



## Collaboration between doctors and nurses in children's cancer care: Insights from a European project



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### A B S T R A C T

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**Purpose:** It has long been recognised that effective cancer care is not possible without multi-professional team working. Collaboration and multi-professional working however are known to be less than straightforward. This project aimed to use a collaborative approach to explore and facilitate professional groups to work together more effectively in the field of children's cancer care.

**Method:** Based on an earlier project in Italy, a three-year seminar series was organised involving both a doctor and nurse from 15 paediatric haematology/oncology units across Europe. Participants had to be able to speak English and commit to participate in annual seminars as well as the development and implementation of a local project to enhance doctor–nurse collaboration in their own unit. Appreciative Inquiry was the methodological approach used to address organisational as well as interpersonal change. **Results:** Fifteen doctor–nurse teams were initially selected from a range of different countries, and 10 completed the project. Key outcomes reported include implementation and successful completion of projects, publication of the results achieved, participant satisfaction with improvements in collaboration. Feedback from participants would suggest that change had been implemented and possibly sustained. **Conclusions:** Active involvement and group support were required for success. More formal relationships needed to be activated with participating centres to guarantee support for those involved in implementing lasting change. A web-based resource to allow other programmes and centres to use the resources developed has been made available. The same approach, we believe, could be used to improve multi-professional working in the care of other childhood illnesses.

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### Introduction

Working together in partnership, rather than alongside or in competition is considered essential, not only for the smooth and efficient running of everyday clinical care, but also for finding new ways of tackling old as well as new problems (Davies, 2000).

Working together can be described as acknowledging the contribution, expertise, personal and professional experience of group members as equally valid, and the sharing of common goals (Davies, 2000). Although collaboration (teamwork, cooperation) is strongly recommended and its importance and effectiveness has been shown in several outcomes (Zwarenstein et al., 2009; San Martin-Rodriguez et al., 2008), including some described in paediatric haematology–oncology (Kenny, 2002), effective cooperation is not an easy goal to achieve. Medical and nursing curricula rarely provide in-depth knowledge of methods and strategies for facilitating collaboration. The obstacles and challenges to effective cooperation have been extensively discussed from both a medical

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(Davies, 2000; Radcliffe, 2000; Salvage and Smith, 2000) and nursing perspective (Kenny, 2002; Scholes and Vaughan, 2002; Xyrichis and Ream, 2007; Yeager, 2005). Collaboration is an active process that requires perseverance, effort, personal motivation, education and information exchange; all of which can be difficult to achieve given the daily pressures and routines of clinical practice (Zwarenstein et al., 2009). In cancer care we might all agree that collaboration is in fact a good thing, but rarely does this way of working develop spontaneously (Craig et al., 2008). We sought to explore, through the execution of a project, how a group of nurses and doctors from the European community of children's cancer care worked together.

In September 2000 a seminar organized in Abano Terme (Padua, Italy) for doctors and nurses working in paediatric haematology–oncology (Hematology/Oncology Unit of Padua University and Italian Association for Leukemias Padua, 2000), identified a widespread perception (especially among nurses) of poor collaborative working in the clinical environment. A three-year project was then organised, involving doctors and nurses from the main Italian haematology–oncology centres. The project took the form of an action-research programme involving participants from 16 units who undertook yearly residential meetings alternating with local implementation of practice-based change to enhance collaborative working (Di Giulio et al., 2004). In spite of common problems (high workload, difficulties in involving other colleagues), 13 projects were completed. The need to discuss, plan together and organise interdisciplinary meetings improved the integration and communication between doctors and nurses and were the key outcomes from this experience (Di Giulio et al., 2004).

The success of this project was discussed by members of the International group SIOP (International Society of Paediatric Oncology <http://www.siop.nl/>): a multi-professional organisation whose expressed aim is to promote the exchange of information and good practice in paediatric oncology all over the world. A proposal was submitted to ECCO—the European CanCer Organisation (originally the Federation of European Cancer Societies) for a grant to replicate the Italian experience in a broader European context. The project was promoted by the European Branch of the International Society of Paediatric Oncology (SIOP Europe) and the European Oncology Nursing Society (EONS). This paper presents this project in terms of process and outcomes.

## Method

The main objectives were to improve/promote technical and professional integration between nurses and doctors and to build the foundation for establishing and managing integrated projects in paediatric haematology–oncology in Europe. Having nurses and doctors sitting around the table to share problems and develop shared solutions was not common across all European countries and was an important milestone in itself. This project gave participants the unique opportunity to work closely together on an 'equal footing' in order to explore and resolve problematic issues and promote collaborative care.

The theoretical background to the project was Appreciative Inquiry (AI) theory (Cooperrider et al., 2005). AI has been found to be an effective approach to changing organisational culture, offering a way to celebrate good practices and "what already works", to rethink some aspects of practice to make things work even better. AI focussing on what functions and what could function better, frees the imagination and innovation instead of concentrating on negative aspects. The key stages of AI followed were:

- Discovery—trying to identify what positive change can be brought about;

- Dream—creating a clear vision of what could be if only;
- Design—determine what the ideal should be;
- Destiny—create what it will be.

AI begins with appreciation of what functions well in an organisation, promotes discussion as to what could work even better and promotes collaboration for change and improvement. The AI approach had already been adopted for promoting change in other organisational contexts (Cooperrider et al., 2005).

## Procedure

The project was advertised through the SIOPE, the SIOP Nurses Group and EONS communication networks. Applications from centres were accepted only if a nurse and a doctor were working in the same institution, and directly involved in clinical practice, were able to guarantee participation in all seminars over the two year life of the project, that they could speak and understand English, and had the support and cooperation of their institution. An experienced faculty (two doctors and three nurses) was responsible for setting up and running the project, planning and running the seminars, acting as mentors for the participant groups and monitoring progress. The Faculty met in person and by teleconference on a regular basis to provide ongoing leadership and direction.

A 2-year programme was first implemented. The participants were funded to meet face to face on three occasions for seminars that provided theoretical and methodological support for implementing a change/improvement project. Each participant identified areas for collaboration between doctors and nurses. Didactic lecturing was kept to a minimum and instead active interaction between participants was promoted to provide opportunities to discuss, analyse and provide feedback on: a. methods used to implement change; b. problems encountered when involving other colleagues; c. challenges in analysing, planning, implementing and sustaining change. Active exchanges were promoted through small workgroups and plenary sessions, supervised by one or more members of the Faculty, to provide opportunities for shared learning. The roles of participants and mentors were formally clarified and timelines agreed. Participants were expected to identify their own area for improvement in practice, using the AI approach and to plan and develop a field project and to produce regular reports of their progress using three seminars to help develop and shape ideas.

## The course

**First seminar** (Milan, Italy November 17–19 2006). The first residential seminar focused on the AI methodology and the main challenges, obstacles and benefits of doctor–nurse collaboration were explored. Participants were facilitated to identify areas of strength in their own practice (aspects they were proud of, in order to build on existing strengths) as well as areas that needed improvement. They were asked to identify an issue that could improve their practice through stronger collaboration and possible solutions, main obstacles, and then to plan the necessary activities (short and medium term) to bring about that change in their team. Each team was assigned to a mentor, who was responsible for providing methodological support and encouragement.

**Second seminar** (Amsterdam, the Netherlands, June 8–10 2007). This began with each centre reporting on the progress they had made. The aim was to promote learning from each other's experience and to share successes, problems and doubts. Formal presentations on the management of change and the fundamentals of project management were provided. The groups were asked to revise their

project using the principles of project management. Feedback at each stage was provided from fellow participants and the Faculty.

Third Seminar (Prague, Czech Republic, June 13–15 2008). Groups reported on results achieved so far and were asked to reflect on challenges to be met to sustain the change. Presentations addressed the theory and steps necessary to complete and sustain change, as well as a reflection on the whole experience and the use of AI. The Faculty sought feedback on the work carried out and results achieved as well as on the path taken by each team. Challenges faced during the set up and implementation of the projects were examined in detail through group work and mentoring.

Fourth Seminar (Berlin, Germany, September 2009). Additional funds for a seminar to continue the project for a further year were made available. This seminar involved reflection on the project, support into completion and allowed the Faculty to collect recollections and feedback for broader dissemination of the work and to a wider audience. This also provided an opportunity to gather views from participants on the value of making available the project materials as a web-based education resource that could be accessed by other clinical teams.

### Measurement of outcome

Integration/collaboration is not easily measurable. A number of surrogate results were used as a measure of success:

1. The elaboration of projects of integrated activities between doctors and nurses;
2. The number of projects implemented and successfully completed;
3. The publication of the results achieved;
4. Feedback from participants on their perception of improvement of collaboration (final seminar).

### Results

Fifteen doctor–nurse teams were initially selected from different countries, in an effort to obtain a balance between Eastern and Western Europe. Belgium, Czech Republic, Estonia (two centres), France, Germany, Greece, Lithuania, Serbia, Poland, Spain, Switzerland, The Netherlands, United Kingdom (UK) (two centres) all joined the project. The first important result was the fact that 10 of the 15 centres managed to work together for three years, attend the yearly meeting and complete one project. Five centres were however unable to complete the project due to lack of time, shortage of staff, changes in the local management, lack of support from their colleagues or personnel changes. Seven of the projects were presented at the International Society of Paediatric Oncology Annual Meeting in Berlin 2008 and five teams have published/presented outputs in their own country

and in international journals (e.g. Lazic et al., 2011). A brief description of the focus and outcomes of these projects is provided in Table 1.

The projects were chosen by the wider clinical teams and represented the diversity of clinical care, with a focus on communication and information sharing between professionals, children and their families. The projects were described as examples of opportunities for collaborative care, where teams were seeking to improve the experience for families in their care. Due to the similar topics chosen, learning between centres, and the sharing of best practice was enhanced because, in spite of a similar focus, the practical implementation of the projects varied between centres, and this increased the opportunities for confrontation and reciprocal learning.

Participant's impressions of being involved in this AI project were also collected at a focus group in Berlin in 2008. They all felt that their attitude to collaboration had improved because they had a greater capacity to understand problems from the other's perspective and benefit the whole team: "It's been a very positive thing – allowed us two to work more collaboratively on other things in the department". Overall the evaluations were very positive, participants summarised progress made, and how to present the experience to others. It was felt that skills learnt had wider application than the course: "We choose a project and we did it. We could do it again on a different topic and know how it works; we learnt how to bring about a change". Participants commented on the positive atmosphere created, the opportunity to meet colleagues from other countries, to share issues and ways of working, and friendly approach of the project team: "Another important reason for participating was the opportunity to meet people that do your same job, to share problems and ideas".

### Discussion

The programme undertaken is original and was successful in spite of several factors that could have been a source of problems. These included the differences in health care systems, academic backgrounds, day-to-day methods for provision of care, resources available and the overall cultural and professional status among participating countries, however, these were utilised as a powerful resource and learning experience and were not considered a drawback. These factors enhanced the educational and learning opportunities between countries, and did not present a barrier as might have been anticipated. The comparison between different realities was recognised by all participants as an enriching experience, which promoted learning from each other. The use of Appreciative Inquiry, in spite initial difficulties with the approach as it is different from the traditional problem solving (Lazic et al., 2011), was successful and all the groups (even those that stepped down from the project) agreed that it had been a positive and challenging learning experience. The

**Table 1**  
Brief description of the projects developed.

Topic	Participating country
How does good communication affect the relationship between doctors and nurses and patients and their families?	Germany
Collaboration between doctors and nurses in providing information to the patients and their families during the course of treatment? (Vaitkeviciene and Venslauskaitė, 2008).	Lithuania
Implementation of a pediatric pain protocol in the paediatric haematology/oncology ward of the University Hospital Ghent. (Bistoën et al., 2008).	Belgium
Implementation of a weekly multi-professional round to improve sharing of information relevant to patient care.	France
Nurse education in paediatric haematology/oncology ward: development of an educational program at the University Children's Hospital, Belgrade, Serbia (Lazic et al., 2008, 2011).	Serbia
The Development of a multi-professional support mechanism for Staff working within the Paediatric Haematology/Oncology Unit of Birmingham Children's Hospital (Hobin and Hotchin, 2008).	UK
Improvement of phone communication between parents, medical and nursing staff in a pediatric oncology unit (Lakerveld et al., 2008; Pourtsidis et al., 2008).	Greece, The Netherlands
How to improve communication modality among doctors, nurses, parents and children (Orgulas and Hiie, 2008).	Estonia
Collaborative decision-making around treatment and care by nurses and doctors.	Poland

focus on positive rather than negative and critical analysis, created a framework which provided fresh thinking and stimulus for dealing with the expected and the inevitable problems encountered. In fact, discussing strengths rather than problems seemed to minimise resistance, thus rendering an easier dialogue among members of teams (Reed et al., 2002).

Although not all the local projects can be considered fully completed it is a success that all the centres were able to make progress on (and most to complete) a project. A possible explanation for the high number of centres able to complete changes may be the voluntary participation and the self-selection promoting more motivated participants. The withdrawal of some centres was not unexpected: the implementation of a local project with the involvement of peers was an additional strain for most participants when added to a busy professional life. In addition funding and local support were also not forthcoming and proved challenges to be considered in future initiatives such as this (the funds granted were mostly used to cover travelling and lodging expenses for the participants and for the organization of the meetings).

Some centres, especially those less used to collaborative work, faced additional difficulties: for example problems in involving other staff who might be key to a successful outcome. In the future a formal agreement with the Medical and Nursing heads of department might ensure a stronger commitment and more extensive support for their participation. The capacity to bring about a change is, in fact, often only mediated by considering the different roles and power bases in organizations (Reed et al., 2002). The themes of the completed projects reflected the local perspective and existing levels of collaboration: a mode of working that might be taken for granted in some countries, for instance, may represent a challenge in others.

We are not able to say if the changes achieved are still embedded in routine care or need more efforts to be sustained. Feedback from participants would suggest that change has been implemented; and possibly sustained. An unresolved issue remains about the extent to which doctor–nurse collaboration improved generally. Participants stated that it did, and considering a possibly different perception of collaboration between doctors and nurses, this can be considered a positive outcome (Vazirani et al., 2005). The nature of some changes is difficult to measure and the problems related to the assessment of the outcomes of complex and multifaceted interventions have been already acknowledged (Craig et al., 2008). There is a need for validated instruments to measure collaboration in similar projects in the future. Furthermore, centres were not always equally comparable (with wide variations in the level of staff, culture, organization and so on) and local projects implemented involved different staff, therefore a single measurement instrument would neither have been feasible nor culturally reliable. A trade off must be found between the importance of an intervention and the value of the evidence that can be gathered, given some constraints: it may not always be possible to provide accurate measures of success when exploring collaboration between professionals. In addition a single primary outcome may not provide evidence of the success of an intervention that may have effects across a range of domains (Craig et al., 2008). Overall comparison between the centres is also made difficult by variability in the implementation of local projects and the different staffing and grades of staff across centres. As suggested by Gibson (2009), we have much to contribute to the narrative of multi-professional collaboration that includes describing and making suggestions for how we can measure success.

### Limitations of the project

Initial commitment and enthusiasm were often overwhelmed by busy clinical workloads, future similar projects would benefit

from a formal contract with local senior management clinicians and funds to release time to the project locally in order to facilitate success of the project. Support was offered at a distance by the Faculty, future projects may benefit by costing in time for mentors to visit local sites or fund the support of a local mentor.

### Conclusion

This project has emphasised the importance of bringing together doctors and nurses to learn together. As an approach this has much to offer if we are to understand and describe the defining features of collaboration from those who describe their role as collaborative. Collaborative working has become a central characteristic of services within children's cancer care. This is an organisational change to long-standing working practices characterised by professional separation and medical authority (Hudson, 2002). We need increased opportunities through organisations such as SIOP and EONS to explore such working practices, learning to better articulate what works and when, in different countries and different settings.

Each initiative to address and improve a complex clinical activity needs to be promoted, resourced and organised effectively: these are essential requirements to be able to foster better working practices. The challenges of working across international boundaries also needs to be acknowledged and our planned Internet resource will make information available for other groups in the future <http://www.siope.eu/SIOPE-EU/English/Education/CoursesTraining/Projects/ECCO/page.aspx/218>: the same approach, we believe, could be used to improve multi-professional working in the care of other childhood illnesses. All of those who worked on the project agreed collaboration to be a “good thing”. The question still remains, “how do we know when it works well”, and “what factors can promote that collaboration”.

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### Conflict of interest statement

“All authors declare that (1) NONE have support from any company for the submitted work; (2) NONE have relationships with companies that might have an interest in the submitted work in the previous 3 years; (3) their spouses, partners, or children do not have financial relationships that may be relevant to the submitted work; and (4) NONE have financial interests that may be relevant to the submitted work.”

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