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# A Comparison of Rank Ordered Professional Attributes by Clinical Supervisors and Allied Health Students

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### ABSTRACT

The concept of professionalism in the field of allied health has been defined to delineate professional behaviors and values. The term "professional attributes" describes a set of behaviors believed to encompass professionalism. Clinical performance instruments attempt to evaluate professional behavior of allied health students. However, deficiencies in professionalism are difficult to identify and quantify making the problem troublesome to address. The purpose of this study was to identify differences in perceptions between clinical supervisors and allied health students as they relate to the rank order of importance of "professional attributes" required for effective clinical practice. The results of a "professional attributes" survey administered to clinical supervisors and allied health students were analyzed using a Mann-Whitney 2-tailed test. Identified differences could serve as a basis for objective instruction on professionalism in the classroom.

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### INTRODUCTION

Educators in the field of allied health recognize the importance of developing professional behaviors in students. In order to successfully fulfill their professional roles, students need to be competent behaviorally as well as have the skills required by their profession. Professional attributes involve the affective domain of learning. Affective behaviors target awareness and growth in attitudes and emotions required for successful interaction with patients and other health care professionals.<sup>1-8</sup> Although most students are able to demonstrate satisfactory knowledge and hands-on skills in the academic setting, they may have difficulty in the clinical setting with patient interaction or professional communication. Behavioral deficiencies are the most common cause of performance problems.<sup>9,10</sup> Allied health professionals know the importance of professional behavior in the clinical setting. Frustration and confusion occurs when attempting to teach professionalism and addressing unprofessional behavior exhibited by students.

Even though professors emphasize professional attributes in the academic setting, allied health students participating in clinical internships are often primarily concerned with demonstrating competency in skills evaluated within the cognitive and psychomotor domains. Students and clinical supervisors agree that professional behaviors are important. However, they may differ in their perceptions as to importance of each behavior. If differences do exist in the perception of significance for each of the professional behaviors, it would influence how educators and clinical supervisors address those behaviors in both the classroom and clinical settings.

The purpose of this study was to determine whether or not differences in perceptions of professional attributes exist between clinical supervisors and allied health students as they relate to rank order of importance. Identified differences could serve as a basis for objective instruction on professionalism in the classroom.

## BACKGROUND

Within the various professions of allied health, a number of documents have been developed with the intent to define, describe, and guide professionalism as well as develop professionalism. This collection of documents can be divided into those primarily used in the academic setting and those used in the clinical setting. Academic documents direct curriculum development and program evaluation. Clinical documents focus on evaluating student performance and the clinical experience. Documents that address both academic and clinical concerns are Professional Codes of Conduct, Vision Statements, and Codes of Ethics. Based on this knowledge, it is apparent that there are bridges to be crossed for an allied health student to make the successful transition from textbook learning in the classroom to a practicing professional in the clinical setting.

In 1995, a model was introduced for evaluating the professional attributes of physical therapist students. The approach was based on a model used by researchers at the University of Wisconsin Medical School. It was reported that clinical supervisors identified non-cognitive reasons more often than cognitive reasons for difficulties in the clinical setting.<sup>11</sup> Although clinicians identify that the non-cognitive qualities are necessary elements for clinical success, studies have suggested that academic faculty may be reluctant to use non-cognitive factors, such as interpersonal skills, to make judgments about a student's competence because of the lack of data establishing that these factors are necessary components of clinical competence.<sup>10</sup> Because inappropriate behavior can potentially affect patient care and outcomes, academic and clinical supervisors must be able to identify and respond to deficits in the professional attributes.

The professional behaviors identified in this research study are referred to as "professional attributes." Professional attributes are those traits which are independent of the profession's core of knowledge and skills, but are necessary for successful practice.<sup>11</sup> The professional attributes utilized were: Responsibility, Professionalism, Communication Skills, Commitment to Learning, Interpersonal Skills, Critical Thinking, Problem Solving, Use of Time and Resources, Use of Feedback, and Stress Management. These described professional behaviors are consistent with behaviors identified in other health care professional behavioral studies.

## METHODS

Prior to the initiation of the research, Human Subjects approval was obtained. A convenience sample of 150 clinical supervisors was drawn from a list of clinical supervisors utilized by an allied health program at a university in the Midwest region of the United States. The allied health students participating in the study were completing their final internship prior to graduation.

The survey was designed by the researchers and reviewed by an expert panel of reviewers. The basis for survey development came from research performed by May et al on generic abilities. All participants received the same survey with specified areas to complete based upon their current status as either a Clinical Supervisor or an Allied Health Student. The survey contained demographic questions specific to the status of the individual completing the survey. All respondents were asked to indicate their gender and either their years of professional experience or the year of student enrollment. Clinical Supervisors were asked to specify their primary practice setting and years of experience as a student clinical supervisor. This was followed by three separate sections containing lists of the ten professional attributes. All participants were requested to complete the section(s) that applied to either their professional or student role. In the first section, all participants were requested to rank order the ten professional attributes from (1) most important to (10) least important in reference to their personal expectations. In the second section, participants were requested to rank order the same professional attributes from strongest (1) to weakest (10) in respect to how they perceive themselves demonstrating professional attributes. In the final section, clinical supervisors were asked to rank order the list of ten professional attributes from strongest (1) to weakest (10) in respect to the how they perceived overall student's performance of the professional attributes during the past 12 months. Each participant was mailed a survey with a cover letter and a self-addressed, stamped return envelope.

A Mann-Whitney<sup>13</sup> 2-tailed test with corrections for ties was conducted to examine the differences in the rank ordering of the professional attributes between the allied health students and clinical supervisors. The Mann-Whitney test was chosen for statistical analysis because scores from two samples can be placed into a composite distribution, then ranked from highest to lowest to determine if the ranks tend to be higher for one group. The P-value was set at .05 for all analyses.

## RESULTS

A total of 93 surveys (62%) were returned. Of the returned surveys, 57 had interpretable data; 27 were from clinical supervisors

and 30 were from allied health students. There were identified differences in the overall rank order of professional attributes between clinical supervisors and allied health students in four of the professional attributes. The four areas were: Professionalism, Communication Skills, Interpersonal Skills and Problem Solving. Similarities also occurred. Clinical supervisors and allied health students agreed that Responsible Behavior is the most important attribute. Both clinical supervisors and allied health students ranked Professionalism and Communication Skills as one of the top three most important attributes. Both groups ranked Stress Management as the least important of the professional attributes.

**Table 1: Comparison of Clinical Supervisors and Allied Health Students Mean Rank Score of Professional Attributes**

Mean Rank Clinical Supervisors	Professional Attribute	Mean Rank Allied Health Students	P
3.89	Responsibility	3.20	.314
4.11	Professionalism	4.07	.990
4.26	Communication Skills	3.70	.253
4.78	Commitment to Learning	4.67	.987
4.93	Interpersonal Skills	6.70	.253
5.15	Critical Thinking	4.87	.591
5.48	Problem Solving	4.83	.231
6.56	Use of Time & Resources	6.70	.739
6.63	Use of Feedback	7.73	.037*
9.22	Stress Management	8.53	.109

\*Statistically significant

Although there were individual differences in the overall rank order in the professional attributes of Professionalism, Communication Skills, Interpersonal Skills, and Problem Solving, the differences in the individual mean rank of those abilities were not significantly different.

**Table 2: Comparison of Rank Order of Professional Attributes**

Rank Order Clinical Supervisors	Rank Order Allied Health Students
Responsibility	Responsibility
Professionalism	Communication Skills
Communication Skills	Professionalism
Commitment to Learning	Commitment to Learning
Interpersonal Skills	Problem Solving
Critical Thinking	Critical Thinking
Problem Solving	Interpersonal Skill
Use of Time & Resources	Use of Time & Resources
Use of Feedback	Use of Feedback
Stress Management	Stress Management

A comparison of the individual mean rank scores of the professional attributes between clinical supervisors and allied health students showed statistically significant differences in the professional attribute category of Use of Feedback. However, this statistically significant difference did not change the order of the ranking. Clinical supervisors ranked Use of Feedback (mean rank=6.63) as having less importance than allied health students (mean rank=7.73, P = .037).

## DISCUSSION AND CONCLUSIONS

This study sought to examine differences in perception of the importance of professional behaviors for the entry level allied health students by examining variations in the rank ordering of professional attributes by clinical supervisors and allied health students. Although several differences were identified, the expectations were to uncover numerous differences which would explain disparities between academic achievement and clinical competencies. The results indicate that the two groups are close to being parallel in their rating of the basic core values of professionalism. However, there appears to be a need to assist students in self-identification of poor behaviors and how they are being perceived by their future professional colleagues.

## RECOMMENDATIONS

The research implies that students fail to recognize deficiencies in their own professional behaviors being displayed in the clinical setting. Classroom activities such as role playing may be beneficial in increasing students' awareness regarding other's perception of their professionalism.

Another recommendation would be for allied health academic programs to consider having students complete a self-assessment inventory on professionalism. Program faculty and/or clinical supervisors could then discuss differences that arise between the student's perception of his/her professionalism presented in the inventory and what is actually being presented clinically.

A third recommendation would be to replicate this study with other allied health programs and different types of clinical settings. The results from nursing programs may differ when compared to physical therapy and physician assistant programs. Any differences in expectations could be identified by comparing hospital settings to out-patient clinics.

A final recommendation would be to perform a comparison study on the effectiveness of different teaching techniques on developing professional behaviors in allied health students. One type of study could investigate self-assessment teaching techniques in comparison to role-playing. Another study could be designed where one group of students participated in role-playing and self-assessment activities and a second group did not. The results could be compared to see any particular teaching method was more effective in the development of professionalism in allied health students.

## REFERENCES

1. Arnold L. Assessing professional behavior: yesterday, today, and tomorrow. *Acad Med.* 2002; 77:502-515.
2. Bosser A, Kernaghan J, Hodgins L, et al. Defining and developing professionalism. *Can J Occup Ther.* 1999;66:116-121.
3. Bryan CS. Promoting professionalism: a primer. *J S C Med Assoc.* 2000; 96:421-427.
4. Chaves JF. Assessing ethics and professionalism in dental education. *J Indiana Dent Assoc.* 79;1:16-20.
5. Cruess SR, Cruess RL. Professionalism must be taught. *BMJ.* 1997;315:1674-1677.
6. MacDonald CA, Houghton P, Cox PD, Barlett DJ. Consensus on physical therapy professional behaviors. *Physio Can.* 2001;53:212-218.
7. Taxonomy of Education Objectives. Available at: [http://en.wikipedia.org/wiki/Bloom%27s\\_Taxonomy](http://en.wikipedia.org/wiki/Bloom%27s_Taxonomy). Accessed December 3, 2008.
8. Yturri MA, DeVanzo JE, Apsrey DP, et al. Assessing professional competence with the PA profession-a white paper. *Perspect Physician Assistant Educ.* 1998;9:201-209.
9. Gutman SA, McCreedy P, Heisler P. Student level II fieldwork failure: strategies for intervention. *Am J Occup Ther.* 1998; 52:132-149.
10. Hayes KW, Huber G, Rogers J, Sanders B. Behaviors that cause clinical instructors to question the clinical competence of physical therapist students. *Phys Ther.* 1999; 79:653-667.
11. May WW, Morgan BJ, Lemke JC, et al. Model for ability-based assessment in physical therapy education. *Journal of Physical Therapy Education.* 1995;9(1):3-6.
12. Gleeson PB. Understanding generational competence related to professionalism: misunderstandings that lead to a perception of unprofessional behavior. *Journal of Physical Therapy Education.* 2007;21(3):23-28.
13. Glass, GV & Hopkins, KD. *Statistical methods in education and psychology.* 3rd ed. Boston, MA: Allyn and Bacon; 1996:303-304.