



TURNING MIDDLE SCHOOL STUDENTS ON TO RT

by *Respiratory Care Student - Mallory Pennell*

There is an increasing demand for respiratory therapists but the number of students enrolling in respiratory care programs has decreased, and some respiratory care programs are actually closing because of their low enrollment. According to Anders (2005), "The number of applicants per program has decreased from a high of about 100 applicants per program for advanced level respiratory therapists programs in 1993 to approximately 24 applicants per program in 2000." This is going to be detrimental to hospitals nationwide because the population of patients with chronic obstructive pulmonary disorder (COPD) and asthma is increasing. Patient care will suffer with the lack of respiratory therapists in these different institutions.

Attempts to recruit more students have fallen short of meeting this demand. Anders (2005), in an attempt to discover the factors that influence a student to enroll in a respiratory care program, surveyed 67 students enrolled at the University of Arkansas for Medical Sciences. Anders' findings revealed that the students first became aware of the respiratory care profession mostly from health care professionals, and to a lesser degree from families, the internet, college recruiters or faculty. More specifically, the primary factor contributing to the students' interests in pursuing a career in respiratory care was through shadowing a professional therapist for the day. Fortunately more hospitals are beginning to offer more of these types of shadow experiences in several of the health care professions for high school students. Other recruitment strategies that were done more regularly years ago should be revisited to see if they are profitable. Visiting the classrooms of younger elementary and middle school students might be a place to start.

The purpose of this study was to determine if a presentation about the respiratory care profession by a therapist would increase the likelihood of middle school students considering a career in respiratory care and therefore in the future attend a respiratory care educational program. Specific research questions for this study were: Have middle school students heard about respiratory therapy as compared to other health care careers such as physical therapy and occupational therapy and, would educating middle school students about respiratory therapy have a positive impact on the students' interests in pursuing a career in respiratory therapy?

Description of Participants

The 47 students participating in this study were part of a convenience sample. The sample consisted of seventh-graders at a

suburban community middle school in New Jersey. Two of the eight seventh-grade classes participated in this study. Two forty minute presentations about respiratory therapy were made to these two seventh-grade middle school classes during their regularly scheduled class time. Upon conclusion of each class presentation, a survey was handed out.

Instrumentation

The instrument used in this study was a six question survey filled out by each of the forty-seven students. The first question on the survey was a broad question asking the students if they had ever heard of respiratory therapy. The second question was guided to engage the student's mind into considering respiratory therapy as a future career option. The final two questions were specifically designed to prove whether these students were even aware that respiratory therapy was a career option for them.

Data Analysis

The answers on the surveys were recorded, analyzed, and graphed in Microsoft Excel. The data were analyzed first as a broad category (all 47 participants collectively) then analyzed by gender. The frequency of the responses for all of the participants were calculated.

Results

The 47 participants were ages twelve to thirteen years old; 48% female and 51% male. These demographics are typical for all seventh-graders in this middle school. Response rate was 100%; All 47 of the students, who attended the presentation, filled out the survey. The results of these surveys are the measurable outcome in this study. The first question on the survey stated, "Have you ever heard of a respiratory therapist before today?" Five of the students (10%) had heard of the occupation before whereas 42 of them had not. The second question asked, "Would you ever consider becoming a respiratory therapist in the future?" Three of the students (6%) responded "yes," 14 of the students (29%) responded "no," and 30 of them (63%) responded "maybe." The last two questions asked the students if they have ever heard of physical and/or occupational therapy. Ninety three percent of the class has heard of physical therapy and six percent had not. Twenty two percent of the class had heard of occupational therapy while seventy-eight percent had not.

Of the five students who did answer "yes" to the first question which asked, "Have you ever heard of a respiratory therapist

Mallory Pennell is an RC Student at Quinnipiac University in Hamden, CT. Her paper was chosen from 9 papers submitted to Focus for this issue. Ms. Pennell will receive a \$100 gift certificate and a gratis registration to the 2009 Focus Conference. Her school's RC Program will also receive a \$100 donation. Students are encouraged to submit their papers for the Jul/Aug issue by June 15th. Papers should be 900 - 1250 words and should be submitted as MS Word files to Craig Baker at BakerCT78@yahoo.com.

pist before today?" the survey also asked the student to identify how they had heard about the respiratory care profession. The answers were varied as listed below:

1. "My mom told me but I was not paying attention."
2. "By the teacher showing us."
3. "They came to my grandma's house to help her."
4. "Because my little sister and brother had to go to one."
5. "In a magazine."

The final written question on the survey stated, "What do you think is the most interesting part of a respiratory therapist's job?" According to 26 of the students (55%), "helping other people" was the most interesting part of a respiratory therapist's job. Helping other people was followed by "working with different people" (12%), "taking vital signs" (12%), "working in the hospital" (10%), "the salary" (2%) and the remaining three students had no response (6%).

These responses were also evaluated according to gender. Of the 47 students, 23 were female and 24 were male, approximately an equal population of each gender. All of the male students had never heard of a respiratory therapist before the presentation. One hundred percent of the male students answered "no" to the first question on the survey. The second question asked, "Would you ever consider being a respiratory therapist in the future?" Fifteen of the males (62%) said "maybe," eight said "no," (33%), and one said "yes" (4%). The fourth question asked the student if he/she has ever heard of a physical therapist. Eighty-seven percent (n = 21) of the male students had heard of a physical therapist. The final question asked, "Have you ever heard of an occupational therapist?" Thirty three percent of the males (n = 8) had heard of an occupational therapist prior to the presentation.

The only participants who responded that they had heard of respiratory therapy prior to the presentation were female students. When asked if they would ever consider becoming a respiratory therapist in the future, 8% said "yes" (n = 2), 26% said "no" (n = 6) and 65% said "maybe" (n = 15). All twenty three females heard of the field of physical therapy before a 100% (n = 23) response rate. Only three knew of an occupational therapist and the other twenty have never heard of an occupational therapist.

Conclusion

One of the major findings of this study was that only 10% of middle school students understood and/or had knowledge of the occupation of respiratory therapy. By comparison, physical therapy as a career option was known by 93% of these 12 and 13 year old students. Occupational therapy was recognized by 22% of the students. Respiratory therapy was the least well known profession in this age group.

Members of the respiratory field need to find ways to increase the public's knowledge of the field of respiratory. A possible way to increase enrollment in respiratory care programs may be educating students at a younger age about the opportunities available in the unfamiliar field of respiratory care. According to a similar study conducted by Anders (2005), 32% of his respiratory care students (n = 67) "had a general notion to pursue a career in health care by their middle school". It would be beneficial therefore for respiratory therapy educa-

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tors to become more active in the school system and educate these prospective students at a young age.

The purpose of this study was to gain recognition of respiratory care through the presentation by a respiratory therapist concerning what a RRT does and the types of patients they take care of. The goal was to make younger children aware of respiratory therapy and how it is an option for a career choice. The third question on this survey was designed to measure to what degree the presentation engaged the student's mind into thinking there is a possibility of going into the respiratory field. It was interesting that exactly 15 females and 15 males, a total of 63% of the total participants in this study, circled "maybe" to the question asking if they would consider going into the respiratory therapy field. This result demonstrates that perhaps after a short presentation, middle school students can become more aware and informed about the field of respiratory therapy. Furthermore, they may even look into the possibility of becoming a respiratory therapist in the future. Another suggestion to help these students remember respiratory therapy as they begin applying for colleges would be to send out follow-up brochures or information packages. For example, a study conducted by Terry LeGrand (2004) titled "Respiratory Care Student Recruitment Strategies: What Works and What Doesn't?" showed that "The most common source of informa-

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Point of Care Testing... *Continued from page 54*

"traditional" blood gas analyzers, the accuracy of the results is unquestioned. Whereas end tidal CO₂ monitors are useful for trending but have intrinsic failings in certain circumstances, POCT of blood gases is a treatable, accurate result on which decisions can be made. The minimal blood volume necessary for accurate testing makes it especially useful in the neonatal population. Indeed, many out of hospital transports would be hard pressed to deliver as optimal care as possible without the POCT devices. Manipulation of therapies to stabilize the patient for transfer to tertiary facilities is greatly enhanced by accurate lab results and POCT further enables optimal care to be given. These minimal sample sizes also facilitate accuracy in that there is less interaction of the sample to ambient air and thusly less equilibration of the sample between the sampling and the testing. The larger the sample size, the more surface area affected by ambient air. Such immediate results lead to more timely intervention at less cost, both monetarily as well as physically as far as blood loss and sampling discomfort, than traditional testing. Many studies have shown the accuracy of POCT comparable to traditional laboratories with less preanalytical errors and smaller specimen sizes. Labeling and sample mishandling are minimized. Minimal sample transport will minimize clotting, hemolysis and degradation of the sample.

The remaining drawbacks to POCT are the training of non-laboratorians in the function, handling and maintenance of the devices. Whereas sample testing is relatively easy to learn, some of the nuances of the devices themselves are less so. In addition, result reports appear on the device's screen and usually produce a temporary paper printout. These can easily be misplaced. An active interface with the patient record is needed.

Point of care testing is one of the most useful tools for clinicians. Quick, easy, portable and not exceptionally cost prohibitive, POCT is an excellent adjunct for bedside care and triage, especially useful when on out of hospital transport or when testing in a traditional lab is not feasible.

Student Papers... *Continued from page 77*

tion to our educational program...was the multiple direct mailings we do each year."

In the current study, the majority of the students had not heard of respiratory therapy before but had heard of physical therapy, as indicated on the survey. The problem is apparent: the average middle school student does not know what respiratory therapy is or what a respiratory therapist's job consists of in the hospital. The knowledge of respiratory therapy needs to be made more available. One such method would be the visitation to schools by respiratory therapists in order to get the message out to prospective college bound students at an earlier time. Years ago, students did not decide on a career until high school. However, students are being exposed to more career options at younger ages and it is imperative that respiratory therapy is one of these options. The Bureau of Labor Statistics projects a "42.3% increase in demand with 5,000 new respiratory therapists needed per year through 2008" (Shelledy, 2002). Recruitment strategies such as presentations to middle school children will help begin to fill this void.

ATTENTION EDUCATORS

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