieve's Syndrome
  - Bone marrow depression
  - Sideroblastic
  - Hemolytic
  - Spur cell anemia
  - Stomatocytosis

- White blood cells
  - Decreased chemotaxis
  - Leukopenia
  - Diminished granulocyte adherence
  - Diminished granulocyte reserves

- Platelets
  Impaired hemostatis, Splenic breakdown
  Bone marrow suppression

- Homeostasis
  - Decreased clotting factor production
  - Frequent occurrence of DIC

i. Kidneys (3)
Acute effects: vasodilation; altered sodium and potassium excretion; decreased ADH secretion
Chronic effects: renal hypertrophy; distal tubular changes; interstitial edema

j. Immunologic (2)
Impaired cell mediated immunity

k. Alcohol and sexual function (2)
Direct effects: hypothalamic-pituitary dysfunction; gonadal dysfunction; metabolic clearance of testosterone
Effects related to complications: hyperestrogenization

suggested course/ department	*Curriculum Objective and Priority*
SCIENTIFIC BASIS OF MEDICINE/ REVIEW CLINICAL CLERKSHIPS	l. Skeletal system (3) *Chronic effects: ascetic necrosis, gout*
MATERNAL AND CHILD HEALTH	m. Outline the pre-natal and neo-natal complication of material alcohol use and abuse (1)
	n. Behavioral complication of alcohol use
	H. Legal-Ethical-Historical
PSYCHIATRY/ COMMUNITY MEDICINE	1. Describe the laws relating to medical practice with alcoholics a.. physician-patient communications b. DWI — public intoxication c. Commitment d. Impaired physician laws e. Breathalyzer, blood alcohol level analysis
PSYCHIATRY	2. Discuss the medical ethics issue involved in the treatment of the alcoholic, e.g. confidentiality, diagnosis, research (2) 3. Trace the historical development of the concept of alcoholism as a medical entity and concern (3)
	I. Prevention
COMMUNITY MEDICINE	1. Demonstrate an understanding of primary, secondary, and tertiary prevention in relation to alcoholism (e.g. legal measure, education methods, and environmental manipulations) (2) 2. Describe some common secondary/tertiary prevention models such as industrial programs, court programs, AA (3)
MEDICINE/PSYCHIATRY	3. List some ways in which the attitude and behavior of house staff physicians influence the medical students' development of clinical skills in the treatment of alcoholics (2)
COMMUNITY MEDICINE	4. Describe the role of the physician in primary , secondary, and tertiary prevention efforts. (1)

Model Clinical Curriculum

—Toward a Perturbation of the Clinical Curriculum on Alcohol —

Broad Goal: To instill in students the attitudes, skills and knowledge required to recognize and manage alcoholism problems and alcohol-related complications, and to impart the importance of physicians' efforts in the primary, secondary and tertiary prevention of problems associated with alcohol use.

Task #1. Detect Incipient Alcoholism

Knowledge

- Alcoholism is often a hidden disease, unrecognized by the patient.
- Alcoholics seek help for other problems.
- Natural history of alcoholism
- Persons at risk for alcoholism

Skills

- Comfortably discuss alcohol use with patients and family.
- Alcohol screening (CAGE)
- Alcohol history
- Attend to process of clinical interaction and comment.

Attitudes

Empathy/firmness
Task is worthwhile
NB. These are relevant to all tasks

Activities

Practice interviewing skills
View University of Michigan tape
History and physical examination

Location

Introduction to Health Care; Physical Diagnosis; All clerkships, especially Medicine, Primary Care

Evaluation

Phase I and Phase II exams; Clerkship evaluations; Global Survey

Task #2.	**Recognize and Deal with Medical Emergencies related to Alcohol Abuse and Withdrawal**
Knowledge	• Problems are serious/life threatening • Basic pharmacology and physiology of: acute intoxication — alcohol hypoglycemia drugs and alcohol — withdrawal syndromes
Skills	• Management of emergencies
Attitudes	• Recognition is important and worthwhile • Intervention is important and worthwhile
Activities	Study pharmacology, biochemistry, metabolism Work in Emergency Room Work on inpatient services View the NCME tape on withdrawal
Location	Phase I and II lectures; Emergency room; Inpatient services
Evaluation	Phase I and Phase II exams; Clerkship evaluations

Task # 3	**Diagnose and treat Sequelae and Complications of Alcohol Dependence**
Knowledge	• Understand pathophysiology of sequelae • List major sequelae including those that are perinatal, medical, and surgical • Long-term management and follow-up usually required
Skills	• Major diagnostic approaches to sequelae • Treatment of sequelae • Counseling patients on major sequelae
Attitudes	Prevention/recognition are worthwhile Situation is desperate but not hopeless "…to comfort always"
Activities	Study sequelae in Scientific Basis of Medicine (SBM) Deal clinically with sequelae in clerkships
Location	Inpatient services; lectures
Evaluation	Phase II exams; Clerkship evaluations; Global Survey

Task # 4	**Help Patients to Accept Treatment. Refer Patients and Family to Alcohol Treatment Services. Participate in Supporting Treatment Efforts**
Knowledge	• Understand the natural history of recovery process • Management of chronic disease • Understand community resources for the alcohol AA, Al-Anon, Alateen Outpatient treatment services Residential programs • Dynamics of intervention including that the patient does not need to request help or want to stop drinking for treatment to be initiated • Recognize own limitations
Skills	Explain to patient and family, the need for treatment
Attitudes	Empathy/firmness Treatment can make a difference Disease is not hopeless Willing to take responsibility for referring patients for treatment M.D. not a “Lone Ranger”
Activities	Attend AA meetings Use alcohol counselors and consultant specialists
Location	All clerkships, especially Psychiatry
Evaluation	Phase II exams; Clerkship evaluations; Global Survey

Task # 5	**Routinely Educate Patients about Alcohol Use**
Knowledge	• The general public has little accurate information about alcohol’s effects • Medical and social factors placing patients at risk for alcohol-related problems • Resources available for patient education
Skills	• Skills in patient education; Using additional resources to best advantage: brochures; slide-tape shows; nurse educators
Attitudes	Patient education is worthwhile; it can made a difference Information is a requisite for health maintenance.
Activities	—
Location	Clerkships
Evaluation	—

Reflections on Educational Goals for an Undergraduate Medical School Curriculum in Alcohol

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INTRODUCTION

A series of developments during the 1970s resulted in increasing demands upon medical schools to become more active in the teaching alcohol and substance abuse material:

- The National Council on Alcoholism sponsored a conference in 1970. which deplored the lack of curricula on these topics and the unavailability of clinical sites for the training of medical students in treating alcoholism and substance abuse. (Seixias and Sutton, 1977).
- The Career Teacher Program on Alcohol and Drug Abuse was inaugurated by the NIAAA in December, 1971. Its purpose was to assist medical schools, through the support of junior faculty, in developing expertise in these optical areas. (CONSAD 1977)
- In 1972, a Macy Conference was held. It concentrated on the role medical schools should take relative to these problems, made suggestions as to the objectives for medical student education and identified the nature of continuing education for physicians in alcohol and drug abuse. (Macy Foundation, 1972)
- Also during 1972, the American Medical Association's Council on Mental Health issued a position paper that outlined specific proposals for teaching in these content areas. In part the report suggested that this education "be distributed throughout the curriculum, whenever and wherever appropriated, and with the purview of basic science and clinical subjects." (American Medical Association, 1972)
- In December 1978, the AMA House of Delegates passed a resolution supporting the principle that faculty of undergraduate, graduate, and continuing medical education programs should provide educational exposure and programs for students, residents, and practitioners on comprehensive medical and clinical management of patients with alcoholism.

In sum, these events highlight the fact that medical education about alcoholism and other additions has been viewed as inadequate, fragmented, and ineffectual in preparing medical students and physicians to respond to these conditions. In 1977, Dartmouth Medical School received a planning grant from Operation Cork, an education program of the Kroc foundation, to develop a model integrated alcohol curriculum for undergraduate medical education. While this effort was clearly only one part of an increasing national concern for physician education in the area, it was unique in several respects: the scope of its efforts, its organization as a medical school-wide endeavor, and its design as an experiment in medical education.

DEFINING EDUCATION OBJECTIVES: THE DILEMMA

Despite the rather widespread and ever-growing consensus during the 1970s that physicians were not being adequately prepared to deal with alcoholism, there has been a notable lack of discussion around what would constitute adequate training and be the minimal clinical competencies or physician skills. For example, curriculum objectives developed by the Association for Medical Education an d Research in Substance Abuse (AMERSA) Committee on Curriculum Objectives have received wide circulation. By virtue of their inclusion into guidelines for medical education grants, they have, acquired at the least the unofficial imprimatur of NIAAA. These guidelines, with modification provided the basis for Project Cork's own model curriculum. These objectives identify discrete knowledge or content areas and are written the following formats: the students shall be able "to list…," "to describe…" They explicitly do not address is what the student should be able "to do, clinically." The one exception to this general failure to identify clinical competence is in a set of guidelines developed by the AMA's Panel on Alcoholism (1978). The guidelines set forth three levels of physician responsibility in relationship to alcoholism. The first guidelines set forth three levels of physician responsibility in relationship to alcoholism. The first level, :diagnosis and referral," is defined as a basic responsibility for all physicians who provide clinical care. The remaining two levels, on the other hand, are elective and describe levels of involvement in alcohol treatment and the competencies associates with ach. However, though available upon request through the AMA, these guidelines have neither been published nor widely circulated. Hence they have not been available as a conceptual model for either fostering or focusing discussion on education objectives.

The absence , this far, of a coherent statement of educational goals or competencies (performance objectives) in medical education around alcohol may be attributed to several factors. The major factor is the absence of a clear consensus (within the alcohol field as well as within medicine) about the relationship of the alcohol field to the rest of organized medicine. Is the alcohol/substance abuse field to be seen as a separate fledgling specialty, struggling to take its place beside pediatrics, obstetrics/gynecology, surgery and psychiatry: Or is it a clinical subspecialty, and if so, a subspecialty to what discipline — medicine, psychiatry or rehabilitative medicine: Or is it better conceived as a transitory interest group, a "lobby," so to speak, which will wither away as other areas of medicine assume responsibility for care of alcohol problems and the alcoholic?

Without some answer to these basic questions, the medical educator is hard pressed to design a coherent alcohol curriculum. No long does anyone begin to presume undergraduate training suffices for the practice of medicine. The affect is that graduate medical education has become recognized and accepted as an essential phase of medical education (AAMC, 1981). Virtually all medical students enter graduate medical education programs which lead to specialty board certification. The undergraduate training experience at best provides rudimentary skills and basic knowledge which will serve as the foundation for the molding and making of the clinician during residency training. It is not seen as bestowing competency in any area of medicine , but is designed in the context of further training.

PROJECT CORK'S CURRICULUM OBJECTIVES.

In developing its model curriculum, the Project first set forth broad general goals which it say as consonant with those which might be offered for any part of the undergraduate medical curriculum. Then with these broad objectives sketched out, the Curriculum Task Force set forth knowledge areas and suggested specific courses within the Dartmouth Medical School curriculum where this material might be incorporated. These are presented in detail below.

In respect to the clinical curriculum, a separate planning group was convened, comprised of representative of each of the clinical department. This group identified five physician tasks related to alcohol use and alcoholism. In addition, the Task Force identified component sills, , as well as identified training sites, knowledge, attitudes, and evaluation activities. The tasks and skills are summarized below:

PHYSICIAN TASKS	SKILLS
1. Detect incipient alcoholism	• Comfortably discuss alcohol use with patients and family • Take an alcohol history • Identify early physical and behavioral signs & symptoms
2. Recognize and deal with medical emergencies related to alcohol use and withdrawal	• Management of emergencies
3. Diagnose and treat sequelae and complications of alcoholism	• Major diagnostic approaches to sequelae • Treatment of sequelae • Counsel patient on major sequelae
4. Help patients to accept treatment refer patient and family to alcohol treatment services, provide medical follow-up	• Explain to patient and family need for therapy • Marshal alcohol treatment resources • Provide support and medical follow-up to patient in alcohol treatment • Collaborate with alcohol treatment personnel
5. Educate patients routinely about alcohol use	• Skills of patient education: use additional resources to best advantage — brochures, AV materials

DISCUSSION: LOOKING BACK

The experience of Project Cork in clinical teaching suggests to us some re-thinking of these objectives is warranted. Thou7g we continue to believe that the above physician tasks are those to which all undergraduates medical students ought to be *exposed*, in out view it is unrealistic to expect medical students to achieve competency in all or possibly even any of these areas. For one, essential clinical sills in working with alcoholics are interactional. Teaching interviewing, helping students to appreciate the dynamics of the caring relationship, and developing comfort with the physician-patient relationship are not modest tasks. Acquisition of these is probably in

large measure a function of time and experience. To resurrect an archaic term, they are part and parcel of what becoming a "seasoned clinician" is all about.

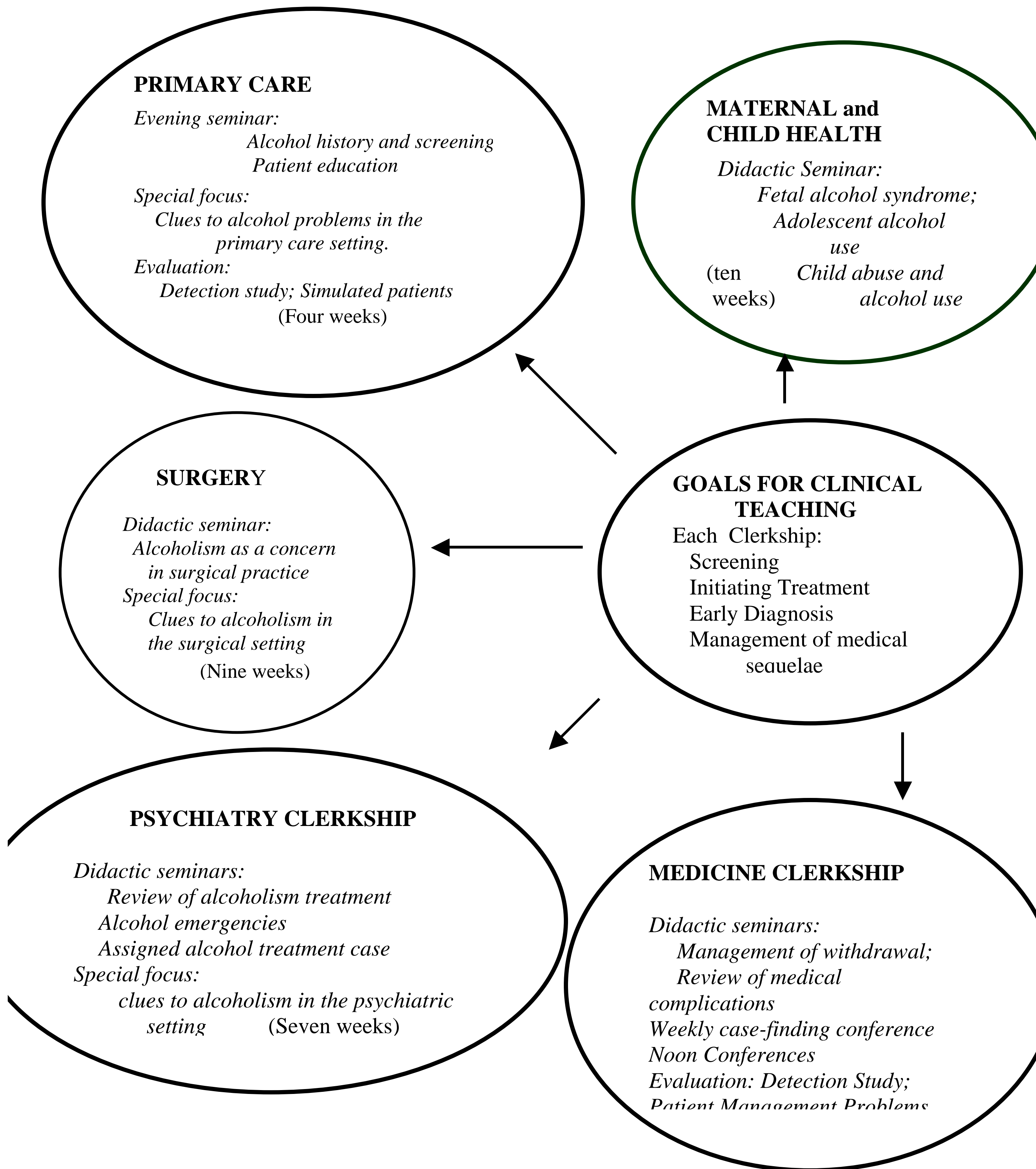
In addition, the early diagnosis of alcoholism is made, not only on the basis of physical findings or laboratory data, but on the basis of behavioral data elicited by history and gleaned in the process of the clinician-patient interactions. One may be reluctant to distinguish between the science of medicine and the art of medicine. However, if the distinction is permitted, there are areas of medicine in which one can be relatively successful, if not in the management, at last in the area of diagnosis on the basis of medical science alone. Diagnosis of alcoholism is *not* one of these areas. To use the common student parlance, the diagnosis cannot be made by "looking at the numbers."

It appears to us that any physician's (or therapist's) success in working with alcoholics is predicated upon having come to grips with limitations of the clinician's role and having abandoned the need to control, to cure, and to be able to provide care in dealing with that which is beyond one's power alter It also appears that thee are developmental issues which influence students' ability to deal with this (Kinney, Bergen and Price, 1982). To the extent that these assertions are true, this it is unrealistic to expect that a significant proportion of medical students will have achieved a satisfactory resolution of this component of their professional identifies by the point of graduation. It may be a significant step if by the completion of their undergraduate medical training students have come to recognize that this work which lies ahead. Thus, we in undergraduate medical education might be well advised to tone down our rhetoric, lower our expectations, and abandon some dysfunctional mythos — namely that undergraduate clinical training can impart competency, and that today there is such a phenomenon as a "generic" physici8an.

Project Cork, while not abandoning the clinical competencies outlines as objectives, has begun to redefine its task in light of the disciplinary approach to clinical teaching In deference to the rationale and role of the clinical clerkships, we have begun to factor our knowledge and sills germane to the major clinical settings. Given the realities of time constraints and the mandate each clerkship sets for itself, no clerkship will focus on the things it sees as outside of its domain. On of the problems of "the generic physician" approach to alcohol is that clinical faculty fear they are using their time to teach students to be "alcohol counselors." Even if they do not quibble with that goal, they will lot have it happening on "their time"

Thus the questions to be addressed include: "What is the appropriate focus of alcohol teaching which the surgical, or obstetrics/gynecology, or psychiatry clerkships: How are alcohol problems most likely to present in each setting: What are the particular diagnostic clues. The special management issues: What are the complications associated with undetected alcohol problems: What are the effective techniques for disposition and treatment? This is sketched out in the schematic diagram of the clinical curriculum, on the following page.

Summary of Clinical Teaching



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Curriculum Changes Introduced

Phase I

Course	*Prior Alcohol Material*	*Additional New Material*
Introduction to Health Care	None	Patients with alcohol problems used to exemplify health care system (lectures, field trips, small groups
Biochemistry	Metabolic pathways	None
Biostatistics/ Epidemiology	None	None
Human Structure:		
Gross Anatomy	None	None
Neuroanatomy	None	None
Embryology	None	Alcohol as teratogen
Microbiology	None	None
Pathology	Alcohol effects as a model for discussion of cell injury & changes in cellular metabolism	Alcoholic cardiomyopathy
Physiology	Effect of alcohol on ADH and kidney	None
Psychiatry	Overview of alcoholism (lecture within course on psychopathology)	AA meeting pre- and post discussion
Muscle, Nerve and Synapse	Alcohol-related Myopathies	None
Correlation Clinic	Alcoholic liver disease	Fetal alcohol syndrome

Phase II

Course	*Prior Alcohol Material*	*Additional New Material*
Scientific Basis of Medicine:		
Respiration	Essentially none	Relation of alcohol to impaired pulmonary defense mechanisms Role of alcohol as predisposing factor in COPD, acute pneumonitis, chronic granulomatous disease, aspiration pneumonia/lung abscesses and anaerobic infection of lung Lab Section: alcoholic with severe gran negative pneumonia
Hematology	Essentially none	Alcohol's effects on all of blood elements; Alcohol-related anemias
Cardiology	Alcoholic cardiomyopathy	Relationship of alcohol and hypertension, hyperlipidemia, coronary artery disease and M.I.s, arrhythmias Appropriate use of alcohol by patients with angina, hypertension, prior MI, obesity, abnormal lipid function
Dermatology	Essentially none	Amplify mention of alcohol's role in aggravating psoriasis
Oncology	Alcohol and epidemiology of cancer	None
Infectious Disease	None	Alcohol's effects on immune system

Course	*Prior Alcohol Material*	*Additional New Material*
Scientific Basis of Medicine (cont)		
Fluid, Electrolyte and Kidney	Alcohol and ADH Panel case with acute renal failure, 2° to non-traumatic alcohol-induced rhabdomyolysis Mention of hepato-renal syndrome	More detailed discussion of hepato-renal syndrome Effect of alcohol on renal mechanisms for handling handling Mg++, uric acid, PO_4
Endocrinology	Alcohol and glucose metabolism 2° aldosteronism, cirrhosis/ascites	Metabolic effects of alcohol o on CH_2O, lipid, and protein metabolism (expanded discussion of several hours)
Gastroenterology	Alcohol and esophageal diseases, gastric disease, ulcer disease, liver disease, ascites, hepatic come, pancreatitis, small intestinal dysfunction, possible immunologic role in etiology of cirrhosis	None
Connective Tissue Disease	Alcohol and purine metabolism; increased incidence of infect-ious arthritis, osteoarthritis and aseptic necrosis of hip	Alcohol and muscle disorders
Neurology	Neuropathology of cerebellar degeneration, Wernicke/ Korsakoff's syndrome, chronic hepato-cerebral disease (with 2° astocytosis)	Pathoneurophysiology of withdrawal Effects on neurotransmitters Neurologic complications (two additional full hours)
Reproduction	None	Alcohol's effects on testicular and pituitary/ hypothalmic gonadal hormone function Alcohol and sexuality

Course	*Prior Alcohol Material*	*Additional New Material*
OTHER PHASE II COURSES		
Pharmacology	Pharmacology of alcohols, disulfiram Alcohol-disulfiram reaction Alcohol-sedative/hypnotic Interactions	Alcohol and other drug interactions, especially psychopharmacologic agents
Epidemiology	None	Note: Specific alcohol material not appropriate to methods course
Systems of Medicals **Care**	None	Not appropriate
Psychiatry	Alcohol and psychotropic drug interactions Use of psychotropic medi- cations in alcoholics Bio-social basis of substance abuse	Management of alcoholic in the ER Role of psychiatrist in treating alcoholism Alcoholic family to exemplify family system pathology and treatment. (two additional hours)

Evaluation

The evaluation of Project Cork was designed to consider the effect of the model curriculum upon the students' alcohol-related knowledge, attitudes and clinical skills, and the impact of the Project on the curriculum. The major instruments are described below.

Global Survey
This paper and pencil self-administered test assessed knowledge, skills an attitudes. It was administered to both "cases" and "controls" at three points: upon entrance to medical school, at the completion of the pre-clinical training, and at gradation. The two later administration of the Global Survey also included a 20 item rating scale of comfort in performing alcohol-related clinical tasks, demographic information related to anticipated practice specialty, and questions about the presence of alcohol or drug problems among family, friends or peers.

Patient Management Problems (PMPs)
As a part of the assessment of clinical skills, a set of five PMPs were developed to examine students' decision making abilities to manage persons with alcoholism or alcohol problems. The PMP is a paper and pencil examination of clinical skills similar to part III of the National Boars. The student is asked to make diagnostic, therapeutic, and management decision. There were administered at the conclusion of clinical training.

Detection Study
The Detection Study was conducted in 1980 to assess the ability of medical students to detect alcoholism among patients seen during their medical clerkship. The study was conducted with 404 inpatients at two teaching hospitals affiliated with Dartmouth Medical School. Patients were asked to complete a questionnaire which included the Short MAST. Charts were later reviewed to extract diagnoses and to record signs and symptoms of alcoholism using the NCA criteria.

The design of the study is described in the protocol included in this section. Also included is a copy of the health habits questionnaire in which the Short MAST was embedded, and the form used to conduct the chart review.

Detection Study Protocol

[As distributed]

The Detection Study will be conducted during the last part of the Cork evaluation activities, in Phase III, during the Medicine and Primary Care Clerkships. The broad questions to be considered are:

- Does Phase III of Dartmouth Medical School made a significant difference to the ability of students to detect an diagnose alcoholism and alcoholism complications?

- Will the Dartmouth Medical School graduates exposed to the Cork curriculum have a higher level of skill in detecting alcohol and alcoholism complications at the end of Phase III than do the members of the preceding year's pre-Cork graduates?

In addition to these questions, other areas of investigation include: the base-rates of alcoholism in the Medicine and Primary Care Clerkships and determination if there is a significant difference between those rates: the percent of alcoholics diagnosed as such in the two clerkships; and evidence of significant changes in the detection rate of alcoholism within a given clerkship as Cork Phase III efforts were established.

Each student's ability to detect alcoholism and its complications will be assessed. A validated diagnostic instrument (Short MAST) will be administered to a sample of patients seen by the students to determine which of these patients have some alcohol problem detected. The screening test was embedded in a Health Habits Survey. Chart reviews are to be conducted for explicit alcoholism diagnosis as well as the presence of signs and symptoms set forth in the N.C.A. criteria. The criterion for detection is some alcohol-related content in the patient's problem list or the encounter write-up. These two measurements together yield a "detection rate," the percent of the patients at different screening scores having alcoholism mentioned in their charts. The Health Habits Survey and chart reviews will be conducted by a research assistant.

Three different sets of observations are to be used to generate class-wide changes in ability. These are the three groups for which detection rates were secured —

1. pre-Cork group at the end of their clinical training.
2. post-Cork group at the beginning of their clinical training
3. post-Cork group at the end of their clinical training

The influence of the clinical training is determined by comparing the pre-tests and post-tests on the same group; a within subjects longitudinal design, (numbers 2 and 3 above.) The difference in abilities that occurs as the result of a changes made in the clinical training, can be ascertained by comparing the group exposed to the pre-Cork clinical training and the Cork-exposed clinical training group, a between subjects design. (comparing above groups 1 and 3).

Sampling

Medicine and Primary Care are the only two clerkships in which the students see a number of patients sufficient to obtain a reliable idea of their alcohol detection skills. During the Medicine Clerkships, a student will write up about 28-35 patients, and in Primary Care the number of patients is between 80-100.

Patients are assigned to students in Medicine as they enter the wards, on a first-come first-serve basis, so the sample of patients is almost assuredly random. There is not patient selection. Every patient written up by a student will have to be approached to participate in the study. This entrails administering the instrument to approximately 65 patients per week.

There may be greater patients selection in the Primary Care clerkship. Some sites work on a first-come first serve basis, while in others the preceptor may scan the list of appointments and tell the students which patients he or she will see that day. There are six sites to cover, with a maximum of two students per site. To obtain a sample of 25 patients per student, the test technician must cover a given site at least six days, approaching every patient a student sees of those days. (given two students per site, 45 patients per week would be screened.

[As drafted and distributed, February 25, 1980]

COPY

INFORMED CONSENT — HEALTH HABITS SURVEY

Exercise, diet, drinking, and smoking can have a large impact on many different medical problems, and it is gradually coming to be recognized that clinicians should ask about health habits when assessing the medical problems of a new patient. The Dartmouth Medical School is studying the extent to which clinical clerks (student doctors) ask questions about such health habits in their discussions with patients. In understand that in order to do this, I am being asked to fill out a questionnaire about my exercise, diet, drinking and smoking habits. In addition, I am asked to allow the release of the following information — and only the following information — from my medical record: (1) my medical problem list and diagnosis, (2) the write-up made by the clinical clerk after seeing me, and (3) the results of blood and liver tests that may be taken when I was admitted. The information from my records will be compared against my answers in the questionnaire to see how well the student doctor has assessed my health habits.

I understand that the questionnaire and record search are confidential and will be not be signed or have my name on them. I understand that none of the information gathered will be released in any way which could identify me and cannot be released to my doctor or to anyone else without my written permission.

There are no known risks to this study. I understand that the information gathered will be used to improve the clinical teaching at Dartmouth Medical School and other medical schools as well. I understand that the study is entirely voluntary, that I can withdrawn at any time, and that I can refuse to participate without affecting my eligibility for any service within this medical center.

I agree of my own free will to participate in this study and to the allow the record search specified above.

Name: ______________________________ Technician: _________________________________

Date: ______________________________ Date: _______________________________________

Contact Dr. John Doe at 888-8888 if you have any questions about this study.

HEALTH HABITS SURVEY

Please answer the questions by writing in the blank or by putting an "X" on the appropriate line. If you don't know or are not sure of the answer, leave it blank or mark the appropriate box.

Your age: ______ years

Your sex: ______ male _____ female

Your marital status:

______ never married
______ widowed
______ separated or divorces
______ married

Your weight ______ pounds

Your height ______ feet _____ inches

I. What are the physical conditions, illnesses, or health problems that bother you now: List one, two, or three problems.

Problem #1 ____

Problem #2 ____

Problem #3 ____

How long has **Problem # 1** bothered you?

______ Six months or less
______ Seven to eleven months
______ One to two years
______ Three to five years
______ More than five years

How long has **Problem # 2** bothered you? (Skip this if you listed only one problem)

______ Six months or less
______ Seven to eleven months
______ One to two years
______ Three to five years
______ More than five years

How long has **Problem # 3** bothered you? (Skip this if you listed only one problem)

______ Six months or less
______ Seven to eleven months
______ One to two years
______ Three to five years
______ More than five years

II. Which of the following activities are you able to do without help?

Heavy work around the house like shoveling snow or washing walls?
_____ Yes _____ No _____ Don't know/not sure

Walk half a mile (about 8 ordinary blocks)?
_____ Yes _____ No _____ Don't know/not sure

Go out to a movie, to church, to a meeting, or to visit friends?
_____ Yes _____ No _____ Don't know/not sure

Walk up and down the stairs to the second floor?
_____ Yes _____ No _____ Don't know/not sure

While of the following three statements fits you best?
_____ I cannot work/keep houae at all now because of my health.
_____ I have to limit some of the work or other things I do.
_____ I am not limited in any of my activities.

Did you exercise regularly before you entered the hospital?
_____ Yes _____ No _____ Don't know/not sure

Would you say you were getting enough exercise before you entered the hospital?
_____ Yes _____ No _____ Don't know/not sure

Please answer the next six questions for the period **before** you came into the hospital.

Do you use as little salt on your food s possible?
_____ Yes _____ No _____ Don't know/not sure

Do you eat three meals a day?
_____ Yes _____ No _____ Don't know/not sure

Do you eat something from each of the major food group each day?
_____ Yes _____ No _____ Don't know/not sure

Do you think you would be healthier if at more of some foods and less of others
_____ Yes _____ No _____ Don't know/not sure

Do you try to avoid eating fatty meats and other saturated fats:?
_____ Yes _____ No _____ Don't know/not sure

Do you try to avoid eating sweet snacks?
_____ Yes _____ No _____ Don't know/not sure

Have you been on a diet in the past month”?
_____ Yes _____ No _____ Don’t know/not sure

Have you ever been on a diet?
_____ Yes _____ No _____ Don’t know/not sure

Do you feel you are a normal drinker?
_____ Yes _____ No _____ Don’t know/not sure

Does your wife or husband, a parent, or other near relative ever worry or complain about your drinking?
_____ Yes _____ No _____ Don’t know/not sure

Do you ever feel guilty about your drinking?
_____ Yes _____ No _____ Don’t know/not sure

Do friends or relatives think you are a normal drinker?
_____ Yes _____ No _____ Don’t know/not sure

Are you able to stop drinking when you want to?
_____ Yes _____ No _____ Don’t know/not sure

Have you ever attended a meeting of Alcoholics Anonymous?
_____ Yes _____ No _____ Don’t know/not sure

Has drinking ever created problems between you and your wife of husband, a parent, or other near relative?
_____ Yes _____ No _____ Don’t know/not sure?

Have you ever gotten into trouble at work because of drinking?
_____ Yes _____ No _____ Don’t know/not sure

Have you ever neglected your obligations, your family, or your work for two or more days because you were drinking?
_____ Yes _____ No _____ Don’t know/not sure

Have you ever gone to anyone for help about your drinking?
_____ Yes _____ No _____ Don’t know/not sure

Have you ever been in a hospital because of your drinking?
_____ Yes _____ No _____ Don’t know/not sure

Have you ever been arrested for drunken driving, driving while intoxicated, or driving under the influence of alcoholic beverages?
_____ Yes _____ No _____ Don’t know/not sure

Have you ever been arrested, even for a few hours because of other drunken behavior?
_____ Yes _____ No _____ Don’t know/not sure

Do you smoke cigarettes, cigars, or a pipe?
_____ Yes _____ No (skip next 3 questions)

On average how much tobacco do you smoke?
_____ Cigarettes per day
_____ Cigars per day
_____ Pipe tobacco pouches per day

How many years have you smoked?
_____ Years

Have you ever tried to quit smoking?
_____ Yes _____ No

How many cups of coffee, tea, or dark cola do you usually drink per day?
_____ Yes _____ No

Would you say you generally get . . .
_____ Less sleep than you need?
_____ More sleep than you need?
_____ Just about the right amount?
_____ Don’t know/not sure

During the last four weeks, how many days did you stay in bed all day or most of the day because you weren’t feeling well?
_____ Days

During the last four weeks, how many days did you cut down on the things you usually do because you did not feel well? (not including the days in bed)
_____ Days

All in all, how would you rate your health at this present time”
_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Don’t know/not sure?

Thank you very much for answering these questions!

Study Worksheet

*ID No.*______________

______________________	______________________
Date of chart review	Site
Ward no. or name	First Admission?
MCV	Serum Uric Acid
SGOT	GGTP
SGPT	Alcohol Problem? Code LIT
Date noted	Primary Admit Dx

____
Alcohol Admit Dx — Code LIT

____
Alcohol related diagnosis or problems — code CUE or names

______________	______________	______________
Write up date	write up Alcohol Dx Code LIT	Write up Alcohol problemCode LIT

____
Interviews cues — code INT or names

____
Alcohol related physical cues — code CUE or names

____
Continued

ID NO. ____________________

Summaries

Did the patient complete the questionnaire himself/herself?
_____ Yes _____ No _____ Don't know/not sure

How well did the respondent understand the questions?
_____ No trouble. Understood without asking for definitions or explanations.
_____ A little trouble. Asked for some definitions or explanations, but then understood.
_____ Moderate trouble. Did not understand some questions, even after explanation.
_____ Quite a bit of trouble. Did not understand many questions.
_____ A lot of trouble. Had difficulty understanding most of the questions.
_____ Don't know.

What was the respondent's attitude to the questions?
_____ Very uncooperative or hostile. Refused to complete questionnaire.
_____ Uncooperative/hostile. Refused to answer some questions, some hostility.
_____ Neutral. Neither uncooperative nor cooperative.
_____ Cooperative/friendly. Answered all questions, friendly attitude.
_____ Very cooperative/friendly. Answered everything, volunteered information, very friendly.

After chart review. Summary impressions
_____ Literal cues and literal diagnosis of problem mentioned
_____ Some literal cues and direction suspicion of alcohol problem stated.
_____ Some literal cues giving strong indication of alcoholism
_____ Some weak literal cues
_____ No mention of alcohol
_____ Don't know

Public Relations

As a part of developing and integrating the model curriculum, specific steps were taken to publicize the project, promote cooperation, maintain interest and mobilize support.

• *The erratically regular newsletter*

From the start of the project, in-house awareness efforts were undertaken to engage the interest of faculty, house staff, and medical students in the area of alcoholism and the curriculum innovations being planned.

A project newsletter, dubbed *the erratically regular*, was sent to over 500 faculty and staff within the Dartmouth-Hitchcock Medical Center. In addition, copies were distributed beyond the medical center, to medical schools, hospitals, and treatment programs throughout the country. The first newsletter introduced the project staff and plans. Subsequent issues provided updates on activities such as progress in the development of the evaluation instruments, Resource Center acquisitions and services, presentation made, or the results of the "Cork Contest" described below.

• Cork/Department of Medicine Contest

Within the second year of the project, a contest was devised as a public awareness activity. It was open to house staff and medical students. It was inspired by the contests common in many Radiology Departments, which are organized around the "X-ray of the week." Questions for the contest were supplied by faculty and were posted every two weeks on the bulletin board near the hospital cafeteria. This location was thought to be the single most traveled corridor in the medical center. Along with each new question, the answers to the previous questions and score care with the cumulative point totals for all contestants were displayed.

There were eight contest rounds, held during a sex month period. Two prizes were awarded. The house officer and medical student who accumulated the most points each received a $75.00 (in early 1980s dollars!) at the medical school bookstore. The awards were made at the Ground Rounds marking the end of the academic year. An example of the contest questions is appended.

CLINICAL TEACHING

The goals for clinical teaching were developed by a special task force, comprised of representatives of each of the clinical clerkships. These goals were set forth in the task force's report, entitled "toward a Perturbation of the Clinical curriculum on Alcoholism (Appendix A) With hindsight, the goals presented in that document are now seen as too ambitious in light of the structure and general goals of undergraduate training.

It would be appropriate to scale down expectations to three objectives: (1) to recognize non-normative drinking; (2) to affect consultation with an alcohol specialist with the goal of making the differential diagnosis and developing treatment and referral recommendation; and (3) to work with and support consultants in effecting a referral for treatment.

Beyond establishing goals for undergraduate clinical teaching, Project Cork also embarked upon several discrete projects to enhance clinical teaching. These include the following.

- **Weekend Program**
  A three-day, residential educational and diagnostic program for those arrested for driving under the influence; students participated during their psychiatry clerkship.

- **Bridge Program**
  A month-long clinical alcohol experience for medical students prior to their entrance into medical school.

- **Interviewing Tutorial**
  An individual session using simulated patients to teach interviewing skills, conducted during the Community and Family Medicine clerkship.

- **Use of Recovering Alcoholics in Teaching Programs**.
  Use in a number of settings to introduce students to alcohol treatment programs and AA.

The WEEKEND PROGRAM

The Weekend Impaired Driver Intervention Program (WIDIP) was initiated by Project Cork in 1984, through a contract with the State of New Hampshire. The Program is an educational and assessment program for individuals who have been convicted of DWI. It is designed as an intensive residential program which begins on a Friday afternoon and concludes on Sunday afternoon. Program time is divided between lectures, films and small group discussions. The Weekend staff includes a medical director, counselors/group leaders, medical students and administrative personnel.

The Weekend program provides a unique site for clinical teaching. The program provides a setting in which students are exposed to the process of making a differential diagnosis between no alcohol problem, alcohol abuse, and chronic alcoholism. Medial students can observe the early stages of developing alcohol dependence prior to the onset of major medical complication requiring hospitalization, the usual point at which a medical student would have clinical contact. Medical students participate in the Weekend Program as part of the psychiatry clerkship.

The Program was adapted and modeled after the Weekend Intervention Program conducted at Wright State University School of Medicine, Dayton OH, directed by Harvey A. Siegal, Ph.D

PROGRAM DESCRIPTION

The Weekend Program begins on a Friday at 4:00 pm with intake and registration, and continues through Sunday at 4 pm. It involves 28 hours of direct client contact. This includes medical screening, individual sessions at registration and at the completion of the program, plus small group discussion/group therapy, educational lectures and films. In addition to a medical director, staff consists of trained, experience alcohol clinicians who are assigned individual clients and conduct small groups, which have 6:1 client/staff ratio. The program in conducted at the Dartmouth Medical Center. Patients eat in the hospital cafeteria, and board is arranged at a local country inn with transportation to and from the Inn provided by the program.

Enrollment. Referrals to the Weekend Program are made by courts located within a designated catchment area. (While initially established to serve the drinking driver population, the program has also accepted referrals of others for whom an assessment is required. These have included college students who were involved in an alcohol-related incident, and also individuals referred by area clinicians). The $295 cost, set by the state of New Hampshire, is borne by the client. (For non-court referrals, client's health insurance is billed.) Prospective clients are provided informational packages and also requested to supply a brief medical history prior to attending the Weekend. In the packet an invitation is extended to family members to attend both a special group for family members/close friends which occurs during registration and to join in an

educational film session and the individual exit interview at the completion of the weekend. More extensive family participation is possible by arrangement.

Intake. The intake and registration includes the following: a brief, approximately half-hour medical examination, including an alcohol use history, to ascertain medical status and the ability to participate in the program, as well as to ascertain relevant history; self-administered questionnaires, and a structured one half-hour interview (Mortimer-Filkins) with the client's counselor/group leader.

Friday Evening through Sunday. The participates are involved in five 2-hour small group sessions, five educational lectures, and 5 films. Clinical supervision of counselors is provided by the medical director, by a peer supervision process, with consultation available around group issues, as well as by a physician on call. During the Weekend there are several occasions during which the status of each client is reviewed. In the small group sessions, which occur 'Sunday morning, the clients are asked to shared their self-assessments with respect to the presence of an alcohol problem, in light of the factual information presented and the information which has been shared among the group members; the counselors then present the program's assessment, including any "generic" treatment recommendations. (Specifics of any referrals, the name of the agency and, when possible, a specific clinician name, are presented at the exit interview. The program uses the DSM-IV diagnostic criteria and has developed protocols outlining the appropriate interventions for those meeting criteria for either dependence, abuse, or those not meeting diagnostic criteria for abuse or dependence.

Throughout the weekend effort is placed on discussing alcohol use as a medical issue, a health concern. Alcohol is described as the most potent, widely self-prescribed agent. Attention is also directed to the fact that negative consequences are not limited to those with alcohol abuse or dependence. For those without a formal alcohol diagnosis, efforts are made to identify high risk alcohol use patterns. For example, beyond drinking and driving, as either a driver or passenger, there may be other activities where alcohol use may be risky, or alcohol use may interact with prescribed medications.

At completion. In the exit interviews, involving the physician, client, family member if available, and the counselor/group leader, the diagnostic assessment is presented as well as treatment recommendations and the rationale. If a referral is made, efforts are made to specify the worker in the agency and provide a specific appointment time. In all instance every effort is made to promote compliance. On occasion the medical director may contact the client in the days following the Program, to encourage compliance with the treatment recommendations. For court referred clients, individuals have the opportunity to counter-sign the required form sent to the court. In addition, a release of information is requested to allow the program to send a letter to the client's family physician. This letter describes the involvement in the Weekend Program, any medical concerns identified, and positive and negative findings with respect to alcohol use. These letters were drafted by the medical students and reviewed by the medical director. At the closure of the Program the clients also completed other mandated forms, a knowledge test, as well as an evaluation of the weekend experience.

Two months Post-Weekend. As set forth by the State regulations and with the requisite client release of information, the Program contacts the agency to which a referral was made, and ascertains compliance and follow-through. Approximately 50-80% of the persons in each weekend are referred for treatment or further follow-up.

Schedule: Dartmouth-Hitchcock Weekend Program

Prior to Weekend. Meeting with the Medical Director, to review the history and physical exam format, the weekend schedule, and expectations for students participating in Weekend.

Day/Time	**Activity**	**Medical Students**
FRIDAY		
3:45 - 4:30 pm		Introduction to group process with staff group therapist
4:00 - 6:00	Registration Individual with counselor Physical Exam Completion of paper work Family Session	4:30 Meet with Medical Director. Begin physical exams & alcohol history
6:00	DINNER	With counselors
7:00 –7 :30	Welcome-Overview Medical Director	
7:30 – 8:00 Director	Lecture I: *Drinking, Driving, DWI, Attitudes*	7:30 – 8:15 Meet with Medical
8:00 – 8:30	Film: *Until I Get Caught*	8:15 Meet with counselors
8:30 – 10:00	Small Group I	Participate as small group co-leader with debrief after
SATURDAY		
7:00 am	Breakfast for clients at Inn	
7:45	Bus Pickup	

8:00 - 8:50	Lecture II *Alcohol the Drug*	Attend lecture
9:00 - 10:00	Film: *I'll Quit Tomorrow, Part I and II*	and Film
10:00 - 12:00	Small Group II	Co-lead small group
12:00 - 12:45	Break with Physical Exercise	Take walk with clients
1:00 - 1:30	LUNCH	Optional lunch with Medical Director & Counselors
1:30 – 2:30	Lecture III *Alcoholism the Disease*	Attend lecture
2:45 – 4:45	Small Group III	Participate as small group co-leaders
4:45 – 5:15	Break	
5:15 – 6:00	Film *Chalk Talk*	Meet with group therapist
6:00 – 6:45	DINNER	
6:45 – 7:30	Lecture IV *Alcoholism and the Family*	Attend lecture
7:30 – 8:00	Film *Soft is the Heart of a Child*	Attend film
8:00 –10:00	Small Group IV	Co-lead small group
10:00 pm	Bus Pickup	

SUNDAY

7:00 AM	Breakfast for clients at Inn	
7:45	Bus Pickup	
8:00 – 8:30	Film *I'll Quit Tomorrow* Part III	Attend film
8:30 – 9:00	Lecture V *Introduction to Treatment*	Meet with Medical Director
9:00 – 11:00	Small Group V	Co-lead small group
11:00 – Noon	Attend AA meeting or Discussion Group	
12:00 – 1:00	Large Group Meeting	
1:00 – 1:30	LUNCH	
1:30 – 3:30	Individual Exit Interviews "Film Festival" *Days of Wine and Roses* *If You Loved Me* *Combacker,* *The Sorrows of Gin*	Participate in exit interviews
3:30 – 4:00	Knowledge Post-test Program Evaluation Form Large Group Wrap-Up	

4:00 – 5:00	Staff Debriefing	Attend meeting
Monday:		Debriefing with Medical Director, Submit letters for primary care providers of clients in student's small group

Report on a Month-long Clinical Experience Prior to Entering Medical School: The Bridge Program

Jean Kinney, MSW
Trevor R.P. Price, M.D.
Bernard J. Bergen

(Presented by Professor Bergen at the National Conference on Medical Education in Alcohol and Drug Abuse, November 1980, Washington DC.)

Dartmouth Medical School has undertaken a major curriculum experiment around alcohol and alcoholism, through a grant from Operation Cork. This paper focuses on one component of that effort, a special clinical elective available to students prior to their entering medical school. It is offered as a four-week work-study program, for which the interns receive a stipend.

The purpose of the intern program is not to develop skills, but to provide an opportunity to learn what being alcohol dependent is like, wand what being a helping person is like. Follow-ing a two-day orientation, the interns, assigned an alcohol counselor as a supervisor, work an eight-hour day and are exposed to and involved with the full range of agency services. To complement this clinical contact, the interns meet twice weekly for a one and a half-hour sessions in a loosely structured seminar which focuses on the discussion of issues raised by their work experience. This seminar is led by the authors of this report.

Approximately 25% of the class applies for this program. The selection of six interns is made without access to student files. With very limited information, we nonetheless attempt to get as heterogeneous a group as is possible.

The major impetus for this program came from Drs. Bergen and Price and arose for their earlier involvement in elective seminars of death and dying, offered to second-year medical students.

To the surprise of Bergen and Price, these seminars showed the efficacy of raising the problems related to “difficult” patients with students who had not yet had any clinical experience. Two things struck them. First, issues about the doctor-patient relationship that faculty often regard casually as “philosophically abstract” were treated by students as alive and vivid and not abstract at all Students were intensely preoccupied with the question of defining their professional role. Second, part of this intensity seemed ground in developmental issues stu-dents were working through in their own lives, especially issues concerning authority and control over others.

These experiences piqued the curiosity of Bergen and Price about the impact which a very early clinical experience might have. However, it should be noted that the proposition was not without its detractors. The major concern was that entering students are unprepared for clinical

involvement and too likely to be "distracted" from the more important task before them, that of mastering the basic biomedical sciences.

Aside from any impact this four-week experience has had on the interns is has provided the larger project with solid dividends. The mere fact that each incoming student is invited to apply announces that alcohol and alcohol issues is a special concern.

Secondly, the interns achieved a heightened visibility with their classmates and are catapulted into the role of the class' alcohol experts.

By the end of a month, the interns have developed a certain comfort and sense of mastery in the alcohol area. Via the grapevine we hear of them commenting to a peer on his seeming over-involvement with alcohol, or hear of their willingness to draw upon their experience in class discussion. One of the least anticipated impacts has been the interns influence upon faculty. One faculty member wryly observed that having them in the lecture hall is like having the Project looking over our shoulder. The interns too have objected in class to inappropriate "drunk jokes."

While the formal evaluation is not completed and we are not about to make any definitive claims, we are reasonably certain this approach is not having a negative impact. We also believe we have gleaned several instructive insights about the educational task. We now turn to two major issues.

1) The extent to which students' perceptions of the physician's role influences their response to alcoholics; and
2) The extent to which the students' own developmental issues mold their response to the alcoholic patient.

In the process of discussing these two issues we also plan to challenge some of the assumptions and approaches which seem to have particular currency in the alcohol field. We suggest that if our observations are accurate some of these approach may be, if not counter productive, at best of little benefits.

Issue One. Physician Role. We have been profoundly struck by how deeply rooted and narrowly scribed are the interns' perceptions of the physician's role. They come to their first seminar after two days of clinical contact. At that first session they are already sounding like battle-weary clinical veterans. As they talk about how they would respond to alcoholics, several years hence, they draw upon all the standard lines. They mention the inordinate demands of the physicians time, they need for efficiency and cost effectiveness, the imperative imposed on the physician to devote himself to those who "really" need help. To their minds the physician's proper function is to ferret out the cause of disease, using all the available technology, and administer cures, preferably as expeditiously as possible. The physician is a combination of scientific sleuth, and warrior doing battle with disease.

Despite the fact that the first tuition payment is yet to come, they also have an elaborate apologia for this stance. Their idealism is seen as being exercise if they conscientiously and wisely

expend themselves, devoting attention to the "really sick." The "really sick" are operationally defined as those who will respond quickly.

In the course of the seminar the point was gently but repeatedly made that this view of the physician's role may lead to disaster. It was suggested it may lead to poor patient care and be a source of frustration for them. This was quite unsettling for virtually all to hear. That patients with chronic disease may comprise as much as 80% of a practice was a revelation.

A related question was also raised, that is how an individual's motives for becoming a physician may color the response to clinical work and dictate which is expected from clinical interactions. It was suggested if one's self-esteem, sense of competence, and personal satisfy-action are tied to how one's patients do, one may be unhappy with much of medicine. The possibility was posed that how one's patients do is not only not the last word in defining the practice of good medicine, it may be wholly irrelevant. This was highly provocative, but an issue that student saw as very important, not only in some distant future, but important in their status as students.

There has been considerable discussion within the alcohol field about the "bad" attitudes which physicians and students have directed specifically toward alcoholics. These "bad" views are seen as rooted in a moral rather than a medical perspective, or as rooted in inadequate training with alcohol problems. Accordingly, much of the alcohol education effort has been directed toward providing corrective experiences to promote "good" attitudes. We trot students to AA. We try to put articulate attractive recovering alcoholics on display. We may do all of this and accomplish nothing, because the problem, in fact, is of a different order. Our experience shows that students come in to school with all the predictable expected biases or "bad" attitudes, and that these are changed with remarkably little effort.

In the interviews conducted with them before they began working, they all saw alcoholics in one way or another as perpetual and doomed "losers" who can never make it through life without a crutch, as opposed to "winners" who stand on their own two feet, handling every-thing that life throws at them which pulling themselves up by their own bootstraps.

Nevertheless, before the first week of work is ended, the students come to like their alcoholic patients. They believe that rehabilitation is possible and admire and root for the alcoholic in his struggles to recover. However, these "good" attitudes seem to have little impact on patent care. In light of students' views of medicine the alcoholic is simply irrelevant. The kind of care the alcoholic requires and responds to is seen as beyond the scope of the physician's primary mission. They see the physician who would be involved with alcoholics as deviant, as one who has gone out of his way to do more than could reasonably be expected.

The task is not to purge students of their moralistic approaches to alcoholics who have been uniquely and unfairly singled out. The task is not to convince students that alcoholics are really nice folks in disguise and therefore worthy of their attention. The task rather is to convince students that that physician's caring functions are as central and in many case more central than his curing functions.

To accomplish this requires several things. One is that medial education cease approaching the alcoholic as a special case outside the mainstream, The alcoholic, far from being unique, is representative and prototypical of the type of patient that will confront physicians most frequently. The only distinguishing characteristics of the alcoholic but one which further recommends him or her for teaching purposes is that with proper treatment and management he or she can be restored to better levels of functioning than most patients with chronic disease.

This approach, we believe, also provides the alcohol field with a desperately needed base for collaboration with other medical school faculty. All too often the alcohol field has been unwilling to define common ground. Too often we declare the alcoholic unique, claim the skills required for treating alcoholics are highly specialized and particular and at great lengths describe the failures of others to provide care. The only choice this affords the medical community is either to confess the error of its ways and be redeemed by becoming an alcohol expert or steer a course away from the entire problem.

Secondly, faculty need to be prepared to help students translate or reformulate the models of alcoholism provided the students by their patients and the alcohol treatment personnel. Both patients and staff are eager to teach the students that alcoholism is a disease. But the frame-work and language they call upon to do so are inadequate to the task. Some of the seemingly more superficial models, e.g. alcoholism as an allergy, the students basically ignore and/or good naturedly chalk it up to a layperson's misunderstanding. What is more difficult for students is that the symptomatology of alcoholism is more frequently described by what are essentially moral labels. Patients and counselors alike describe the phenomena of the alcoholics' behavior in terms of "lying", "manipulation," "deceit, "conning." The educator is required to provide an alternative framework for viewing these patient behaviors. Whether a patient is "lying" or whether the patients is "unable to faithfully self-report events" is not an insignificant distinction. There is a film for physician education recently released entitled, "Doctor, you've been lied to." An alternative title we would suggest is "Doctor, you've missed the truth."

We will note, however, that one commonly confessed faculty tactic is probably ill-advised, that is that "even if one doesn't believe alcoholism is a disease, it's important to tell the student that it is." The students we encountered weren't sufficiently reverent to accept such a statement on faith without asking why, or countering with a "but."

Issue Two. Developmental Factors. We now turn to the impact of the students' own development issues on their response to alcoholic patients. These differences become quite striking, if we compare and contrast two different groups of interns. Despite out attempt at a random selection process, groups in succeeding years were quite different. The first of these might be most easily described as "more adult." They were coping with marriages — present or pending — parenthood, career changes, and were living independently. The following year's group were all single, basically members of their parent's family, and for the most part their experience were limited to the typical college career. The response of these two groups to the clinical material was very different.

The first group became deeply and personally engaged in the experience. As they came to know their clients, they agonized over the meaning of being an alcoholic. They struggled over models of disease, etiology, and the issue of willpower. They argued about the limits of freedom and control. By the end of the month there was a very conscious and strong identification with the alcoholic patients. The patients were not "the other." They came to speak of admiring there patients, and the "gustiness" it takes to enter treatment and to try to change oneself. They even spoke of being envious of their patient, for their having AA. One member was quite unhappy and perturbed by the idea of closed AA meetings, because to him AA was obviously something that could benefit anyone.

While the second group similarly developed positive attitudes toward their patients, they nonetheless seemed distant and personally untouched by them. They were more like spectators — fascinated, curious, interested — but nonetheless the alcoholic remained distant and alien. One can only speculate if the experience may be assimilated at some time in the future. Generally, any attempts to encourage these students to wrestle with issues of the physician's role or their perceived relationship with alcoholics were unsuccessful. For most part, this did not arise out of defensiveness or resistance. Rather, as one student commented, "we aren't there yet, we'll have to wait and discover it for ourselves." During their work they did develop a certain amount of empathy for the alcoholic which helped them past any initial derogatory and derisive attitudes. However, their relatively sheltered, successful, well-orchestrated lives did not give them a basis for identification with the alcoholic. These students were just beginning to discover that perhaps it was a myth that they had perfect control over their destinies. As one of the seminar leaders noted, "At the very least someone has to have had one sad love affair to provide a basis for grappling with these topics."

Given these two very different responses we have come to think in terms of students being developmentally "ripe," to deal with and reconsider issues related to clinical care. For those students who are "ripe" to confront themselves, we would see the alcoholic patient as being particularly provocative. The alcoholic embodies a number of characteristics which individually are problematic and in combination are confusing and overwhelming. The alcoholic does not readily comply with the patient role, his presentation is often seen by the clinician as manipulative and deceitful, the disease is without a known cause or cure. The alcoholic patient forces the student to confront the nature of the physician's role, its limits, and to cope with that outside of his control.

How students fare in this encounter, we see as, in large measure, being dependent upon the support provided to them — to experience, explore, and articulate the dilemmas posed. The seminar sessions seemed to be invaluable for this. In the absence of the time it provided to discuss freely what was occurring, we suspect that the students' "negative" attitudes would have been solidified. We emphasize "freely." The alcohol counselors and other alcohol personnel were perceived as dedicated, hard-working, concerned and were quite respected. At the same time they were seen as having either pat answers and/or magical insights because they seemed not to really appreciate what was problematic for the students. In the course of the seminars, it became incumbent upon the faculty to suggest possible parallels both between alcoholism and other medical problems, but also the common elements of a counselor and physician roles.

INTERVIEWING TUTORIAL: SIMULATED PATIENT

Background. Within the Primary Care-Family Medicine Clerkship, an interviewing tutorial was conducted using simulated patients. This was originally conceived as a component of the evaluation effort, a procedure to evaluate student's abilities to interact therapeutically with a patient presumed to have a problem with alcohol use. However, the potency of the exercise as a teaching device, in combination with inadequate preparation of the alcohol counselors to rate the students' performances, led to its continuation purely as a component of the clinical teaching effort.

Format. A cadre of four recovering alcoholics was recruited to portray active alcoholics in an ambulatory encounter with a primary care physician. The format entailed two students per session. Conducted in the evening, the simulated patient, two students and faculty member met for dinner in the hospital cafeteria. Afterward, the two students, in turn, interviewed the simulated patients. The scenario for the interview was established by the alcohol counselor and simulated patient. The students were then given the outlines of the presenting problem, always with the presumption that an alcohol problem was suspected. Thus, the task of the student was to simultaneously deal with the patient's chief complaint/presenting problems and explore alcohol use. The interviews were videotaped, with counselor, faculty member and other student present in the room. Each interview was from ten to fifteen minutes. At the completion of the interviews the videotape was viewed and critiqued by students, counselor, faculty and simulated patient together. These discussions typically dealt with two aspects. One was the interview content, i.e., what essentials of the data base were or were not elicited. The other focus was on process, i.e. how students facilitated or hindered getting the essential information, the student's and patient's emotional responses at various points in interaction, and patient resistance and physician strategies.

Comments. The students frequently noted after the tutorial that they had had no prior comparable instruction on interviewing. They generally rated the sessions very positively, and saw them as being valuable. Several elements are seen as having been key to the structure: the casual encounter (meal) prior to the exercise seemed to set a tone of informality, which carried through the interview. Of note is that this setting did not give immediate clues to status, i.e. who was faculty, or counselor, or recovering alcoholic. In respect to dealing with alcohol problems, faculty became acutely aware of the need to help students recognize “process” and the nature of the physician-patient interactions as important clinical data.

Use of Recovering Alcoholics in Teaching Settings

There is a widespread belief among those involved with medial student and physician education around alcoholism that exposure to recovering alcoholics and AA is essential. This contact is seen as a mechanism for introducing attitude change, as well as a means of challenging the students' perspectives that alcoholism is unresponsive to intervention. However, aside from an issue of *About AA... a newsletter for professional men and women* published by the General Service Board of AA, there have been no guidelines or descriptions published on organizing educational effort.

Within Project Cork, Dartmouth Medical School has utilized recovering alcoholics in classroom teaching in a variety of ways which are described below. Prior to the Cork project, Dartmouth had required and has continued to require, attendance at an AA meeting as part of the undergraduate medical school curriculum.

RECOVERING ALCOHOLICS IN CLASSROOM TEACHING

Rationale and formats. Ideally , the first alcoholic to whom the medical student is introduced professionally has been successfully treated and is in recovery. For teaching purposes, the recovering alcoholic has many advantages over the active alcoholic or alcoholic newly admitted for treatment. The recovering alcoholic supplies first-hand evidence that alcoholism can be successfully treated. This provides an important reference point for considering the disease process and an important counterbalance to the more frequently occurring exposures to active alcoholism during medical training and before. The recovering alcoholic can speak both to the onset and course of the disease as well as treatment and recovery process. Even if one wishes to demonstrate the behavioral manifestations of the active alcoholic, the recovering individual can simulate the behaviors, and upon stepping out of the role can comment upon and reflect upon the phenomena depicted.

Within Project Cork, recovering alcoholics have been used in a variety of ways: as panel members, as part of an orientation prior to student's involvement in alcohol treatment program; as "patients" to be interviewed by small groups during the first year psychiatry course; as simulated patients during the primary care clerkship, and in case presentations in correlation clinics.

Organizational Issues

Selection of volunteers.. With the help of alcoholism counselors, clinicians, and from contacts with members of AA, Project Cork has assembled a roster of recovering alcoholics who are willing to participate in medical school teaching. A diversity of socioeconomic backgrounds, ages, and drinking history are among the criteria for selection of the volunteers. The educators seek articulate persons who can compare and contrast their own experiences with those of others, and who are sympathetic to the involvement of professionals in alcohol treatment. At least two years of sobriety is desirable. Persons with unusually dogmatic views or who have an axe to grind with physicians are rarely useful.

Briefing of volunteers. It has been important to explain to volunteers the format and goals for the specific session, what will and will not be expected of them, the general educational goals, and the place of the particular session within the total curriculum. "Coaching" in the sense of concrete suggestions as to the type of information which would be of interest to students and that which may be confusing, is provided. A reminder to the volunteers is in order, that they may have to "translate" AA or alcoholism treatment terminology. Volunteers also welcome feedback from faculty following the session and often have good suggestions for future sessions.

Preparation of faculty. Faculty need to be informed about what a volunteer is or is not prepared to discuss. Faculty are open to suggestions for structuring the interview. The small group leaders in the first year psychiatry course were provided with a suggested list of questions:

(1) What were the early symptoms form the alcoholic's perspective?
What were the early symptoms that family and friends noticed?

(2) What prompted treatment?

(3) What did treatment consist of?

(4) Alcoholics often report having the self-realization that "something's wrong" prior to their becoming aware that the "something" is alcoholism. Was that the individual's experience? If so, what did the person think "the problem" was?

(5) Was the person seen by a physician while an active alcoholic? If so, was the alcohol use discussed? Does the individual recall trying to hide the alcohol problem from the physician? Is there anything the physician could have done which might have prompted earlier treatment?

(6) As a recovering alcoholic, what response has this evoked from others?

(7) What was the process of getting sober like? Were there any particularly difficult times?

We've found that the most constructive approach has been for the group to engage the recovering alcoholic as a "consultant" in studying the illness. A "diagnostic interview" approach is rarely helpful and often counter-productive. In fact, all that's really added in most such situations is to get the students talking with the recovering individuals— the information exchange then usually takes care of itself.

ALCOHOLICS ANONYMOUS

Within teaching programs, if one uses recovering alcoholics or clinical rotations in an alcohol treatment program, the students inevitably have contact with members of AA and some exposure to its philosophy and program. AA's name is widely known in the general culture; this is a source of information and misinformation. However, such exposures cannot be assumed to be substitutes for systematic exposure and introduction to AA

A variety of formats can be used in medical education to introduce students to AA: most involve attending/observing a meeting of AA. Dartmouth Medical School students attend two meetings in the community, one in connection with the first-year Psychiatry course and another during their clerkships. In larger cities it is not uncommon for AA members to come to the medical school and put on a "demonstration meeting." In Cork's experience, what appears to be critical

to the success of this exposure is the briefing of the students prior to attending an AA meeting and debriefing afterward, to allow them to process the experience.

The reasons for requiring students to attend AA should be made explicit to the students. Among the goals are understanding how AA work both in terms of mechanics of affiliation, as well as therapeutic process, and becoming familiar with a widely used modality of alcohol treatment. The briefing and debriefing may involve alcoholism treatment personnel, and should also involve a physician.

Student Briefing. Topics to be included in the introductory session conducted prior to their going to an AA meeting are a brief review of the history of the Fellowship, how it is structured, where a meeting fits in the AA program, and philosophy as a whole. While it is useful to ask students to consider their feelings in advance about walking into an AA meeting without any introduction, we suggest that students in attending meetings introduce themselves as medical students who want to observe, and that they should, in fact, be observers. Any attempts at disguising their student status usually fail; members generally welcome students, and will seek them out for informal discussion following a meeting. The students should not take books, nor have paper and pencils for note-taking. The tradition of anonymity should be briefly explained and students asked to respect it. They may be alerted as well to possible critical views of physicians. Most specific questions at this stage about AA beliefs should be turned back to the students as foci for their observations, rather than answered by the briefing faculty. Such questions are better answered by the students themselves from their own experience at the debriefing session.

Student Debriefings. In this session it is important to allow students to discuss their experience of the meetings, particularly what surprised them — often the diversity of age, and socioeconomic backgrounds — and what troubled or confused them. Jargon may need to be translated and the use of humor explored. Students should have a chance to discuss what it felt like to be there and their thoughts are about what was transpiring at the meeting which made the experience therapeutic. Other useful topics include sharing of observations about the spiritual/religious statements or behavior, expressed attitudes toward physicians and the nature of authority within the self-help community.

Selecting AA Meetings Any area will have a large number of AA meetings from which to choose. A discussion meeting is more information that a speaker or “step meeting” because it allows students to hear more views and observe more interactions in a single meeting. We believe it’s most effective, however, to have a group of students attend a variety of meetings, and pool their experiences. Inasmuch as every AA meeting has its regular members, it is suggested the grapevine be used to inform groups that students will be present and to elicit feedback. AA groups typically welcome any observers, but should not be expected to absorb numbers that will distort their group process. Cork made efforts to limit the number attending a particular meeting to limit to two students.

Another variant upon students’ attendance at AA is to match each student with an “AA” sponsor who arranges to take the student to the meeting and chat afterwards. However, this required considerably more administrative effort, and did not seem to further enhance what was already a positive experience. In the Philadelphia area, the AA Intergroup Association’s Subcommittee on

Cooperation with the Professional Community had developed a mechanism for “sponsorship” through which individual AA members introduce professionals to AA. This Intergroup program has been used successfully by four medical schools in the Philadelphia area to introduce their students to AA.

Responses to AA. When this procedure of briefings and debriefings is followed, the students responded positively. The student evaluations at the close of the psychiatry clerkship have consistently given the AA meeting the highest ratings. In general, students are very favorably impressed by the warm, supportive atmosphere of the meeting, surprised by the level of “insight” and commitment to change, and awed by the heroic effort required to achieve sobriety. The diversity of backgrounds of the members is usually unexpected, as well as the ability of such a heterogeneous group to interact with the level of intimacy which is observed. The single most disturbing feature is the levels of coffee consumed, and the number of smokers present.

ALCOHOL TREATMENT PROGRAMS

Alcohol clinicians and treatment program staff are usually eager to be involved in medical student education program in almost any capacity, from hosting a tour of their facility, to incorporating students for a clinical training experience. Be prepared, how-ever, for concerns about confidentiality and/or simple disruption in programs unaccustomed to dealing with trainees. There are those who have become clinicians in the alcohol field in response to their own personal alcohol experiences. For many of them the physician’s role in and efforts around alcohol treatment may be emotionally charged topics. The student may be the recipient of generalized anger towards physicians or alternatively the target/symbol of unrealistic expectations and hopes. Alcohol treatment staff, although good clinicians, may have had little experience and no formal training as supervisors. Also, they will be largely unfamiliar with the content, organization, or structure of medical education. Alcohol treatment staff commonly have difficulty pro-viding concrete useful feedback to students. The alcohol treatment staff’s expectations of what a physician’s skills should be and the nature of his or her relationship is likely to be incongruent with that of faculty.

Suggestions for organizing alcohol treatment experience

- Orient treatment program staffs to your goals, explore their personal goals, and set forth suggestions for staff around supervision.

- Do not expect treatment staffs to handle the educational task single-handedly. At a minimum, allocate physician/faculty effort to help students process the experience, to provide students a conceptual framework, to examine, the physician’s role, and to explore dynamics of working with an inter-disciplinary team.

- Provide support for alcohol treatment staff in their educational role. Help them develop their own styles, and try not to function according the their stereotypes of a professor. On the other hand, students mayweed some help in learning to learn from non-M.D.s, and the burden for conceptualizing may inevitably be upon the students.

- In most areas in clinical education, there is a tradition of setting physician trainees to work immediately, to learn “on-the-job.” They may flounder initially, but usually do well enough based on technical knowledge and ferocious reading, combined with reasonable caution and generic professional behavior. Alcohol treatment provides enough conceptual surprises for the uninitiated, that this is rarely an efficient strategy. Students (or other trainees) should usually be allowed an initial period of immersion in, and observation of, a treatment program without clinical demands being placed on them. Having had time to make conceptual adjustments before being overwhelmed by the need to *do* something, they can then be put to work more fruitfully.

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