Student Athletic Trainer Perceptions of Clinical Supervisor Behaviors: A Critical Incident Study

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Objective: To identify and describe critical helpful and hindering clinical teaching behaviors of supervising athletic trainers, as perceived by student athletic trainers, and to provide a better understanding of the student athletic training experience.

Design and Setting: The critical incident technique was used to identify critical behaviors of supervising athletic trainers as perceived by student athletic trainers.

Subjects: Sixty-four student athletic trainers from 4 undergraduate NATA-approved or CAAHEP-accredited programs volunteered to participate.

Measurements: The data from the critical incident forms were reviewed for acceptability, inductively analyzed, and categorized. Results are reported in raw numbers and percentages. Examples are provided to illustrate each category.

Results: Helpful and hindering supervisor behaviors were identified in 4 major categories and 24 subcategories. Students reported more helpful than hindering behaviors. Students reported mentoring behaviors most often, followed by acceptance, nurturing, and modeling behaviors. Student athletic

trainers wanted to be respected as professionals regarding ability and knowledge. They also desired mentoring through explanation, demonstration, and constructive feedback and nurturing through confidence building and other supportive supervisor behaviors. Students most often identified incidents of humiliating behaviors and lack of availability by the supervisors as hindering the clinical experience.

Conclusions: Supervising athletic trainer behaviors had a profound effect on the professional development of student athletic trainers. Interaction between supervisors and students positively or negatively affected student athletic trainers' growth and development. Selection of supervising athletic trainers, matching of supervisors with students, and training for supervising athletic trainers are important issues that need further investigation. Student athletic trainers can provide insightful information that can be used to better understand and enhance the clinical experience.

Key Words: clinical education, clinical instruction, supervising athletic trainers

Clinical experiences constitute a major portion of athletic training education programs. Many certified athletic trainers are involved in this part of the student athletic trainer's education. The importance of the student athletic training experience, as well as the influence of the supervising athletic trainer upon this experience, is well recognized. The recently formed Education Council of the National Athletic Trainers' Association (NATA) has cited clinical education as one of the most pressing issues to be addressed.[1] The responsibilities of the athletic trainer as a clinical instructor (the terms *supervising athletic trainer* and *clinical instructor* are used synonymously in this study) are increasing dramatically.[2] A small number of survey studies have focused on clinical education in other allied medical professions,[3–8] and virtually no body of information addresses clinical education in athletic training.[2] Our primary objective was to identify and describe critical helpful and hindering clinical teaching behaviors of supervising athletic trainers as perceived by students. The secondary objective was to provide a better understanding of the student athletic training clinical experience that can be used to enhance the clinical experience.

METHODS

Data Collection

We collected data from junior- and senior-level student athletic trainers enrolled in 4 different NATA-approved or Commission on Accreditation of Allied Health Education Programs (CAAHEP)-accredited athletic training education programs located in the northeastern United States. The program directors at each institution recruited student athletic trainers to participate beginning with the 1995 fall semester clinical experience. We used the critical incident technique.[9] This technique was originally used to identify critical role behaviors in military instruction,[9] and it has since been used in various forms by many educational researchers.[10] Students were asked to describe helpful and hindering incidents as they occurred during the clinical experience. A critical incident was defined as any verbal or physical behavior of a supervising athletic trainer deemed important enough to be reported by a student athletic trainer on a solicitation form. Critical incident solicitation forms (Figures 1 and 2) were adapted and pilot

READ CAREFULLY:
Think of experiences you have had recently in your student athletic training experience. Describe an incident in which your supervising athletic trainer's behavior was especially HELPFUL in contributing to the success of your experience and/or aiding your growth as an athletic trainer. This behavior should be something that your supervising athletic trainer actually did and/or said.

Date of Incident:_____   Student Athletic Trainer:
Clinical Setting: Male or Female
   College or High School   Supervising
Year in college: Athletic Trainer:
   Soph   Jr   Sr   Male or Female

Describe the circumstances leading up to the behavior:

Fully describe what your supervising athletic trainer did and/or said:

Why do you feel this behavior was helpful?

Figure 1. Critical incident form: helpful.

READ CAREFULLY:
Think of experiences you have had recently in your student athletic training experience. Describe an incident in which your supervising athletic trainer's behavior or lack of behavior HINDERED rather than helped you, with regard to the success of your student athletic training experience and/or growth as an athletic trainer. This behavior should be something that your supervising athletic trainer actually did or did not do and/or say.

Date of Incident:_____   Student Athletic Trainer:
Clinical Setting: Male or Female
   College or High School   Supervising
Year in college: Athletic Trainer:
   Soph   Jr   Sr   Male or Female

Describe the circumstances leading up to the behavior:

Fully describe what your supervising athletic trainer did and/or said or did not do and/or say:

Why do you feel this behavior hindered your performance and/or growth?

Figure 2. Critical incident form: hindering.

tested for the purposes of this study. The forms required students to fully describe the circumstances leading up to the incident, the supervising athletic trainer's behavior, and the reason why the behavior was helpful or hindering. Each student was provided with 8 copies of each form and 8 prepaid return envelopes. Students were requested to return equal numbers of helpful and hindering forms. Throughout the fall semester, the program director at each institution reminded students to complete and return the forms.

Data Analysis

Returned forms were reviewed to determine acceptability. An acceptable incident form must a) have identified an actual action or omission of a specific verbal or physical action on the part of the supervising athletic trainer; b) describe an action that took place while the athletic trainer was serving in the capacity of supervisor; and c) be complete and legible.[10] Each form also requested students to supply demographic information on sex, year in college, and type of clinical setting. However, the inclusion of this demographic information was not required to judge a form acceptable. Each author independently reviewed the acceptable forms and identified the actual critical behavior. The critical behavior was underlined on the forms and then transcribed onto index cards. In order to check the accuracy of this identification process, interrater reliability scores were established based upon the agreement and dis-

agreement among the 3 authors. Any disagreement was discussed, and a decision was negotiated to resolve the difference.[10] Interrater reliability for this study was 86%. The critical incidents were sorted into similar general categories and were defined (Table 1). Incidents within each general category were further sorted using common emerging themes to create subcategories (Table 2).

RESULTS

A total of 189 acceptable critical incident forms were returned. Sixty-four of the 95 (67%) targeted students returned

Table 1. Category Definitions*

MENTORING behaviors were those that demonstrated or attempted to modify the student athletic trainer's behavior in the professional responsibilities of an athletic trainer. These may be accomplished verbally through explanation and/or discussion or physically through demonstration.
PROFESSIONAL ACCEPTANCE behaviors were those that affected the student athletic trainer's feeling of acceptance as a person and/or a professional.
NURTURING behaviors were defined as behaviors that enabled the student athletic trainer to develop feelings of security and/or confidence.
MODELING behaviors were those that may or may not have been purposely intended to modify the student's behavior but were deemed important, since they were reported by the student as critical by their presence.

* Adapted from Helion.[10]

Table 2. Categories/Subcategories

Category/Subcategory	No. of Incidents	Total (% of Total Incidents)
Mentoring		86 (45%)
Helpful incidents		54
Explains	22	
Demonstrates	14	
Constructive feedback	10	
Tests knowledge	5	
Creates effective environment	3	
Hindering incidents		32
Unavailable	9	
Missed learning opportunity	7	
Poor communication	6	
Unfairness	5	
Negative feedback	3	
Inappropriate task	2	
Professional acceptance		53 (28%)
Helpful incidents		40
Respects student knowledge	34	
Supportive	4	
Positive interaction style	2	
Hindering incidents		13
Poor interaction style	6	
Lack of support	4	
Unapproachable	3	
Nurturing		43 (23%)
Helpful incidents		27
Confidence building	14	
Supportive	13	
Hindering incidents		16
Humiliation	10	
Disrespectful	6	
Modeling		7 (4%)
Helpful incidents		1
Good decision making	1	
Hindering incidents		6
Poor job performance	4	
Poor decision making	2	
TOTALS		189
Helpful incidents		122 (65%)
Hindering incidents		67 (35%)

Table 3. Mentoring Examples

HELPFUL
Explains:
"ATC guided us through the entire situation"
"ATC answered all my questions in great detail"
Demonstrates:
"ATC asked me to come over and watch evaluation of the athlete"
Constructive feedback:
"ATC suggested some things that I might have done differently"
HINDERING
Unavailable:
"I have very little interaction with my supervisor"
"ATCs never available"
Missed opportunity:
"ATC failed to further explain the injury and evaluation with me"
Poor communication:
"ATC did not tell me to do it until 20 minutes before it had to be done"

Table 4. Professional Acceptance Examples

HELPFUL
Respect for student knowledge:
"ATC assigned me to design the athlete's postop shoulder rehab program"
"ATC told me to re-evaluate it and figure it out"
Supportive:
"ATC stuck up for me to the coach and agreed with my decision"
HINDERING
Poor interaction style:
"ATC [will] barely look at me when [she/he] speaks"
Lack of support:
"[duties] make me look like a water girl"

Table 5. Nurturing Examples

HELPFUL
Supportive:
"ATC makes a note to ask me how things are going and if [he/she] could be of any help"
Confidence building:
"ATC stated that [he/she] thought I would be a very good athletic trainer"
HINDERING
Disrespectful:
"ATC was very rude and insulting"
Humiliation:
"ATC ridiculed me for 'taking so long'. . . in front of team, embarrassing me"

at least 1 form. We identified 4 major categories: mentoring (45%), professional acceptance (28%), nurturing (23%), and modeling (4%). Table 1 contains the category definitions. Twenty-four subcategories were identified (Table 2). Student athletic trainers reported helpful (65%) and hindering (35%) behaviors in all categories. The 2 helpful behaviors reported most frequently by students were respect of student knowledge ($n = 34$) in the professional acceptance category and supervisor explanation in the mentoring category. The 2 hindering behaviors reported most frequently by students were supervisor humiliation ($n = 10$) in the nurturing category and supervisor unavailability ($n = 9$) in the mentoring category. Representative examples of each category are contained in Tables 3 to 6.

DISCUSSION

The supervising athletic trainer was identified as an important factor in the development of student athletic trainers. Supervisors' behaviors were shown to clearly affect the student athletic trainers' feelings and attitudes during their clinical education.

Mentoring

The high number of mentoring behaviors reported showed these to be of the greatest concern in this study. Students most frequently identified explanation, demonstration, and constructive feedback behaviors as helpful. They felt that these behav-

Table 6. Modeling Examples

HELPFUL
Good decision making:
"ATC showed intelligence when removing an athlete from practice"
HINDERING
Poor job performance:
"ATC never [uses] therapeutic exercise"
"ATC showed up late again"

iors added to their professional knowledge base and enhanced their performance in the clinical setting. Supervisor unavailability and missed learning opportunities were most frequently identified as hindering behaviors. Students desired to know how they were doing and wanted frequent feedback on their clinical performance. Students also wanted to be included more often in the application of clinical skills, such as injury evaluation and rehabilitation. These helpful and hindering behaviors were also identified in survey studies investigating clinical education in nursing,[8] physician assistant programs,[6] physical therapy,[3–6] and respiratory therapy.[3] For example, physical therapy students[5] found information provided through feedback to be the most helpful supervisor behavior.

Professional Acceptance

We found professional acceptance to be the next most important category. This category also included the most frequently reported behavior, respect for student knowledge. Students described a desire for autonomy. Acknowledgment and validation from their supervisors of their knowledge and skills set a positive tone for a productive clinical experience. Poor interaction style, such as terseness or negativity, was the most frequently identified hindering behavior in this category.

Nurturing

Nurturing behaviors included 2 of the top 4 most cited helpful subcategories: confidence-building and supportive behaviors. Confidence-building behaviors, such as positive responses to student clinical performance, and supportive behaviors, such as willingness to assist students with clinical and nonclinical aspects of their education, were clearly appreciated by student athletic trainers. These nurturing behaviors were considered helpful because they increased feelings of student competence and created a safe environment for student athletic trainers to show initiative and participation. Humiliation was the most frequently cited hindering behavior subcategory. Criticism in front of others and lack of respect for student athletic trainer abilities and feelings created a negative learning environment. These behaviors detracted from students' professional growth and lessened their willingness to show initiative in the clinical setting. These helpful and hindering nurturing behaviors were similar to those identified in the previously mentioned nursing study.[8]

Modeling

Although we identified modeling as a separate category, it made up only 4% of the total incidents. Six of the 7 incidents identified hindering behaviors. Poor job performance, such as perceived unprofessionalism and poor administrative skills, gave student athletic trainers negative examples of expected job performance and demeanor. Modeling behaviors were included as examples of effective clinical instruction practice in the survey studies reviewed.[3–8] These studies,[3–8] however, used closed-ended questions or lists for data collection. Using our open-ended solicitation forms (Figures 1 and 2), modeling behaviors were rarely identified as critical. We attribute our findings to the difference in methodology. We certainly believe that behaving as a caring, competent professional is important in the clinical instruction of students.

Frequency of Helpful and Hindering Incidents

Although students were asked to return an even number of helpful and hindering incidents, the students in this study returned more helpful incidents (65%). There may have been a hesitancy on the students' part to supply negatively perceived behaviors.[10] This may have been attributed to the students' reliance on their supervisors for grades and recommendations. We maintained student and supervisor confidentiality, but, even though students were assured anonymity, this might not have overcome the concern that their criticisms might be discovered.[10] When collecting student feedback, it is essential to be aware of both student and supervisor concerns. It should be clear in advance how the information will be collected and used.

Limitations

While an effective method for identifying critical behaviors, the critical incident technique is subjective. This includes the choice of incidents reported by the students and how the incidents were categorized by the authors. The results are based solely on student perceptions of critical supervisor behaviors. While similar behaviors may be observed in other settings, the results of this study are not generalizable. A small, purposeful, nonrandom sample was used. Student perceptions provide insightful and enlightening information for supervising athletic trainers, athletic training educators, and student athletic trainers. Consumers of this research must determine how the results of our study relate to their circumstances to better understand, and in turn improve, the clinical experience to enhance student learning and development.

Further Study

We hope that this article and the students' words serve as an impetus for further discussion, introspection, and research on clinical education in athletic training. Research should include the perspectives not only of students, but also of teachers,

clinical coordinators, and clinical supervisors.[6] While we requested gender information, the returned data were not sufficient to provide meaningful analysis in this area. In addition, we did not consider the age or amount of clinical experience of the student athletic trainers. Anderson et al,[11] in a recent survey study examining the supervision in athletic training education, suggested that older students did not rate their supervisors as positively as younger students. Further research including sex, age, and experiential differences could add additional insights to the area of athletic training clinical education.

ACKNOWLEDGMENTS

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