Development of Potentially Better Practices for the Neonatal Intensive Care Unit as a Culture of Collaboration: Communication, Accountability, Respect, and Empowerment

Judy Ohlinger, RN, MSN*; Mark S. Brown, MD, MSPH‡; Sue Laudert, MD§; Sue Swanson, RN, NNP∥; and Ona Fofah, MD∥ on Behalf of the CARE Group

ABSTRACT. Objective. The Vermont Oxford Network (VON) CARE Group was formed in response to the need to create organizational cultures supportive of change and quality improvement.

Methods. The CARE Group consisted of team members from 4 participating neonatal intensive care units (NICUs). All CARE Group members chose to work on multidisciplinary teamwork for the duration of the Neonatal Intensive Care Quality Improvement Collaborative Year 2000. A questionnaire was developed by the CARE Group and administered to the 4 focus group NICUs. The survey focused on 6 domains of the organization: unit coordination, working in the NICU, leadership, management of disagreements, authority, and unit culture. Benchmarking visits were completed to supplement the information found in the survey and the literature.

Results. Seven potentially better practices (PBPs) were developed on the basis of the surveys, benchmark visits, and literature reviews. The PBPs include 1) a clear, shared NICU purpose, goals, and values; 2) effective communication among and between teams and team members; 3) leaders lead by example; 4) nurture a collaborative NICU environment with trust and respect; 5) live principled standards of conduct and standards of excellence; 6) nurture competent and committed teams and team members; and 7) commit to effective and positive conflict management.

Conclusions. The CARE Group successfully used quality improvement methods and collaboration to delineate principles and practices of multidisciplinary teamwork. Pediatrics 2003;111:e471–e481. URL: http://www.pediatrics.org/cgi/content/full/111/4/e471; collaboration, multidisciplinary teamwork, leadership, culture, collaborative quality improvement, NIC/Q 2000.

ABBREVIATIONS. NICU, neonatal intensive care unit; NIC/Q 2000, Neonatal Intensive Care Quality Improvement Collaborative Year 2000; PBPs, potentially better practices.

KEY POINTS OF ARTICLE
• The Organizational Assessment and CARE Group surveys addressed neonatal intensive care unit (NICU) coordination, leadership, management of disagreements, satisfaction, authority, and unit culture.
• At benchmark sites, nursing, medical, and allied health professionals supported and demonstrated collaborative practice.
• The culture of collaboration and teamwork within a unit is not a static “given”; it can be improved through the deliberate application of certain practices.

APPLYING LESSONS LEARNED TO PRACTICE
• The CARE Group learned that the essence of teamwork is collaboration, coordination, communication, continuity, and competence (the 5 “Cs”).
• Responsibility for problem solving must be shared by all professionals because successful quality improvement is driven by effective multidisciplinary teamwork.

Culture is the summation and functional expression of the values of an organization—its decision-making processes, resource allocations, division and alignment of power, authority, and influence.1 Culture encompasses the beliefs, norms, attitudes, and assumptions that are learned over time, shared by the organization’s members, and operate usually at a subconscious level. It is often described as “the way we do our work here.”

Cultural orientation consists of a blend of group, developmental, rational, and hierarchical elements.1 Organizations such as NICUs have varying combinations of the elements of these orientations, and usually 1 or 2 predominate. Group elements reflect concern for employees and patients (customers), emphasizing teamwork, participation, working relationships, consensus, cohesion, morale, trust, respect, and commitment. Work centers around processes and teams. Leaders are described as coaches, mentors, facilitators, and team and trust builders. Developmental elements encourage innovation, initiative, autonomy, risk taking, experimentation, flexibility, and adaptation. Leaders are catalysts and cultivators who empower, inspire, and promote their people and their goals. Success is defined as new products, services, and outcomes. Rational elements are competitive, goal-oriented, and efficient but emotionless, formal, and impersonal. The focus is on numbers, winning, and the bottom line. Leaders are assertive, tough, and demanding. Hierarchical elements are structured, formalized, authoritative, conservative,
impersonal, task driven, and prescriptive. Work is conducted according to policies and procedures. Risk taking is discouraged, and security is emphasized. Leaders are organizers and managers defining success in terms of dependable delivery and outcomes of care or services and low cost.

Without change, there can be no improvement. The fabric of the culture determines the degree to which any NICU embraces change. The more that change is woven into the fabric of the NICU, the more the processes of quality improvement can be implemented. The cultural orientations that are most conducive to change and improvement are developmental and group.

The principal elements that support change in developmental and group cultures are teamwork and collaboration—working together in a cooperative and coordinated way in the interest of a common cause. The authors of Team-Based Health Care Organizations\(^2\) concisely described this in their Blueprint for Success: A team is a small number of consistent people committed to a relevant shared purpose, with common performance goals, complementary and overlapping skills, and a common approach to their work. Team members hold themselves mutually accountable for the team's results or outcomes.

At the beginning of the Neonatal Intensive Care Quality Improvement Collaborative Year 2000 (NIC/Q 2000) project, a comprehensive survey of organizational culture was done. For determining the distribution of cultural elements, this survey addressed 6 domains of the operation of an NICU: 1) coordination, 2) about your work, 3) leadership, 4) managing disagreements, 5) authority, and 6) unit culture.\(^1,3\)

The CARE Focus Group, composed of 4 NICUs, was formed because of a joint concern that to produce effective change in NICUs, a supportive organizational culture had to be present. The organizational surveys validated the current cultures of the units and provided quantified information on how staff perceived their NICU in the 6 domains. In addition to baseline data on clinical indicators and financial profiles, survey results were compared in the hope of finding some obvious common theme. Although rational and hierarchical elements seemed to predominate in most of the units, no centralizing or common theme across units was found.

The CARE Group's task then was to facilitate the movement of their NICUs toward a culture that supports and values change and quality improvement. The organizational survey provided the initial foundation for the work in identifying potentially better practices (PBPs) for unit culture, and it gave scientific and process credibility to a topic that is often viewed as nice but not necessary. The first 4 domains of the organizational survey were used to organize the work. The overall aim was to improve performance in these 4 domains by 25% over baseline for each participating NICU. The group believed that any outcome—clinical, operational, or organizational—could be improved if people worked well together as a team. Therefore, the primary focus was on teamwork. The name for the focus group, CARE, represents key elements of teamwork: Communication, Accountability, Respect, and Empowerment.

**METHODS**

Each of the 4 institutions in the CARE Group chose to work on multidisciplinary teamwork for the duration of the NIC/Q 2000 project. At the first meeting, a tentative timeline was established for meeting the goals of the group and the larger collaborative. Between NIC/Q 2000 semiannual meetings, communication occurred primarily by conference calls every 2 to 4 weeks. Leadership of these calls was rotated among the members. In addition to the tasks to be completed by each conference call, individual NICU progress was discussed. The CARE Group listerv was the primary means of exchanging information between calls and meetings.

**Demographics**

The CARE Group included 4 hospitals located in Ohio, Illinois, Kansas, and Colorado. From the outset, it was agreed that information would be shared openly, liberally, and respectfully.

To understand the similarities and differences among the health care delivery environments that might affect cultures, NICU characteristics were compared, such as the number and sources of admissions, the number and varieties of health care providers and staffing, overall organizational characteristics, and outcomes. Individual NICU scores were also compared on the 6 domains of the organizational survey and the distribution of the 4 cultural elements. These comparisons familiarized the members with each unit and facilitated the discovery of the roles, if any, that these characteristics might play in determining cultural orientation. The 4 NICUs varied considerably (see Table 1).

**Internal Process Analysis**

The group began working on the development of an internal process analysis tool. The purpose of the tool was to assess in detail the state of teamwork within the units and to facilitate comparison between units. The group developed a questionnaire that focused on the 4 domains of the organizational survey described above. Each participating institution volunteered to develop process questions for 1 domain on the basis of the organizational survey results, NICU-specific experiences, and teamwork literature.

These process questions were then reviewed and revised by the CARE group as a whole. Questions on “coordination” asked about communication, multidisciplinary input, and consistency in practice. Questions on “your work” asked about role clarity for the staff, accountability, satisfaction, and empowerment. “Leadership” questions asked about role clarity of leaders, supportiveness, and role enactment. In the section on “managing disagreements,” questions addressed interpersonal behaviors and conflict resolution methods.

Staff in each unit completed the questionnaire. The numbers of staff members, the numbers of disciplines represented, and the levels of staff who completed the questionnaire varied. The responses for each NICU were used to establish a baseline description of current practice environments, attitudes, and working relationships. The survey feedback helped each unit decide on which areas of teamwork to focus first.

Lessons learned from this process analysis are summarized in Table 2. The responses made it clear that teamwork was important to individuals, but surprisingly, most believed that they were already displaying the attributes of good team members and the problem was with others who were not. Interestingly, there was little faith that conflicts among staff were or could be dealt with effectively. Furthermore, many respondents held a negative view of leadership, particularly that an individual’s input was not important or valued, and leaders were not sufficiently accessible to staff. Sincerity, effective communication, and involvement by and with leaders were highly valued. After the internal analysis, the survey questionnaire was reviewed and further revised for use with benchmark sites.

**Literature Review**

There is a limited though growing literature on multidisciplinary teamwork in health care. To ensure that the review was
TABLE 2. Lessons Learned From Internal Process Analysis

<table>
<thead>
<tr>
<th></th>
<th>Unit structures are hierarchical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff believe that they have little influence in decision making but recognize the need and have the desire to be more involved.</td>
<td></td>
</tr>
<tr>
<td>Leadership is perceived as being inaccessible and out of touch.</td>
<td></td>
</tr>
<tr>
<td>Individually we are willing to change and improve but collectively we are not.</td>
<td></td>
</tr>
<tr>
<td>Individuals see their own behavior differently from how others see it.</td>
<td></td>
</tr>
<tr>
<td>Individuals believe that they already know how to be good team players; everyone &quot;just needs to do it.&quot;</td>
<td></td>
</tr>
<tr>
<td>Staff are naïve regarding whole-unit functioning and their individual roles and contributions to that functioning (deficient in systems thinking).</td>
<td></td>
</tr>
<tr>
<td>Respect is higher within disciplines than between disciplines. There is a lack of trust and respect between &quot;us&quot; and &quot;them.&quot;</td>
<td></td>
</tr>
<tr>
<td>There is little trust by the staff that conflicts will be resolved.</td>
<td></td>
</tr>
<tr>
<td>There is variation in the understanding of the goals of conflict resolution.</td>
<td></td>
</tr>
<tr>
<td>Despite an understanding of conflict resolution, people cannot or will not apply the knowledge.</td>
<td></td>
</tr>
<tr>
<td>Day-to-day performance issues are perceived as being treated inconsistently.</td>
<td></td>
</tr>
<tr>
<td>Both monetary and nonmonetary reward and recognition are important.</td>
<td></td>
</tr>
<tr>
<td>All disciplines are willing to participate in conflict resolution and teamwork training.</td>
<td></td>
</tr>
</tbody>
</table>

inclusive, articles, books, and book chapters were examined, and expert recommendations, bibliographies, and Internet searches were investigated on a variety of aspects of teamwork. Individuals from each participating institution summarized and rated each piece of material, and these reviews were circulated among the entire CARE Group. Additional members of the group reviewed those that seemed particularly relevant and useful.

No large, randomized, controlled studies about multidisciplinary teamwork in health care were found. The majority of the literature came from business and industry. After the teamwork literature was evaluated, the material was divided into 2 priority levels for anyone focusing on teamwork: essential reading (the "A" list) and highly recommended reading (the "A-" list; see Appendix 1).

From the review, it became apparent that better practices for teamwork had already been discovered and health care outcomes could probably be improved with their application. Furthermore, common themes emerged that seemed fundamental to the development of potentially better practices. Books of particular note included Gung Ho, The Servant, and Who Moved My Cheese. Although not scholarly, all 3 capture the essence of teamwork, leadership, and change. The message conveyed was that worthwhile work is key, everyone needs to participate in goal achievement, and interpersonal support needs to be offered and received for teamwork to happen. The leaders' roles are to serve those they lead with respectful and responsible authority, not power. Although the status quo may be comfortable, change is necessary and needs to be embraced.

Benchmarking Site Visits

Based on the results of the organizational survey, the NIC/Q 2000 leadership identified 2 potential benchmark sites for examination of multidisciplinary teamwork in action. To ensure an appropriate fit with the CARE Group's purposes and for economy of money and time, as much as possible was learned about each site before it was visited. CARE Group members interviewed individuals from these sites, first by telephone, then in person at 1 of the semiannual meetings. The revised process analysis tool was sent to each benchmark site for the staff to complete, and these responses were reviewed and compared before the site visits.

Clear goals and agendas were established for both visits. Each visit began with a dinner meeting on the evening of arrival, followed by a full day in and around the NICU, including multidisciplinary meetings. Representatives from all disciplines and layers of the NICU were interviewed, and interactions and relationships among staff members in their ordinary day-to-day work processes were observed and evaluated.

Although there were obvious differences between the benchmark sites, there were striking similarities in the way they conducted collaborative practice. Their attitudes, beliefs, and behaviors were in line with what was found in the literature. At both sites, the intent to collaborate was clear. Nursing, medical, and allied health professional leaders gave obvious support to the collaborative process, clearly stated their expectations of partici-

TABLE 1. Comparison of CARE Group NICUs at the Start of the NIC/Q 2000 Project

<table>
<thead>
<tr>
<th>Unit</th>
<th>NICU A</th>
<th>NICU B</th>
<th>NICU C</th>
<th>NICU D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of NICU</td>
<td>30 y</td>
<td>27 y</td>
<td>20 y</td>
<td>27 y</td>
</tr>
<tr>
<td>Level 3 beds</td>
<td>40 total</td>
<td>36</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>Level 2 beds</td>
<td>18</td>
<td>30</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Annual admissions</td>
<td>600</td>
<td>780</td>
<td>590</td>
<td>620</td>
</tr>
<tr>
<td>&lt;500 g</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>500–1500 g</td>
<td>28%</td>
<td>15%</td>
<td>27%</td>
<td>26%</td>
</tr>
<tr>
<td>&gt;1500 g</td>
<td>71%</td>
<td>77%</td>
<td>72%</td>
<td>73%</td>
</tr>
<tr>
<td>% Inborn</td>
<td>74%</td>
<td>75%</td>
<td>77%</td>
<td>0%</td>
</tr>
<tr>
<td>% Outborn</td>
<td>26%</td>
<td>25%</td>
<td>23%</td>
<td>100%</td>
</tr>
<tr>
<td>Full-time FTE</td>
<td>65.5</td>
<td>70</td>
<td>84</td>
<td>71</td>
</tr>
<tr>
<td>Turnover rate/y</td>
<td>10%</td>
<td>7%</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>Clinical ladders?</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Credentialing?</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Hours/patient day</td>
<td>14.64</td>
<td>12.44</td>
<td>14.43</td>
<td>10.8</td>
</tr>
<tr>
<td>NNP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time FTE</td>
<td>5</td>
<td>10.5</td>
<td>10.5</td>
<td>8</td>
</tr>
<tr>
<td>RT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time FTE</td>
<td>4.5</td>
<td>18</td>
<td>22 total</td>
<td>26.3 total</td>
</tr>
<tr>
<td>Neatolagogy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time FTE</td>
<td>6.5</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>In-house</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Fellows</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Residents</td>
<td>No</td>
<td>Yes</td>
<td>FP</td>
<td>Yes</td>
</tr>
<tr>
<td>Medical students</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Institution ownership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public/private</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For-profit/not-for-profit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University affiliated</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
| FTE indicates full-time equivalent.
Collaboration comes first and weaves the fabric of all NICU activities. Teamwork is collaboration, coordination, communication, continuity, and competence (the 5 "Cs"). Responsibility for problem solving must be shared. Successful quality improvement is driven by effective multidisciplinary teamwork.

A healthy, respectful environment of ownership and pride is pervasive and contagious. Leadership is key—it sets the tone for everything. Address conflict, do not avoid it. The NICU is a community—take the time to build trusting, respectful relationships. Make no assumptions.

Collaboration is visible and participative. Leaders share the responsibility for making decisions and implementing changes resulting from those decisions. The staff displayed a “functional” multidisciplinary approach to problem identification and problem solving that included a sense of personal and professional ownership and pride, responsibility, accountability, respect, and trust. Although their organizational charts would appear hierarchical on paper, the leaders of these NICUs made every effort to support and serve staff. They modeled the attitudes and behaviors expected of staff and saw their role as removing barriers and providing resources for the work of care providers. They exemplified the differences between leadership and management. In these NICUs, the elements of group and developmental cultures were dominant. Lessons learned from the benchmark site visits are summarized in Table 3.

The teamwork that was observed at these sites included a multidisciplinary approach to problem solving in the NICU, with ownership and pride by everyone, shared responsibility, effective communication without previous assumptions, and mutual respect. These visits confirmed the view that successful quality improvement is driven by effective multidisciplinary teamwork. The importance of leaders as role models of teamwork attitudes and behaviors and their service in barrier removal and change facilitation toward goal achievement was apparent. Collaborative principles and practices were observed in action and were confirmed as both invaluable and achievable.

RESULTS

From the outset of the project, the primary task was to derive PBPs for multidisciplinary teamwork. These practices were synthesized from a combination of the internal process analysis, the literature review, and the benchmark site visits.

The aim of the list of PBPs was to be concise and minimally redundant and to customize this list for a NICU environment. It was realized early that all PBPs for an effective and functional NICU teamwork culture were inextricably intertwined. It was difficult to identify any single practice that stood out or stood alone. All were supported and underpinned by 1 or more of the other practices. From all of the above processes and lessons, the PBPs were condensed to 7 (Table 4).

Clear, Shared Purpose, Goals, and Values

Common purpose, goals, and values, specifically articulated, provide a unifying effect to the direction and commitment of team members. The purpose addresses, “What are we here to do together?” The goals are the milestones in pursuit of the purpose. Values describe how the team members are expected to behave on a day-to-day basis, how the team will travel together.

Effective Communication Among and Between Teams and Team Members

There are 2 types of communication critical to team success: organizational and interpersonal. This success depends on how well team members communicate not only among themselves but also to anyone else who is likely to be affected by or interested in their activities.

Organizational communication necessitates the use of multiple methods of communicating the same information. Information should be shared openly and often, including agendas, meeting minutes, calendars, and financial and clinical performance data. This links individual and unit-based activities to the big picture and how each member contributes to the overall functioning of the unit.

Interpersonal communication needs to be viewed as a 2-way process. Attentive “listening for understanding” is especially important and is not a skill that many people typically possess. All team members should encourage balanced participation in all discussions.

Lead by Example: “Walk the Talk”

Leaders’ primary responsibility is to facilitate whatever it takes for others to do their jobs effectively using resources both within and outside the department. They need to be seen as accessible and actively advocating for the NICU.

Effective leaders encourage decision making that is visible and participative. They trust team members with meaningful levels of responsibility and provide them with the autonomy necessary to achieve purposes and goals. Leaders manage the principles of effective teamwork and let these principles manage the teams. They do this by modeling the attitudes and behaviors desired of the rest of the staff. They also do this by identifying and addressing skill, knowledge, performance, and attitude deficits or problems fairly, impartially, and consistently at all levels.

Leaders strive to develop leadership skills in others, thereby creating more leaders. Their goal is to move team members from dependence on leaders to independence and eventually to interdependence, a systems model. To accomplish this, they use leadership styles that are appropriate to the developmental levels of individuals and groups moving between directing, coaching, supporting, and delegating, rather than command-and-control. By being open to new ideas and information themselves, they influ-

TABLE 3. Lessons Learned from Benchmark Site Visits

| Collaboration comes first and weaves the fabric of all NICU activities |
| Teamwork is collaboration, coordination, communication, continuity, and competence (the 5 “Cs”) |
| Responsibility for problem solving must be shared |
| Successful quality improvement is driven by effective multidisciplinary teamwork |

TABLE 4. Summary List of PBPs

| Clear, shared purpose, goals, and values |
| Effective communication among and between teams and team members |
| Lead by example: “walk the talk” |
| Nurture a collaborative environment with trust and respect |
| Live principled standards of conduct and standards of excellence |
| Nurture competent and committed teams and team members |
| Commit to conflict management |
ence movement away from the status quo, valuing and supporting the energy and talents of team members to try new things without fear of rejection or retribution. This fosters members’ personal interest and commitment to the outcomes that lead to greater likelihood of successful achievement.

Nurture a Collaborative Environment With Trust and Respect

A collaborative climate refers to the extent to which members communicate openly, disclose problems, share information, help each other overcome obstacles, and discover ways of succeeding. It is teamwork. Collaboration flourishes in a climate of trust, allowing team members to stay problem focused, not personality focused, and promotes efficient and effective communication and coordination. Trust is produced in a climate that includes 4 elements: honesty, openness, consistency, and respect.

Live Principled Standards of Conduct and Standards of Excellence

Standards define a team’s acceptable level of performance, but every standard is eventually defined by individual performance. The establishment of and adherence to high personal and team standards have a direct influence on the quality and value of performance and outcomes. Standards cannot be dictated. Group process and consensus should determine them.

Nurture Competent and Committed Teams and Team Members

There are 7 identified core competencies that facilitate effective and efficient teamwork. Team members should be aware of these and work toward achieving them. In brief, these core competencies are 1) intellectual ability to arrive at objective and fact-based judgments after obtaining and comparing relevant information; 2) results orientation, the ability to work toward outcomes and to finish what is started; 3) interpersonal skills that demonstrate the ability to relate to the needs, wants, and feelings of others by conveying interest and respect and offering assistance; 4) ability to manage time and priorities for self and others, handling multiple activities, meeting deadlines, and planning and organizing skills; 5) team orientation, the ability to work collaboratively within a complex structure, making team goals a higher priority than any personal objective; 6) interdependent maturity whereby individuals act responsibly, respectfully, openly, and honestly in their dealings with all people and situations; and 7) presence, the ability to demonstrate high standards of personal excellence in ways that contribute positively to team excellence and success.

Commit to Conflict Management

In any team that is really working toward its goals, there are bound to be conflicts. The assumption that conflict is always negative needs to be reconsidered. Unmanaged conflict can sabotage team progress, resulting in a tangled web of tensions and disagreements that are difficult to unravel. There are constructive ways of managing conflict so that people are able to express and work through their differences without the risk or necessity of damaging one another. A successful team is one in which leaders and members all make the commitment to and take responsibility for managing conflict.

DISCUSSION

The CARE Group was diverse in many ways and worked from the premise that to achieve effective and enduring quality improvement, health care providers must have the desire and ability to seek and embrace change, work collaboratively, and incorporate the 4 key habits described by Horbar and Plsek. Throughout their work, this premise did not change. A change of culture can lead to a culture of change. Successful teamwork and a collaborative NICU culture require a clear purpose shared by the entire health care team. This purpose supports the pyramid of team basics whereby individual and team skills, accountability, and commitment lead to personal growth, collective work products, and performance

---

Fig 1. The intertwined relationships of the PBPs (adapted from Katzenbach and Smith).
results (Fig 1). It represents the essence of why people do their work, encompasses their values, and helps guide decision making and conflict management. Leadership has to believe in and model the ingredients of teamwork to instill the values and behaviors of teamwork in others. For teamwork to be successful, all members of the team need to identify with and participate in the change process and its evaluation. The role of leadership is to set the expectations and boundaries within which the teamwork occurs and to facilitate the team’s efforts. There needs to be accountability for the work being done through all levels of the team. The substance that holds the teams together is communication at all levels and in both vertical and horizontal directions. Communication is key to everyone’s involvement and commitment, facilitating goal achievement and resolving conflict.

It can be speculated that an effective strategy for implementation of the PBPs listed here would be to capture an opportunity to champion 1 of the practices. The intertwined nature of all of the principles and practices should produce subsequent opportunities to implement others. Although the PBPs may seem obvious, implementing them is very likely to differ from one NICU to the next, and it is often difficult to find measures of cultural change as interim or endpoints for PDSA change cycles. Furthermore, although significant improvements can be made in clinical outcomes, in the presence of less supportive cultures of change, such improvements are likely to be difficult to implement and sustain. Collaborative teams, representing predominantly group and developmental elements, are more capable of producing quality improvement results that are enduring.

It was clear throughout the processes of coming to understand collaborative work and team building that leadership is vitally important to a culture of change. Leaders need to support those on the “front lines” by defining boundaries and expectations and removing barriers to permit them to perform their work well. Problem identification and ideas for problem solution ideally should occur on the front lines. Change needs to be sought, supported, implemented, and evaluated by those on the front lines. Everyone needs and deserves to know what is going on in their unit to work effectively. Therefore, truly effective communication is vital.

The CARE Group’s work with NICU culture has been primarily qualitative. The principles presented here need to be evaluated as PBPs. The way to implement them is individualized and presents a significant challenge. The threat throughout such a process is loss of objectivity. The time to see results is prolonged. It is difficult to uncover and change deep-seated attitudes, beliefs, and histories of poor working relationships. Therefore, the achievement of a collaborative NICU practice culture is not an event but rather a process.

ACKNOWLEDGMENTS

Core members of the CARE Group: Heather Adams, Mark S. Brown, Paula Delmore, Kathy Duritza, Ona Fofah, Laurie Fortune, Kris Grayem, Cindy Harmon, Patricia Ittman, Anand Kantak, Nancy Leahy-Jacklow, Sue Laudert, Judy Ohlinger, Laura Rissman, Connie Rusk, Evelyn Samples, Monica Smith, Sue Swanson, Terese Tanguy, Diane Tindall, and Bill Velbeck.

REFERENCES

Appendix 1. Top Priorities for Reading on Multidisciplinary Teambuilding

The CARE Group “Must-Read” Bibliography

The “A” List:

1. The Team Handbook 2nd edition
   Peter R. Scholtes, Brian L. Joiner, and Barbara J. Streibel
   1996
   Oriel Incorporated
   This book focuses on teams engaged in improvement projects and includes useful approaches, strategies, and tools for management teams, product development teams, natural work groups, and others. It is useful for both reinforcing quality improvement work and for describing how teams work and don’t work, including tips on getting them to work better.
   Chapter titles include:
   - Using teams to meet today’s challenges
   - Getting started: Learning the tools
   - Supporting successful projects – putting the team together
   - Doing work in teams
     - Team techniques
     - Putting it all together
   - Building an improvement plan
   - Learning to work together
   - Dealing with conflict

2. TeamWork: What Must Go Right / What Can Go Wrong
   Carl E. Larson and Frank M.J. LaFasto
   1989
   Sage Publications, Inc.; Newbury Park, CA
   This book focuses on identifying the secrets of successful teams. Larson and LaFasto conducted a three-year study of teams and team achievement. They interviewed a wide range of teams – both team members and team leaders – and discovered an unexpected consistency in the characteristics of effective teams. In this book they explore these eight characteristics: 1) A clear, elevating goal, 2) a results-driven structure, 3) competent team members, 4) unified commitment, 5) a collaborative environment, 6) standards of excellence, 7) external support and
recognition, and 8) principled leadership. The book is small and short; the text is only 140 pages. A chapter is devoted to each of the eight characteristics followed by a final chapter that prioritizes the steps leading to the building of high performance teams. The concepts are concrete. Theory is coupled with straightforward and practical advice. Anecdotes and quotations from team interviews are included for clarification of the concepts.

3. Team-Based Health CARE Organizations: Blueprint for Success
   Jo Manion, William Lorimer, and William J. Leander
   1996
   Aspen Publishers, Inc.

   This book is about the implementation of the team-based healthcare model written for administrators and managers. It discusses how teams enable organizations to better respond to the demands of the healthcare environment and presents team theory, its applications, and healthcare specific topics. The book is divided into three major sections. The first discusses the rationale for teams, a structural design approach, and a method for implementing teams. The second examines what can go wrong and what leaders must assure goes right during major organizational transformations, typical problems encountered by the major types of teams found in most health care organizations, and illustrates key leadership elements necessary to successfully deal with problems. The last section discusses issues that are particularly problematic for the health care field, including challenges of multidisciplinary teams and organizational barriers to success.

4. Gung Ho
   Ken Blanchard and Sheldon Bowles
   1998
   Blanchard Family Partnership and Ode to Joy Limited

   This book is a gift of enthusiasm for workers and leaders no matter what their work. It is a parable of how Andy Longclaw shares his grandfather’s wisdom of Gung Ho! with Peggy Sinclair, the new plant manager. It is easy to read and hard to put down as you anticipate knowing each of the three principles of Gung Ho and how they work together. The three principles are:

   - The Spirit of the Squirrel – worthwhile work
   - The Way of the Beaver – in control of achieving the goal
The Gift of the Geese – cheering each other on

As with many Native American stories, nature is used to explain some of life’s basic lessons. This book provides invaluable information for both work life and personal life.

5. The Servant: A Simple Story About the True Essence of Leadership

James C. Hunter

1998

Prima Communications, Inc.

This book is a simple story about the true essence of leadership. In it, a businessman, whose outwardly successful life is in a state of chaos, reluctantly attends a weeklong leadership retreat at a remote monastery. There he meets a former business executive who guides him to the realization that the true foundation of leadership is not power, but authority, which is built upon relationships, love, service, and sacrifice. The key to leadership is accomplishing the tasks at hand while building healthy relationships. Labor unrest, turnover, strikes, low morale, low trust, and low commitment are merely symptoms of a relationship problem, i.e. the needs of employees are not being met. A leader is someone who identifies and meets the legitimate needs, not wants, of their people and removes the barriers so that they may serve the customer. To lead, you must serve. It is service and sacrifice that build authority and influence.

The CARE Group “Good-Idea-to Read” Bibliography

1. Success Through Teamwork: A Practical Guide to Interpersonal Team Dynamics

Richard Y. Chang

1999

Jossey-Bass Inc., Publishers

Important to a team’s success are the skills of effective communication, active listening, ability to resolve conflicts, and motivation to excel. Good communication is difficult and is effective only if the message is received, understood, remembered, and responded to appropriately. This book includes tips for developing good communication including active listening, which is an acquired skill. The point is made that conflict is inevitable and not inherently good or bad, and the outcome of conflict depends on how your team manages it. Recognizing the existence of conflict, the response to conflict, and steps to conflict resolution are discussed. Team diversity is valuable because it stimulates new ideas. The process of
interpreting behavior and devising appropriate solutions is discussed. Steps to motivating a team are outlined.

2. Getting Doctors to Listen: Ethics and Outcomes Data in Context
   Phillip J. Boyle
   1998
   Georgetown University Press

   Peter M. Senge
   1994
   Doubleday and Company, Inc.
   This book is based on the premise that an organization’s competitive advantage lies in its ability to learn faster than its competition and provides strategies to build a learning organization. It includes the concept of the development of team skills of dialogue and skillful discussion attained through the use of workshops, forums, and facilitators who meet with team members. Specific tools, techniques, exercises, and ideas are given to illustrate how to develop those skills and factors for success.

4. The Wisdom of Teams: Creating the High-Performance Organization
   Jon R. Katzenbach and Douglas K. Smith
   1993
   McKinsey and Company, Inc.
   This book is the result of research into why teams are important, what separates effective and ineffective teams, and how organizations can tap the effectiveness of teams. The authors liberally cite research efforts in 47 organizations. Central to their thesis is their definition of team – “a small number of people with complementary skills, who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable.” The elements of their definition are obvious but the discipline they imply is not. Work groups who do not exhibit all of these characteristics are not teams. Unlike teams, they rely on the sum of individual bests for their performance. Teams outperform individuals. In teams, people commit to take the risks of conflict, joint work products, and collective action necessary to build a common purpose, set of goals, approach, and mutual accountability.
Actual team stories (not whole organizations) are the focus. The book is divided into 12 chapters organized into three parts of four chapters each: understanding teams, becoming a team, and exploiting the potential. The wisdom of teams comes with a focus on collective work products, personal growth, and performance results. Real teams are deeply committed to their purpose, goals, and approach. Members are committed to one another. The book explains why and how.

6. **Zapp: The Lightning of Empowerment**  
   **William C. Byhjam and Jeff Cox**  
   1999  
   **Random House, Inc.**

   This book, written in the style of a fable, outlines the steps to developing methods for motivating employees and improving productivity. The book points out the benefits of listening and sharing and how messages that are communicated can either be received as forces which energize people (zapp) or those which de-energize or drain people (sapp). The steps to Zapping others are to maintain or enhance self-esteem; listen and respond with empathy; share thoughts, feelings and rationale; ask for help; and encourage involvement. These lead to the soul of zapp, which is to provide support without removing responsibility for action. Constant performance feedback relative to goals keeps the zapp level high. If possible, people should manage their own feedback system. Changing measurements and goals zapps people in new directions. For zapp to work, people need direction (goals), knowledge and skills, resources, and support.
Empowerment as a Culture of Collaboration: Communication, Accountability, Respect, and Development of Potentially Better Practices for the Neonatal Intensive Care Unit

Judy Ohlinger, Mark S. Brown, Sue Laudert, Sue Swanson and Ona Fofah

Updated Information & Services
including high resolution figures, can be found at:
/content/111/Supplement_E1/e471.full.html

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
Administration/Practice Management
/cgi/collection/administration:practice_management_sub
Interdisciplinary Teams
/cgi/collection/interdisciplinary_teams_sub
Quality Improvement
/cgi/collection/quality_improvement_sub
Fetus/Newborn Infant
/cgi/collection/fetus:newborn_infant_sub

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
/site/misc/Permissions.xhtml

Reprints
Information about ordering reprints can be found online:
/site/misc/reprints.xhtml

PEDIATRICS is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. PEDIATRICS is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2003 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 0031-4005. Online ISSN: 1098-4275.
Development of Potentially Better Practices for the Neonatal Intensive Care Unit as a Culture of Collaboration: Communication, Accountability, Respect, and Empowerment

Judy Ohlinger, Mark S. Brown, Sue Laudert, Sue Swanson and Ona Fofah

*Pediatrics* 2003;111;e471

The online version of this article, along with updated information and services, is located on the World Wide Web at:

/content/111/Supplement_E1/e471.full.html