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Communication and Effectiveness in Primary Health Care Teams

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ABSTRACT

Primary health care team members need to communicate effectively with each other in order to provide integrated care. Using interviews with practice managers about team practice and observation of cross-disciplinary team meetings, we describe communication in primary health care teams, explore the relationship between communication and team effectiveness, and discuss the ramifications of our findings for future practice.

Keywords

primary health care team, communication

INTRODUCTION

Primary health care team members need to communicate effectively with each other in order to provide integrated care. In this paper, we consider communicative practice in primary health care teams. Current theories about teamworking suggest that teams will be most effective if all members engage actively in discussion to set the team's goal and methods. Active discussion improves the degree to which individuals understand the wider picture in the organization. The more explicit and agreed the group's goals, the better a group's performance when measured against those goals [1]. Ideally, teamworking involves joint responsibility for decision-making, since this makes people more open and committed than they are in hierarchical structures [2]. But even in groups where decision-making is centralized, communication is still important to disseminate information about goals and plans to the group as a whole, and discussion to clarify these points is inevitable.

There are three pitfalls which could adversely affect primary care team discussions. The first is that the current business model for primary health care accentuates the status differences inherent in mixing staff with different amounts of clinical training. In most cases, doctors own their practices in partnership, employing most of the other staff. Status characteristics theory [3] has shown that in mixed status groups, the higher status individuals control discussions. In hierarchically organized workplaces, information flows down from the top but not up from the bottom, even though this second direction of flow is essential for adapting working practice to a changing situation [4].

The second is the fact that some staff are employed directly by the practice, but other team members (most often, health visitors and district nurses), though attached to a specific practice or practices, report to outside agencies. Communication across such a divide is difficult, especially since the work of attached staff often takes them away from the practice premises. However, since goals across the divide will naturally differ to reflect the needs of the staff members' employers, this is where communication is most needed.

The third is the common misconception that the best way to involve all staff members in setting group goals is to hold meetings to which everyone is invited. Large meetings are antithetical to coherent discussion. The more competition for the floor, the harder it is to say the right thing at the right time. They are also difficult to schedule, but in a conflict the disciplines with the least voice in the team are the most likely to be left out. Opportunities for informal communication can actually be just as important [5], but because they are informal, they are not as often factored into group process design.

Primary health care team practices which members might consider to be administrative details therefore potentially have important ramifications for patient care. In this study, we characterize the group communication processes of primary care teams, explore the relationship between communicative practice and team effectiveness, and discuss mechanisms for supporting the communication which these teams need.

METHODS

This work was carried out in the context of a larger, Department of Health-funded study about the determinants of health care team effectiveness. The main study required data to be gathered from 100 primary health care teams varying across a number of dimensions, including size, geographical location, population density, and level of social deprivation as measured by the Jarman index [6]. Practices targeted for inclusion in the study were chosen randomly from databases of GP practices from 19 different English Health Authorities. All data collection was completed during 1997-1998. Note that this period is before the introduction of Primary Care Groups.

Data collection included (1) questionnaires completed by individual team members about their perceptions of team functioning and effectiveness; (2) interviews with team practice managers (including some written material) to capture background information about the team, the community it served, and its working practice; and (3)

observations of team meetings in a representative subsample.

Team Member Questionnaires

Team members were identified by the team contact person, who distributed questionnaires on our behalf. Teams with a response rate of under 30% were dropped from the sample and replaced.

The team member questionnaires were designed to test perceptions about team effectiveness and team working. The team effectiveness items were adapted from [7] and measure (1) how well the team works together, (2) the patient orientation of the practice, and (3) general organizational efficiency. The teamworking items measured the following seven characteristics: (1) how willing members were to work as a team, rather than as individuals; (2) clarity of and commitment to team objectives; (3) how much emphasis there was on quality; (4) the degree of support for innovation in the team; (5) the extent to which team members reflected on team objectives and team practice; (6) the degree of inter-relatedness of team members' work; and (7) the extent to which the team had actually introduced changes in their objectives and work processes. Items relating to the first four characteristics were adapted from the Team Climate Inventory [8]. The fifth characteristic, called "reflexivity", has been used before in [9].

In addition to the Team Climate Inventory, team members completed the Generalized Health Questionnaire (GHQ) [10]. This questionnaire details psychological well-being and can be used as a rough indicator of occupational stress. Team members also supplied some biographical information such as their job title, which we used to categorize team members by discipline.

Practice Manager Interviews

The practice manager interviews primarily reported information about who was on the team and the community served. However, it also contained information about team practices. The most important item for our purposes was a list of the meetings which took place in the practice, including who is meant to attend them, how often they are held, their purpose, and their length. We also asked about agendas, minutes, and chairing practice for each of the meetings. For these purposes, a "meeting" was defined as a set of people who came together face-to-face, usually at regular intervals, for a predefined purpose. Since giving this information is time-consuming, there was an unfortunate drop-out rate for this part of the interview. Information was available for 80 of the 100 teams in the survey.

Meeting Observation

For this work, we have a specific interest in "whole team" meetings, because they might be expected to be the best opportunity for staff to exchange information and discuss possible changes to working practice. In addition to the information given in the practice manager interviews, all primary health care teams involved in the main study were invited to have meetings observed so that we could carry out more detailed analyses. The main benefit to the teams from this process was detailed feedback about communicative practice, with improving suggestions, at the end of the observation period. We included the first twelve teams who responded. All observed teams had at least one GP, practice manager, practice nurse, health visitor, district nurse, and receptionist.

This subsample was reasonably representative of the larger sample of teams. The same proportions of teams in the observation subsample were fund-holding and included CPNs, counsellors, pharmacists, and social workers — the most common of the rarer team disciplines — as in the wider study (Fischer exact probability, two-tailed). However, the observed teams showed more occupational categories for team members out of a checklist of twelve (un-related t=-1.98, df=98, p=.05) and reported higher and less variable GHQ scores (Levene's F=4.186, p=.04; unrelated t-test with unequal variances t=-2.06, df=25.53, p=.05). They also involved less variable Jarman indices (Levene's F=5.693, p = .02), thereby excluding the areas with the highest and lowest social deprivation.

Given our concerns about communication across disciplinary and status boundaries, we asked the practice managers to choose for observation the regular meeting which best reflected cross-disciplinary, "whole team" decision-making. We aimed to observe two meetings of the same group for each team so as to reduce the chances of our conclusions being based on meetings which were unrepresentative for the team involved. Usually where we succeeded in this aim the two meetings were successive. In one case, three meetings were included.

For purposes not described here, the observed meetings were audio-recorded. A single static video camera was used to record the gross movements of as many of the participants as possible; this record was used only to aid speaker identification during transcription. In recording meetings, we ensured that the recording equipment was as unobtrusive as possible, so as to avoid disrupting the meeting dynamics. We requested that meetings be held in their usual locations, following the team's usual meeting practice, and with their usual attendance. A few jokes about the recording, especially at meeting onset, showed that members were aware of the recording. However, team members seemed uninhibited by the recording, an observation supported by our team contacts.

INTERVIEW RESULTS

Adding up over all the different meetings reported — all the meetings which involved any part of the team — shows that primary health care team members spend relatively little of their time in meetings. On average, there was a meeting involving some part of the team for 325 minutes per month (range 22 - 1190, S.D. 240); that is, around 3% of the time at least one team member was in a meeting. The primary health care teams in the sample had between 1 and 6 regular meetings, which could meet anything between weekly and yearly.

In order to consider cross-disciplinary links, we categorize team members into six disciplinary groupings: general practitioners; practice management; practice nursing staff; attached staff of whatever discipline, although the majority are nursing staff; administrative staff, including secretaries and receptionists; and miscellaneous staff representing rarer functions (such as one resident care-taker). Primary health care meetings tended to fall into the following categories, divided by who attended them:

Whole team meetings, usually held monthly and attended by either the whole team or at least by representatives of each of the disciplines (22% of sample).

Single discipline meetings for doctors or for administrative staff, sometimes with practice management also attending (28% and 3% of sample, respectively). Doctors meetings were typically weekly or monthly; administrative meetings were usually monthly or every two months.

Practice clinical meetings attended only by those clinicians based in the practice, and sometimes by the practice management (43% of sample). These meetings were usually monthly but some practices held them weekly.

Full practice meetings, usually held monthly and attended by all staff based at the practice: management, doctors, practice nurses, and administrative staff (7% of sample).

Clinical staff meetings, usually held monthly and attended by all clinicians included attached ones, and sometimes by the practice management (16% of sample).

Nursing meetings attended by the practice nurses and the nursing-oriented attached staff such as health visitors and district nurses (6% of sample).

Nursing meetings were the only ones which were never attended by the practice management. For each meeting type, there was no relationship between whether or not a team held a meeting of that type and the team's size (unrelated t-tests, allowing for unequal sample sizes).

The set of meetings which a team holds divides teams into the following categories. For each category, we give the mean, minimum, and maximum size of team with that meeting practice.

Unitary: Teams with whole team meetings and nothing else (mean team size 14, min. 8, max. 26).

Multiplex: Teams with both a clinical staff meeting which included attached staff and either a full practice, practice clinical, or single discipline doctors meeting. One-quarter of these teams also held a whole team meeting (mean team size 23, min. 10, max. 51).

Unitary-plus: Teams which hold whole team meetings plus either a separate doctors meeting or a separate practice clinical meeting (mean team size 23, min. 10, max. 45).

Practice-based: Teams whose most inclusive meetings were full practice clinical ones. These teams sometimes had additional single discipline meetings. In this category, attached staff such as health visitors never attended any meetings and administrative staff never met with anyone outside of their single discipline meeting (mean team size 21, min. 8, max. 64).

Isolated: Teams which had nothing which could be categorized as a team meeting. In these cases, the only cross-disciplinary meetings might mix practice nurses and health visitors. These teams tended to report some single discipline meetings (mean team size 24, min. 17, max. 37).

Figure 1 shows the relative frequencies of the different practice types.

Figure 1: Overall meeting practice in primary health care teams.
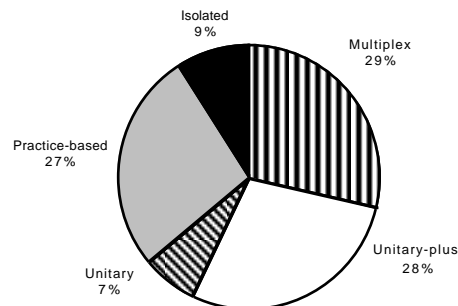
In order to test our theory that effectiveness is related to how well the team communicates across disciplines and across the divide to attached staff, we construct some measures based on the information which practice managers gave us about their meeting practice.

The simplest one gives an estimate of the total number of minutes per month that one or more team members are in a meeting at the practice. The practice managers told us what regular meetings were held in the team, and for each one, how long the meetings lasted and how frequently them were held. To construct the measure, for each meeting we multiplied frequency by length to get the number of minutes per month, and then added the results up for all the team's meetings. Although this measure does not give the amount of time any one individual spends in meetings (unless there is a team member who goes to all of them), it provides a useful baseline for the amount of communication happening in the team.

Three variants of this measure give the same kind of figure but counting only meetings which involve at least one attached staff member, at least one GP, and at least one attached staff member and one GP together. As with total meeting time, GP meeting time provides a baseline communication measure. The other two variants measure cross-disciplinarity. Because none of the meetings were for attached staff only, attached staff meeting time measures the links between attached staff and the practice. Restricting the meetings included to those which involve attached staff and GPs refines the measure to what is arguably its most important cross-disciplinary component.

Our final measure, freedom of interaction, gives a rating between 0 and 1 of how equal the communication is across all of the different possible pairs of discipline categories.[1] Although this measure is unrelated to the

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[1] This measure was based on entropy, a central concept in information theory [11]. If $S_{a,b}$ is the number of minutes one or more people from group b spent in meetings with one of more people from group a every month, and T_b is the total number of minutes one or more people from group b spent in any meeting, then let $H = -\sum_{S_{a,b}} (S_{a,b}/T_b) \log_2 (S_{a,b}/T_b)$. H is highest if all disciplines met equally with each other, and 0 if for every discipline, there is only ever one other discipline they met with. The maximum is equal to $-n \log_2 (1/(n-1))$, where n is the number discipline categories. Subtracting H from the

total amount of time spent in meetings, it gives a reflection of how equally the different staff category pairings are regarded in terms of their importance to the team's functioning. Thus freedom of interaction is our clearest indicator for the degree of cross-disciplinarity within the team.

To test the relationship between the communication measures on the one hand and the effectiveness and team climate measures on the other, we employed straightforward correlations (see main values of table 1; for all measures, df=80). Using this technique, the amount of meeting time for attached staff, the amount of meeting time mixing attached staff with GPs, and the freedom of interaction are all related to the effectiveness measures of teamworking effectiveness and organizational efficiency. They are also related to team climate measures across the board, with particularly strong relationships to reflexivity (the amount of thought about team objectives and team practices) and support for innovation. The total amount of meeting time in the practice and the amount of meeting time for GPs are not related to effectiveness or to team climate.

Of course, data interpretation with interrelated variables is tricky; it could be that our communication variables are related to effectiveness because they indirectly reflect some other, more important factor. In particular, it could be that cross-disciplinary communication does not have any influence on effectiveness, but that staff only have time to meet with other disciplines when other things are going well. In order to argue that it is actually the communication which has this effect, we re-perform the same analysis, but partialling out aggregate GHQ scores for the team. Aggregate GHQ measures the team's psychological well-being. Low GHQ for an individual can arise from a very large number of factors; low aggregate GHQ for a team is most likely a reflection of occupational stress, and as such is a useful stand-in for the team's general working conditions. As one might expect, aggregate GHQ is related to all three measures of effectiveness (r=-.35,-.31,-.24; df=100; p=.001,.001.,02 for teamworking effectiveness, organizational efficiency, and patient orientation, respectively). This can be explained by the fact that the more stressed the employees, the worse the quality of their work. We find the same relationships, but with slightly weaker correlations, if aggregate GHQ is factored out (see parenthetical values of table 1; for all measures, df=77).

Because of our specific interest in the role of "whole team" meetings, we also consider the relationship between their occurrence and effectiveness, especially in comparison to other meetings which mix a large number of disciplines. For this analysis, we use unrelated t-tests, allowing for unequal variances in cases where the probability of the Levene's F score was under .05. Table

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maximum possible for six categories and dividing by that maximum yields a score between 0 and 1 where 0 is the most free interaction and 1, the most predictable. We then invert this score by subtracting it from 1, so that it reflects freedom and not predictability of interaction. Similar measures have been used before to reflect the interactional characteristics of individual face-to-face meetings [12, 13].

2 shows the relationship to effectiveness and team climate measures for the three most cross-disciplinary meeting types. In all cases, where a significant difference is shown, the effectiveness or team climate score is higher where the meeting occurs. As shown, whole team meetings are not related to effectiveness or to team climate, but full practice meetings are.

OBSERVATIONAL RESULTS

Among the thirteen teams which volunteered for observation, most held one meeting which they considered to be for the whole team. These meetings were open, with all team members expected to attend. Although the meeting remit was not often clear, the teams used these meetings as their opportunity to discuss whatever matters affected the entire practice as they arose.

There were three obvious exceptions to this general practice. One of the teams, identified in this description as Team A, was suffering a period of extremely poor inter-team relations. A row between staff and management had led to the hiring of additional staff intended to act as a "new broom", with considerable tension between established staff on the one hand and new staff and management on the other. This team had extremely low effectiveness scores. Another of the teams, identified as Team B, was strictly controlled by the partners and never held truly multi-disciplinary meetings. Their "team" meetings were attended by the partners and practice manager only, and even took place away from the practice, in one of the partners' kitchens. This team had very low effectiveness and team climate scores. They declined to have a second meeting observed. Another team, Team C, did not hold one whole team meeting, but had two highly multi-disciplinary sub-teams with specific remits which were meant to improve the working of the practice; one sub-team discussed how to make the best use of the nursing staff within the practice, while the other discussed initiatives to improve preventative care (for instance, an anti-smoking campaign). Their effectiveness scores were unexceptional. Although one might expect it to be the largest teams which devise practices which did not involve whole team meetings, both of these teams were of average size. One additional team signed up for observation but, despite regular requests, never identified meetings which they felt were appropriate for the data set during the year of collection. For this reason, they were dropped from the analysis. This team had average self-reported effectiveness scores.

Structure

PHCTs had regularly weekly or monthly slots for their team meetings. However, they were quite often rearranged or cancelled completely. They also often started late, with people coming in late and leaving early in order to complete their other duties. Meeting agendas were quite vague. Agenda items tended to have been contributed by the practice manager. However, most of the meeting time was taken up by "any other business" raised by other people present. In many cases, items which the practice manager raised were put off in order to accommodate unscheduled discussion, so that, for instance, items raised at the beginning of the first meeting observed had not been dealt with by the end of the second meeting. Only one team stuck rigidly to the

agenda, with no unscheduled discussion. Meeting chairs were usually practice managers, GPs, and practice nurses. However, the degree of control which chairs exerted over the meetings varied considerably, with some chairs, particularly from the nursing and admin categories, merely announcing the next step on the agenda as prior discussion came to a close.

Content

The meetings we observed were, by and large, intended either to make or to influence decisions affecting the entire team. Often the issues discussed were logistical; financial or business issues were settled in different meetings. The official agenda in individual meetings tended to focus on one or two large issues, such as auditing team performance or clinic management. However, the majority of meeting time was spent discussing less weighty issues such as what to do on practice nights out, whether to have a fish tank in the waiting room, and where to go for a Christmas party. These discussions rarely remained focused, and therefore tended to take up a great deal of time.

Although the team contacts described these meetings as about decision-making, decisions were not often made in the meetings themselves. Where decision were made, they were often about how to proceed with the issues discussed; for instance, in these meetings, the team might decide to call another, often smaller, meeting for more discussion. Major decisions affecting the team members, such as changing a clinic date or hiring more staff, were taken in a different forum, and reported back here. Thus these meetings were largely for information passing and so that there would be a place where everyone's opinions could be heard. Individual meeting participants often informally complained to the observer that the meetings were boring and that the issues which they addressed were completely irrelevant to them.
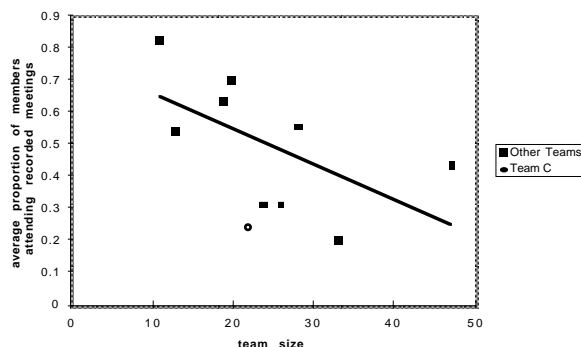
General Attendance

The meetings varied considerably in size; see figure 2.

Figure 2: Size of recorded "whole team" meetings.
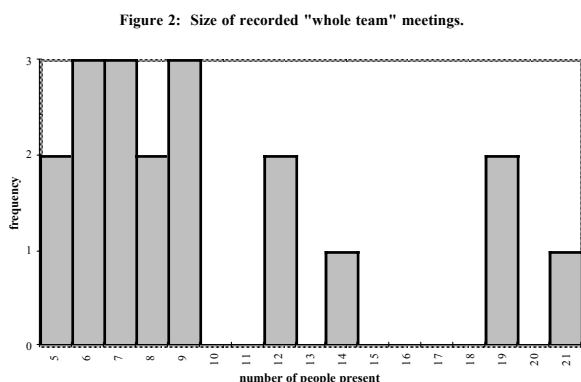
To score general attendance, one can use the average proportion of team members who attended observed meetings. All of the observed teams considered their meetings to be inclusive except for Team B, which openly restricted attendance to GPs and the practice manager, and Team C, which was organized into sub-teams. Omitting these two teams, there is a relationship between team size and the proportion of members attending observed meetings (dividing teams into two sets, small and large, t=-3.64, df=7, p=.01 two-tailed; small teams have the higher proportions), as shown in

figure 3. Teams A and B are omitted from the graph because attendance ratings and team size respectively are unavailable for them. Team C is not included in the linear fit shown.

Figure 3: The relationship between team size and meeting attendance for recorded "whole team" meetings.

Omitting Team A, which had disproportionately low effectiveness scores, and Teams B and C because they did not hold whole team meetings, dividing general attendance into two sets, low and high, shows a relationship to one of the self-reported effectiveness subscales, patient orientation (t=-2.42, df=6, p=.05 two-tailed). The effectiveness score is higher for high general attendance. Assuming a linear correlation between general attendance and this effectiveness subscale shows the same result (r= .73, df=8, p=.04); see figure 4, where the fit omits Team A. This is the case despite the fact that there is no relationship between team size and patient orientation, either in the sample of teams we recorded or in the wider sample.
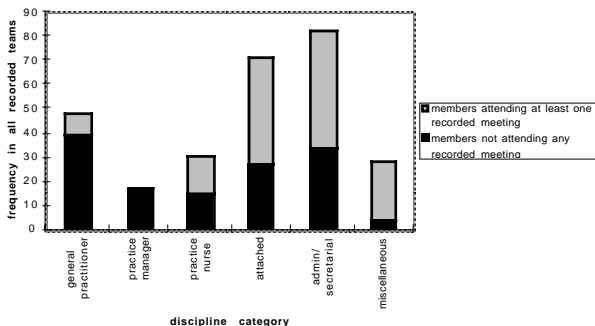
Figure 4: The relationship between general attendance and patient-centred care.
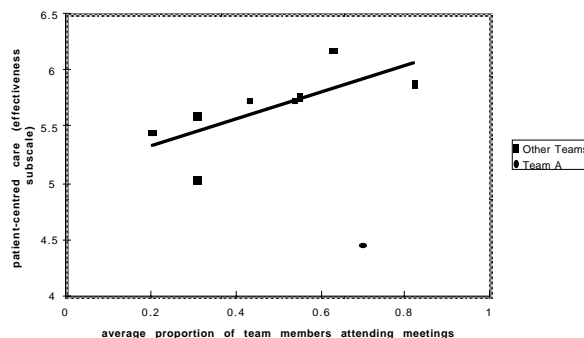
Attendance by Discipline

Team members from the differing occupational categories were not equally likely to go to the meetings recorded. For this part of the analysis, we use the same coding of team members into disciplinary groupings as for the interview data.. Whereas GPs and practice managers nearly always attended the observed meetings, members from other disciplines were less likely to attend (see figure 5). The figure includes team members whether they work full or part-time with the team. Although some categories are more likely to be part-time than others, and therefore have difficulty attending meetings, all team members still need some opportunity to communicate with each other.

Figure 5: Attendance by discipline.

Figure 6: The relationship between multi-disciplinarity of recorded meetings and support for innovation.

All recorded meetings had at least one GP and one practice manager present. Nearly half the recorded meetings did not involve any attached staff. Of course, Team B deliberately excluded all members except GPs and the practice manager. Two teams for which two meetings each were recorded failed to have any attached staff present at either one, suggesting either scheduling difficulties or deliberate non-attendance on their part. In the remaining cases, non-attendance appeared to be sporadic and accidental. Some practice managers remarked informally that for some individuals, failure to attend was quite regular and tended to cause resentment among the other team members.

We have constructed two scores relating to multi-disciplinarity of recorded meetings in order to test the relationship to team outcome measures. The first is the average number of occupational categories present at a team's recorded meetings, out of our list of five. The second is simply whether or not at least one attached staff member was present at one of the meetings we recorded. These scores are highly related, since no teams ever had an attached staff member present unless all of the other disciplines were represented as well; that is, for teams that ever had an attached staff member present, the multi-displinarity rating was over 4.

There is no relationship between self-reported effectiveness and either of these measures. However, there is a relationship between self-reported support for innovation and multi-disciplinarity of team meetings. If Team A is omitted on the grounds of its disproportionately poor team climate, support for innovation is higher when attached staff are present for at least one of the team's recorded meetings (t=-3.76, df=8, p=.006 two-tailed). Dividing the multi-disciplinarity score into two sets, low and high, more multi-disciplinary teams have higher support for innovation (t=-2.8, df = 8, p=.02 two-tailed; for a correlational view of the same data, r = .8347, df=10, p=.003 two-tailed, see figure 6, where team A is omitted from the linear fit). In the recorded teams, only around a quarter of the team members providing self-reports for team climate were attached staff (in this sample, mean 22.56%, min 8.33%, max 38.46%). Therefore it is unlikely that the differences are due solely to attached staff themselves reporting that they feel the team supports innovation; more likely, whatever property of the team it is that makes them likely to attend meetings affects the responses of the entire team.
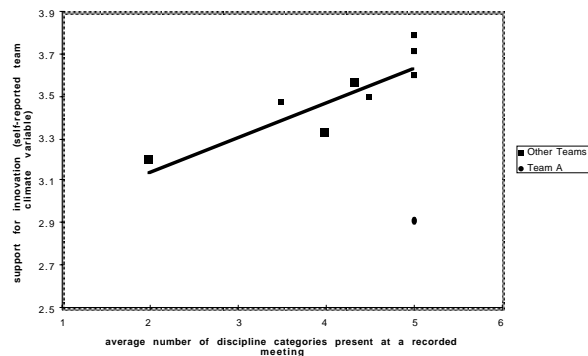
DISCUSSION

Any exploratory analysis of a large set of interrelated variables can do no more than suggest an interpretation. This is especially true of this data, where only the communication which occurs in formal meetings has been taken into account. However, from the interview results, it is fairly clear that good cross-disciplinary communication has a measurable impact on the proper functioning of the primary health care team. It is not surprising that teams are more efficient, and feel they work together better, when they have more opportunities to talk across disciplinary boundaries. In breaching these boundaries, links between GPs and attached staff appear to be most important.

It is perhaps surprising that whole team meetings themselves have so little impact. One might expect these meetings to be the most important of the meeting types, since they involve the largest pool of participants. The lack of impact does not arise from the meetings being too large for free discussion; participants did not appear to be impeded in raising or commenting on issues of concern to them, when they arose, and, in any case, general attendance was low enough that they probably were no larger than the teams' other meetings. Although, as found in the observed subsample, whole team meetings do have some effect on the patient orientation of the practice in the cases where attached staff attend them, this is probably more to do with the meetings providing them with opportunities to discuss individual cases with practice staff before, after, and even as side conversations during a meeting, than to do with the meeting itself. On the other hand, meetings which draw together practice staff do influence both effectiveness and team climate.

Our observational results are the key to understanding why whole team meetings fail. Despite the fact that they are billed as being for the whole team, attendance is often poor. This is especially true for the larger teams, where scheduling is exceptionally difficult. Absence is most prevalent among the staff with the fewest other opportunities to communicate. It is unclear whether attendance is low because staff are unable to attend or because they simply choose not to. However, choosing not to attend would be completely understandable, given that the meetings often failed to have a clear remit and focused on trivial decisions, leaving the real decisions to be taken (or ignored) elsewhere. It is unclear whether poor attendance is an effect of this meeting style or a cause. The lack of direction could be a result of ineffectual meeting leadership. Alternatively, if the most

relevant people cannot attend, it is difficult to have useful meetings — although once a pattern of meetings is established, it is even more difficult to decide not to have them. In either case, the current regime of whole team meetings does not serve team well.

Our findings, though suggestive, are all the more important because whole team meetings are meant to improve the amount of influence that staff have over the way a practice is organized. In this aim they usually fail — but, given the importance of cross-disciplinary communication, and their role in facilitating smaller conversations around the meeting, simply cancelling them is not the answer, either.

It is essential for primary health care teams at least to facilitate the exchange of information about individual patients across disciplines. This exchange must particularly bridge the gap between practice and attached staff, not least because attached staff perform many of the home visits and therefore are closest to the patients' needs. From our observations, meetings provide the best opportunity for such exchanges in current team practice. When attached staff do not have these opportunities, teams indicate that patient care suffers. Any change in current practice to correct for poor team meetings must take this into account. However, bi-lateral information exchange does not require all staff members to be present in the same room at the same time. It should be possible to improve other opportunities for this exchange through informal means (coffee breaks, email, opportunities for telephone conversations), thus breaking the reliance on whole team meetings. This would have the side effect of improving information exchange even for staff who fail to attend meetings.

Given the unpopularity of meetings and how difficult they are to schedule, it is tempting to suggest that if bi-lateral information exchange can be improved, whole team meetings should simply be cancelled. However, to give this recommendation would be to ignore the fact that it is impossible to maintain an effective primary practice without contributions from every discipline. As a simple example of this, several of our teams were in the middle of establishing clinics for common patient concerns, such as asthma, diabetes, and the monitoring and immunization of infants. They clearly believed this would serve their patients better, and be more efficient, than their previous systems of providing isolated appointments. However, they could not make decisions about how to provide such clinics without wide discussion involving everyone: reception staff for scheduling, secretarial staff to inform patients, and clinicians of every guise for their various roles in care provision. Even identifying the right changes to make takes this cross-disciplinary discussion — hence the poorer performance of teams where links across disciplines were poor. Current whole team meetings may often fail due to lack of planning and structure, but they may be the most realistic opportunity of this kind.

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Table 1: The correlation between cross-disciplinarity of meeting opportunities and the effectiveness and team climate measures. For values in parentheses, aggregate GHQ has been factored out.

	Cross-disciplinary communication measures			General communication measures	
	freedom of interaction	meeting time with GP and attached	attached staff meeting time	GP meeting time	total meeting time
organizational efficiency	.32** (.30**)	.25* (.28*)	.21 (.23*)	.14 (.19)	.13 (.18)
teamworking effectiveness	.36** (.35**)	.23* (.26*)	.23* (.25*)	.13 (.18)	.14 (.20)
patient orientation	.15 (.12)	.06 (.07)	.06 (.07)	.08 (.12)	.10 (.14)
team participation	.21 (.18)	.21 (.24*)	.19 (.21)	.00 (.05)	-.03 (.01)
clarity of objectives	.27* (.24*)	.20 (.22)	.20 (.22)	.06 (.10)	.05 (.09)
emphasis on quality	.29** (.27*)	.20 (.24*)	.20 (.23*)	.00 (.07)	.00 (.07)
support for innovation	.27* (.24*)	.24* (.28*)	.26* (.30**)	.07 (.13)	.07 (.14)
reflexivity	.27* (.25*)	.26* (.29*)	.27* (.29**)	.10 (.15)	.09 (14)
interrelatedness of work	.24* (.22)	.05 (.06)	.06 (.07)	.04 (.08)	.05 (.08)
innovation	.25* (.23*)	.27* (.29**)	.23* (.25*)	.17 (.21)	.18 (.22*)

* p<.05

**p<.01

Table 2: The relationship between the occurrence of particular cross-disciplinary meeting types and the effectiveness and team climate measures. Values in parentheses are degrees of freedom; df=65 unless otherwise stated.

	whole team	full practice	clinical staff
organizational efficiency	-1.25	-1.78	-1.50 (51.60)
teamworking effectiveness	-1.32	-2.44*	-2.11* (48.78)
patient orientation	-.93	-2.64* (30.72)	-.28
team participation	-.48	-2.26*	-1.22 (51.13)
clarity of objectives	-1.69	-1.72	-.10
emphasis on quality	-1.73	-1.66	-.26
support for innovation	-1.00	-4.73** (21.73)	-1.08
reflexivity	-.82	-4.17** (24.46)	-2.13* (57.25)
interrelatedness of work	-1.58	-1.85	-.58
innovation	-1.56	-1.56	-1.08

* p<.05

**p<.01