Original Article

Threats for sustainability of multidisciplinary working: Attitudes and perceptions of cancer care providers

Ana Ruiz-Casado, María Jesús Ortega Solano[1], Ana Soria Verdugo[1], Héctor Cebolla Boado[2]

Department of Medical Oncology, Hospital Universitario Puerta de Hierro, Majadahonda, [1]Department of Medical Oncology, Hospital Universitario de Fuenlabrada, [2]Department of Social Stratification, Universidad Nacional de Educación a Distancia, Madrid, Spain

For correspondence: Dr. Ana Ruiz-Casado, Department of Medical Oncology, Hospital Universitario Puerta de Hierro, Majadahonda, Madrid, Spain. E-mail: arcasado@salud.madrid.org

ABSTRACT

Background: To develop methods for cancer teams to work effectively, it is first necessary to understand how multidisciplinary teams work together as part of an organization. Implementation and adoption of new clinical practices such as team working is a challenging task. It is known that implementation of multidisciplinary working depends on a complex, multilevel interaction of team, and organizational factors. However, little is known about the threats to the sustainability of functioning multidisciplinary teams.

Materials and Methods: A questionnaire was mailed to 125 multidisciplinary team meetings (MTMs) attendees. Five focus groups were gathered in order to discuss threats and strengths of cancer team-working. Discussions at the meetings were transcribed verbatim and analyzed for emergent themes using standard qualitative research methodology.

Results: About 31 physicians and MTMs attendees participated in the focus groups. They perceive that meetings are very useful for making a good decision over patients. Lack of dedicated time and lack of support by the institution were the most recurrent themes which could be considered as threats for sustainability of cancer conferences. Leadership and decision-making process should be refined.

Conclusions: Physicians see enormous value in MTMs but the lack of support from the organization could compromise the future effective working. This research highlights the need to explore local strengths and threats for sustainability of periodic cancer team working.

KEY WORDS: Cancer conferences, focus groups, multidisciplinary team meetings, multidisciplinary working, qualitative research

INTRODUCTION

Contemporary cancer management is progressively becoming more sophisticated and specialized. Advances in surgical procedures, chemotherapy, computer technology, and targeted molecular and radiation therapies, have all led to an increase in multimodality therapy, which increases the number of interfaces among cancer specialists and other clinicians in the treatment of any single patient. As the care pathway becomes more complex, the potential for miscommunication and poor coordination between providers' increases. Each failure in communication between various physicians and care providers and every transition and interface miscue can result in delayed treatment planning, duplication of tests, incomplete follow-up, increased patient anxiety, decreased patient satisfaction, and declines in quality of life.[1] Communication and continuity of care can be improved by multidisciplinary team meetings (MTMs) or "multidisciplinary cancer conferences" that emerge as a practical necessity for optimal coordination.[2] The health-care management literature advocates for more frequent use of teams.[3-5] Cancer care is undergoing a paradigm shift from a provider-focused management to a patient-centered approach and MTM is the landmark of this shift. Several systematic reviews have reported enhanced patient satisfaction, acceptance of treatment, and improved health outcomes following multidisciplinary team care for complex and chronic conditions. Individual benefits for team members have included a range of socioemotional benefits such as improved job satisfaction, greater role clarity, and enhanced well-being.[6]

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Healthcare cultures that emphasize group affiliation, teamwork, and coordination have been associated with greater implementation of continuous quality improvement practices.[7] That implementation is more likely to be effective if institutional administrators and health professionals see value in MTMs.[8] The health services literature provides however limited conceptual guidance about the sustainability of the already implemented complex innovations.

The aims of this study were to (a) explore the attitudes of MTMs attendees toward their functioning; (b) identify strengths and debilities of MTMs in this setting; and (c) identify the threats for sustainability of MTMs.

MATERIALS AND METHODS

Qualitative methods are suited to understanding and exploring complex social processes in context. Using three data collection methods (observation, questionnaire, and focus groups) enabled triangulation of the findings and ensured a richer, more detailed understanding of the strengths and threats.

Observations

Nurses who had not attended MTMs before, started to attend the meetings as auditors during the first part of this project.[9] They could act at the same time as nonparticipant observers.

Questionnaire

Four nurses, an expert in social sciences, and two medical oncologists (usual MTMs attendees) discussed the design of the questionnaire in two meetings with questions that were considered as relevant as strengths and debilities of multidisciplinary working at that place [Box 1].

The principal investigator of this project E-mailed a letter explaining the objectives together with the questionnaire to the mailing lists of the MTMs (125 people). The questionnaire could be answered via E-mail or in specific boxes at the different departments.

Box 1: Questionnaire

Question 1	As a usual attendee, please rate the contribution that you obtain from the MTM
Question 2	Now, please rate the contribution that patients obtain from the MTM
Question 3	Please rate your contribution to the decision-making process
Question 4	When I give my opinion at the MTM, I feel that attendees trust my knowledge
Question 5	When I give my opinion at the MTM, I feel that attendees value my participation
Question 6	Generally speaking, I learn from the discussions held at the MTM
Question 7	Generally speaking, I think that discussions should be enriched with bibliographic material
Question 8	I think that MTM would obtain more benefits from established protocols
Question 9	I think our hospital acknowledges and values our devoted time to this specific issue
Question 10	Generally speaking, the hospital adapts my schedules (even if my workload is the same)
Question 11	Generally speaking, the hospital reduces my workload in order to facilitate attendance to MTM

Focus groups

Focus groups are semi-structured discussions that aim to explore a specific set of issues. Two female oncology-nurses who had participated in cancer conferences as auditors, acted in four focus groups as moderators. At the time of the study, they worked as nurses at the Oncology Day Hospital. Most but not all participants knew them at the time the focus groups were organized. The fifth focus group was composed only by the heads of the departments. For this particular group, an expert in social sciences (member of the research team) was designated as moderator. He neither was known by the participants nor did he work at the hospital. Moderators commenced the focus group by asking broad questions about the topic of interest. Participants were encouraged to talk and interact with each other. Audio recording was used. Discussions were anonymized and transcripted verbatim. The duration of the meetings was less than an hour.

Sampling

Participants were selected among attendees to cancer conferences. They were approached by E-mail. Groups were composed by people from different specialties among the individuals who accept to participate. Purposive sampling was used to identify the attendees to the group of residents and heads of departments (all the potential candidates were invited).

Setting

Meetings were held at the hospital during nonworking time. There was not anyone else besides the participants and researchers in the room. We did not collect data regarding age of participants. Gender and specialty are displayed in Table 1.

Data collection

Transcripts from the focus groups were scrutinized to identify recurrent themes. Themes were grouped into theoretic concepts, which described overarching ideas.

RESULTS

Observation

Descriptive variables for MTM structure and patient cases are described elsewhere.[9]

Questionnaire

The questionnaire was E-mailed to 125 physicians (mailing lists for MTMs). About 49 people answered the questionnaire (39%). Most questionnaires were answered back in a nonanonymous form [Table 2].

The question best rated was (#2) which refers to the benefit for patients. The second best rated was (#1) which

Table 1: Participants in the focus groups

Specialty	1st residents	2nd group*	3rd group	4th group	5th heads of department	Total
Surgery	4	1	1	1	1	8
Medical oncology	0	1	1	1	1	5
Radiotherapy	0	2	0	1	1	4
Pathology	0	1	1	1	1	4
Radiology	0	0	1	1	0	2
Gynecology	1	0	1	1	1	4
Haematology	0	1	1	1	0	3
Dermathology	0	0	0		1	1
Urology	1	0	0	0	0	1
Total (male/female)	6 (2/4)	6 (2/4)	6 (1/5)	7 (1/6)	6 (5/1)	32 (11/23)
Date	08/05/2012	17/05/2012	22/05/2012	29/05/2012	06/06/2012	
Duration	37 min	1h 13 min	33 min	46 min	50 min	

*This group included two members of the Hospital Commission of Cancer

Table 2: Answers to the questionnaire

Question		*n*	Mean	SD	Min	Max
1	The contribution that you obtain from the MTM	49	8.9	1.1	6	10
2	Contribution that patients obtain from the MTM	49	9.2	0.8	8	10
3	Rate your contribution to the decision-making process	49	7.6	2.1	1	10
4	Attendees trust my knowledge	49	7.3	2.2	1	10
5	Attendees value my participation	49	7.4	2.2	1	10
6	I learn from the discussions	49	8.7	1.1	6	10
7	Bibliography could be useful	49	7.1	2.2	1	10
8	More protocols would be beneficial	49	8.5	1.5	5	10
9	The hospital administrators value this work	49	3.4	2.4	1	9
10	The hospital administrators adjust schedules	49	3.9	2.8	1	10
11	The hospital administrators adjust workloads	49	2.5	2.3	1	9

evaluates the contribution of cancer conferences to the cancer provider.

The question worst rated was (#11) about how hospital reduces workloads to facilitate attendance. The second question worst rated (#9) was about how the hospital acknowledges the commitment of cancer providers with the multidisciplinary care.

Focus groups

About 31 people participated in five focus groups [Table 1]. Five weekly focus groups were held at the hospital between May 8, 2012, and June 6, 2012, during nonworking time. The first group was only composed by residents and the last group only composed by heads of department. The other three were composed by different specialists invited according to the aforementioned criteria. Groups included 6–7 people. The final number of participants represented approximately 26.4% of usual attendees and covered the full range of professions involved in the meetings (except orthopedists).

We identified three domains that provided insight into the threats for functioning of MTMs. We will also analyze the strengths of the MTMs [Table 3].

1. Organization factors. Factors depending on the general management of the hospital. How the hospital organizes the time and workload of health practitioners to attend the meetings
2. MTM structure. Composition of the meetings. Leadership
3. Decision making. Interaction of the members. Bibliography and protocols
4. Strengths.

Organization factors

MTMs are working at this setting without any explicit support from the organization. MTMs attendees do not have dedicated time included in their job plans to prepare and attend the meetings. Participants claim that having protected time, the results would improve. They do not need any specific incentive but the opportunity of working well and learning from their peers. On the contrary, the heads of departments demand that the attendance is recognized at least as Continuing Medical Education (CME). One of the participants proposed to electronize the MTMs. She wondered whether it would be interesting for the general management in case they could compute this work. Participants also expressed some concerns about meeting venues, technology, and equipment.

Multidisciplinary team meetings structure

At this hospital, there was not an established membership. Neither there was a designated coordinator, nurse manager nor clerical support. Physicians leave the meetings with some duties which could be solved with the support of a nurse manager such as appointments or additional tests for patients. With regard to composition of the meetings, there was some discussion about the absence of internists. They are not considered as usual members,[10,11] but they are involved

Table 3: Themes and subthemes arising from the focus groups

THREATS
Organization factors
Lack of protected time
"The day the MTM is scheduled I have two patients less at that time but they are due to come later, so the load is not reduced… and I drag some duties from the MTMs (tests, orders, visits, etc)… " (Gynaecologist)
"Time nowadays is money and we can't get rid of anyone" (Head of Department)
Lack of acknowledgement of the multidisciplinary work
"We have the motivation in spite of the organization" (Haematologist)
"For me to attend the MTM is a key piece in my clinical work. But the organization doesn't recognize this time as clinical work" (Radiotherapist)
"I don't need any reward just the acknowledgement of that time" (Medical Oncologist)
"We need five more hours per month. This is the reward we ask for." (Medical Oncologist)
Lack of organization
"The philosophy should come from the management and then, the head of department could manage…" (Radiologist)
"I haven't ever discussed about scheduling for attending MTMs with the management. They ask about waiting list, figures, but not about this" (Head of Department)
Facilities and support
"There is not any established procedure to solve any problem that the MTM is facing" (Surgeon)
"There should be an appointed coordinator: someone who says the projector has broken down, we need more chairs, etc" (Surgeon)
Structure of the MTM
Lack of defined transversal roles (administrative, coordinator, leader)
"I miss the role of an administrative person writing the minutes…" (Surgeon)
"I have hundreds of little bows to remind me of things…" (Gynaecologist)
"To handle the mouse does not make up a leader" (Nurse)
"There is a problem when the leader is your boss. I can argue with XX but not the others". (Medical Oncologist)
Lack of integration of some specialties
"Internists don't attend MTMs" (Medical Oncologist)
Non-invited attendees
"Why do the students come?"
Decision-making
Non-systematized presentation
"Sometimes the case is not very well prepared. and the presenter says wait, wait… searching for more information such as tumor markers" (Resident)
"Some (complicated) cases should be discussed at the beginning of the meeting" (Surgeon)
Time constraints
"It is a pity it (final recommendation) depends on how vehement you are when discussing or the number of cases that have been discussed…"
Lack of procedures (i.e. presenting difficult cases before easy cases)
"The number of patients to be discussed should be limited" (Gynaecologist)
Presence of unequals
"The decision of the group is not always the best one and it is not always a decision of the group but of the most influential attendee…"
"Sometimes the boss is not the one who knows more, sometimes he is not right but you have to agree –because he is the boss."
Discussant
"The one who most contributes (to the discussion) is the one who will operate on the patient…" (Surgeon)
Protocols
"The protocol shouldn't overcome the clinical judgement" (Radiotherapist)
"Is it feasible to write a specific protocol for each pathology? No! it is not…"
"You can adapt but not adopt an external protocol." (Head of department)
"I think the MTM is much more important than the protocol. Sometimes the protocol has been written and no one has read it, but everyone knows it by heart because we all have learnt our way of doing things from our meetings."
Patients to be presented (every patient vs difficult cases)
"I thought all cases were to be discussed." (Surgeon)
Bibliography
"You have bibliographic support for everything…" (Radiotherapist)
STRENGTHS
Benefit for patients
"Patients like to know you discuss their case with your peers" (Haematologist)
"I wouldn't accept being treated in a hospital without being supervised by an organized multidisciplinary team" (Head of Department)
"I can't see a threat for the survival of MTMs because despite these snags, we all are satisfied and we consider that our patients are well oriented…" (Head of Department)
Benefit for physicians
"At the MTM I am visiting the patient in some way. I am saving the time I need to talk to the radiologist, the gynecologist, etc., " (Radiotherapist)
"We pathologists are always separated. This allows us to participate in the work of the hospital…" (Pathologist)
PROPOSALS
"I think the MTM should be incorporated in the EHR and organization. I would propose to create a listing like the ones in the clinic. If everything has to be electronized let's electronize this." (Radiotherapist)
" I would propose every case to be checked by a second health practitioner" (Surgery)

in the initial work-up of many cancers and some participants claimed their presence would enrich the meetings and could improve the timelines for diagnosis and treatment. Some participants recognized that in the presence of a hierarchically superior colleague, the discussion could be pointless. The presence of a head of department could refrain some people from discussing. Some MTMs had a clear and identifiable leader, but in some others the leader was not identifiable. There was some discussion about which characteristics make up a leader. Scientific knowledge is valued but is not the only characteristic to be a leader. The large number of cases scheduled for discussion constrains the length and quality of debate. That number should be limited in order to guarantee the proper discussion.

Decision making

Some participants reported a careless presentation of cases which could interfere the decision making. Though there is a clear recommendation about having local protocols, participants express concerns about the lack of time to write new protocols and update old ones. Generally speaking, all the participants thought the final recommendation is improved through the MTM. However, there was a strong individual discrepancy. One physician argued against considering that the MTM decision was necessarily the good one. He claimed that the presence of some charismatic and talkative people could interfere with the freedom of some others to talk openly.

Benefits

The benefit for patients was out of discussion as it was anticipated by the results in the questionnaire. The benefits are so clear for patients and decision making that when the possibility of disappearance is discussed; no one accepted that possibility. Physicians want to attend the meetings where they can discuss the cases, they learn from their colleagues and reflect about potential errors or different approaches.

DISCUSSION

Our findings show that the lack of active support by the organization hinders the optimal functioning of MTMs. Management support is managers' commitment to invest in quality implementation policies and procedures to implement the innovation.[1] Two organizational factors are important in influencing innovation: Management support and organizational culture.[12,13] Organizational culture is perhaps the most difficult of organizational concepts to define. It can be defined as "a basic set of assumptions that define for us what we pay attention to, what things mean, and how to react emotionally to what is going on, and what actions to take in various kinds of situations."[12] Teams located within hospitals that value cross-disciplinary consultation are more likely to function. The "group" culture highlights participation, teamwork, and cohesiveness, whereas the "hierarchical culture" highlights stability, rules, and regulations.[13]

Determinants of the extent of the implementation of a clinical innovation

- Team effectiveness
  - Awareness and conviction
  - Capabilities
- Organizational context
  - Management support
    - Staff are informed, encouraged, and rewarded
    - Practical management support
  - Organizational culture
    - Group culture
    - Hierarchical culture

MTMs were held at this hospital in a periodic and predictable manner and the relevant physicians attended the meetings and discussed a number of cases.[9] Since attending these meetings was not compulsory for physicians, only if physicians thought these meetings were necessary and useful they would keep attending them. At this setting, team effectiveness and group culture seem to have been the most determinant factor for the implementation of multidisciplinary working. Identifying potential threats or debilities perceived by cancer providers could be useful to keep the MTMs working. More is known about the implementation than about the maintenance of high-functioning teams. The implementation of a new process depends on administrators and health professionals perceiving value.[8] The other important element of the framework for the implementation of new processes was the implementation climate, defined as a shared perception that the new process is perceived as a priority and promoted, supported, and rewarded.[14] In this study, conference members could see the value of MTMs even when the organization did not promote the support or reward this implementation. This high perceived value and the fact that the hospital was recently created could explain the success in the implementation of MTMs[9] without any formal support by the hospital administrators. The integration of care sometimes is achieved through the spontaneous development of nonformal networks between professionals ("networks in the shadow of hierarchy"). However, it is well known that the lack of formal support is a handicap for the effectiveness and survival of these networks.[15]

The most consistent statement in the questionnaire was the one related to the benefit for patients (question #2), in contrast with the questions regarding organizational support (questions #9, #10, and #11). Moreover, individual benefits for team members were unanimously reported in the questionnaire. Job satisfaction, effectiveness, sense of cooperation, and confidence in the decision were stated in the focus groups. Professionals definitely see the value in MTMs despite the time and effort that are required. However, they do not perceive the organizational commitment and resourcing needed to strengthen the multidisciplinary input.[16]

In other countries, the "carrot and stick approach" was proposed to motivate health providers to attend the meetings.[8] However, no better incentive could the professionals receive than taking advantage from the meetings. When the possibility of offering an incentive (such as CME) was proposed in the focus group, the attendees answered against that. They claimed this was a health care time and they only wanted to have the time to prepare the cases and attend the meeting. The lack of recognized time is the most important threat for the continuity of the meetings.

MTMs do not always function optimally.[17,18] Guidelines for operating an effective MTM have been published in several countries.[10,11,19] Diagnostic, clinical, and personal information (views and preferences) should be collated and summarized prior to meetings. It is important that any data items that are in the hospital-based tumor registry are in line with these definitions. It has been reported that relevant information was not available in 5% of the cases,[20] and this could be improved by using a checklist. Inclusion of an MTM-approved data collection standardized proforma improves data documentation and could help to improve systematization in the presentation.[21] More difficult cases should be prioritized to increase the chances of a higher-quality discussion.[22] Though there was an agreement about having internal or local protocols as an additional quality indicator of value, the lack of time makes it impossible to have an updated protocol for every pathology. However, this fact was not seen as something risky for the decision-making process. During the discussions, it was suggested that lack of some local protocols could be balanced out with a reflexive adaptation of external guidelines.

Some other deficiencies can be identified in the evaluated MTMs, such as the lack of nursing personnel as a stable attendee, the lack of clerical support of a coordinator. Provision of assistance to patients to access and navigate the complex health system is essential for effective care coordination. The role of nurse care managers in the cancer conferences is beyond dispute.[23]

The decision-making process is influenced by effective team working skills and the dominance of team members with medical knowledge (professional hierarchies). It is very well known that status differences among team members may depress team functioning.[1] Nurses are in a unique position to ascertain patient preferences–regarding treatment options but also regarding the extent to which they want to be involved in decision-making- and to identify patients' support needs in dealing with the physical and psychosocial aspects.[13,24] Their ability to communicate such issues to the rest of the team is a vital resource that needs to be fully integrated.[25] We advocate the integration of a nurse navigator within the multidisciplinary team. Some participants recognized that the presence of the heads of department (acting as a *primus inter pares*) could reduce the chance of discussing.

Though procedures for team-working are well structured and defined, not all recommendations were equally considered as necessary in the focus groups. Lack of an established leadership and definition of outcomes were not understood as threats for the continuity. However, the lack of time seems to be the greatest disincentive.

We have to acknowledge some important weaknesses of our study. Hospital administrators were not invited to be the part of the focus groups. Unfortunately, the original board was not leading the hospital when this study was done. The second weakness would be the limited external validity provided that most hospitals carry some old routines and this recent created hospital did not face this problem.

Though this hospital exhibits particular characteristics because of its recent creation, problems related to the lack of recognized time and support by the institution are common in other setting[6,18,26-28] and seem to be the real threat over the continuity of multidisciplinary work. On the other hand, we think that many teams could be universally working under lower standards of composition and functioning than it was desirable and this could justify the controversial results in the limited impact on patient outcomes.[29] Unfortunately, many studies did not report on checked composition or functioning of teams. A meeting with different specialists does not make up a formal multidisciplinary team meeting which meets the recommendations. The main strength of multidisciplinary working at this hospital would be the shared perception of the benefits of this new cultural approach for both patients and health providers. Only one physician expressed some concerns about the danger of sacralizing MTMs decisions, but the vast majority recognized the positive impact MTMs had over decision-making and over their own education. Physicians would not accept working out of a multidisciplinary team anymore.

CONCLUSIONS

Empirical evidence exists that the use of teams can improve both the quantity and the quality of health care services. Given the complexity of teamwork, the management support and the organizational culture are cardinal for the implementation and maintenance of multidisciplinary cancer conferences. The great extent of implementation of MTMs at this setting was related to team effectiveness and organizational culture more than to the management support. However, the sustainability of this culture could be threatened by the lack of protected time to prepare and attend the meetings. Integration of nurse navigators within the multidisciplinary team could improve the effectiveness of the team. After analyzing the insights of cancer care providers, the recommendations (in line with what some international recommendations state) would be the following:

1. The time devoted to prepare the meetings and to attend them should be protected by the organization
2. A coordinator, a nurse manager, and an administrative

appointed for each cancer conference would improve the MTMs dynamics
3. Lack of local protocols is a problem that could be balanced out with a reflexive adaptation of external guidelines
4. The attendees should systematize the presentation of cases. A minimum dataset of information should be agreed and included in a proforma.

This research highlights the need to explore local strengths and threats for the sustainability of periodic cancer teamworking.

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Conflicts of interest

There are no conflicts of interest.

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