2003 Philip Kittredge Memorial Lecture

Advancing Beyond the Average: The Importance of Mentoring in Professional Achievement

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The profession of respiratory care is founded on rigorous scientific research, which in turn depends on rigorous training in research methods. Only a small part of that training is from written and audiovisual materials; the most important aspects of becoming a respiratory researcher are learned from mentors. Becoming a thoroughly-involved respiratory care professional, then a researcher, and then a mentor is challenging but rich with the rewards of contributing to the advancement of science and, thereby, to the care and comfort of our patients. Becoming a respiratory researcher begins with attitude. Only those with a burning desire to excel, to discover truth, and to contribute to the advancement of the profession will persevere through the setbacks and bring a research project to final fruition. The second requirement for long-term success is learning to maintain balance between enthusiasm and realism. It is crucial to avoid taking on more than you can realistically do, and it is necessary to devote adequate time to your family and/or non-work-related pursuits and recreation. The third aspect of becoming a contributor to respiratory care research is rigorous and ongoing education in the techniques of respiratory care, the methods of medical research, and the basic sciences and mathematics that underlie the profession, including some calculus, engineering physics, and statistics. You must understand research design, critical analysis of research, and numerous aspects of presentation, including clear writing and concise speaking. The fourth aspect is accuracy: you must have a strong commitment to obtaining accurate, reproducible, and meaningful data. You must sustain strong attention to detail; mentors are essential because they teach the needed discipline, the required measurement skills, and how to select the appropriate equipment with which to conduct the research. Timing is the fifth aspect. In addition to planning and using your time wisely, you must learn what are realistic expectations about how long a project will take, when to ask for help, and when to stop because you have reached your physical or mental limit and you need to rest and devote some time to your nutrition and recreation. The sixth aspect is speed: having achieved the basic skills and gained a fair amount of experience, your efficiency improves and you begin to achieve more in a day; you begin to start mentoring others; you can confidently and quickly handle multiple projects; if you don't know the answers you know where to find them; you are seen as an authority and people ask you for consultations and presentations and to participate in committees. The final aspect is power, meaning that your practice of respiratory care reaches a level at which you meet challenges for which you feel you have no response in memory and **yet you succeed.** Key Words: mentors; staff development; education, professional; teaching; caregivers. [Respir Care 2004;49(3):304–308. © 2004 Daedalus Enterprises]

Introduction

Being asked to give this talk has been the highest honor of my career. As I look out before me I see the cream of the crop in our profession. Consider that there are about 115,000 practicing respiratory therapists, but only 26% are

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members of the American Association for Respiratory Care, and less than 4% attend this conference. So just being here in this room demonstrates your commitment to being a professional.

But why are you here? The primary purpose of the International Respiratory Congress is to disseminate scientific information. At the core of this meeting are presentations by those of you who have dedicated months or years to gathering evidence that will be used to improve patient care. If you have not been to other professional society meetings, let me assure you that the quality of our research and presentation are at the highest level. If you stop to think about it, this performance is phenomenal. Most respiratory therapists have never had formal training in research methodology. So how have we sustained this constant growth, year after year, of high-quality academic output?

The Answer Is Mentoring

Webster's dictionary defines a mentor as a "wise, loyal advisor." Mentoring is the very life-blood of our profession. All of the volunteer political activity that makes the machinery of our profession run and all of the scientific research that validates our existence are made possible by the dedication of a handful of mentors. These are the people who, over the decades, have passed down the advice, training, and oral traditions that keep respiratory care alive.

You are all in a position to be mentors, simply because of the fact that you are here while the vast majority of your colleagues are not. There is no class you can take to become a mentor. Everyone has their own style. But there are some general principles that I would like to share with you from my 25 years of experience as both student and mentor. I have had the great fortune to have been mentored by some of the best in the world and also to have had some of the brightest students ever to enter the field. Looking back and trying to make sense of my experience, I have come to the conclusion that excellence is a process of achieving ever-increasing levels of mastery. Seeing mentoring in this way helps you set priorities as either the advisor or the student.

Attitude

The first level to be achieved—indeed the barrier to entry—is attitude. What is it that brought you here over hundreds of miles, and at substantial cost, when so many others would not set that priority? Attitude. The currents that direct our lives flow from the attitudes we nurture each moment.

Becoming involved in research is a demanding, frustrating, and often stressful endeavor. Only someone with the burning desire to excel and discover the truth will have the courage to persevere. But, at the same time, the student must be willing to accept the critical review of the mentor. I tell anyone who comes to me for advice that the first step is to put their ego on the shelf. Those who were able to do that succeeded. Those who could not found reasons to quit.

The thing that has impressed me most about those whom I have had the privilege of helping was their sheer tenacity. I have seen people tackle projects that led to publication even though they had to learn the most basic fundamentals as they went along.

And gaining acceptance to this Respiratory Congress is far from the end of the struggle. Public presentation is perhaps the one fear shared by most people. Time and again I have witnessed acts of personal heroism as neophytes stepped up to the challenge of their first poster presentation. One young woman I remember in particular would get so nervous that she had to run to the restroom to be sick just minutes before her turn at the podium. But though her fear was enormous, it never stopped her. In moments like that I am the one being shown the example of excellence. That type of attitude inspires courage in others. It has inspired me.

Just a few weeks ago my daughter had a near-fatal car accident and spent 2 weeks in the hospital. As I sat there by her bed in the ICU one night, feeling my world had caved in, I realized that I had not even started this lecture. It seemed ridiculous. The way I felt, there was no possibility that I could write a motivational talk, particularly since I had never done so before. I considered not coming to this meeting. But then, in my mind's eye, I could see the face of that woman at the podium who would not quit. I could see the faces of all those who have overcome their personal demons and summoned the courage to stand before you. And I was humbled. Their attitude reached across the abyss of self-pity and gave me the courage to take up pen and paper to write this talk as I sat there in that dark hospital room. The pride of achievement and the drive for excellence are powerful motivational influences on self and others.

Balance

Balance is the second level of achievement. While attitude is the fuel, balance is the steering wheel. There must be balance between enthusiasm and realism. Too often I have seen people bite off more than they could chew, despite warnings not to. This leads to frustration and destroys attitude. Perhaps the most important contribution of a mentor is the wisdom of experience to know what is and is not practical. Guide others and allow yourself to be guided at this most important level.

But there is another aspect of balance that seems to become important for those who have had a taste of success. Because so few of us get into the limelight, it seems that offers for more challenges seek us out at an alarming rate. This organization stays alive on volunteer time and those with the drive to succeed are quickly recruited for projects and committees. Even paying engagements pile up and it is very easy to get overcommitted. We lose balance, we get overwhelmed, and attitude eventually suffers.

The most heartbreaking thing I have experienced is the conflict between work and family, between professional achievement and personal relationships. When there is loss of balance, relationships suffer, health suffers, and in the end, work suffers. The price is just too high. But since people insist on learning the hard way, perhaps the best a mentor can expect in this situation is to demonstrate what not to do, by his own mistakes.

Technique

The third level of achievement is technique. Once you have the will to fight and can stand on your own 2 feet, then you must know what to do. Again, the mentor can play a pivotal role. There are an infinite number of skills you could acquire, but the mentor can tell you what is appropriate and when. The student will resist this advice. I remember my mentor once telling me that everything I had learned in respiratory school was wrong. He told me he would no longer help me unless I went back to school to learn the "important" skills like calculus, engineering physics, and statistics. Granted, this was a little extreme, but the fact is that to do research, new skills must be learned and more than a few incorrect notions replaced.

We must keep in mind that our profession is put together with borrowed knowledge from mature sciences like biology, physics, and mathematics. Sometimes important meanings are lost in translation. I have found that at the level of the clinical respiratory therapist much has been lost in translation especially regarding mathematics and physics. To master the level of technique requires that one study outside the field of respiratory care. One must go to the original sources and see the origins of the notions often taken for granted in our profession. This is essential not only to avoid the myopia of conditioned beliefs but also to be able to communicate intelligently with other professionals. We must resist the constant pressure to "dumb down" our profession. My mentor used to always tell me that if you explain something so simply that even a fool can understand it, then only a fool will understand it.

At a bare minimum the student must seek out training in research design, analysis, and presentation. These skills can be self-taught to some extent, but the most important role of the mentor is handing down the tradition of scientific writing. From my experience, this art can only be learned by trial and error with the mentor and his red pen

making continual corrections on endless draft manuscripts. The best in our profession have come from noble bloodlines and they, in turn, are continuing the tradition with all those they instruct. Seek these people out. They are willing to help.

Accuracy

The fourth level of achievement is accuracy. Without accuracy there is no science. To achieve accuracy you must have the tenacity to pursue it through boring data capture and analysis. You must sustain the attention to detail that does not get distracted by the exciting or the interesting at the expense of the necessary. And you must know what to do to achieve accurate measurement and accurate description of results.

The mentor's role at this level is to impose the proper discipline and teach the required measurement skills with the most appropriate equipment. Again, this is not something easily learned from books. Error analysis and quality control are whole fields of study in themselves, which the novice would do well to examine. It is the mentor's job to make sure nothing is overlooked, because no quantity of data will suffice if the quality is lacking.

A primary tenet of science is that the published report should be accurate and detailed enough for the study to be repeated. New researchers often find this the most difficult step in the process. Perhaps it is due to the fact that the ability to express the truth, the whole truth, and nothing but the truth, in deed and word, can only be learned by experience. Impatience or insincerity at this level can lead to disastrous results.

One must be able to go through maybe a dozen drafts of a manuscript before optimal clarity is achieved. It can take literally hundreds of hours to finish an article for RESPIRATORY CARE Journal. Not only that, but you have to put the work down for a while and then come back to it with a fresh mind. Only in this way can you spot the errors that were hidden by your familiarity with the project. Of course, few people realize this at the start and may run out of enthusiasm before the job is done. But a good mentor will help you see the time spent as an enjoyable learning experience. And she is living proof that such an investment is worthwhile.

Timing

The fifth level is timing. In the martial arts if you have a fighting spirit, fluid balance, great technique, and deadly accuracy, you will still be easily defeated if you don't know when to strike. In research, timing is more subtle but just as important. Obviously, timing is crucial when meeting deadlines for grants and publications. But on a more immediate level you must know when to ask for help. You

must know when to implement specific steps of your research plan. You must be able to estimate the time necessary for each stage of a project. Accurate time estimation takes experience, and here again the mentor is essential. And because more is never enough, you must know when to stop.

Related to knowing when to stop is knowing when you are at your best to work. I have watched people push themselves beyond their physical and mental limits trying to meet unrealistic goals. They only end up trying harder and harder while doing worse and worse. What is needed is a little rest, a little attention to nutrition and recreation, and then the output is miraculously better. Again, the mentor can only suggest, but most students will insist on learning the hard way. Improper timing leads to loss of balance, which results in poor attitude. I am afraid that mastery of this level means having experienced these mistakes.

Speed

The sixth level of achievement is speed. At this level you have all the basic skills in place and a fair amount of experience. You are in a position to start mentoring others. You can handle multiple projects because you can address all the issues quickly and efficiently. If you don't know the answers, you know where to find them. You have a support network in place. You can dance through the Internet. All information is at your fingertips. You are seen as an authority.

People at this level often seem to have 2 professions: one as employee of a health care organization and one as a consultant. These people zip across the country giving lectures and participating in committees. The excitement at this level is often intoxicating. It is also at this level that the danger of imbalance between personal and professional values becomes most extreme.

Speed is necessary for peak productivity. But speed also kills. Mentors at this level are rare. They are either too busy or too burned out to be helpful. If you can find one, you are most fortunate. If you are at this level yourself, my only advice is to slow down and smell the roses. It is your responsibility not only to mentor newcomers but to create other mentors. Indeed, the success of a mentor is measured not in how many students they have trained but in how many mentors they have created.

Power

You know you have attained the path of power when you are absolutely compelled to meet a challenge for which you feel you have no response in memory and yet you succeed. That means you will be forced to reach within and express that authority of vision that leads to all great works of beauty and accomplishment.

True power is in fact not an achievement. It is not a personal possession or even a character trait. It is not the product of luck or privilege. It is a price that has been paid. I believe that power is the unexpected by-product of having devoted oneself to the other 6 levels. Truly powerful people are humble. They realize that power is something that expresses itself through them, but is not of them.

In this profession, having power literally involves lifeor-death outcomes. As a therapist you have done things that have touched the lives of countless people in ways that you could never imagine. As a volunteer and committee member you have provided the leadership that multiplies that effect. As a scientist you have lit the candle of scholarship and made history that will be referred to in libraries all over the world for decades to come. We can all share in the pride of these realities.

I have titled this talk "Advancing Beyond The Average." This is part of a mnemonic phrase I use to remember the 7 levels of achievement. The first letter of each level stands for a word in the phrase. The whole phrase is: Advancing Beyond The Average Takes Special Practice. Practice does not make perfect; only perfect practice makes perfect. The mentor's role is to lead toward that perfection. Perhaps this will be of some use to you in your continued professional development.

I want to end my talk by acknowledging a few special people in my life. These are individuals in the room right now who have been my students, mentors, and colleagues. They have passed each level of achievement and are an inspiration to the whole profession. They have demonstrated that to achieve extraordinary results you have to live an extraordinary life.

First I want to recognize several people who took some of my advice and ran with it. They ran so far and so fast that they have now become leaders in our field. Tom Kallstrom, Mohamad El Khatib, John Salyer, Tim Myers, Joe Lewarski, and Terry Volsko have been unusually gifted and motivated. I am proud to say that they are all speakers at this year's Respiratory Congress.

My friends Rich Branson and Dean Hess are the very pillars of our scientific society. Between the two of them they have probably mentored more people and published more literature than all the rest of us combined. They have been my teachers and colleagues for more than 20 years. They have continually challenged me to go beyond my limitations and have persistently raised the bar of excellence for our whole profession.

I consider Ray Masferrer the true mentor of mentors. Without his dedication and expertise, year after year, this Respiratory Congress would simply not have existed. Ray is the consummate leader and his genius is in being able to spot talent in raw form. He then molds and directs that talent and sends it out in the most effective ways. This is

genuine power. Every mentor I know owes Ray a debt of gratitude.

Finally, I must mention the namesake of this memorial lecture. Phil Kittredge died a few days before Christmas 1996, following an extended period of declining health. Among the many who have contributed substance and integrity to the respiratory care profession, Phil stood at the forefront. His vision, constancy, and unwavering commitment are unparalleled. Without his leadership there would be no Respiratory Care Journal, and there might be little scientific foundation for respiratory care. Phil's contribution spanned 31 years—25 of those as editor of Respiratory Care.

I will never forget how Phil coached me through my very first publication in RESPIRATORY CARE. He had a calm, compassionate, and articulate manner that helped me and countless others achieve our highest aspirations.

I learned that Phil was dying while I was at the Respiratory Congress in 1996. I called him from a telephone in the lobby. It was one of the most inspiring and moving

conversations I can remember. He was blind from diabetes, debilitated, alone, and yet completely ready to face death without fear. He was not just a professional mentor; he was a teacher of life. It is a rare privilege to have known him.

In closing, I would like to offer one last perspective on our profession and the contribution each one of us makes with our personal commitment to serve. In military survival courses they teach the law of threes. It is intended to help you in times of emergency, when getting your priorities wrong will cost you everything. They say that in a survival situation, you can last only 3 months without hope, 3 weeks without food, 3 days without water, and 3 hours without shelter. But you can last only 3 minutes without breathing.

As professionals we could have chosen to serve by giving people hope, by feeding them, or by sheltering them. But we chose to help restore the breath of life. And that, my friends and colleagues, has made all the difference.