WORKING PAPER
ALFRED P. SLOAN SCHOOL OF MANAGEMENT

IMPROVING TEAMWORK IN HEALTH CARE:
AN EDUCATIONAL PROGRAM REVISITED

by
Irwin Rubin
Cynthia Cohen
Ronald Fry
Mark Plovnick

WP 866-76
July, 1976

MASSACHUSETTS
INSTITUTE OF TECHNOLOGY
50 MEMORIAL DRIVE
CAMBRIDGE, MASSACHUSETTS 02139
IMPROVING TEAMWORK IN HEALTH CARE:
AN EDUCATIONAL PROGRAM REVISITED

by
Irwin Rubin
Cynthia Cohen
Ronald Fry
Mark Plovnick

WP 866-76

July, 1976
Introduction

Increasing numbers of administrators and practitioners are recognizing the naivité of assuming that simply by telling a group of health workers that they are a team, they will, in fact, be able to function as a team. The reality is now being accepted that explicit educational inputs -- different from the technical training which health workers receive -- are needed to enable people to function effectively in team settings.

In support of this trend, a project was mounted five years ago to create a set of educational materials which could serve as one resource to a group of health workers to improve the coordination of their efforts in delivery care.\(^1\) This effort resulted in a programmed set of materials entitled Improving the Coordination of Care: A Program for Health Team Development (hereafter referred to as HTD).\(^2\)

Field-testing was an essential component in the early stages of the design and development of the HTD Program. Consequently, several organizations were contacted, at our initiative, and asked if they would use the HTD Program with one or more of their delivery teams. Thirteen (13) teams used the program in this manner and the results of these initial field-tests have been published.\(^3\)

---

\(^1\)This overall program was supported by a grant from the Robert Wood Johnson Foundation. The team development work to be reported in this paper is but one part of this total effort. See "Better Utilization of Health Care Manpower Through Educational Programs: An Overview," M.I.T. Working Paper No. 733-74, September, 1974 for more details.


\(^3\)Irwin Rubin, Ronald Fry, Mark Plovnick, and Norman Stearns, "Improving the Coordination of Care: An Educational Program," in process, Hospital Administration, 1976.
Continuing Research on the Use of HTD

In the period between the completion of the pilot tests and the public availability of the final materials, a number of organizations contacted M.I.T. directly requesting copies of the HTD Program. Through word of mouth, hearing a speech, attending a conference, etc., they heard about HTD's existence and sensed the program could be potentially useful in their setting.\(^4\) When the final program was available, such requests were referred directly to the publisher. Consequently, we have in our own files a sample of one-hundred (100) health care settings which we know possess at least one copy of the HTD materials.\(^5\) A study was mounted to follow up on and document the experiences of these 100 settings with the HTD Program.

A combination of approaches have been used to collect information on people's experiences with HTD: a) questionnaires with both open-ended and checklist types of questions; b) phone surveys; and c) personal individual and group interviews. The phone strategies to expand on interviews were follow-up data collection strategies to expand on information provided by questionnaire responses.

Three Major Types of Experiences

Three categories or types of experiences with the HTD materials have emerged.

(1) **Direct Users**

In a total of twenty-seven (27) of the one-hundred settings

\(^4\)All such requests were met. The number of copies requested was shipped to the organization/person along with an invoice to cover the direct costs of reproduction and shipping.

\(^5\)It is important to emphasize that many more organizations have been exposed to HTD than the 100 cases we had in our own files. This sample must therefore be viewed only as early and initial "exposures." In no way, obviously, can the sample be viewed as a "representative, randomized, scientifically drawn" sample.
surveyed, the HTD materials were used by at least one team directly. In several settings, more than one team was involved, yielding a total of fifty-five (55) teams who used the HTD materials as a team development resource. (See Table I, pages 9 - 10 for a detailed description of this subgroup.)

(2) Potential Users

In thirty-three (33) of the settings, a) a need existed, i.e. a team or teams were functioning a low levels of effectiveness, and b) HTD was perceived to be a potentially relevant resource to meet this need but HTD was not utilized. Obstacles were encountered which prevented the HTD materials from being used for the purposes of team development where a need for team development was perceived to exist.

(3) Not Directly Relevant

In forty (40) of the cases, no team and/or perceived need for team development existed. In the majority of these cases, the HTD materials had been requested by a teacher or consultant to be used as a back-up resource/reference book to their own efforts. (We have no way of knowing how many, if any, of the consultants may have actually used elements of HTD in their own work with health care teams.)

The major emphasis in our follow-up research has been on Categories (1) and (2) and has focused on two conditions: (1) assessing the results in settings where a group of health workers have actually used the HTD, and (2) assessing the obstacles experienced in settings where HTD was seen as potentially relevant but not utilized.

Broad Results To Date

Before proceeding, however, we must be clear about one point. There are clearly a variety of ways a group might go about meeting their needs for team development. In what follows, we do not mean to imply that HTD is either the
only way or the best way to "improve the coordination of care."

On the other hand, HTD represents, to our knowledge, the only technology presently available which has the following unique features:

(1) it was designed and tested for use specifically by groups of health workers;

(2) it is self-instructional in the sense that no outside consultant or trainer is required;

(3) and, it is designed to be done in short, manageable blocks of time spread out over two to three months.

With this proviso in mind, let us return to the results to date. Two broad conclusions have emerged. First, specific task-related gains are achieved by teams which have used the HTD materials. In every "user" setting of which we are aware, the "cost effectiveness" has been reported as positive -- the investment was seen as worthwhile. The results across all settings have been qualitatively similar and consistent with the detailed results already reported on the first thirteen users.⁶

Second, our research has also indicated that the obstacles to use encountered in many settings are similar to one another. A common set of reasons were given for not being able to make use of HTD. The important learning from this research, however, was that users and non-users (Categories 1 and 2) had experienced comparable obstacles...the users, however, had found common ways to cope with these obstacles.

In many cases, the obstacle turned out to be perceptual -- it was not an obstacle at all. In other cases, the obstacle was real and strategies were developed to reduce or eliminate its severity. Our primary objective in what

follows, therefore, is to summarize the strategies which have worked for others -- to provide "ammunition" to those who are experiencing difficulties in initiating any developmental program to improve the coordination of care.

Coping with Obstacles to Using HTD

Since the obstacles or difficulties people experience invariably get framed as questions, we have chosen a conversational format in what follows. The question/issue or obstacle, as users have experienced it, will be stated first. Following that, a response scenario will be developed that talks to the question in terms that others have reported helped them to deal with the issue in their setting.

Six (6) categories of obstacles will be described. No setting reported experiencing all of these obstacles, nor was any one particular obstacle experienced by all the settings. The six we have chosen to discuss were mentioned by at least half of the settings involved and in this sense they were deemed to be "significant."

1. "What are we going to get out of this HTD Program?"

Any group considering undertaking a team development process would like before-the-fact assurance that significant benefits are realizable. While all previous users of HTD have reported significant positive gains, it is impossible to predict the specific benefits which would accrue to any given team.

While teams are similar in many ways, it is also true that each is a unique entity. The first module in the HTD Program (Module One: "How are we doing as a team?"") is designed to help a team diagnose its needs and define its own specific areas of improvement. To predict specific gains before the fact would be like making a prescription before doing a diagnosis.

A specific subpart of this question has to do with potential improvements in patient care. HTD is designed to enable health workers to better coordinate
their efforts to deliver care. It does not prescribe specific techniques to use with patients or particular techniques for a team to follow. HTD does provide a flexible framework that will be molded around each team's special needs. For example, as a team formulates its mission and goals (Modules Two and Three) it has the opportunity to specify ways to improve patient care which are relevant to its particular situation. HTD is thus akin to a skeleton which each team can fill out in its own terms.

2. "HTD seems valuable, but we just don't have time for frills in our organization. Shouldn't we just concentrate on seeing the maximum number of patients?"

The wish not to have to invest time and energy in team development is ubiquitous. A team is like any other complex piece of machinery -- preventative maintenance is absolutely essential and the longer it is postponed, the more severe are the potential consequences. Previous issues have found several ways to cope with this dilemma.

Many groups of deliverers already have some time set aside each week for team meetings. These meetings can often be stretched for a period of weeks and used to focus specifically on the team's need for development. Several people have been successful at shortening the basic HTD materials -- preparing briefer versions of the entire program or paring down individual modules. Finally, some organizations have release time for education specifically written into their funding grants. Such release time can be used by the team as a whole for the purposes of team development.

Even when no time was available, individual team members have found the HTD

---

7 Several users have agreed to be available as informal resources to others who feel a need to pare down parts of the HTD Program or wish to share their experiences with interested colleagues. For more information in this regard, contact the M.I.T. Program in Health Care Management, 50 Memorial Drive, Cambridge, Massachusetts, 02139.
materials to be of value. Reading over the program provided insights into the
dynamics of team functioning and the opportunity to try to implement some of
the ideas on a daily basis. This has been accomplished informally and through
having one team member present relevant concepts to the rest of the team.

The basic dilemma, however, remains. To realize the gains from a develop-
mental program like HTD, one must be able to make the investment. There is no
"wonder drug" in the area of team development.

3. "Our setting is unique in many ways. How can one programmed set of
materials be relevant for every kind of organization from inpatient departments,
to community health centers, to mental health institutions, all with varying
staff compositions and interests?"

This question really has two parts, one dealing with the kinds of
examples used in HTD and the other having to do with general language.

A. Selected Examples

Examples are provided in the materials to help clarify and
sharpen certain points of issues. Of necessity, these examples are selective.
However, the flexibility and adaptability of the HTD materials can be clearly
seen from the data included in Table 1. An impressive diversity of teams, in
terms of type of setting, geographical location, and "unique" attributes, have
found HTD to be a flexible structure around which they can mold their own par-
ticular needs. In this sense, each team provides their own examples.

B. Language/Conceptual Level

Objections have also been raised concerning the assumed level
of conceptual understanding and language facility which underlies HTD. When
one totals the comments made in this regard by users and non-users, the con-
clusion emerges that HTD is judged both too simple and too complex (probably
indicating that an "average" level has been achieved), before-the-fact.
Users uniformly report, after-the-fact, that their a priori concerns in this area have been unfounded. Language facility and conceptual ability have not interfered with the positive effects of HTD.

4. "Isn't this a difficult type of thing to do with M.D.'s, etc.? How can we go through a team development process without outside consulting help?"

A part of this "Don't we need a consultant?" question stems from people's fantasies and prior experiences about what team development is or might be. For some people, the only image they have is that of the sensitivity training or encounter group approach. HTD, on the other hand, is a task-oriented approach which treats interpersonal issues as symptoms of ineffective team performance.

However, to be effective, any team development process requires that individuals be willing to "confront" directly the work-related problems which are draining team energy. HTD is no exception in this regard. For example, a significant part of the HTD process involves having team members send each other written messages concerning desired changes in work-related behaviors which would enhance overall team functioning. Parties then engage in a give-and-take negotiations process which results in a written contract incorporating agreed-upon changes in behavior.

This aspect of HTD seems to create the most initial anxiety for people. The idea of actually writing messages and contracts is perceived, before-the-fact, to be silly, childish, and unnecessary. The overwhelming majority of users have found, after-the-fact, that this is one of the most useful elements in HTD. The mechanism of writing maximizes clarify, specificity, and meaningful communications. The unspoken fear that the team will "destroy itself" through this process has never become a reality, to our knowledge. Quite the contrary. People come to realize that work-related problems caused their strained feelings toward each other, not basic personality differences or clashes.
<table>
<thead>
<tr>
<th>Type of Setting</th>
<th>Geographical Location</th>
<th># Teams Involved in HTD</th>
<th>Unique Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Community Health Center</td>
<td>Ohio</td>
<td>1</td>
<td>Model OB/GYN team</td>
</tr>
<tr>
<td>2. Community Health Center</td>
<td>Michigan</td>
<td>1</td>
<td>Participative management group at family health center</td>
</tr>
<tr>
<td>3. Community Health Center</td>
<td>Massachusetts</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4. Community Health Center</td>
<td>Massachusetts</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5. Community Health Center</td>
<td>Florida</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6. Community Health Center</td>
<td>New York</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>7. Community Health Center</td>
<td>Manitoba, Canada</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8. Medical School Faculty Team for Clinical Ed.</td>
<td>California</td>
<td>1</td>
<td>Hospital based family practice residency program</td>
</tr>
<tr>
<td>9. Medical School Faculty Team for Clinical Ed.</td>
<td>Washington</td>
<td>1</td>
<td>Responsible for developing interdisciplinary delivery teams</td>
</tr>
<tr>
<td>10. Medical School Faculty Team for Clinical Ed.</td>
<td>North Carolina</td>
<td></td>
<td>Developing clinical program for health science students</td>
</tr>
<tr>
<td>11. Medical School Faculty Team for Clinical Ed.</td>
<td>Michigan</td>
<td>1</td>
<td>Faculty consulting to family practice clinic</td>
</tr>
<tr>
<td>12. Medical School Faculty Team for Clinical Ed.</td>
<td>Colorado</td>
<td>1</td>
<td>Developing curriculum for students to be on interdisciplinary teams</td>
</tr>
<tr>
<td>13. Medical School Faculty Team for Clinical Ed.</td>
<td>Nevada</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>14. Student Team in Teaching Setting</td>
<td>California</td>
<td>3</td>
<td>Residents</td>
</tr>
<tr>
<td>15. Student Team in Teaching Setting</td>
<td>California</td>
<td>12</td>
<td>Students from several health disciplines</td>
</tr>
<tr>
<td>16. Student Team in Teaching Setting</td>
<td>Washington</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>17. Student Team in Teaching Setting</td>
<td>Illinois</td>
<td>3</td>
<td>Family practice residents</td>
</tr>
<tr>
<td>Type of Setting</td>
<td>Geographical Location</td>
<td># Teams Involved in HTD</td>
<td>Unique Attributes Distinguishing Features</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------------------</td>
<td>-------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>18. Student Team in Teaching Setting</td>
<td>Illinois</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>19. Mental Health Team</td>
<td>Massachusetts</td>
<td>1</td>
<td>Short term crisis intervention center</td>
</tr>
<tr>
<td>20. Mental Health Team</td>
<td>Alabama</td>
<td>2</td>
<td>Residential community, one team per cottage, divided into three shifts</td>
</tr>
<tr>
<td>21. Mental Health Team</td>
<td>Virginia</td>
<td>3</td>
<td>Comprehensive center, one team per shift</td>
</tr>
<tr>
<td>22. Mental Health Team</td>
<td>Colorado</td>
<td>3</td>
<td>Development center for multiply psychologically handicapped children</td>
</tr>
<tr>
<td>23. Mental Health Team</td>
<td>Colorado</td>
<td>1</td>
<td>Development project for early childhood education; team does outreach, training, and service</td>
</tr>
<tr>
<td>24. Hospital Based Care Team</td>
<td>Texas</td>
<td>1</td>
<td>Interdisciplinary pediatric cardiology team providing diagnostic, inpatient, and outpatient services; includes anthropologist and sociologist</td>
</tr>
<tr>
<td>25. Hospital Based Care Team</td>
<td>Illinois</td>
<td>1</td>
<td>Inpatient and outpatient pulmonary medicine</td>
</tr>
<tr>
<td>26. University Clinic Delivery Team</td>
<td>Indiana</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>27. Administrative Team of Prepared Group Practice</td>
<td>Missouri</td>
<td>1</td>
<td>CHMO</td>
</tr>
</tbody>
</table>
The HTD program has been designed such that a group of health workers could realize significant gains in team functioning without the need for any additional outside consulting assistance. This should not be taken to imply that consultants should not be used or that they could not be helpful. On the other hand, many health care organizations do not have access to the resources needed to pay for such assistance.

We support the position that explicit educational inputs are necessary to enable a group of health workers to function effectively as a team. How this team development occurs is not the issue, only that it does occur. Where the utilization of an outside consultant is not feasible, HTD presents a proven alternative.

5. "I have reviewed the materials and I am favorably impressed. But I don't think the rest of the staff are interested."

A critical factor in virtually every user setting has been the existence of a "patron" or "sponsor." Some one person a) has sensed that the team is not functioning at a high level of effectiveness, and b) feels that HTD (or some other team development process) is a potentially valuable resource. The issue is then one of getting others on board -- gaining their involvement and commitment.

A variety of informal strategies have been productive: (1) informally talking with key influence persons; (2) offering to conduct a short lecture-discussion group on team effectiveness and team development; (3) circulating some written materials which describe the process of team development and the benefits which have been realized in other settings. Each of these strategies has been successful in motivating a group to seek more information -- to wet their appetite.

The critical step is for people to commit to taking a limited amount of
time to collectively examine the question, "How are we functioning as a team?"
The very first module in the HTD Program is designed to help a team a) assess its own state of health, b) define its own needs, if any, for team development, and c) decide whether the remainder of the HTD Program seems potentially to warrant the investment of its time and energy. Where a real need exists, participating jointly in this process of taking the group's temperature invariably generates the enthusiasm and energy required to a) initiate and b) benefit from a systematic team development effort.

6. "Team development seems to be beneficial at first, but will the effects last?"

This is certainly an important issue. Consider for a moment an analogous process many of us have experienced -- embarking upon a personal physical fitness program. Typically, there are a host of "resistances" to getting started -- "I'm too busy these days;" "I'll look foolish in a jogging suit;" "I'll wait until Spring when the weather is better."

We finally jump in and begin our exercise program. The first time out feels great, "Gads, I feel like a new person." The next morning, all those newly awakened muscles make their presence known -- the aches and pains of reality have set in. A reasonable level of commitment and often support (from others) is needed to push on through this period -- to get ourselves in shape. Once having reached this plateau, we must guard against slipping back into our old mold.

Team development has many of the same dynamic qualities. The effects will last but it is necessary to actively and consciously reinforce the gains which are achieved. In fact, many of the changes that teams experience as a result of HTD are self-reinforcing. The process of establishing measurable goals, monitoring progress, identifying and resolving conflicts, etc. becomes a
normal part of the team's functioning -- they become a new form of "business as usual." Indeed, many teams have reported the existence of a sleeper effect; not until several weeks or months after completion of the "formal" HTD Program did the staff members realize the extent of the positive gains they had achieved.

In some instances, the wider organization of which a team was a part became motivated to reexamine its own functioning. The resulting changes in organizational structures, initiation of middle-management training programs, and the like served to enhance this health of the entire organization and solidify and reinforce the gains realized by the delivery teams who had gone through HTD.

Discussion

Interpreting these results and attempting to draw any conclusions throws one into the classical dilemma: Is the glass half full or half empty? Of the sixty settings where team effectiveness was low and team development was needed, about one-half (27) were able to utilize HTD as a resource. Teams in these settings experienced positive benefits. Teams in the remaining thirty-three settings were unable to utilize HTD as a resource. We do not know whether these settings were able to provide any systematic developmental opportunity to their teams.

It is our contention that virtually all teams need and can benefit from explicit educational inputs designed to enable them to more effectively coordinate their efforts to delivery care. Wishing problems would disappear or simply providing slack time so team members can get to know each other will not, in our experience, be productive strategies.

The issue therefore is not HTD per se. The issue is one of getting teams the education they need to function effectively. HTD, to repeat, is one alternative resource. Assuming for the moment that the resource -- be it consultant or materials like HTD -- is relevant and of high quality, the major obstacles
appear to revolve around time.

Every effort can and should be made to maximize "cost effectiveness" -- to minimize the time a team must be away from their primary responsibility. It must also be recognized, however, that there comes a point at which it is no longer professionally responsible to act as if "the illness can be cured even though the patient can only take one-half the prescription."

There is a second danger in over-responding to the pressures to shorten, cut-it-down, shave, etc. The applied behavioral sciences, in general, are just beginning to get a toehold of legitimacy and acceptability in the world of health care. Many remain skeptical about the value of the "soft sciences." A not atypical scenario which can develop goes like this.

A skeptic becomes involved in a watered down version of, let's say, a team development intervention. The intervention fails to produce desired or expected results...largely because the organization had time for only one-half the interventions. The skeptic uses this experience to confirm the belief that the "stuff is useless." 8

Many funding agencies, for example, explicitly legitimize the expenditure of resources for in-service education and professional development experiences for individual health workers. A similar kind of explicit legitimization for total team education and development may be appropriate.

Governmental policy-makers, therefore, can take action which would greatly facilitate the elimination of the time obstacle. The very highly motivated will invariably find the time needed to do team development. Others, equally motivated and equally in need will continue to work very hard to deliver effective

8 Much of the applied behavioral science technology goes under the label Organization Development. Large numbers of people talk as if they have in fact received a prescription -- they say, "Oh, I've been O.D.ed," as if to imply they've been innoculated against a disease.
team care. Team development experiences can provide them with tools and skills to make their work more effective and efficient.