Professionalism – A Required CLS/CLT Curricular Component

SANDRA LATSHAW, KAREN HONEYCUTT

OBJECTIVE: Determine the impact of requiring Clinical Laboratory Science (CLS) students to participate in approved professionalism activities as part of a mandatory management course.

DESIGN: Quasi-experimental, case study reporting qualitative results of 25 CLS students. During the admission interview, students complete a written response to questions about their perceptions related to professionalism. During the clinical educational year, students are required to complete approved professionalism activities as part of a management course. At the end of the course, students write a reflective paper focusing on their professional activities and how these experiences will influence their future professional practice. Overall themes of student reflections are provided.

SETTING: University of Nebraska Medical Center (UNMC) CLS Program in Omaha

CONCLUSION: After participating in a mandatory professionalism curricular component requiring active student participation in professional activities, student reflective writings provide evidence this is one successful approach to nurture professional identity within future Clinical Laboratory Science/Clinical Laboratory Technician (CLS/CLT) practitioners.

ABREVIATIONS: ASCLS = American Society for Clinical Laboratory Science, ASCP = American Society for Clinical Pathology, CLS = Clinical Laboratory Science, CLS/CLT = Clinical Laboratory Scientist/ Clinical Laboratory Technician, DCLS = Clinical Laboratory Science Doctorate, NAACLS = National Accrediting Agency for Clinical Laboratory Scientists, UNMC = University of Nebraska Medical Center

INDEX TERMS: Clinical Laboratory Science, Education, Professional Role

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INTRODUCTION

Cultivating professionalism in students is a goal of all CLS/CLT National Accrediting Agency for Clinical Laboratory Scientists (NAACLS) accredited programs since affective domain assessment is required. Yet many technically competent graduates choose not to become actively involved in their profession after entering the work force. The American Society for Clinical Laboratory Science (ASCLS) Code of Ethics[1] clearly indicates a duty to the patient, colleagues/profession and the society. Why do so many laboratorians fail to progress past their duty to the patient?

No one disputes that professional behaviors such as ethics, integrity, dependability, initiative, responsibility, and effective communication are essential in students. However, if educators wish to encourage all students to become active professionals after graduation, deliberate planning and evaluation of curricular content is necessary. Opportunities must be provided to nurture

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professional growth in CLS/CLT students for the laboratory profession to realize its potential.

Professionalism has been included in UNMC's management course for several years, emphasizing professional development, community service and scholarly activities. A desire to determine if these activity requirements influence students' views of professionalism throughout their 11-month program led to this study.

LITERATURE SEARCH

Literature searches on professionalism in CLS and other allied health fields uncovered minimal peer-reviewed articles. One health science text focused on professional behaviors, but did not move beyond day-to-day expectations.[2] Correiro[3] reviewed the importance of assessing professional competency skills valued most by hospital employers. Being a professional laboratorian as opposed to being a "9-5 tech" (a clinician skilled in performing lab testing not espousing the demeanor and attitude of a true professional) was discussed by Golyski.[4]

"Professionalism 101" was a wake-up call, addressing the perceived lack of recognition of laboratory professionals compared to other Allied Health fields.[5] Davis states, "whether clinical laboratory scientists are successful (or not) in our professional lives depends not only on our competence in the laboratory, but also on whether or not we demonstrate true professional status." Characteristics she proposes include not only a unique body of knowledge and skills and sense of altruistic commitment to patients, but also control over the profession and establishment of a professional culture/organization. "The difference between professionals and those who are expert at what they do, is how they view their own responsibility and accountability."[5]

Epner succinctly stated the problem: "The curriculum for teaching students about the technology in the lab is relatively uniform, while professionalism advocacy, and leadership training is not."[6] He suggests cultivating these skills could potentially increase the visibility of the laboratory's importance to healthcare peers and hospital administrators, and would better prepare students for consultative roles. "The laboratorians of the future will require soft skills in leadership, advocacy and professionalism as well as technical competency."[6] Educators are encouraged to incorporate standardized curricula to address this issue.

The importance of teaching CLS/CLT students about professionalism, encouraging students' involvement in ASCLS, and providing opportunities to incorporate professionalism into curricula were presented by the ASCLS Leadership Academy at the 2009 Clinical Laboratory Educator's Conference.[7] Laboratorians perceiving CLS to be a profession, rather than just a technical field are more likely to progress and remain in their career.[8]

CLS/CLT educators can learn from medical schools experienced in establishing and assessing professional growth in students. Professionalism must be taught and assessed as a separate topic; role modeling is not sufficient to ensure learning transfer.[9] Learning should occur in authentic contexts that meld cognitive base and experiential learning to "transform knowledge from the abstract and theoretical to the useable and useful."[9] Allowing time for student reflection is vital. Reflection supports, "integration of theoretical concepts into practice; increased learning through experience; enhanced critical thinking and judgment in complex situations; and the encouragement of student-centered learning."[10] The reflective process should encompass three stages: recollection of the experience, identifying positive or negative feelings, and re-evaluating the experience.[11]

Using reflection to gauge professional growth provides "insight into students' attitudes about the medical profession and their sense of developing identity in relation to their new community and its expectations."[12] Reflections will "expose their patterns of reasoning as they approach challenging professional dilemmas. Exploring the reasoning behind behaviors is important because the choices made by an individual are not necessarily evident in the outcome we observe."[12]

A program to teach professionalism must expand beyond the cognitive domain; learning is minimized when students do not reflect upon the experience.[13] The

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opportunity is lost to incorporate new attitudes or integrate professional behavior changes into one's daily life. Institutional administrative support creating an appropriate environment is essential for success. A formal curriculum that includes professionalism sends the message that faculty believe in what they are teaching. Curriculum should include, "structured teaching, clinical exposure, and organized activities designed to promote self-reflection."[13] Structured teaching of professionalism should be introduced to students early in the course of training and reinforced throughout the educational program. Students must be given "real-life situations taking place in clinical rotations or practice, in community service, or during activities specifically designed for the purpose. The key is to promote reflection upon these experiences."[13]

BACKGROUND

UNMC's CLS Program is an 11-month, 3+1 program with approximately 50 students in four states at 12 different clinical sites. Each student is assigned to complete clinical rotations at one location: a rural hospital, urban hospital, or reference laboratory. The program also includes 25 working MLT degree advancement students. Approximately 80% complete the majority of their education at a distance.

Professionalism goals (Table 1) are introduced early in the program. The first management session provides the cognitive base: a lecture and independent unit on the CLS scope of practice and profession. The ASCLS code of ethics; overview of the history of the profession since its inception; NAACLS standards; Board of Certification; CLS/CLT practice levels; and ASCLS and American Society for Clinical Pathology (ASCP) comparisons are addressed.

Professional activity opportunities are then explained to students. UNMC has created three categories of professional activities: professional development, community service and scholarly activity (Table 2). Each student is expected to earn a minimum of seven professional activity points throughout the year, with the goal being at least ten. No more than five points may be earned from a single category; the intent is to expose students to many different activities. Some point values are clearly established, while others are awarded based on the time the student spends planning and/or completing an activity, or on the number of visits of a continuing service.

Table 1. UNMC Professionalism Unit Goals

In this unit, the Clinical Laboratory Science student will participate in activities designed to:

1. Build professional pride within the student.
2. Advance the Clinical Laboratory Science profession.
3. Promote the Clinical Laboratory Scientist's role as a key member of the healthcare team.
4. Increase the visibility of Clinical Laboratory Scientists to community members, as well as other healthcare professionals.
5. Encourage lifelong involvement in professional activities.
6. Collaborate with other healthcare professionals

Table 2. Examples of approved professional activities students can complete to earn professionalism points. Activities used to achieve these points CANNOT be required educational experiences or monetarily compensated; all must be lab related.

Professional Development Activities	Suggested Points
Join a professional society (ASCLS or ASCP)	1 for each
Advisory board representative	1-2
Planning a lab related activity (e.g., lab week)	1-2
High school/college career recruitment	1
Community Service Activities	**Suggested Points**
Elementary or middle school laboratory educational activity	1-2
Health/wellness/career fair (single event, 1-4 hours)	1
Community clinic continuing series (e.g., Sharing Clinic) ≥10 visits	5
Community clinic continuing series (e.g., Sharing Clinic) 8-9 visits	4
Community clinic continuing series (e.g., Sharing Clinic) 1-2 visits	1
Scholarly Activities	**Suggested Points**
Poster presentation	2-5
In-service or case study presentation	2-5
Teaching other healthcare professionals	1-2

Professional development activities fall into three categories: personal development; leadership development; and service for the profession. Personal development includes joining a professional society, or creating a curriculum vitae. Serving as a student representative to advisory boards, student senates,

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student councils, student clinic boards or state professional societies are examples of leadership development opportunities. To qualify for points the student must take an active leadership role that involves regular meetings, sharing reports with peers, and fulfilling project responsibilities. Service for the profession includes volunteering at state professional society meetings; serving on career panels; and planning or assisting with recruitment, National Medical Laboratory Week, or other lab-related activities.

Community service opportunities encompass service for those outside the laboratory profession, such as planning and/or conducting an educational activity at an elementary or middle school; volunteering at a health fair; and volunteering at a student-run community clinic. UNMC has three student-run evening clinics providing numerous leadership and volunteer opportunities. These clinics allow students to gain real-world laboratory experience with minimal supervision and provide healthcare to underserved populations in an interprofessional environment. CLS student leaders schedule peers to ensure all shifts are covered throughout the year and may develop testing protocols. Five hours of training are required to volunteer at these clinics. All UNMC's CLS students for the past two years have voluntarily completed this training shortly upon entering the program.

Poster presentations are the most common scholarly activity. Students work individually or in pairs to author and present a scientific poster. Scholarly activity points are also earned by presenting a case study or in-service to faculty/peers; teaching other healthcare professionals a laboratory skill; publishing an article at the local, state or national level; or completing a quality performance improvement project.

Career development is a management unit that students complete near the end of the program. The focus is on continued professional involvement and life-long learning. Students study licensure, certification, credentialing, registration and accreditation followed by an exploratory/opinion paper on CLS/CLT personnel licensure. Students investigate positions held by ASCLS, ASCP and the College of American Pathologists; determine their personal stance for or against state licensure; and write a persuasive paper, justifying their choice.

METHODS

Student perceptions regarding professionalism were obtained by asking CLS applicants to write a response to these two questions at their face-to-face admission interview:

> What does the concept of professionalism in healthcare careers mean to you?
> What impact do you anticipate professionalism will have on your development as a Clinical Laboratory Scientist?

Throughout the educational year students document their participation in faculty approved professional activities as previously discussed. At the end of the year students are required to write a reflective paper using the following guidelines:

> You may choose to write about a single professional activity/experience or an entire professional category (community service, scholarly activity or professional development). The focus of the paper is to reflect on how or if these professional activities/experiences will influence your future professional practice and why.

End-of-the-year student reflective responses were compared to admission question responses.

RESULTS

Pre-admission responses were qualitatively categorized into like themes based on similar student perceptions (Table 3). Major themes revealed an emphasis on patient care, teamwork and character traits. Students were able to successfully complete course requirements at all locations with 87% percent earning 10 or more professionalism points. Excerpts of several end-of-the-year student reflective paper responses follow.

> **Personal professional development #1:** "The ASCLS and ASCP professional society websites are great and something I will bring with me to keep up-to-date within the career."

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Table 3. Major themes from pre-admission student responses to: What does the concept of professionalism in healthcare careers mean to you? What impact do you anticipate professionalism will have on your development as a Clinical Laboratory Scientist?

Overall Theme	Number of Student Responses
Responsibility, respect, compassion to the patient	16
Teamwork and respect to co-workers	14
High standards, honesty, integrity, confidentiality, trustworthiness	11
Knowledge and skills regarding the profession	7
Motivation to continually improve knowledge/skills	5
Appropriate dress and appearance	3
Work is focused, organized and efficient	3

Personal professional development #2: "Through questions asked and answered during the professional conference, I saw that healthcare is indeed a collaborative field. No matter the topic, questions and answers came from clinical laboratory scientists, physicians, researchers, and others involved in patient health. This degree of professionalism demonstrated the need to continue to have a community of healthcare providers, not act as discrete entities without communication between one another in order to give patients the best possible outcomes."

Leadership development from a student-led clinic board member: "This allowed me the opportunity to experience firsthand the difficulties, and challenges to staffing, and communicating problems at the clinic to all volunteers in a clear and understandable method. As an employee, I will be aware of these situations, and understand how these interactions can affect the employees in the clinical laboratory."

Service for the profession – recruitment: "I was amazed to see how many people don't know or know very little about professions in medical laboratory science."

Community service – educational activity: "When being a professional finally hit me: We were boasting about our profession to these kids who probably had no idea that we even existed. It was great to see them actually pay attention to us. I hope that we planted a little seed into even a few of those kids and that they will keep our profession in mind when they attend college."

Community service at a student-run clinic: "While volunteering my services at the Respect and Sharing Clinics, I would feel very proud of the fact that I was going to become a CLS. When medical students are coming to myself and my working partner to ask questions about tests that need to be done and actually knowing the answer is a great feeling. If medical students would ask questions we were unsure of answering, it motivated us to look up the answer and retain that information."

Overall professionalism #1: "At the ASCLS state meeting this year I was able to listen to a great speech about current topics that affect clinical laboratory scientists. The speech focused on topics such as professional licensure, competitive bidding, and the introduction of the DCLS (Clinical Laboratory Science Doctorate). These are all topics that will affect the laboratory and the people working in the laboratory in a significant way. One thing that surprised me is that I have been working in the lab for almost eleven months now and until about one month ago I hadn't heard anything about these topics. I found out about the licensure situation because we had an assignment about it. I knew about the DCLS because there was an issue of ASCLS magazine that focused on the DCLS, but I didn't know anything about competitive bidding until I listened to the speech. The reason that I was surprised is because I would have thought these would have been topics that I would have heard people around the lab talking about.

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I think that it is very important that medical technologists stay well informed about these topics and get involved in the ones that they feel strongly about. These are changes that will affect the way the laboratory works and these decisions should be made by the people who they will affect the most. Medical technologists should not just ignore these issues and allow someone higher up the ladder to make the decisions. The more people who get involved and challenge each other's ideas the better the outcome will be."

Overall professionalism #2 from a currently employed MLT: "Of the activities I did to satisfy the requirements of this project I found, to my surprise, the volunteer efforts to be the most satisfying. Before this project I had never done any volunteer work for any number of reasons. Either I was too busy or I didn't have time or I needed to spend the time I did have doing something to make money. While my need to make money to support my family has only increased, I do think that after my experience with this assignment I will in the future find the time to do more volunteer work. It may not help to pay the bills, but it does make one feel good about what they are doing."

Overall professionalism #3: I was able to step outside my box and learn things that I hadn't gotten the opportunity to learn previously. Had I not been required to partake in these activities I may not have chosen to do so. I have learned to stay involved in my field, which will help me to develop professionally and become a valued member of the healthcare team.

End-of-the-year reflective papers were qualitatively categorized for common themes, in a manner similar to the pre-admission responses. Reflective responses expanded in scope from the egocentric themes of the pre-admission paper, evolving to include other health care professionals, community and professional societies (Table 4). In addition, the pre-admission themes of compassion for the patient, high personal standards, knowledge of core CLS competencies and the desire for lifelong learning were reiterated in these reflective papers. Expanded overall themes of professionalism were provided in 88% of these reflective papers, while 12% remained focused on the pre-admission themes of self and the patient.

Table 4. Major themes from end-of-the-year student papers reflecting on their personal community service, scholarly activity or professional development activities and the potential influence of these experiences on their future professional practice.

Overall Theme	Number of Student Responses
Recognize the collaborative nature of healthcare	17
Educate the community/other professionals	12
Exhibit pride in CLS' contribution to overall healthcare	12
Promote the laboratory profession	9
Recognize cultural competency issues	6
Volunteer their CLS practitioner skills	5
Recognize the challenges of leadership	3
Recognize the value of professional societies	3
Accept leadership roles	2
Themes repeated from pre-admission responses:	
Responsibility, respect, compassion to the patient	13
Teamwork and respect to co-workers	1
High standards, honesty, integrity, confidentiality, trustworthiness	13
Knowledge and skills regarding the profession	6
Motivation to continually improve knowledge/skills	5
Appropriate dress and appearance	2
Work is focused, organized and efficient	0

Comparisons of individual students' pre-admission perceptions to their end-of-the-year reflections on professionalism follow:

Student 1

Preadmission themes: Putting patient needs first, appropriate dress, doing the best job possible, working well with others, motivation to improve myself.

End-of-the-year reflections: "When I first entered the program, professionalism often seemed like a distant and undesirable concept. As a recent college graduate, I often associated the word with a set of meaningless behaviors that had to be followed in order to please my

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superiors. During my time in the CLS Program, I have obtained a new respect for professionalism. Professionalism was a necessary tool for my work as a representative of the Sharing Clinic Board. This position required continuous discussions with other healthcare professionals about issues involving the clinic. I had to explain how the clinic laboratories worked to other health care disciplines and have a basic understanding of how other healthcare disciplines operated in the clinic. At its core, professionalism is about being competent enough in one's job so as to inspire confidence in both the customer and fellow workers. As a CLS, it is about effectively communicating with other healthcare professionals and doing everything necessary to serve the patient."

Student 2

Preadmission themes: Healthcare professional that many people trust and respect, trying my hardest, responsibility to patient.

End-of-the-year reflections regarding professionalism assignments: "The first thing to enter my mind was that this would be another thing I had to add to my already seemingly overwhelming year ahead. What I didn't think about was the experience I would have throughout the year while participating in these activities. I didn't realize that they would change my opinions and open my eyes to issues I would have hardly considered relevant in my life."

End-of-the-year reflections regarding student-led clinic: "I knew it was for low income people who I thought should have taken the initiative in their own lives in obtaining a good job and better insurance so our tax dollars wouldn't have to pay for their medical bills. When I thought of poor people my mind went to the people suffering in Africa from AIDS, malaria and starvation. It didn't dawn on me that there were so many people in Nebraska that had to decide between having medical insurance and putting food on the table."

DISCUSSION

Prior to performing professional activities in authentic environments, student perceptions focused on the patient and self with no comments related to duty to profession and society.[1,9] After service learning participation, students' professional perceptions expanded. Evidence of this growth was demonstrated through reflections indicating that CLS professionals should take personal responsibility to collaborate with other healthcare practitioners, educate the community and other professionals and promote the CLS career, as well as exhibit pride in the CLS' contribution to overall healthcare. The desire to continue volunteer activities was noted by multiple students. Recognition of cultural competency issues, leadership challenges and the advantages of professional society membership were additional themes mentioned. These reflections reveal students' awareness that a CLS professional's responsibility and accountability extends outside the walls of the laboratory.[5]

This reflective paper analysis supports the belief that providing structured educational opportunities that require CLS/CLT students to become actively involved in professional activities, followed by reflection on those experiences, positively influences the professional attitude of most students. However, not all students embraced the course's service learning component, failing to expand their professionalism insight beyond the patient and self. Current data collection methods will continue, as well as documentation of the professional involvement of UNMC CLS program graduates.

Including professionalism as an essential part of CLS/CLT curricula is one successful educational approach to nurturing professional identity within future laboratory practitioners. Requiring students to become involved in professional development, community service and scholarly activities throughout their professional educational year encourages a more encompassing view of professionalism from the relatively egocentric view evidenced prior to beginning coursework. In completing service learning require-

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ments, most CLS graduates recognize that working with the community, other healthcare professionals, and professional societies are important components of professionalism, as are maintaining a focus on patient concerns, desirable character traits, and competent laboratory skills.

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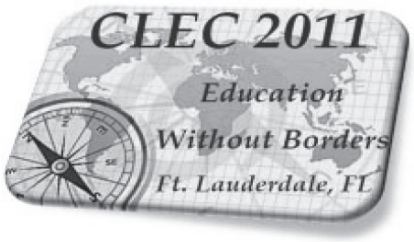

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