Respiratory Report: Professional Autonomy Within an Interprofessional Team *"Why Have a Dog and Bark Too"*

Rob Graham, R.R.T./N.R.C.P.

I dedicate this column to the late Dr. Andrew (Andy) Shennan, the founder of the perinatal program at Women's College Hospital (now at Sunnybrook Health Sciences Centre). To my teacher, my mentor and the man I owe my career as it is to, thank you. You have earned your place where there are no hospitals and no NICUs, where all the babies do is laugh and giggle and sleep.

The expression *"it takes a village"* implies that no single person can accomplish what a group of people can. This concept is as applicable to health care as it is to raising children and maintaining a stable, high-functioning community. *"Why have a dog and bark too"* was the philosophy behind the model of care developed in the neonatal intensive care unit (NICU) in which I practice. In other words, why do things yourself when there are others available that can do the task, perhaps even better.

Traditionally, the term "interdisciplinary team" has referred to different branches within medicine and referred to physicians from varying fields. This model may have worked adequately in a time when medicine seemed simpler and less technology driven, but in today's world the field of medicine has become far too complex for any one profession to own and completely provide.

We have all heard the expression *"jack of all trades, master of none."* This is true in medicine as it is in any other multi-faceted field. While television often features physicians doing everything from starting IV's to using microscopes, the reality is much different. Automobiles, for instance, are serviced by many sub-specialties: transmission shops, auto electric shops, body shops etc. Human beings are biological machines far more complex than anything made by our own hand and require an even greater degree of sub-specialisation. Similarly, neonatology is ostensibly as different from paediatrics as paediatrics is from adult medicine; and babies of different gestational age are also very different from each other and must be managed appropriately. This requires knowledge commensurate to the task.

Many institutions continue to operate on the medical model based on the military model. A doctor gives orders which are carried out by others. This model is antiquated and inefficient, particularly when it comes to neonatology.

Humans are by nature poor multitaskers. Most people are only capable of remembering seven things at once, give or take.1 Given that an NICU may have 40 or more patients at any given time it is obvious that at some point, things are going to fall through the cracks. Relying on a single person to manage many patients leads to delays in treatment while those charged with carrying out that treatment wait for orders. For routine things this can work, but when action is urgently required it is sub-optimal. For instance, we know that careful regulation of CO_2 is critical during the first seventy-two hours of a premature infant's life in order to lessen the risk of intra-ventricular hemorrhage. Any NICU clinician knows how quickly CO_2 can change. Waiting for a physician to order the necessary ventilation changes delays that action, particularly if that physician is busy attending to other urgent issues.

An interprofessional model allows the appropriate professional to work to their full scope of practice, avoiding these delays. Also, evidence-based practice is driven by the profession most knowledgeable. For instance, respiratory therapists provide respiratory care and mechanical ventilation; similarly, dietitians for nutrition, pharmacists for medication, all of course with interprofessional input. The physician coordinates and oversees the team without directly dictating the care it provides; metaphorically the physician acts as a general contractor and sub-contracts accordingly. Bedside nurses are highly skilled professionals, and all too often must wait for an order to do what is required and are quite capable of doing. Allowing them the autonomy to do so frees up time for the physician overseeing care to attend to more pressing matters. In addition, not allowing professionals who are more knowledgeable in their respective fields to work to their full scope of practice is a source of frustration and can lead to moral and ethical distress.

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In an aircraft the co-pilot is expected to take control when the captain makes an error, or fails to notice a situation which jeopardizes the safety of their passengers; so should specialised professionals be free (and expected) to guide the team in their respective areas of expertise. Aircraft safety improved greatly when the top-down military approach to control in the cockpit changed to one of joint responsibility. Aviation history is replete with stories where a subordinate crew member literally watched the pilot **crash the plane** because they were afraid to speak up or take over. If a medical team operates under the same military top-down structure, it too is vulnerable to un-checked errors and omissions and is functionally not a team.

Allowing various professionals to use their knowledge and skills autonomously can provide better, more effective and efficient care. (2) While there has always been somewhat of a power struggle between various professionals (and likely always will be to a degree), allowing autonomous practice may actually improve collaboration within the team and reduce "turf wars", particularly if the team has evolved to a trans-professional one. (3) It is worth noting that the term "collegial" means "relating to or involving shared responsibility, as among a group of colleagues." In a world where most paramedical professions are regulated, they are as accountable for their actions as much as anyone else. Furthermore, interprofessional collaboration has been shown to "provide benefits to both patients and health care providers including improved communication, a reduction of errors, enhanced patient care delivery and an overall improvement in patient and staff satisfaction." (4)

Figure 1: trans professional teams allow different professions to step into another profession's role temporarily where scopes of practice overlap. (5)

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In a special edition on health care, Harvard Business Review noted that many visits to physicians could have been to a nurse practitioner at less cost to the patient or system. Within a hospital, similar savings can be achieved through maximizing the roles of all professions. Physicians may have difficulty sharing power, but when power is shared the entire team becomes stronger and higher functioning. (5) When looking at the big picture this is true, however payment structure can be a hinderance. For instance, in Ontario, Canada, Respiratory Therapists with additional training working as anesthesia assistants are hospital employees paid out of the hospital budget. Anesthetists are not hospital employees, but rather are contracted with the institution (usually as a group). As such, they bill directly to the provincial government health plan, not the hospital. While RRT's are paid considerably less than anesthetists, using them costs **the hospital** more. The health care system as a whole is not served well by this payment structure and is an impediment to the goal of utilizing all professionals to their full scope of practice.

Since this is a neonatal respiratory column, I would be remiss to exclude the concept of "core therapists" in the NICU. The specialised nature of neonatology has given us neonatologists. While neonatology typically falls under the umbrella of paediatrics, neonatologists do not, as a rule, treat older paediatric patients. Similarly, NICU nurses require special training, and do not typically work in other areas, and in the unit in which I work this is also true of pharmacists, dieticians, and respiratory therapists.

My colleagues would agree that getting comfortable as a respiratory therapist in the NICU takes at least a year of full-time practice, and the learning curve is steep. Proficiency in the art of neonatal ventilation takes considerably longer. Babies are not little adults, and micro-prems are not little babies. The management of their ventilation is very different. It is for this reason the respiratory therapists in the NICU do not rotate through other hospital areas. In other level 3 NICUs, core therapists work only in the unit with others rotating through. Those who rotate typically do not assume the same level of responsibility as those who do not. In the level 4 NICU, respiratory therapists also do not work in other areas of the facility.

It has been shown that students suffer learning loss over the summer holidays. (6) Similarly, if a therapist rotates through different areas or works less than full-time hours with no NICU experience, there is a break in learning the nuances of NICU ventilation. This results in learning loss commensurate with the time spent away from the NICU, an even steeper learning curve, and a non-linear increase in the amount of time required to become fully competent in the NICU.

To me, this makes perfect sense, yet I have encountered institutions wherein the concept of core therapists is vehemently opposed. I do not think it a coincidence that the respiratory outcomes in my unit are exceptionally good, and I firmly believe that allowing the ventilatory management of babies in the NICU to be managed by therapists who specialise in this population plays a large part in achieving those outcomes. It is also worth noting that in several other NICU's with good outcomes, ventilatory management is provided by a core group of practitioners, although not necessarily respiratory therapists. It would behoove any NICU looking to improve their own respiratory outcomes to seriously examine this concept.

"Admit to NICU, ventilation as per RRT" is the blanket "order" under which I practice. This allows me and my colleagues to operate autonomously, thus providing expert, timely care to our delicate patients. There is a caveat here: if one wants to be the captain in the cockpit, one had better know how to fly. Professional autonomy can only be achieved with proper training, knowledge, and expertise. It isn't as simple as just handing control of ventilation over to respiratory therapists, with all deference to my colleagues. For those willing to make substantial changes in a field all too often resistant to it, and make the investment in training, the payoff is, without a doubt, worth the effort.

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