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Perceived Attitude Towards Feedback in Athletic Training Clinical Education

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The University of Southern Mississippi

PERCEIVED ATTITUDE TOWARDS FEEDBACK IN ATHLETIC TRAINING CLINICAL EDUCATION

by

Jessica Lynn Emlich

A Dissertation
Submitted to the Graduate Studies Office
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

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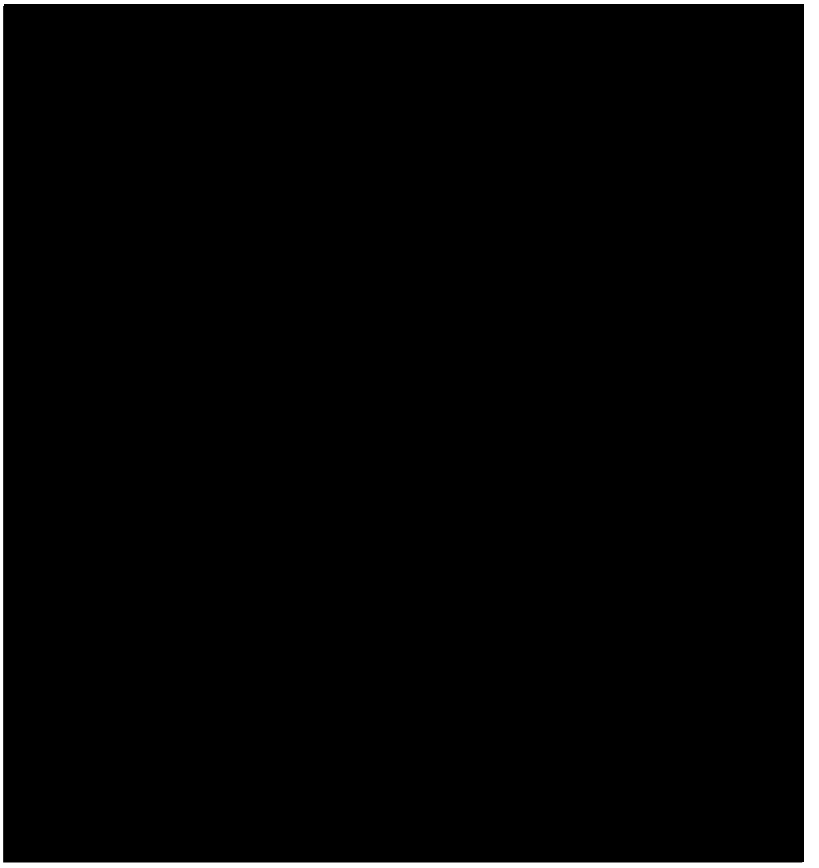

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ABSTRACT

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The purpose of this study was to measure and compare the perceived mean attitudinal score towards clinical instructor feedback, of Commission on Accreditation of Athletic Training Education (CAATE) accredited athletic training education programs (ATEP) program directors/clinical coordinators and affiliated clinical instructors. Additionally, the investigator was interested to see if relationships between attitudes towards feedback and the respondent's age, sex, employment setting and years of professional experience existed.

There were a total of one hundred and fifty eight participants in this study that comprised the two groups. Program directors and clinical coordinators (PD/CC) comprised 59 of the responses and 99 were completed by clinical instructors (CI). The participants were randomly selected from the National Athletic Trainers' Association District 4. An online survey, The Perceived Attitude Towards Feedback Instrument (PAFI), was used to collect the data from the two sample groups. This instrument was comprised of three parts; demographics, Likert-type items, and a vignette section. The vignettes were used to compare responses based on the variable of years of experience.

Independent t-tests and bivariate correlation analyses were used for testing the hypotheses. The analyses revealed that both groups (PD/CC and CI's) have similar positive attitudes towards clinical instructor feedback. Additionally, attitude towards

clinical instructor feedback is independent of a person's sex, age, employment setting and years of professional experience. The findings of this study do not indicate the need for any major reform in the area of athletic training clinical education. The profession of athletic training can look favorably on these findings knowing that those involved in clinical education have positive attitudes towards clinical instructor feedback Implications of these findings show a need for further investigation into the sub-constructs of feedback as it relates to athletic training clinical education and the exploration of the frequency that feedback is given.

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CHAPTER I

INTRODUCTION

The basis of entry-level Athletic Training education is its foundation in the combination of classroom experiences and clinical experiences. Athletic training students (ATS) are taught subject matter in a didactic setting that is then applied during purposely planned clinical experiences. Clinical instruction affords students the opportunity to practice and learn practical skills; these skills are then applied to the athletic training profession under the supervision of a trained professional. The clinical experience provides an opportunity for integration of cognitive, psychomotor skills/clinical proficiency, and affective competence/core values (Commission on Accreditation of Athletic Training Education [CAATE], 2005). The integration of classroom knowledge into the world of practice requires a team approach which includes the academic faculty, clinical instructors and students. This approach must be intentional, with all team members aware of their roles in the process and cognizant of the interactions necessary to accomplish the goals of clinical education (Weidner & August, 1997).

Each student must follow a logical progression of clinical experiences that allow for increasing amounts of clinically-supervised responsibilities. It is required, through accreditation standards, that the clinical experiences follow and reinforce a predetermined sequence of formal classroom and psychomotor skill learning. Furthermore, during clinical experiences, students must be given opportunities to develop, synthesize, and demonstrate cognitive competency and professional behavior (CAATE, 2005).

Throughout the clinical experience, either a clinical instructor (CI) or an approved clinical instructor (ACI) supervises the actions of the ATS. A clinical instructor is a

credentialed health care professional (minimum of one year) as defined by the American Medical Association and the American Osteopathic Association, including athletic training. The CI is not charged with formal evaluation of educational competencies or clinical proficiencies, that task is reserved for the approved clinical instructor (ACI) (National Athletic Trainers' Association, 2007). The ACI is a certified athletic trainer (ATC) or other credentialed professional, with more than one year of clinical practice. The ACI also supervises the student but is an individual who has undergone specific training administered by a Clinical Instructor Educator (CIE) associated with an athletic training education program (ATEP). As outlined by the 2005 Commission on Accreditation of Athletic Training Education (CAATE) standards, the ACI must be trained in the following: learning styles and instructional skills; student evaluation; interpersonal relationships; communication skills; instructional skills of supervision, mentoring, and administration; as well as training in other procedural tasks. It is the responsibility of the ACI to provide instruction and evaluation of Athletic Training Educational Competencies and/or Clinical Proficiencies (CAATE, 2005). For the purposes of this study, the term clinical instructor will encompass both the ACI and CI.

It is the responsibility of the athletic training education program director to oversee all aspects of the educational program, including the clinical education of the students. A program director may be assisted in this task by the clinical coordinator. The clinical coordinator is an individual who has been designated by the ATEP as having the primary responsibility for the coordination of clinical experiences. It is expected that the program director/clinical coordinator and the clinical instructors will collaborate in order to effectively plan and integrate student clinical experiences. While students are

completing their clinical experiences, the ACI or the CI must be physically present and have the ability to intervene on behalf of the ATS in order to provide on-going and consistent education. Each ACI or CI will not supervise more than eight students at a time to ensure effective education of each ATS in the clinical setting (CAATE, 2005).

Students are required to complete their clinical experiences contained in individual courses, for credit, in no less than two academic years. At least one year of experiences must be completed under the direct supervision of an ACI or CI who is also a certified athletic trainer (ATC). During this course of clinical experiences, each student must be exposed to a variety of different populations including experience with both genders, varying levels of risk, protective equipment, and medical experiences. Students are also required to complete experiences in a variety of athletic and allied health care settings. This exposure to a variety of settings and patient populations will prepare the student to meet the domains of practice once they become a certified athletic trainer (CAATE, 2005). Clinical settings may include athletic training rooms, athletic practices and competitions, clinics, hospitals, or other health care facilities.

The use of clinical settings for instruction is not unique to athletic training education. Physical therapists, nurses, physicians, and other medical professionals are also trained using a combination of classroom and clinical settings. It is common for a clinical instructor, with no formal preparation in teacher education, to be selected as a supervisor because of their professional skills rather than their teaching abilities (Jarski, Kulig, & Olson, 1990). However, expertise as a clinician does not guarantee expertise as a clinical instructor (Weidner & Henning, 2002). To assure a quality education for the ATS, it is important to look at the overall quality of the teaching and professional clinical

skills of the supervising clinical instructor. It is also important for either the program director or the clinical coordinator from the ATEP to give feedback to the clinical instructor regarding the latter's performance as a supervisor in order to improve the quality of instruction. Without feedback, mistakes go uncorrected, good performance is not reinforced, and clinical competence is achieved empirically or not at all (Ende, 1983).

The 2005 CAATE standards require athletic training education programs to secure data to determine the outcomes and effectiveness of the program. Programs must evaluate achievement outcomes, effectiveness of learning, and the quality of didactic and clinical instruction. Programs are also required to provide data that demonstrates effectiveness in achievement of program goals, effectiveness of learning and the quality of didactic and clinical learning. The amount and the methods for obtaining this data is left to the discretion of the individual programs and must be based on individual need and the character of the institution (Commission on Accreditation of Athletic Training Education, 2005).

The current CAATE standards state that programs may, but are not limited to, collecting assessment data by using any or all of the following methods: clinical site evaluations, clinical instructor evaluations, completed clinical proficiency evaluations, academic course performance, employer and/or alumni surveys, senior exit evaluations, and Board of Certification examination passing rates. It is important to note that the CAATE standards do not require evaluation of clinical instructors. Consequently, there is no required mechanism for reviewing the evaluations with the clinical instructors by the program director or clinical coordinator and no set instructions for remediation of consistently poor evaluations (Commission on Accreditation of Athletic Training

Education, 2005). Without a mechanism for performance feedback to the clinical instructor, the quality of a student's clinical experience is uncertain.

The research in athletic training education has not fully examined the use of, or the review of, evaluations with the clinical instructor for the purpose of improving instructional skills. Research has not been conducted in athletic training to examine the importance of feedback to the clinical instructor, or the preferred method of feedback. Various studies (Laurent & Weidner, 2001; Weidner & August, 1997; Weidner & Henning, 2002) have examined the perceived traits of effective clinical instructors. After identifying the effective traits of a clinical instructor, the next step is to evaluate the clinical instructor to measure his/her effectiveness. Where deficiencies are found with a clinical instructor in his/her instructional methods, remediation can be provided by the ATEP through different forms of feedback. Clinical instructors are the key link in modeling professionalism for the athletic training students, just as it is important to look at the quality of the clinical instructors supervising the athletic training students, it is also important to give feedback to the clinical instructors on their performance.

Significance of the Study

According to the Education Council of the National Athletic Trainers' Association, clinical education is one of the most important factors that must be addressed in the professional preparation of pre-service athletic trainers. Clinical education serves to help students to learn skills and apply their knowledge; the clinical instructor serves the important role of facilitator of this experience (Laurent & Weidner, 2001). It has been noted that the responsibilities of the athletic training clinical instructors are increasing; unfortunately, most clinical instructors have no formal teacher training or

actual teaching experience (Curtis, Helion, & Domsohn, 1998). Yet, these clinical instructors are given the task of supervising one of the most vital aspects of an athletic training student's education. The clinical instructor should receive feedback on his or her effectiveness in order to show improvements. Without continually making improvements in clinical instruction, the quality of a student's clinical experience is questionable. Feedback is a continuous process in the instructional system. Feedback should be seen as a cooperative act involving students, clinical instructors and program administrators who are all concerned about the learning process. It has been noted in the research that "quality instruction does not just happen; it requires discipline, attention, and evaluation" (Weidner, August, Welles, & Pelletier, 1998). The information obtained from this investigation will prove helpful in demonstrating the attitudes towards feedback of the clinical instructor and program director/clinical coordinator.

There is a need for more research in clinical education and the role of the clinical instructor. The importance of clinical education has been solidly demonstrated in the literature (Curtis, Helion, & Domsohn, 1998). The next logical progression in the research would be to demonstrate the importance of evaluating the clinical education model, including the clinical instructors (Weidner, August, Welles, & Pelletier, 1998). The body of literature is limited in the assessment of clinical instructors and their attitude towards feedback. In a 1997, study it was cited that the evaluation of clinical supervisors has not been explored in the athletic training literature. The authors state that the assessment of the quality of clinical instructors will help the future of clinical education (Andersen, Larson, & Luebe, 1997). Investigating the attitudes of clinical instructor feedback of the clinical instructors and program directors in athletic training will serve as

a starting point for further research. The underlying purpose is to improve this vital component of clinical education in Athletic Training.

Purpose of Study

The purpose of this study was to measure and compare the perceived attitudinal score towards feedback of the clinical instructor and a representative of the ATEP, either the program director or the clinical coordinator, on their attitudes towards feedback given and received in the athletic training clinical education setting. Specifically, the mean perceived attitudinal score towards clinical instructor feedback of clinical instructors and program directors/clinical coordinators was compared. The specific variables explored were the following: a) role of the respondent in the ATEP, b) setting of clinical instruction, c) age of respondent, d) years experience in profession, and e) sex of the respondent.

Research Questions

1.) Does the role of the respondent affect the mean attitudinal score towards clinical instructor feedback?

2.) Does employment setting of the clinical instructor affect the mean attitudinal score towards clinical instructor feedback?

3.) Is there a relationship between age of the respondent and the mean attitudinal score towards clinical instructor feedback?

4.) Is there a relationship between years of experience and the mean attitudinal score towards clinical instructor feedback?

5.) Does the sex of the respondent have an affect on the mean attitudinal score towards clinical instructor feedback?

6.) Does years of experience (high/low) affect the mean score of the level of importance in vignette score?

7.) Does years of experience (high/low) affect the mean score of satisfaction of the scenario in vignette score?

8.) Does years of experience (high/low) affect the mean score of self identification within the scenario in vignette score?

Hypotheses

The hypotheses were stated in the null form and were tested at the .05 level of significance. It was hypothesized that:

HO1: There will be no difference between clinical instructors and program directors/clinical coordinators on mean attitudinal score towards clinical instructor feedback as measured by the Perceived Attitude Towards Feedback Instrument (PAFI).

HO2: There will be no difference between employment settings of clinical instructors on mean attitudinal score towards clinical instructor feedback as measured by the PAFI.

HO3: There will be no relationship between age and the mean attitudinal score towards feedback as measured by the PAFI.

HO4: There will be no relationship between years of professional experience and the mean attitudinal score towards feedback as measured by the PAFI.

HO5: There will be no difference between men and women's mean attitudinal score towards feedback as measured by the PAFI.

HO6: There will be no difference between years of experience (high/low) of the ATC in the vignette on mean level of importance vignette score.

HO7: There will be no difference between years of experience (high/low) of the ATC in the vignette on mean self identification within the scenario vignette score.

HO8: There will be no difference between years of experience (high/low) of the ATC in the vignette on mean satisfaction of the scenario vignette score.

Definition of Terms

The following functional and conceptual definitions were used throughout the study:

Approved Clinical Instructor (ACI)-An appropriately credentialed professional identified and trained by the program Clinical Instructor Educator (CIE) to provide instruction and evaluation for the Athletic Training Educational Competencies and/or Clinical Proficiencies. The ACI may not be a current student within the ATEP (CAATE, 2005)

Athletic Training Student (ATS)- A student enrolled in the athletic training major or the graduate major equivalent (CAATE, 2005)

Clinic/Hospital Employment Setting- Athletic trainers are hired by hospital organizations or sports medicine/out-patient clinics to provide care to patients.

Clinical Coordinator- The individual a program may designate as having the primary responsibilities for the coordination of the clinical experience activities associated with the ATEP. The clinical coordinator position is currently recommended, but not required by the Standards (CAATE, 2005)

Clinical Education- The application of knowledge and skills, learned in classroom and laboratory settings, to actual practice on patients under the supervision of an ACI/CI (CAATE, 2005)

Clinical Experiences- Those clinical education experiences for the Athletic Training Student that involve patient care and the application of athletic training skills under the supervision of a qualified instructor (CAATE, 2005)

Clinical Instructor (CI)- An individual identified to provide supervision of athletic training students during their clinical experience. An ACI may be a CI; however the CI may not be a current student within the ATEP (CAATE, 2005)

Commission on Accreditation of Allied Health Education Program (CAAHEP)- This organization oversaw and previously provided accreditation for athletic training education programs (Clinical Instructor Educator Seminar, 2002)

The Commission on Accreditation of Athletic Training Education (CAATE)- Established in 2005 to develop, maintain, and promote appropriate minimum standards of quality of entry level Athletic Training education programs. CAATE is sponsored by the American Academy of Family Physicians, the American Academy of Pediatrics, the American Orthopaedic Society for Sports Medicine, and the National Athletic Trainers' Association (CAATE, 2005)

Direct Supervision- Supervision of the athletic training student during clinical experience. The ACI and/or CI must be physically present and have the ability to intervene on behalf of the athletic training student and the patient (CAATE, 2005)

High School Employment Setting- This setting is a secondary school setting that employs athletic trainers to provide care to their student athletes.

Industrial Employment Setting- This setting is mostly to be a manufacturing factory that employs athletic trainers to work primarily with injured workers and the prevention of workplace injuries.

Junior College Employment Setting- This setting is a Junior College or a Community College that employs athletic trainers to provide care to their student athletes.

Perceived Attitude Towards Feedback Instrument- This is a self developed instrument that will measure the mean attitudinal score towards feedback of clinical instructors and program directors/clinical coordinators.

Professional Sport Employment Setting- In this setting the athletes are paid employees of an organization, the athletic trainer is hired to provide care to these employed athletes.

Program Director- The full-time faculty member of the host institution and a BOC Certified Athletic Trainer responsible for the administration and implementation of the ATEP (CAATE, 2005).

Vignette- A type of "story" that can be used in factorial survey design. Within this story vignette factors are varied for analysis in the study of judgment, decision making, or attribution processes (Converse & Presser).

University/College with Athletic Training Education Program- In this setting athletic trainers are hired to provide care to collegiate athletes and are more likely to provide supervision to athletic training students enrolled in the accredited athletic training education program.

University/College without Athletic Training Education Program- In this setting athletic trainers are hired to provide care to collegiate athletes. The college/university does not have an accredited athletic training education program.

Assumptions

The assumptions of this study were the following:

1.) All participants will provide honest and accurate responses to all information asked of them.

2.) All participants will provide their best effort in completing the survey instrument.

3.) All subjects will understand the contents of the survey instrument, and will answer questions accordingly.

Limitations

The results of the study may have been affected by the following limitations:

1.) Only a sample of CAATE accredited Athletic Training Education Programs in the NATA District 4 will be studied. Therefore, findings cannot be generalized to all CAATE accredited Athletic Training Education Programs.

2.) Since participants were asked to rate their perceived attitudes towards clinical instructor feedback in a pre-set sub-constructs of feedback, there may be other sub-constructs of feedback not represented in the instrument.

3.) The sub-constructs of feedback used for this study were taken from outside of the Athletic Training body of literature.

Delimitations

This study was delimited to the following:

1.) The participants were delimited to PD/CC's, CI/ACI's affiliated with CAATE accredited programs in the NATA District 4.

2.) Only those clinical instructors provided by the program director will be selected to participate in the study.

3.) The use of the Perceived Attitude Towards Feedback Instrument (PAFI) to measure perceived attitude towards clinical instructor feedback.

CHAPTER II

LITERATURE REVIEW

This chapter presents a review of literature that is relevant to clinical instructor feedback in athletic training clinical education. Relevant literature related to this study was organized into six sections: (a) Origins of Feedback, (b) Feedback in Allied Health Professions, (c) Feedback in Teacher Education, (d) Athletic Training Clinical Education, (e) Athletic Training Clinical Instructors, (f) Literature on Variables and, (g) Summary.

Origins of Feedback

Feedback is a widely used term found in many applications; however, there tends to be little consensus on a definition. Several fields of study have examined the definition of feedback: psychology, business and industry, management, and education fields included. Very little research into defining feedback has been done in the allied health field or the field of athletic training.

The concept of feedback as a system to make adjustments in reaching a goal was first developed by rocket engineers in the 1940s. Norbert Weiner, the father of cybernetics, was the first to apply this concept to the humanities:

> Feedback is the control of a system by reinserting into the system the results of its performance. If these results as merely used as numerical data for criticism of the system and its regulation, we have the simple feedback of the control engineer. If, however, the information which proceeds backwards from the performance is able to change the general method and pattern of the performance, we have a process which may very well be called learning (Ende, 1983).

Ramaprasad (1983), from a management theory background, defines feedback very scientifically, complexly, and systematically. He defines feedback as the information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way.

An example provided by Ramaparasad: a salesman is overspending his travel expenditures. The system parameter is the travel expenditure; the reference level of the system parameter is the budgeted expenditure; and the actual level is the actual expenditure. The gap between the two is the amount of overspending. The information the salesman receives on the overspending becomes the feedback. If the information is simply stored and not applied to change the overspending habit, then according to Ramaparasad it is not feedback. Ramaparasad notes that quantifying qualitative parameters is difficult to do without trivializing the parameter. He recommends breaking down the parameter into components to give more effective feedback (Ramaprasad, 1983). The researcher finds this definition too restrictive to apply to clinical instruction due to the numerous qualitative measurements that must be taken into account when looking at student supervision.

From the education field, Kulhavy defines feedback in his research as "the procedures used to tell a learner if an instructional response is right or wrong." He further explains that feedback can be given along a "Yes-No" continuum to provide corrective or remedial information (Kulhavy, 1977). The researcher finds this definition too simplistic for the complexities of giving professionals feedback on their student supervisory skills.

Ilgen has developed a more flexible definition of feedback through psychological studies. His studies have also been applied by Brinko in her research in the higher

education settings. Ilgen, Fisher, and Taylor conceptualize feedback as "a special case of the general communication process in which some sender (the source) conveys a message to a recipient." The context of this given information is about the recipient; as noted by Brinko, giving feedback can be considered an event (Brinko, 1993). The researcher feels that this definition of feedback is best suited for the study of clinical instructor feedback.

Feedback is often described in terms of functionality since it is considered an event. Ilgen cites Locke et al. as describing the functions of feedback as both directional and motivational because feedback can provide direction by clarifying the recipient's role and what behaviors to perform. Feedback can also be motivating by providing the recipient incentives or rewards, and by influencing performance goals (Ilgen, Fisher, & Taylor, 1979).

The research in these areas have identified why feedback is important to the recipient. Ilgen cites Maslow in describing that people desire feedback because it emphasizes the importance of higher order needs for self-esteem and self-actualization. People have an intrinsic motivation to improve performance on tasks and a desire to seek further competence. Fulfilling these needs not only is a powerful reward for people, but feedback also serves as a positive motivation to reinforce positive behaviors (Ilgen, Fisher, & Taylor, 1979).

Obviously, providing feedback to people is very important for many different reasons. This rationale for feedback can easily be applied to clinical instruction in the field of athletic training. Since feedback provides a reward and intrinsic fulfillment, this can help the often uncompensated clinical instructor. Feedback can also supply an affective reaction that can motivate the clinical instructors to strive to improve their

supervisory skills (Ilgen & Moore, 1987); moreover feedback in a directional function could also serve to better clarify the role the clinical instructors play in the clinical education of athletic training students. There is an opportunity to use the quantitative evaluations filled out by the ATS, as currently required by CAATE, to communicate with the CI to promote positive change in behavioral practices. Neglecting to provide this feedback does not fulfill the needs of the clinical instructors.

Continuing with the discussion of feedback, the aspects of effective feedback must be identified. Brinko contends that in order to provide effective feedback one must consider the following: *who, what, when, where, why and how* feedback will be given. Looking at the needs of the source and recipient, the information provided to the recipient, the occasion and reason for the feedback, the location of the communication, and the purpose of giving it (Brinko, 1993).

Effective feedback in the athletic training clinical education setting can come from many sources: the program director, clinical coordinator, the clinical instructor (self) or students. As long as the recipient feels that the source of the feedback is credible, well intentioned, knowledgeable, and trustworthy, they are more willing to accept the feedback provided to them. It has been noted that teachers often consider student evaluations of their teaching a more credible source of feedback than their supervisors; this is because students witness the teaching on a daily basis, whereas the supervisor does not (Brinko, 1993).

In order for feedback to be effective, several considerations must be made regarding the recipient. Feedback is most effective when it is an episode of two-way communication. Feedback must also be adjusted according to the recipient's years of

experience; those clinical instructors with more years are less likely to respond to the feedback, and more likely to draw on their own past experiences instead. It has also been found that if a professional obligation requires feedback, the recipient is more likely to be receptive of it (Brinko, 1993). The gender of the recipient and the source of the feedback have not been studied and will be looked at minimally in this study, but these variables could be of interest in future research.

Since feedback may be given in multiple forms (oral, written, structured, unstructured, graphical, statistical or behavioral) the desires of the recipient should be taken into consideration. Ilgen found that individuals have a wide range of preferences and reactions to the different modes of feedback. Therefore, feedback is best given in either a variety of modes, or by allowing the recipient to choose the mode they prefer (Ilgen, Fisher, & Taylor, 1979).

Feedback is best received when it contains concrete information and specific data. Critical and specific references should be tied to specific incidences: the more specific the feedback, the better the recipient will identify with the issue (Ilgen & Moore, 1987). Feedback should also be tied to behavior rather than to the individual person. By focusing on the behavior, the recipient can see what can be modified to elicit change. In order elicit change, the recipient must be able to take feedback and translate it into something meaningful. Ultimately, feedback should enhance knowledge about the task or behavior to reduce uncertainty (Ilgen, Fisher, & Taylor, 1979).

Feedback must be both timely and specific. Feedback is best given soon after the performance (Brinko, 1993). Ilgen states, "The longer the delay in the receipt of feedback, the less the effect feedback has on performance." Feedback should be given

frequently, but with caution not to give it excessively. The more frequently the feedback is given, the more likely the responses will be positive, thus improving behaviors (Ilgen, Fisher, & Taylor, 1979).

The factors previously discussed constitute the sub-constructs of effective feedback. It is important to set the framework as to what feedback is, as well as defining effective feedback. From this platform the researcher will examine feedback in other settings and how it applies to athletic training clinical instruction. Also from this framework of feedback, the researcher will have variables to measure attitudes towards feedback since the sub-constructs of effective feedback has been defined. Attitudes towards feedback can be tied to the source of feedback, and to the frequency, mode and content of the feedback. If those needs are not being met, it can be expected that the participants in this study will have poor attitudes towards feedback.

Feedback in Allied Health Professions

The athletic training clinical education practices have been modeled after several other allied health care professions. Such professions include, but are not limited to, medicine, nursing, physical therapy and occupational therapy. Although each discipline has defined its own parameters for administering clinical education and the goals of clinical education, many of the same themes are found in all of them. The research across the different disciplines of allied health care cites one another, thus showing that comparisons and generalizations can be made. Research on clinical education is not yet fully developed; most research only goes back to the 1980s, and the early research was done primarily in the medical field with resident physicians. All the disciplines of allied

health care that use the clinical education model have had successes and identified weaknesses.

The definitions of clinical education in the allied health arena, as defined by several authors in the research, have several similarities. Overall, clinical education is defined as a model that will help to prepare entry level practitioners for practice, through various clinical settings and experiences (Weber, 2005). These experiences allow the student to learn while doing so in the presence of a clinical model, and to critically evaluate the effects of their actions (Emery, 1984; Irby, 1986). In a greater context, clinical education is seen to incorporate the attitudes, values and beliefs of the profession for the students to model (Emery, 1984). Cross (1995) identified the problematic aspects of clinical education to include the following: the variability of the teaching environment, the difficulty of assessing student skills, the varying standards of clinical teaching levels, and the overall impact these factors have on educational outcomes.

Clinical education must also be seen as a tripartite relationship between the clinicians, the students, and the academic staff (Cross,1995). The role of the academic faculty is critically important to the success of a preceptor program. All too often in the nursing setting, and one can suspect in all allied health fields, the faculty members become passive players in the relationship. It has been noted in nursing research that many faculty members relinquish involvement in the actual teaching/learning process of the preceptorship and transfer this responsibility to the preceptor (Myrick & Barrett, 1994). There should be a collaborative interest in the success of clinical education by combining professional bodies, clinical practitioners and educational standards. If

collaboration is not established there is a risk that the preceptors will become a potentially ineffective substitute for a clinical teacher (Bain, 1996).

All the above stated allied health fields have noted the pivotal role that the clinical educator plays in the success of clinical education. The role that a clinical educator fills is complex; these teachers are tasked with being role models for the students, having the ability to articulate to the student their mental process of decision making, and demonstrating clinical competence and an enthusiasm for their practice. In addition, the clinical educator must fulfill the role of clinical supervisor. In this situation, they must set up learning opportunities for the students and then objectively evaluate the student's performance and provide constructive feedback (Irby, 1986). Clinical educators are often asked to make the most out of potentially hidden learning experiences, thus further integrating theory into practice for the students (Lambert & Glacken, 2005). Additionally clinical educators must provide an environment which is supportive for the student while he/she makes the transition from the academic setting to the practice setting. This environment the preceptor must create will help the student to develop confidence and competence in their skills and aid in the socialization into their profession (Myrick & Barrett, 1994). Above all, clinical educators are asked to exemplify the highest caliber of cognitive, interpersonal, and humanitarian qualities (Jarski, Kulig, & Olson, 1990). Cross cites the definition by Coates of the role that clinical educators fulfill in the physical therapy setting:

> the clinicians are the members of the profession who are spending the majority of their time treating patients, achieving the mastery level of their clinical skills and becoming familiar with modern equipment. It is these members of our profession

> who have so much to offer students and who should be at the forefront of the clinical education process (Cross, 1995, p.563).

The clinical educator is of critical importance for the achievements of successful student outcomes. A good clinical educator is more likely to have success than a bad educator (Cross,1995). In the nursing field preceptors are often recommended by their supervisors because they are perceived to have the appropriate skills (Usher, Nolan, Reser, Owens, & Tollefson, 1999). Dunlevy notes that across the allied health fields, clinical faculty have little to no training in educational methods, and are usually chosen to supervise based on their willingness to participate and their clinical expertise. These two conditions may not always translate into effective clinical teaching (Dunlevy & Wolf, 1992). As noted by Myrick and Barrett, no matter how great the clinical expertise of the preceptor, if she/he is unable to teach effectively, it is possible the preceptee may fail to learn essential skills (Myrick & Barrett, 1994) Since there is such a great importance on the success of clinical education in producing future professionals, it is critical that the clinical instructors maintain that level of quality control and guarantee that the standard of clinical practice is followed (Cross, 1995). In order to improve and maintain professional standards, the quality of clinical education must be maintained; in addition, as the standards that the students are held to rise, so will the standard of clinical education rise (Jarski, Kulig, & Olson, 1990). Although clinicians may appreciate and realize the importance of the clinical educator's role, this does not mean they are prepared to assume such a role (Emery, 1984).

Many studies have been done to discover how to measure effective classroom teaching. However, research in evaluating effective teaching in the clinical setting is still

in developmental stages (Irby, 1986). Most of the current research that has been conducted on clinical education focuses on the students, and not the clinical instructor. Evaluating a practicing clinician as a teacher is much different than evaluating classroom teachers (Emery, 1984). Since clinical teaching skills have not been well defined in behavioral terms through research, it is very difficult to provide feedback to these clinical educators. Without accurate measures of their clinical teaching behaviors, it is difficult to find what needs improvement and provide direction as to how to improve (Jarski, Kulig, & Olson, 1989). Once good measures have been found, clinical instructors could participate in opportunities that would help them improve their quality of instruction. By improving their teaching skills, there will be a great potential to affect student learning, and ultimately produce more competent practitioners (Dunlevy & Wolf, 1992). Myrick and Barrett notes that since the use of perceptorships are so readily used, scrutiny of the system cannot be over emphasized (Myrick & Barrett, 1994).

Nursing research has noted the importance of assessing the effectiveness of the clinical education model. A part of this assessment includes clinical preceptor evaluation; this evaluation is cited as necessary to determine individual and program effectiveness, to understand how the preceptorship affects nursing practice and to give feedback to the preceptor. Evaluation of clinical education will also help to identify strengths and weaknesses of the preceptor program for improvement or refinement. Clinical preceptor evaluation has received little attention in the literature (Altmann, 2006). Past studies indicate that clinical preceptors want and need feedback on their performance (Ferguson, 1996; Stevenson, Doorley, Moddeman, & Benson-Landau, 1995).

In a study completed by Altmann (2006), preceptor evaluation was perceived as consequential to preceptor use. Altmann found an increase in preceptor evaluations up from 30% in 1992 to 68.4% in 2006 amongst her sample. The majority (58.5%) of preceptor evaluations are being completed by students. Programs who do not evaluate their preceptors cited reasons such as; lack of time, no adequate instrument or enough qualified preceptors to reject unacceptable candidates.

Feedback in Teacher Education

The teacher education model of preparing a student for the profession is similar to that found in athletic training and the allied health profession clinical education programs. Teacher education uses practicing teachers, referred to as cooperative teachers, to supervise student teachers in preparatory field experiences as sophomores and juniors, and again as seniors for a longer experience. This longer experience is termed student teaching; it is defined as the final pre-service field experience during which the student assumes major responsibilities for the full range of teaching duties in a regular school setting (Coulon, 1991). Similar to the relationship seen in allied health, student teaching is a triad relationship between the student, the cooperating teacher, and the university/college education program. Student teaching has long been valued as the place in which theory meets practice to provide professional growth (Giebelhaus & Bowman, 2002). Students report that student teaching is the most important experience of their education, and that the cooperating teacher is the most important person in this experience. The student teacher spends on average twelve percent of their collegiate career student teaching; in turn they spend more time with their cooperating teacher than any other college professor (Hynes-Dusel, 1999).

Throughout the research, student teaching has been examined in numerous studies. However, most of the research is based on student perspective, and not that of the cooperating teacher (Hynes-Dusel, 1999). Throughout this research, several weaknesses have been identified, many of which are similar to those found in the allied health setting. It has been cited in the research that students are placed with little regard to the supervising practices of the cooperating teachers. Often practicum sites are chosen unseen, and students are assigned blindly to the first teachers that volunteer for the role (Strand & Johnson, 1990). Although one might think practicing teachers would be well prepared to supervise students, the contrary is found to be true (Giebelhaus & Bowman, 2002).

Most commonly, cooperating teachers are not given any direction by the university or college education program concerning for what to hold the student teachers accountable (Strand & Johnson, 1990). Often, cooperating teachers have unrealistic expectations and are tentative about giving feedback to students (Giebelhaus & Bowman, 2002). It has also been noted that the education programs are somewhat at the mercy of the school districts; and due to turnover, it is difficult to maintain close relationships with schools and cooperating teachers (Coulon, 1991). Due to this inconsistency in planning student teaching experiences, and communication with cooperating teachers, student teaching has been described as "marginal at best" (Giebelhaus & Bowman, 2002).

Hynes states, "in keeping with national recommendations to upgrade teacher education, serious consideration must be given to the preparation of cooperating teachers." Training for cooperating teachers was cited in several research studies as a strategy for improving the student teacher process. When surveyed, cooperating teachers

stated that they would prefer to attend a preparatory training session in how to evaluate students and to learn the expectations of the college/university in order to become more effective (Hynes-Dusel, 1999). McIntyre found that after completing a three-credit-hour master's degree course, cooperating teachers provided better supervision to student teachers, and spent more time preparing activities for the student teacher (McIntyre & Killian, 1987). The research also recommends that the university/college education professors spend more time supervising cooperating teachers through direct observation and open discussions with them to build better relationships and to keep the college/university faculty more in touch with issues in the school systems (Strand & Johnson, 1990). The strategies suggested here of verbal feedback, direct observation, and training for cooperative teachers have been proven to increase student outcomes in the education field.

Athletic Training Clinical Education

Over the past sixty years, athletic training education has developed along with the profession. The National Athletic Trainers' Association was founded in 1950; shortly thereafter, the early development of athletic training education began. The first curriculum was created in 1959; this first curriculum was basically a physical education degree with a few specialized athletic training classes included. This was designed as such since the primary employment setting was secondary schools. It was not until 1970 when the NATA recognized the first undergraduate athletic training program. It was also at this time the national certification to practice as an athletic trainer was implemented. Over the next three decades, the athletic training curriculum became more specialized and relevant to the athletic training profession. Eventually, this early curriculum became

an approved major and was implemented across the country. This new approved major further specified learning outcomes and had specific course requirements. Additionally, accreditation by an outside entity was enacted for each college/university seeking an athletic training major. After landmark recommendations were made in 1997 and subsequently approved for implementation in 2004, athletic training education was further streamlined and made more uniform (Delforge & Behnke, 1999).

In these landmark recommendations, the only route to certification and practice as an athletic trainer would come from an accredited undergraduate program; this program eventually combined two previous methods: the internship and the curricular models of education. Since the implementation in 2004, all accredited athletic training programs follow the same standards and guidelines; the programs also use an education model based on learning outcomes developed in both the didactic and clinical settings (NATA Education Task Force, 1997). The reforms led to the redevelopment and emphasis on clinical education, the role of the student as a learner, and the role of the clinical instructor as an instructor. These changes also served to deemphasize the number of hours spent in clinical education and increase the emphasis on the quality of the clinical educational experiences (Starkey, 1997).

Most recently the accreditation of athletic training education programs (ATEP) has been taken over by the commission on accreditation of athletic training education (CAATE). CAATE was developed as an independent specialized professional accrediting agency specifically for entry level athletic training education programs. Currently CAATE standards are being implemented into ATEPs. Similar to the 1997 reforms,

CAATE further aimed to streamline the learning objective method of the athletic training curriculum.

Athletic training clinical education can be described as the application of knowledge and skills learned in the classroom and laboratory settings, to actual practice on patients under the supervision of a clinical instructor/approved clinical instructor (Commission on Accreditation of Athletic Training Education, 2005). These hands-on activities can include any experience that provides an application of skills, either in real life situations or simulated scenarios. As a student progresses through the curriculum clinical education progresses from singular tasks to clinical competence, and students begin to appreciate the affective aspects of their working environment and develop interpersonal and social skills. (Weidner & August, 1997). Over recent decades and throughout the various reforms of athletic training clinical education the responsibilities of the students, the clinical setting and the clinical instructor has become more clearly understood. Clinical education has also become less haphazard and more deliberate with these changes (Weidner & Henning, 2002).

Clinical education constitutes a substantial portion of professional preparation in the allied health care fields. Clinical education involves a team approach between the ATEP, the student and the clinical instructor. Specific to athletic training, clinical education, the student's experience and the influence of the clinical instructor has been clearly recognized as a major portion of the education process throughout the body of research (Curtis, Helion, & Domsohn, 1998). Entry-level certified athletic trainers perceive that approximately fifty three percent of their entry-level professional development came from clinical education (Laurent & Weidner, 2002).

Athletic Training Clinical Instructors

A clinical instructor is a credentialed health care professional (minimum of one year) as defined by the American Medical Association and the American Osteopathic Association. The CI is not charged with formal evaluation of educational competencies or clinical proficiencies. An approved clinical instructor (ACI) is a certified athletic trainer (ATC) or other credentialed professional, with more than one year of clinical practice, who also supervises the student but who has undergone specific training administered by Clinical Instructor Educator of the athletic training education program (ATEP). As outlined by the 2005 CAATE standards, the ACI must be trained in: learning styles and instructional skills; student evaluation; interpersonal relationships; communication skills; instructional skills of supervision, mentoring, and administration; as well as training in other procedural tasks. It is the responsibility of the ACI to provide instruction and evaluation of Athletic Training Educational Competencies and/or Clinical Proficiencies (CAATE, 2005). For the purpose of this study the term clinical instructor will encompass both credentials.

The clinical instructor has been identified as the most critical person involved in the student's education (Weidner & Henning, 2002). Additionally, the relationship between the clinical instructor and the student has been identified as one of the most important relationships a student will have during their education (Starkey, 1997). Clinical instructors must possess an active interest in student education and a willingness to devote time and energy to developing a pre-professional student (Koehneke & Dolan, 1997). A 1992 study showed that clinical instructor respondents enjoyed clinical teaching and held a value of importance for that role. Most respondents saw the responsibility of

serving as a clinical instructor as a responsibility to the profession (Foster & Leslie, 1992).

Clinical instructors serve an important role in facilitating and integrating athletic training knowledge and skills by taking a proactive approach to teaching (Weidner & August, 1997). It is important that they are provided the knowledge and skills necessary to provide quality clinical instruction. High quality of clinical instruction comes from those individuals who are both master practitioners and master teachers (Laurent & Weidner, 2001). Clinical instructors can have anywhere between two and twenty plus years of experience, the students have none. It is up to the clinical instructor to relate his or her own experiences and knowledge to the students. It is then up to the student to formulate their own practical knowledge base built from one clinical instructor to the next (Koehneke & Dolan, 1997).

There has been a good amount of research conducted in the fields of athletic training and the allied health profession defining what quality clinical instruction is and how to be an effective clinical instructor. Weidner and August found in their study that effective clinical instructors should use a variety of communication techniques, the clinical instructor should strive to provide thought provoking experiences for the student (Weidner & August, 1997). In an additional study Weidner and Trethewey stated that clinical instructors need to understand different learning styles of students and then be able to adjust their teaching to accommodate each student (Weidner, Trethewey, & August, 1997). Curtis and Helion conducted a critical incident study and identified helpful and hindering clinical teaching behaviors (Curtis, Helion, & Domsohn, 1998). Based on a survey of clinical instructors and athletic training students Laurent and

Weidner identified helpful characteristics that clinical instructors should have (Laurent & Weidner, 2001). Weidner and Henning identified characteristics, qualities and skills pertinent to developing effective clinical instructors based on a review of allied health literature (Weidner & Henning, 2002). Although much research has been done in the area of identifying clinical instructor traits, little has been done on how to provide constructive and evaluative feedback to the clinical instructor. It should also be noted that much of the literature published in the area of athletic training education is out of date due to the many academic reforms enacted over the last twenty years. Several of the topics and issues that were investigated are no longer relevant. Despite the numerous reforms, the clinical instructor still remains at the foundation in which clinical education was built. It is still imperative that the clinical instructor is of the upmost quality and receiving feedback on their performance as a clinical instructor. In 1997 Andersen identified the importance of evaluating the quality of the clinical instructors to help better clinical instruction, that need is still present today (Andersen, Larson, & Luebe, 1997).

Similar to other allied health professions, athletic training clinical instructors are often selected based on their clinical expertise and not on their teaching expertise. It is not uncommon for clinical instructors to have no formal training in teaching either during their professional education or once they become clinical instructors (Weidner & Henning, 2002). The quality of clinical instruction is often influenced by the instructor's own strengths and weaknesses. Weidner (1998) stated that "quality instruction does not just happen; it needs discipline, attention and evaluation." They suggest clinical instructors continue to be evaluated by the standard student written evaluations. They continued to suggest the use of peer evaluations, explaining that a peer may see beyond

what a student can see in order to provide more in depth feedback. They further caution that a "program that does not formally evaluate and recognize the vital contribution of clinical instruction may be risking mediocrity in this area (Weidner T. G., August, Welles, & Pelletier, 1998)."

In their 1998 study Curtis, Helion and Domsohn stated that the responsibilities of the clinical instructor were increasing. Ten years later and the passing of several academic reforms the responsibilities of the clinical instructor have continued to increase. Due to the increased demands of health care settings, patient care and the demands of serving as clinical instructor it will become increasingly difficult for clinical instructors to have time for students. It will be come more imperative for ATEPs to carefully select, train and evaluate their clinical instructors to secure the future of the profession. Because many clinical instructors have a poor background in methods of teaching, the athletic training profession continually seeks methods to train clinical instructors and to evaluate their performance as supervisors. Based on this concept and the importance of clinical education, the researcher has chosen to study the use of feedback as a tool to enhance clinical instruction and the perceived attitudes of clinical instructor feedback.

Literature on Variables

The variables selected for investigation in this study were; role of the participant, the employment setting of the clinical instructor, age of the participant, years of professional experience of the participant and sex of the participant. This section will justify the use of these variables through the use of previously conducted research.

Role

Ilgen, Fisher and Taylor in their 1979 examination of feedback on individuals as it relates to behaviors in organization identified the role of the person in a feedback relationship as important. There are two common identified roles used in feedback research, the source of the feedback and the recipient of the feedback. In order to have a feedback relationship there must be a source and a recipient for the feedback. It is fundamental to feedback research to investigate both parties (Brinko, 1993). In this study the recipient of the feedback was the clinical instructor and the source of the feedback was the program director/clinical coordinator. These roles were self-identified by participants on the PAFI instrument. Clinical instructors may receive feedback from other sources, such as student evaluations, but ultimately it is the program administrators (PD/CC) that are the conduit of the feedback. It has been noted in the research that an important determinate of feedback acceptance is the recipient's trust in source. As trust decreases, so does the impact of the feedback being provided (Earley, 1986). Although trust relationships are not being examined in this study, it could influence a respondent's attitude towards feedback. This particular research study is examining a comparison in both the source and the recipient's perceived attitudes towards clinical instructor feedback. The researcher was unable to find any other research in allied health that compared perceptions of feedback of the source and the recipient as it relates to clinical education.

Setting

The employment setting of the clinical instructor was investigated in this study. This variable is somewhat unique to athletic training when compared with other allied

health education programs. In the areas of physical therapy, nursing or medicine almost all clinical instructors are located apart from the educational program. In athletic training education clinical instructors can be located either at the same site (college or university) as the Athletic Training Education Program, or at an off campus setting such as a local high school or sports medicine clinic. Those clinical instructors that are employed at the college or university that houses the ATEP could potentially have more interaction with ATEP administrators through physical proximity, college/university departmental structuring, or overlapping responsibilities. Since employment setting of the clinical instructor is unique to athletic training it is worthy of investigation (Weidner & Henning, 2002).

Age and Years of Professional Experience

Age and years of professional experience was collected for all respondents. One study found that age and years of experience will influence a person's receptivity to feedback. They found that older people will use feedback less often than younger people. Older people tend to rely on past experiences for feedback, and tend to be less receptive to feedback (Ilgen, Fisher, & Taylor, 1979). It was suggested that further research that examines sex and age could add additional insight into athletic training clinical education (Curtis, Helion, & Domsohn, 1998). This study examined if age or the years of professional experience will influence the participant's attitudes towards feedback.

Sex

Sex of the respondent was collected as a variable to see if it influences a person's attitudes towards feedback. Brinko stated that in research on feedback that "the gender of the recipient and the source have not been studied, and would make for an interesting

investigation" (Brinko, 1993). In a study done by Usher et.al on nursing preceptors and their perceptions of rewards and benefits of being a nursing preceptor, there were no significant differences found between men and women (Usher, Nolan, Reser, Owens, & Tollefson, 1999). Studies in gender differences have found inconsistent findings in the area of feedback receptivity (Sheldon, 2004; Roberts & Nolen Hoeksema, 1994). Roberts and Nolan-Hoeksema (1994) report that there have been several studies comparing men and women and their responsiveness to feedback in achievement settings, however limited research and comparisons in "real-world" sorts of evaluations. Roberts and Nolan-Hoesksema have found through their studies that women tend to be more responsive to evaluations they receive from others than men. They have also found that men have similar responses to both negative and positive feedback that they receive from others. Gender comparisons as they relate to feedback tend to multilayered and complex phenomenon (Roberts & Nolen Hoeksema, 1994). There have not been studies done in athletic training that specifically explore the influence of gender of the source or recipient in clinical instructor feedback.

Summary

As discussed within each section of this chapter, the literature has demonstrated the importance of clinical education in the allied health setting, including athletic training. As the research states, due to the importance of clinical education there is a continual need for more research into the methods of clinical education, evaluation of clinical education, the role of the clinical instructor and the overall effectiveness of the clinical education model. The body of research is limited in the assessment of clinical instructors. There was no literature retrieved that specifically addressed attitudes towards

feedback of athletic training program directors/clinical coordinators and clinical instructors.

The perceived attitude towards feedback of athletic training clinical instructors is of importance to the profession, particularly to those whose responsibility it is to provide them with feedback. Secondly this study was helpful for the profession to see if differences exist between the source of clinical instructor feedback and the recipient of that feedback. This study would allow one to look at the potential aspects that could influence a person's attitude towards feedback; again this is important in knowing how to provide effective feedback in the future. Currently there is minimal research in the area of clinical instructor feedback. This study will be a starting point in one avenue to improve the pre-professional development of athletic training students.

CHAPTER III

METHODS

This chapter includes a description of the methods and procedures used to determine the perceived attitude towards clinical instructor feedback of clinical instructors and program directors/clinical coordinators of athletic training education programs. This information was presented in the following sequence: (a) Research Design, (b) Operational Definition of Variables, (c) Participants, (d) a Priori Estimation of Sample Size, (e) Sampling Plan, (f) Instrumentation, (g) Instrument Development, (h) Pilot Study, (i) Data Collection Procedures and, (j) Data Analysis.

Research Design

This study used a non-experimental, correlation survey design. A survey study was conducted to determine attitude towards clinical instructor feedback of athletic training program directors, clinical coordinators, and clinical instructors. Due to the nature of this research design, no cause and effect conclusions will be found.

To avoid common threats to internal validity, several precautionary actions were taken. Internal validity is the extent to which the results of this study can be attributed to the instrument (Vogt, 1993). By reducing threats to internal validity it is more likely the changes in the independent variable did in fact cause the change in the dependent variable (Campbell & Stanley, 1963). There are two classifications of threats to internal validity. Extrinsic, those that occur prior to the research, and intrinsic occur during the research (Nachmias-Frankfort & Nachmias, 1996). To control for the extrinsic threat of selection effects the ATEPs were randomly selected. However, due to the sampling design of this study selection bias of the program director could be a potential threat. The PDs were

asked to distribute the hyperlink to the survey to all affiliated clinical instructors. It could only be assumed that the PDs followed these directions and not selectively chose who they wanted to participate (Campbell & Stanley, 1963).

Intrinsic factors that could have threatened the internal validity were also accounted for. Since the design of this study only required a one time participation, the threats of maturation, mortality and history were not of concern. The subjects of the pilot test were not the same participants in the main study, thus eliminating repeated measures as a threat. The researcher did not change the instrument during the study, thus eliminating this threat. The statistical regression threat was not of concern since high and low scores were not adjusted during the data analysis (Campbell & Stanley, 1963).

Several steps were taken to avoid common threats to external validity. External validity is the extent in which the findings of this study are relevant to subjects and settings beyond the study's participants (Vogt, 1993). Since the research design was a one time only survey conducted online, the threats of pretest/posttest sensitization, experimental, multiple treatment interference, treatment interaction and treatment setting were not of concern. Likewise, since the survey was completed anonymously the expectancy effect and demand characteristics were not relevant to this study (Campbell & Stanley, 1963). Due to the commonality of online surveys the novelty effect was not a concern. As previously mentioned, the selection of ATEPs was random; however, it can only be assumed that the program directors asked all CIs to participate to allow the results to be generalized from the sample to the population (Nachmias-Frankfort & Nachmias, 1996).

Operational Definition of Variables

Dependent Variable

Perceived attitudinal score towards feedback. The score was measured by the Perceived Attitudinal Feedback Instrument (PAFI) by calculating the mean of the Likert type responses of items 13-48. This dependent variable was a continuous variable.

Independent Variables

Role. The role of the participant was self-reported on the survey instrument. A program director (PD) is the full-time faculty member who is responsible for the administration of the Commission on Accreditation of Athletic Training Education (CAATE) program. The clinical coordinator (CC) is the person designated as having the primary responsibilities of coordinating the clinical experiences of the students within the ATEP. The clinical instructor (CI) is an individual who provides supervision to athletic training students during their clinical experiences. An approved clinical instructor (ACI) is an individual who has been trained by the ATEP to provide instruction and evaluation of athletic training students. For the purposes of this study, this independent variable was discrete and was measured on two levels. The two levels of this variable will be program director/clinical coordinator and clinical instructor which is a combination of approved clinical instructors and clinical instructors. These groups were collapsed due to the similarities of their experiences. Both program directors and clinical coordinators serve as administrators of the ATEP and are tasked with ensuring quality clinical education. There are also similarities to clinical instructors and approved clinical instructors by the nature of their position. Members of both of these groups work as allied health providers and are tasked with the role of educating athletic training students in a clinical setting. The only

difference between the two groups (ACI and CI) is that those who are ACI's underwent a training session conducted by the ATEP. This difference was not significant enough to separate them for this study. Ultimately, both ACI's and CI's fulfill the same role as clinical supervisors and receive the same type of feedback. Since the collapsed groups function essentially the same within the ATEP as it relates to clinical education, it can be assumed that they have similarities in attitude towards feedback.

Age. The number of whole years of chronologic age as self-reported by the participant. This independent variable was collected as a continuous number.

Sex. The self-reported sex of the participant. This independent variable was collected as a discrete variable with two levels: male and female.

Years of Experience. Years of professional experience indicated as "high" in the vignette section refers to 14 years of experience for the character. Years of professional experience indicated as "low" in the vignette section refers to 2 years of experience for the character.

Years Experience as a Program Director. The number of whole, rounded years the participant has served as the director of the athletic training education program. This independent variable was collected as a continuous number.

Years Experience as a Clinical Instructor. The number of whole, rounded years the participant has served as a clinical instructor for an athletic training education program. This independent variable was collected as a continuous number.

Setting of Employment. The physical location where the participant is employed as indicated on the PAFI. This discrete independent variable was described on two levels.

Either the participant works on the campus of the ATEP or they work off campus of the ATEP.

Descriptive Variables

Level of Education. The college degrees the participant currently holds, as indicated on the PAFI. This information was collected to provide descriptive information on the participants.

Types of Feedback. Feedback types given to the clinical instructor by the either the program director, clinical coordinator, or the athletic training student at the participant's location as indicated by the participant on the PAFI. This variable was collected to provide descriptive information on the participants.

Frequency of Feedback. The frequency of feedback given to clinical instructors as indicated by the participant on the PAFI. This variable was collected to provide descriptive information on the participants.

Years of Experience in Profession. The number of whole, rounded years the participant has as a professional in their respective field. This information was collected to provide descriptive information on the participants.

Professional Credentials. Additional professional credentials that the participant may hold (Physician Assistant, Emergency Medical Technician, Massage Therapist, Medical Doctor, Occupational Therapist, Physical Therapy Assistant). This variable was collected to provide descriptive information on the participants.

Years of Certification as an Athletic Trainer. The number of whole, rounded years since the participant passed the Board of Certification (BOC) examination. This was collected to provide descriptive information on the participants.

Participants

For the purpose of this study, the participants were selected from six northern states: Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin. This geographic area comprises the Great Lakes Athletic Trainers' Association (GLATA) and is the National Athletic Trainers' Association's (NATA) District 4. The states were selected as a convenience sample, thus the results can only be generalized to NATA District 4. This study will focus on CAATE accredited entry-level undergraduate Athletic Training Education Programs located in NATA District 4.

There were currently 80 CAATE accredited programs in NATA District 4 at the time of this study. A list of the schools was obtained from the CAATE website. The programs were then randomly selected by the researcher for participation. This study will focus on the responses provided by the program director/clinical coordinator, and affiliated clinical instructors of the selected educational programs. Inclusion into the study meant programs agreed to participate and respondents fit the criteria of being a program director, clinical coordinator, or clinical instructor. Participants who did not meet the criteria were excluded from this study. This exclusion occurred when the participant did not indicate if they are a program director/clinical coordinator or clinical instructor on the electronic survey. That question requires a response. If a person did not respond, they were not able to complete the survey. There was no additional inclusion or external criteria for the selection of participants.

a priori Estimation of Sample Size

A systematic procedure developed by Cohen (1988) was used to compute the sample size. Sample size was determined by the relationship between alpha level (α), power, and effect size (Kraemer, 1987). The alpha level was set a priori at .05 for this study. A level of .05 is commonly used in social science research. An alpha level of .05 protects against the possibility which is defined as a rejection of the null hypothesis when it is actually true (Kraemer, 1987). Power was set a priori at .80. This value allows for an 80% probability that a correct finding of the null hypothesis will occur, thus reducing Type II error. Type II error (β) is failing to reject the null hypothesis when it is false. Cohen (1988) defines power as 1-Type II error (1-β). Power is influenced by two main dynamics: sample size and effect size (Kraemer, 1987). Cohen (1988) describes effect size as "the degree to which the phenomenon is present in the population" or "the degree to which the null hypothesis is false." As effect size increases, so does statistical power. A large effect size was chosen for hypotheses three and four, a medium effect size was chosen for the remaining hypotheses, based on subjective professional estimate of the effects expected in this study.

A power analysis was conducted using G*Power statistical software to calculate the sample size for the study (Faul, 1992). An estimate of sample size was calculated for each hypothesis. For these calculations, alpha was set at .05, beta was set at .2 and power was set at .8. The hypothesis that required the largest sample size was used to determine the necessary number of participants for the overall study. It was determined that the bivariate correlation that was used to calculate hypotheses three and four required 66

participants to populate each group of PD/CC and CI for a total of 132. A minimum sample size for this study was N=132 (n=66 per cell) subjects.

Sampling Plan

An application to conduct this investigation was submitted to the Human Subjects Protection Review Committee (HSPRC) at The University of Southern Mississippi (Appendix A). Upon receiving HSPRC approval, the investigator randomly selected directors of CAATE accredited athletic training education programs in the NATA District 4 for participation in the study.

A simple random sampling plan was used to select programs for participation. Once the programs have been selected they were considered a cluster due to their hierarchical relationship to the individuals associated with the program. Using then a two-stage sampling model, individuals were chosen as the participants, the elements. This sampling plan is considered two-stage sampling and not cluster sampling since not all elements, only a sample, were included in the study (Kalton, 1983). Each PD was expected to participate, however only a sample of clinical instructors were likely to participate.

Based on the a priori power analysis, 66 participants were needed from each group. Based on a review of four years of survey research published in the Journal of Athletic Training with similar topics and subjects, the average response rate was found to be 60% (Jud, 2004; Newsham, 2006; Seegmiller, 2006; Weidner, 2005). As a result of an anticipated response rate of 60%, oversampling proceedures were taken. A total of seventy programs were contacted to participate in the study (See Table 1).

Table 1

Oversampling plan

	IL	IN	MI	MN	OH	WI
Total # of ATEPs	14	11	13	7	25	10
Total # of ATEPs asked to participate	13	11	12	6	20	9
Total # of ATEPs anticipated to respond	13	10	12	4	20	8

Instrumentation

Development of Instrument

No survey instrument was found through the review of literature. Therefore, the investigator used a self-developed survey instrument (PAFI) to obtain the necessary information from the selected participant groups. The development of this instrument grew out a concern for the overall attitude of feedback given to clinical instructors in the athletic training setting. It was suspected by the researcher that there is a potential difference in the attitude towards feedback between those giving the feedback (PD/CC) and those receiving the feedback (ACI/CI). It was also suspected, based on the literature that a hierarchical relationship existed amongst different sub-constructs of clinical instructor feedback. It was through professional discussion and a thorough examination of the literature that the six sub-constructs were posited. These sub-constructs were then used as a guide in the development of the nomological network of the PAFI instrument (Appendix B). To achieve complete representation of each construct, as many Likert items as possible were written. Following this initial development of 51 items,

recommendations from a panel of experts and the completion of a pilot study further served in the development and refinement of the instrument. The PAFI was used to measure latent attitude towards feedback from the program director, the clinical coordinator, and the clinical instructors (CI/ACI) of selected athletic training education programs. This tool consisted of three major parts: Part I: Demographic and Professional Background Information; Part II: Likert-type items; and Part III: Vignettes (Appendix C).

Part I: Demographics included the participant's age, sex, professional credentials, and level of education. Professional background contained items to identify what role the participant fulfills with the ATEP, years of experience in that role, years in the profession, and employment setting.

Part II: A Likert scaling technique was used to identify the participant's attitudinal score towards feedback. The final 35 items represented the six sub-constructs of feedback as determined by the researcher through the related literature, the panel of experts and item analysis following the pilot study. Participants were asked to rate agreement of each statement using a 6-point Likert scale continuum anchored by: Strongly Disagree = 1, and Strongly Agree = 6.

Part III: The vignette section contained two vignettes for the respondent to read and then respond to three Likert-type items. Participants were randomly directed to one of two vignettes via the online survey program. Each vignette was identical, except for the variable years of experience. The purpose of the vignette section was to gain further perception of how participants would view an incident concerning feedback in a real application instead of generalized Likert items. The two vignettes looked at the sub-construct of professional experience. Professional experience was identified in the

literature as one of the influencing factors of attitudes towards feedback. Participants were not informed of the sub-construct that the vignette addressed. In one vignette, the character in the story has 14 years of professional experience. This vignette was considered as "high" level of professional experience. In the second vignette the character has 2 years of professional experience. This vignette was considered as "low" level of professional experience. Following each vignette were three identical Likert items. These items are tied to research questions 6-8. The first Likert item measured the level of importance of the scenario. The second Likert item measured the respondent's identification with the scenario. The third Likert item measured the respondent's level of satisfaction with the scenario. The allowed responses to the Likert items were; 1= Strongly Disagree, 2=Disagree, 3= Agree, and 4= Strongly Agree. A four point scale, instead of a 6 point continuum, was used due to the simplicity of the vignette. It was determined that a six point continuum would be too complex. The change in scale also helped to distinguish this section of the study from the previous one. The vignettes were used to find differences, if they existed, between years of experience (high/low) and importance of scenario, identification with scenario and level of satisfaction with the scenario.

Strengths and weaknesses of instrumentation

The researcher chose to use an internet website survey to collect data for this study. This method has become increasingly popular in the last few years. The advantages to this type of data collection include: flexibility in survey design, the ability to reach many people in a large geographical area, and the limited human error in data entry and coding which help to improve accuracy. Disadvantages to this collection

method are a lower response rate compared to mail surveys. The researcher will oversample to help correct for this weakness. Inactive email addresses can also be a limitation. The researcher retrieved the program director's email addresses from a national website and this website maintains the most up to date contact information. Accessibility to the internet and comfort level of using the internet could also be a limitation of this study. However, the researcher felt confident that all of the participants, due to their professional nature, should have access to email and the internet and be skilled in their use (Wolfer, 2007).

A majority of the item in this instrument were Likert-type items measured on a continuum scale. The advantage of using Likert-type items is that this measurement can assess the relative intensity of different items using the respondent's own answers to determine attitude. The primary limitation of the Likert scale is its inability to predict a person's score on any particular item. The researcher chose to use a six point continuum with no neutral or "don't know" response. This decision was made to increase the discrimination of answers and to increase variation of responses. The items were counterbalanced positive and negative to help control for respondent acquiescence (Wolfer, 2007).

Instrument Development

Validity

The following procedures were used to establish face validity for the instrument. The PAFI was distributed to a four-member panel of experts who all possess expertise in athletic training education and or survey design. Additionally, these members all have a doctoral degree. A description of the panel of experts is included in the Appendix D. The

panel was given the questionnaire to read and respond to the statements regarding perceived attitudinal feedback in athletic training education. After receiving feedback from the panel of experts, necessary adjustments were made to the instrument in regards to the clarity of items and instrument formatting.

Content validity can be defined as the extent to which a measure represents all facets of a social concept. Determining content validity can be somewhat subjective due to the necessary agreement needed on what exact facets make up the given concept (Wright, 1979). Content validity is "established by showing that the test items are a sample of a universe in which the investigator is interested" (Cronbach & Meehl, 1955). Content validity is established by expert judgment rather than statistical testing (Vogt, 1993). Content validity of this study was developed using two methods. A thorough review of literature was conducted focusing on the origins of feedback, allied health fields, and teacher education. This examination of the literature revealed several sub-constructs of feedback. These previously established sub-constructs of feedback were used in the development of the instrument. Once the sub-constructs were established for this study an abundance of items were written in an effort to completely address the content. These items were then screened by the established panel of experts. This panel was then able to contribute suggestions to the content of the instrument further adding to the content validity.

Criterion-related validity is the ability of a test to make accurate predictions (Vogt, 1993). This is often established by comparing a new instrument to an instrument that has been widely used and accepted in the field for measuring the same subjects. A review of the literature did not reveal a widely accepted measure of mean attitudinal

score towards feedback as it relates to clinical education. Since there were no established scales of mean attitudinal score, it was not possible to compare the results of this instrument to a previously validated study to establish criterion-related validity (Wolfer, 2007).

According to Cronbach and Meehls (1955), "Construct validation takes place when an investigator believes that his instrument reflects a particular construct, to which are attached certain meanings." Additionally Cronbach and Meehls (1955) state, "construct validity must be investigated whenever no criterion or universe of content is accepted as entirely adequate to define the quality to be measured." Hypothesis testing is then used as a means to confirm the developed constructs. The researcher recognized the need to explore the construct of feedback within the field of athletic training clinical instruction, as no previous constructs specific to the topic existed. Construct validity of the instrument was developed using the review of literature, the panel of experts, results of the pilot study and the subsequent revision of the instrument for the overall study. Through the review of literature, from outside the athletic training field, six constructs of feedback were established, particularly through studies by Brinko (1993) and Ilgen, Fisher, & Taylor (1979). The constructs of feedback found were then applied to the field of athletic training through the use of other allied health literature. From there the constructs were established for this instrument. Those constructs were: (a) type and mode of feedback, (b) frequency of feedback, (c) willingness to receive feedback, (d) the source of feedback, (e) the content of the feedback, (f) and training for clinical instruction. Each of the six constructs had representative items within the instrument. These constructs

when combined on the instrument lead to the measurement of the respondent's attitude towards feedback (see Table 2).

Table 2

Constructs of Feedback with corresponding PAFI item numbers

Constructs of Feedback	PAFI Item Numbers
Type/Mode	13, 14*, 15, 16, 17, 18, 19
Frequency	20*, 21, 22, 23*,45
Willingness to receive	24, 25*, 26
Source	27, 28, 29,30*,47
Content	31, 32*, 33, 34, 35, 36
Training for clinical instruction	37, 38, 39*, 40,48

**indicates a reverse scored item*

To ensure that the PAFI was measuring the dependent variable, two response sets were addressed in the administration and construction of the instrument. To address the acquiescence response set, the Likert-type items were worded both negatively and positively. Although this will not eliminate acquiescence responding, it will cancel the effects on the variance. The effects of the social desirability response set will be addressed through the assurance of respondent anonymity in the data collection procedures (see Table 2).

Pilot Study

A convenience sample of 36 current or former program directors/clinical coordinators and clinical instructors, from outside NATA District 4, completed the online PAFI. This process was used to measure the performance of the instrument's functionality. Specifically, this pilot study served to gather information about the clarity, format, redundancies, and relevance of the instrument. As a result of the feedback from

the pilot study, the instrument was further refined to increase internal consistency as described below.

Item Analysis

Using the scores gathered during the pilot study, internal consistency was calculated to estimate the internal consistency of the PAFI. This analysis was used to ensure all items function as a singular cohesive group measuring the latent construct of attitude towards feedback. An item analysis was completed on the pilot study results. The researcher initially looked at the internal consistency of the all of the items together. Those items that had a negative item-to-total correlation were re-read on the survey to look for content or coding errors. If an item was found to be miscoded, it was noted and corrected. Items found to have poor wording or not relating to the construct of feedback in which it was located were also noted. Secondly, the researcher did an item analysis for each group of items contained in each of the six identified constructs of feedback. The Cronbach's alpha score was noted. Then, further investigation was completed to examine any items with negative or low (<.30) item-to-total correlation within each of the six constructs of feedback. If items had a negative or low item-to-total correlation, they were re-examined on the instrument. If the item was found to have poor wording, or not relate well to the construct it was removed. The most negative items were examined first, if removed a new Cronbach's alpha was calculated, and the process was repeated until each subconstruct and the overall construct of feedback had a Cronbach's alpha >.70. The construct for source of feedback had a Cronbach's alpha of .536. It was decided to keep this construct for the final version where it can be further analyzed. Following this item

analysis, a total of 10 items were removed. The items that remain will be in the final version of the PAFI (see Table 3).

Table 3

Instrument Reliability

	N items	Item number	Cronbach's Alpha
All items	35		.826
Type/Mode	7	13, 14, 15, 16, 17, 18, 19	.743
Frequency	5	20, 21, 22, 23, 45	.783
Willingness to receive	3	24, 25, 26	.801
Source	5	27, 28, 29, 30, 47	.536
Content	6	31, 32, 33, 34, 35, 36	.708
Training	5	37, 38, 39, 40, 48	.754

Data Collection Procedures

Once ATEP's were randomly selected, the program directors were contacted via telephone by the researcher and asked to participate in the investigation. Once the program director agreed to participate, the researcher sent the program director an e-mail. This e-mail provided an overview of the study, the subjects' voluntary participation and anonymity as well as an assurance that information collected would be completely confidential with no individual findings being reported. Also contained in this e-mail was a hyperlink to the online survey (Appendix E). It was agreed that the program director will forward this e-mail to the clinical coordinator and all the affiliated clinical instructors (ACI and CI) for completion. If a program director declined to participate, an additional program will be randomly selected from the list of remaining programs.

Due to the anticipated and traditionally low response rate of internet website surveys, the researcher will oversample the population (Cook, Heath, & Thompson,

2000). If a program director was not contacted after four phone calls, the researcher left a voicemail indicating the request to participate in the study and then an email request to participate was sent to the program director. The researcher ensured that through oversampling procedures, that the entire population of eighty programs was not included into the study.

The PAFI was administered via an internet based survey website. The researcher transferred and formatted the PAFI to fit the format offered by the online company. Once a participant clicked on the hyperlink in their original email, they were taken to the survey website and started the PAFI. Participants were required to answer all questions in order to proceed to the next section of the survey. Once completed the participant was shown a thank you message and then exited out of the program. The researcher was then able to download the survey data for analysis.

Data Analysis

Data Screening

The purpose of this study was to measure the attitudinal score towards feedback of athletic training education program directors/clinical coordinators, and the affiliated clinical instructors. An ex post facto correlation research design was used to compare the scores between the two groups to determine if a difference existed. Attitude towards feedback was identified as the dependent variable for both groups while a number of independent variables were examined for each group. Role of the participant, employment setting, age of respondent, years of professional experience and sex of the respondent were the independent variables investigated as possible effects of the clinical instructors' attitude towards feedback. Whereas, the independent variables of, role of

respondent, age, years of professional experience, and sex of the respondent were examined as possible effects of attitudes towards feedback of program directors/clinical coordinators (see Table 4).

Table 4

Dependent and Independent Variables for Each Group

Sample	Dependent Variable	Independent Variables
Clinical Instructors	Perceived Attitude Towards Feedback	role of the participant age years of professional experience sex employment setting
Program Directors/ Clinical Coordinator	Perceived Attitude Towards Feedback	role of participant age years of professional experience sex

Prior to the analysis of the data set, it was screened for errors. Descriptive statistics were used to describe the data, cross check for missing values and to assure correct variable labeling. All statistical calculations were completed using the Statistical Package for Social Sciences (SPSS, Inc., Ill., v. 15). Screening for outliers for the variables of age and years of professional experience was completed using Z scores prior to running any statistical testing. Outliers have the potential to create discrepancies in the outcome of statistical testing and limit the generalizability of results to the population (Tabachnick & Fidell, 1983). Outliers beyond three standard deviations were eliminated from the analysis. Only one outlier was found in the age variable, this age was value was

not realistic and was considered a participant error. This case was removed when the variable PD age was used for analysis.

Screening for missing values was also completed. Using the tools available via the online data collection program the researcher required answers to all items within the PAFI. As a result, every completed survey had complete responses and no missing values were found.

Analysis of the Null Hypotheses

The participants' demographics and professional background information was analyzed using descriptive statistics. Specifically, frequencies, averages, and percentages were reported. The chance of committing a Type II error was calculated for non-significant findings. Type II error is calculated by Power= 1-β, or rather β=1- power. β is reported for non-significant findings in the Data Analyses According to Hypotheses section of Chapter 4. For any statistically significant finding, a Cohen's *d* was calculated to determine effect size. Effect size is a measure of the strength of the relationship between two variables, or the degree of departure from the null hypothesis. Cohen's *d* will be calculated if significance is found during hypothesis testing. By knowing the value of Cohen's *d,* the effect of the findings will be known and that is useful for making recommendations from the findings. Cohen's *d* calculated by, (d=M_1 –M_2/SD). Effect size is classified as small (0-.2), medium (.3-.5), and large (.6-.8) (Cohen, 1988).

The first hypothesis was tested using an independent t-test to compare mean attitudinal score towards clinical instructor feedback of program directors/clinical coordinators and clinical instructors. If significance was found, a Cohen's *d* test was completed.

The second hypothesis was tested using an independent t-test to compare clinical instructor's employment setting and mean attitudinal score towards feedback. If significance was found, a Cohen's *d* test was completed.

A bivariate correlation was used to test hypothesis three to determine if a relationship existed between the age of the respondent and mean attitudinal score towards feedback.

A bivariate correlation was used to test hypothesis four to determine if a relationship existed between the years of professional experience and mean attitudinal score towards feedback.

The fifth hypothesis was tested using an independent t-test to compare men's and women's mean attitudinal score towards feedback. If significance was found, a Cohen's *d* test was completed.

The sixth hypothesis was tested using an independent t-test to compare years of professional experience of the ATC in the vignette to the level of importance in vignette score. If significance was found, a Cohen's *d* test was completed.

The seventh hypothesis was tested using an independent t-test to compare means of professional experience of the ATC in the vignette to the level of self identification in vignette score. If significance was found, a Cohen's *d* test was completed.

The eighth hypothesis was tested using an independent t-test to compare means of professional experience of the ATC in the vignette to the level of satisfaction in vignette score. If significance was found, a Cohen's *d* test was completed.

The hypotheses were tested using methods, respectively (see Table 5). For all hypotheses, a significance level of $p<.05$ was stipulated.

Table 5

Null Hypotheses and Methods of Data Analysis

Null Hypotheses	Effect Size	Methods of Data Analysis
HO1: There will be no difference between clinical instructors and program directors/clinical coordinators on mean attitudinal score towards clinical instructor feedback as measured by the Perceived Attitudinal Feedback Instrument (PAFI).	Medium .50	Independent t-tests Cohen's *d*
HO2: There will be no difference between employment settings of clinical instructors in mean attitudinal score towards clinical instructor feedback.	Medium .50	Independent t-tests Cohen's *d*
HO3: There will be no relationship between age and the mean attitudinal score towards feedback.	Large .50	Bivariate Correlation r^2
HO4: There will be no relationship between years of professional experience and the mean attitudinal score towards feedback.	Large .50	Bivariate Correlation r^2
HO5: There will be no difference between men and women's mean attitudinal score towards feedback.	Medium .50	Independent t-tests Cohen's *d*
HO6: There will be no difference between years of experience (high/low) of the ATC in the vignette on mean level of importance vignette score.	Medium .50	Independent t-tests Cohen's *d*
HO7: There will be no difference between years of experience (high/low) of the ATC in the vignette on mean self identification within the scenario vignette score.	Medium .50	Independent t-tests Cohen's *d*
HO8: There will be no difference between years of experience (high/low) of the ATC in the vignette on mean satisfaction of the scenario in vignette score.	Medium .50	Independent t-tests, Cohen's *d*

CHAPTER IV

ANALYSIS OF DATA

The purpose of this study was to measure and compare the mean attitudinal score towards feedback of the clinical instructor and a representative of the ATEP, either the program director or the clinical coordinator, on their attitudes towards feedback given and received in the athletic training clinical education setting. Additionally, the investigator was interested in relationship between employment setting, age, years of professional experience, and gender with mean attitudinal score towards feedback.

Data analysis and results are discussed according to previously stated hypotheses. This chapter is organized in the following sections: (a) Data Screening, (b) Observed Psychometric Properties, (c) Description of Sample, (d) Analyses of Survey Instrument's Demographic Responses, (e) Analyses of Data According to Hypotheses, and (f) Summary of Results.

Data Screening

A total of 181 surveys were started, a total of 158 surveys were completed and submitted. A total of 67 program directors were asked to participate in the study, 44 program directors completed the survey for a response rate of 66%. Since it was left to the program directors to contact the clinical instructors, it is unknown how many clinical instructors were asked. A total of 99 completed CI surveys were received, for an average of 2.25 clinical instructors per program director.

Prior to data analysis, the data was screened to look for out of range errors and missing values. Screening for outliers was completed using z scores on the variables of age and years of professional experience. Only one case, on one variable had a response 3

standard deviations beyond the mean. This one outlier was found in the PD age variable, a participant had entered an invalid age. Since this outlier was invalid and was beyond three standard deviations the case was removed for any testing. This action left 58 cases in the PD/CC group for descriptive and interferential analyses when using the age variable.

The data was examined at it was determined that it met the assumptions of the t-test. The first assumption is that of independence, all respondents were indeed identified of being identified in independent groups for hypothesis testing. The second assumption is that of normality, the collected data appeared to be normal as seen on frequency distributions. The third assumption is that of homogeneity of variance, this was tested due to the different number of subjects in each group. The test used to meet this assumption was Levene's Test for Equality of Variances (Shavelson, 1988).

There were 158 completed surveys. The online computer service has an optional feature that requires participants to respond to every item before being able to proceed to the next section. This option was utilized by the researcher, as a result no missing values were found in the data set.

Observed Psychometric Properties

Following data collection a Cronbach's alpha was calculated at .840 for the composite items of the instrument. Further internal consistency testing was completed on the six sub-constructs of feedback. Three of the six constructs had Cronbach's alpha >.70. These findings indicate that some of the sub-constructs of feedback are not reliable, but the scores derived by the instrument's items in its entirety shows reliability (see table 6) (Appendix F). The sub-constructs of Type/Mode and Content were >.70 following the

pilot study item analysis, these sub-constructs have fallen below the .70 level following the final study. It is possible that the samples from the pilot study and the final study differed enough to cause this change. The participants of the pilot study were taken from a convenience sample and differed in geographical location than those in the final study. The Source sub-construct was >.70 following the pilot study and remained below .7 following the final study. This low Cronbach's score could be attributed to the fact that the source of feedback is more categorical than the other sub-constructs. When one construct has many different categories, such as the source sub-construct, the Cronbach's score will decrease. The low Cronbach's alpha scores on the sub-constructs could also be attributed to the sub-constructs of feedback being too widely defined. Additionally, some of the Likert-type items that were intended to measure only one sub-construct, may in fact have been measuring multiple constructs. These type of items would lead to poor item-to-total correlations and subsequent poor construct reliability.

Table 6

PAFI Reliability Statistics

	N items	Item number	Cronbach's Alpha
All items	35		.840
Type/Mode	7	13, 14, 15, 16, 17, 18, 19	.539
Frequency	5	20, 21, 22, 23, 45	.849
Willingness to receive	3	24, 25, 26	.734
Source	5	27, 28, 29, 30, 47	.312
Content	6	31, 32, 33, 34, 35, 36	.596
Training	5	37, 38, 39, 40, 48	.770

Description of Sample

The participant sample included two groups. The two groups of interest were CAATE accredited program directors/ clinical coordinators and clinical instructors. The participants were selected from NATA District 4 CAATE accredited programs. A total of 181 surveys were started on the online data collection site. A total of 158 completed surveys were submitted (N=158). Program directors and clinical coordinators (PD/CC) comprised 59 (37%) of the responses and 99 (63%) were completed by clinical instructors (CI). This proportional difference in the two groups was anticipated, as there are more clinical instructors than there are program directors. There was sufficient number of participants from each group to meet the a priori estimated sample size. When completing t-test analysis the Levene's Test for Equality of Variances was used to determine which SPSS calculated t was appropriate for hypothesis testing.

Analyses of Survey Instrument's Demographic Responses

Descriptive statistics were performed on the data of the PAFI regarding the role in the ATEP, age, gender, level of education, and years of professional experience. Descriptive statistics on the clinical instructors also included their employment setting. Refer to Table 7 for a comparison demographic information of the two respondent groups.

Program Directors/Clinical Coordinators made up 36.5% (n=59) of the respondents. The mean age of the group was 40 years (SD=9, Range from 26-59). This group was comprised of 27 males (45.8%) and 32 females (54.2%). The mean years of professional experience was 16.8 years (SD=8), with a minimum value of 4 years and a maximum of 37 years. Master's degrees (50.8%) and doctoral degrees (47.5%) were the

predominant degrees last earned by this group (See Table 8). See Appendix G for further description of age and years of professional experience.

Table 7

Comparison of Demographic Information by Respondent Group

	PD/CC n=59	CI n=99	Mean PAFI score	Standard Deviation
Role				
PD/CC			4.05	.415
CI			4.10	.474
Gender				
Male	27	56	4.04	.435
Female	32	43	4.12	.469
Mean years prof. experience	16.8	9.3		
Mean Age	40	33		

Table 8

Program Directors/Clinical Coordinators: Last Educational Degree Earned (n=59)

Educational Degree	Frequency	Percentage
Bachelor's	1	1.7
Master's	30	50.8
Doctorate	28	47.5
Clinical Doctorate	0	0
Total	59	100

Clinical Instructors made up 63.5% (n=99) of the total sample. The mean age of clinical instructor was 33.0 years (SD=9, range from 22-62). This group was comprised of 56 males (56.6%) and 43 females (43.4%). The mean years of professional experience was 9.3 years ranging from 0 years of professional experience to 34 years (SD=8).

Master's degrees (60.6%) was the predominate degree last earned by this group (See Table 9). See Appendix G for further description of age and years of professional experience.

Table 9

Clinical Instructors: Last Educational Degree Earned (n=99)

Educational Degree	Frequency	Percentage
Bachelor's	31	31.3
Master's	60	60.6
Doctoral	3	3.0
Clinical Doctoral	5	5.1
Total	99	100

Descriptive statistics were also used to describe the employment setting of the clinical instructor. Respondents were allowed to select more than one setting. The predominant employment setting was at colleges and universities with an ATEP (52.6%) (See Table 10).

Table 10

Employment Settings of Clinical Instructors

Setting	Frequency	Percentage
High School	18	15.5
Junior College	2	1.7
Clinical	18	15.5
Industrial	1	0.9
College/ Univ. with ATEP	61	52.6
College/Univ. w/out ATEP	10	8.6
Professional	1	0.9
Other	6	5.2
Total	117	100.9

Data Analyses According to Hypotheses

In this section, the data analysis is reported on the previously stated hypotheses. For the purpose of accurately describing the results, each hypothesis is addressed individually. Statistical output is provided in Appendix H.

Results of Hypothesis 1

Null hypothesis one stated there would be no difference between clinical instructors and program directors/clinical coordinators on mean attitudinal score towards clinical instructor feedback as measured by the Perceived Attitude Towards Feedback Instrument (PAFI). An Independent t-test was used to compare program directors/clinical coordinators' and clinical instructors' mean attitudinal score towards feedback. Means

and standard deviations of the two groups are presented in Table 11. No statistically significant difference was found in mean attitudinal score towards clinical instructor feedback of the two groups, t(156)= -.664, p=.508 β=.84.

Table 11

Means and Standard Deviations of Mean Attitudinal Score by Respondent Role

Group	*n*	*M**	*SD*
PD/CC	59	4.05	.41
CI	99	4.10	.47

*Scale of 1-6 (1=strongly disagree to 6=strongly agree)

Results of Hypothesis 2

Null hypothesis two stated there would be no difference between employment settings of clinical instructors in mean attitudinal score towards clinical instructor feedback as measured by the PAFI.

Determination of employment setting of clinical instructors was calculated by creating two groups, on campus employment and off campus employment. Respondents who reported employment at a college/university with an ATEP were categorized as being in on campus employment. All other respondents were grouped as having an off campus employment setting.

An Independent t-test was used to compare on campus clinical instructors to off campus clinical instructors mean attitudinal scores towards feedback. Means and standards deviations of the two groups are presented in Table 12. No statistically significant difference was found in mean attitudinal score towards clinical instructor feedback of the two groups, t(97)= -.972, p=.334, β=.84.

Table 12

Means and Standard Deviations of Clinical Instructor Employment Settings

Group	*n*	*M**	*SD*
On Campus	61	4.06	.51
Off Campus	38	4.16	.40

*Scale of 1-6 (1=strongly disagree to 6=strongly agree)

Results of Hypothesis 3

Null hypothesis three stated there would be no relationship between age and the mean attitudinal score towards clinical instructor feedback as measured by the PAFI. A bivariate correlation was used to determine if a relationship existed between age of the respondent and mean attitudinal score towards clinical instructor feedback. No statistically significant relationship was found r =.023, p=.771, β=.94.

Results of Hypothesis 4

Null hypothesis 4 stated there would be no relationship between years of professional experience and the mean attitudinal score towards clinical instructor feedback. A bivariate correlation was used to determine if a relationship existed between the respondent's years of professional experience and mean attitudinal score towards clinical instructor feedback. No statistically significant relationship was found r =.067, p =.404, β=.87.

Results of Hypothesis 5

Null hypothesis five stated there would be no difference between men and women's mean attitudinal score towards clinical instructor feedback. An Independent t-test was used to compare men and women's and mean attitudinal score towards clinical

instructor feedback. Means and standard deviations of the two groups are presented in Table 13. No statistically significant difference was found in mean attitudinal score towards clinical instructor feedback of the two groups t(156) = -1.047, p =.297, β=.84.

Table 13

Means and Standard Deviations of Respondent's Sex

Group	*N*	*M**	*SD*
Men	83	4.05	.43
Women	75	4.12	.47

*Scale of 1-6 (1=strongly disagree to 6=strongly agree)

Results of Hypothesis 6

Null hypothesis six stated there would be no difference between years of experience (high/low) of the ATC in the vignette and mean level of importance in vignette score. An Independent t-test was used to compare the respondent's rated level of importance as indicated by the vignette score and the years of experience of the ATC in the scenario. Means and standard deviations of the two groups, high level of experience and low level of experience, are presented in Table 14. No statistically significant difference was found in vignette score, t(156)= 1.87, p=.067, β=.55.

Table 14

Summary of Vignette Results

Hypothesis	*n*	*M**	*SD*
Ho6-Importance			
Low	75	3.00	.66
High	83	2.81	.65
Ho7-Self Id			
Low	75	2.36**	.63
High	83	2.79**	.64
Ho8-Satifaction			
Low	75	1.96**	.67
High	83	2.38**	.73

**Scale of 1-4 (1=strongly disagree to 4=strongly agree)*
***Indicates significance*

Results of Hypothesis 7

Null hypothesis seven stated there would be no difference between years of experience (high/low) of the ATC in the vignette and self identification within the scenario in vignette score. An Independent t-test was used to compare the respondent's rated self identification as indicated by the vignette score and the years of experience of the ATC in the scenario. Means and standard deviations of the two groups, high level of experience and low level of experience, are presented in Table 14. Statistically significant difference was found in vignette score, $t(156)= -4.305$, $p<.01$, $\beta=.02$. Cohen's *d* was calculated at .68. ($d=M_1 - M_2/SD$) The Cohen's *d* for this hypothesis was medium approaching large effect size. The group with the higher years in vignette scenario of experience had a higher self identification mean score (See Table 14).

Results of Hypothesis 8

Null hypothesis eight stated there would be no difference between years of experience (high/low) of the ATC in the vignette and satisfaction of the scenario in

vignette score. An Independent t-test was used to compare the respondent's rated level of satisfaction as indicated by the vignette score and the years of experience of the ATC in the scenario. Means and standard deviations of the two groups, high level of experience and low level of experience, are presented in Table 14. A statistically significant difference was found in vignette score $t(156)= -3.813$, $p<.01$, $\beta=.03$. A Cohen's *d* was calculated at .63. This value indicates a medium approaching large effect size. The group with the high years of experience had a higher level of satisfaction mean score.

Summary of Results

In summary, an Independent t-test was the method of analysis for Hypotheses One, Two, Five, Six, Seven and Eight. A Bivariate Correlation was used to analyze Hypotheses Three and Four. Null Hypotheses One, Two, Three, Four, Five, and Six were failed to reject and Null Hypothesis Seven and Eight were rejected.

CHAPTER V

DISCUSSION

This chapter will expand on the results found in Chapter 4. This chapter includes the following sections: (a) Summary of the Study, (b) Discussion, (c) Discussion by Null Hypothesis, (d) Vignette Findings, (e) Limitations and, (f) Recommendations for Future Research.

Summary of the Study

The purpose of this study was to measure and compare the perceived attitudinal score towards clinical instructor feedback, as measured by the PAFI instrument, of CAATE accredited ATEP program directors/clinical coordinators (PD/CC) and affiliated clinical instructors (CI). Additionally, the investigator was interested to see if relationships between attitudes towards feedback and the respondent's age, gender, employment setting and years of professional experience existed.

A survey instrument, the PAFI, was used to gather the data from two sample groups. The groups were program directors and clinical coordinators of CAATE accredited ATEPs and the affiliated clinical instructors. Participants were randomly selected from CAATE accredited ATEPs in the NATA District Four.

Mean attitudinal score, as measured by the PAFI, was the dependent variable for the study. Independent variables of age, gender, years of professional experience, and employment setting served as the independent variables. Additionally, vignettes were used to measure satisfaction with a scenario where the years of experience of the vignette character was changed.

Discussion

According to the Education Council of the National Athletic Trainers' Association, clinical education is one of the most important factors in the professional preparation of athletic trainers. Clinical education allows students to learn and apply skills from the classroom into the real life setting (National Athletic Trainers' Association, 2007). The clinical instructor serves as the facilitator of this experience. Since high quality clinical education is vital to the success of the student and the profession it is important that the profession continues to explore this topic (Laurent & Weidner, 2001).

This study sought out to compare attitudes towards clinical instructor feedback of program directors/clinical coordinators and compare them to clinical instructors. No significant differences were found between the two groups. It is good for the profession that there is not a divide in attitude towards feedback between the individual providing the feedback and the recipient. Along that same line of thinking, it was shown that independent of age, gender, years of professional experience that the mean attitude towards feedback was not different. Additionally, it is important to note respondents had an overall positive attitude towards clinical instructor feedback. Also, as shown by the vignettes, respondents were not satisfied with annual feedback, especially for novice clinical instructors.

Discussion by Null Hypothesis

Effect of Role on Mean PAFI Score

Results indicated that PD/CC and CI's mean attitudinal score towards clinical instructor feedback are very similar. Both groups of respondents had a mean score above

4.0 on a 6 point continuum of strongly agree to strongly disagree. Therefore, the results indicated that both groups have positive attitudes towards feedback. A difference between these groups was estimated at the time of the instrument's development. It was estimated that program directors would have a more positive attitude towards feedback since they are the ones that are charged with the task of giving the feedback and developing the various methods to deliver that feedback. Additionally, it was thought that since PD/CC's are responsible for the feedback that they may value it more, thus having a higher mean attitudinal score. The clinical instructors were not estimated to have a negative attitude towards feedback, but it was estimated that their attitude would be lower than that of the program director. It was thought that since CI's have so many responsibilities already, receiving feedback on their performance could be seen as another responsibility that they need to attend. As a result they may have a lower mean attitudinal score than those giving and developing the feedback. Rather than finding a higher group versus a lower group, this study revealed that the two groups have nearly identical attitudinal scores towards feedback (M=4.05, M=4.10).

The question that needs to be addressed is why do these two groups have such similar positive attitudes towards feedback? Perhaps the clinical instructors value feedback just as much as the program directors. Despite all of their responsibilities as a clinical instructor, Foster and Leslie (1992) found that clinical instructors enjoyed clinical teaching and valued the importance of that role. Additionally this study found that clinical instructors viewed serving as a CI as a responsibility to the profession. Another study found that students view the CI as the most critical person involved in their education (Weidner & Henning, 2002). These studies demonstrate the importance of the

role that CI's feel that they fullfill. Also, as identified by Ilgen, Fisher, & Taylor, feedback fullfills the higher order needs for self-esteem and self-actualization. Fullfilling these needs serves as a reward for the CI, and serves as positive motivation to reinforce positive behaviors (1979). Since feedback serves as a reward, and as positive motivation to be a better CI, it is can be seen why CI's have a positive attitude towards feedback. An attitude equally as positive as their program director/clinical coordinator counterparts.

Finding that the recipient of feedback and the source of feedback have the similar attitude towards feedback is a positive sign for the profession of Athletic Training. It suggests that there is not a gap between program administrators and clinical instructors as to their attitude towards clinical instructor feedback. This study also does not indicate antagonistic relationships between the two groups or resentment from the CI towards the ATEP, at least with regards to clinical instructor feedback. It is also encouraging for the profession that both groups have positive attitudes towards CI feedback. This could reflect their mutual vested interest in clinical education and student outcomes. This information is useful to program directors to demonstrate that CI's likely value feedback as much as themselves. Knowing that CI's have positive attitudes towards feedback should encourage the program directors/clinical coordinators to continue to provide and improve the feedback they give.

Effect of Employment Setting on Mean PAFI Score

Employment setting of the clinical instructor was collected due to the variety of settings where CIs can be employed. The settings were compressed into two designations, on-campus with the ATEP or off-campus, away from the ATEP. It was postulated that CIs who are on campus, and possibly more integrated into the ATEP, would have a

different attitude towards CI feedback than those CIs who are more separated from the program. Results indicated that clinical instructors independent of employment setting have similar mean attitudinal scores towards clinical instructor feedback. Both groups of clinical instructors had a mean score above 4.0 on a 6 point scale. Knowing that both groups of CI's feel the same towards feedback will help PD/CC's as they prepare to provide feedback. Having similar attitudes towards feedback should not warrant changes in that feedback based on CI employment setting. There is no need for the program directors/clinical coordinators to assume that the off campus CI's are more or less disconnected than the on campus CI's in regards to feedback. Off-campus CI's should feel reassured that they do not differ in attitude when compared to their on-campus counterparts.

Relationship of Age and Mean PAFI Score

Ilgen, Fisher, & Taylor found that older people tend to rely less on feedback and more on life experience for insight and reflection (1979). They also found that the older a person is, the less receptive they are to receiving feedback (Ilgen, Fisher, & Taylor, 1979). In this study there was no significant relationship between age and the respondent's attitude towards clinical instructor feedback, which disputes the findings of the previously stated study.

Perhaps this particular finding between age and attitudinal score is linked to the dramatic evolution that Athletic Training education has taken over the past thirty years. Each major revision of athletic training education further emphasized clinical education and the role of the clinical instructor (Starkey, 1997; Delforge & Behnke, 1999; Commission on Accreditation of Athletic Training Education, 2005). It could be

estimated that since the process of educating the student has not remained stagnant, in fact it has constantly evolved, that the clinical instructors feel they still need feedback despite their age and life experiences (Delforge & Behnke, 1999). Additionally, as stated above, since clinical instructors value their role, that regardless of age, they want to continue to improve their clinical education skills.

As a result of these findings there is no warranted change for the procedures that program directors and clinical coordinators take when providing feedback to the clinical instructors based on age alone. It appears that younger and older clinical instructors have the same positive attitude towards feedback indicating that they should be likely to be receptive to the provided feedback. As a whole, the profession of Athletic Training should be encouraged that regardless of age, clinical instructors involved in student education, have similar positive attitudes towards feedback.

Relationship of Professional Experience and Mean PAFI Score

Similar to age, past research has shown the more professional experience a person has, the less receptive they are to feedback (Ilgen, Fisher, & Taylor, 1979). It was estimated that this effect would hold true for this sample within the athletic training education population. It was estimated that those PD/CC's and CI's with more experience would have a less positive attitude towards feedback than their younger counterparts. It is reasonable to estimate that new professionals would draw upon feedback for performance review as a means of improving, thus having a more positive attitude towards feedback. Where the clinical instructors and PD/CC's who have learned from past experiences, who are familiar with the ATEP's feedback mechanisms and can draw upon self-reflection for feedback would have a lower mean attitudinal score than their younger counterparts.

In this study, there was not a significant relationship between years of professional experience and mean attitudinal score towards clinical instructor feedback. This meant that regardless of years of professional experience, the participants had the same attitude towards feedback.

Years of professional experience is similar to the age variable, it could be estimated that for similar reasons as stated above, that more experienced and less experienced people value feedback similarly due to the educational changes and their overall vested interest in clinical education. These findings do not warrant change in how feedback is provided by the PD/CC to the CI based on years of experience alone.

Effect of Sex on Mean PAFI Score

Sheldon found that research on feedback has produced variable results when comparing men and women (2004). Roberts, Nolen & Hoeksema cited several gender and feedback comparison studies, which were conducted outside of the field of athletic training, with various outcomes (1994). Gender was included in this study to see if there was a difference between gender and attitude towards clinical instructor feedback. It was not estimated if one gender would have a higher score than the other; the investigator was primarily interested to see if a difference existed.

The results of this study indicated that both men and women have similar mean attitudinal scores towards clinical instructor feedback. This finding supports an earlier study done in the nursing field (Usher, Nolan, Reser, Owens, & Tollefson, 1999). Finding no gender differences in attitudes towards feedback adds valuable information to the body of literature. To date, there are limited studies that have investigated clinical

instructor feedback and gender. Given these findings, there is no need to change practices of feedback when gender is considered.

Vignette Findings

The vignette portion of the PAFI aimed to have respondents envision a life-like scenario of clinical instructor feedback. Respondents were randomly given one of two scenarios to read where the only variable that changed was the amount of professional experience of the clinical instructor. Group 1 read the scenario where the CI had a high level (14 years) of professional experience. The second group read the same scenario, but the CI had a low level (2 years) of professional experience. It was postulated that the respondents would have differences in responses given either ample years of experience or very minimal years of experience. The respondents completed three Likert items rated on a four point scale of satisfaction. Each of the three items represented Hypothesis 6, 7 and 8 respectively.

Effect of Professional Experience on Saliency

The results indicated that despite the differences in the level of professional experience of the CI in the scenario respondents indicated similar levels of importance of this scenario, a level that indicates agreement. An average vignette score of 3 on this item shows that both groups find this scenario important. Perhaps this finding shows that years of experience does not matter, but rather the overall topic of clinical education is what is important to the respondent. Respondents could recognize the saliency of this scenario to their own professional setting and their value of student outcomes. This demonstrates to PD/CC's and CIs that those within athletic training education find the topic of clinical

instructor feedback important. This demonstration of importance shows a continual need to explore AT clinical education and to ensure its quality.

Effect of Professional Experience on Self Identification

The results indicated that a significant difference in self identification of the respondent and the level of professional experience of the ATC in the scenario existed. A Cohen's *d* revealed a medium approaching large effect size. The mean of the responses were High=2.79 and Low=2.36, on a four point agreement scale. This indicates an overall disagreement with self identification with the scenario of all respondents.

Since the Likert-type item stated "As Chris, I would function well in this scenario," and the overall responses were low means most respondents would not function well as Chris. Additionally, the findings indicate that respondents were more likely to think that clinical instructors with fourteen years of experience would perform better than those with two years of experience in this scenario. This suggests that clinical instructors with less experience would appreciate more frequent feedback in order to function better as a CI. It also suggests that program directors feel they should provide more than annual feedback to the clinical instructors, in particularly less experienced clinical instructors. This finding does warrant change or further investigation into the need and desire of feedback with consideration of the clinical instructor's experience level.

Effects of Professional Experience on Satisfaction

A significant difference was found between the low and high experienced groups and the level of satisfaction of the respondent. A Cohen's *d* revealed a medium approaching large effect size. The mean response to this item indicated an overall

disagreement for both groups, High=2.38, Low= 1.96 and a significant difference between the two groups. This shows that the respondents were overall not satisfied with the annual feedback given to the clinical instructor in the scenario.

Research has demonstrated the importance of both timely and specific feedback. Brinko states feedback is best given soon after the performance (1993). Ilgen, Taylor, & Fisher found that the longer the delay in providing feedback the less effect it has on a person's performance. Additionally, they found that the more frequently feedback is given the more likely it will elicit positive responses (Ilgen, Fisher, & Taylor, 1979). The findings of these studies are being reflected in the outcomes of this vignette item. The key persons in athletic training clinical education do not feel annual feedback is satisfactory, especially for those with less experience. This phenomenon could be attributed to the fact that clinical instructors are never taught how to teach, so they are dependent on feedback to improve their skills. This finding warrants changes in the mechanism of only providing annual feedback to clinical instructors. If the profession wants to continually improve the quality of clinical instruction then more frequent feedback must be given to the CI's, especially the novice CI's.

Limitations

Upon the conclusion of this study several limitations have been identified. These limitations must be noted, and will serve to guide future research in this area. In regards to developing the sub-constructs of feedback, it should be noted that the constructs were developed using literature outside the field of athletic training. When developing the items to measure each sub-construct, some items were inadvertently written to address more than one sub-construct. These items became unreliable for the sub-construct it was

intended to measure. It is also likely that some of the sub-constructs were under represented and were lacking a proper amount of items to measure it. These two issues were more than likely the cause of finding a high composite Chronbach's alpha and low reliability for some of the sub-constructs.

In regards to the Vignette findings, each Hypothesis 6-8 was only measured using a singular item. A single item can not be reliable. As a result the significant findings from the vignette specific hypotheses cannot lead to direct conclusions, but perhaps could lead into further discussion and future research ideas.

Recommendations for Future Research

The findings of this study do not indicate the need for any major reform in the area of clinical education. The study is only one of few in the athletic training body of literature that addresses feedback on clinical instruction. This study is just a gateway to further research in this area. With the increasing importance being focused on assessment and outcomes in higher education, it is only natural that further studies must be conducted that will improve clinical education and continue to address the needs of the clinical instructors.

A significant area of future research is the further investigation of the sub-constructs of feedback. The literature, from outside the field of athletic training, revealed six sub-constructs; type/mode, frequency, willingness to receive feedback, source, content, and training for clinical instruction. Three (frequency, willingness to receive feedback, and training for clinical instruction) of the six were found to be reliable in this study. Future studies should be done to test reliability on the remaining three sub-constructs, and to further confirm the three that were reliable. This can be done by re-

examining the poorly functioning items in each section, make necessary changes, formulate more items and re-administer the instrument. In addition the items on the instrument must be re-examined to ensure that each item is only measuring one sub-construct. This task can be accomplished by careful refining the item's wording. This study was only a starting point for the identification of the sub-constructs of feedback as it relates to clinical instruction in the field of athletic training. Identifying the key sub-constructs of feedback is crucial to truly understanding what feedback is and its functioning parts. These sub-constructs help to operationalize a complex action.

Once the sub-constructs of feedback are identified, then they can truly be investigated individually. For example, source of feedback can be further developed to show reliability as a construct of feedback. Since the source of feedback could be the PD, the CC, the athletic training student or through self reflection more investigation is needed as to which source fulfills which needs of the clinical instructor. From there it could be investigated about what sources are best for particular types of feedback and further determine if feedback is best from a single source or multiple sources. A clinical instructor could provide such information through rank ordering or measurement on a continuum scale. For each source the CI could indicate what feedback they prefer from each source. Additionally, source can be tested to see if there is an influence of years professional experience, age, gender and employment setting of the CI. Likewise further studies could investigate all of the sub-constructs of feedback in a similar fashion.

A sub-construct that needs particular investigation is that of frequency. It was demonstrated through Hypothesis 8 that respondents disagreed with annual feedback for CI's, especially for those with minimal years of experience. Additionally, respondents

indicated through Hypothesis 7 that they would not function well in a scenario where they only received annual feedback, especially as a novice CI. It can be speculated that many programs provide feedback on an annual to semi-annual basis. This construct alone could prove to be an interesting investigation and the findings of which could make helpful and simple recommendations to improve clinical instructor feedback.

Additional information was collected via this instrument that will aid in this investigation. Clinical instructors were asked how often they receive feedback, PD/CC were asked how often they provide feedback. This information could be compared with the respondent's mean attitudinal score towards feedback. Additionally, respondents answered a qualitative question that asked them "How often should feedback be provided to clinical instructors, what factors should influence the frequency?" Answers provided through this question will help to determine how often CI feedback should be provided with corresponding rationale. Additionally responses can be looked at by respondent group to see if a difference exists between the source of the feedback and the recipient.

Additionally, a qualitative study could be conducted investigating further the attitudes towards feedback, with a particular focus on the sub-constructs of feedback. This type of research could lead to developing grounded theory in the area of clinical instructor feedback. Semi-structured interviews or short answer questions on a survey could be used to gather this information. This information could also be compared to the mean attitudinal score towards clinical instructor feedback as measured by the PAFI. Respondents provided responses as to how clinical instructor feedback could be improved and what delivery method is preferred for feedback. The responses to these questions were beyond the scope of this particular study.

Further studies could be done looking at gender differences in feedback delivery and reception. Although this study did not find any differences between men's and women's attitudes towards, feedback differences may exist in other areas. It is possible, due to how complex gender differences are, that men and women prefer different types of feedback, sources of feedback and how feedback is delivered (Roberts & Nolen Hoeksema, 1994). It was also noted in the research that there have not been many gender and feedback studies done (Brinko, 1993). Although gender is a often included as a variable in various athletic training studies, no in depth study looking at gender differences and CI feedback has been done.

It was postulated for this study that a difference between on-campus CIs and off-campus CIs would exist. Although no differences were found in mean attitudinal score towards clinical instructor feedback, it can only be hypothesized that other differences do exist between these two groups. The CIs that are off-campus are not usually exposed to regular staff meetings, may not have regular interaction or communication with program administrators, may not have a regular schedule of students, and may not have attended ACI training unlike their on-campus counter parts. The off-campus clinical instructors play a vital role in clinical education because they expose the students to a wide variety of employment settings and clients. Identifying, through research, and then addressing differences, if any exist, could lead to improvement in clinical education.

Using the findings from this study could start this investigation. The group of clinical instructors could be divided by employment setting and then compared on mean attitudinal score towards feedback. A comparison in the frequency they receive feedback

could also be done. Additionally, the responses to the vignettes of the two groups of CIs could be compared.

Clinical education is the foundation of Athletic Training education. Any and all research that can further its progress and quality are needed. Studies such as this can serve as a spring board to further explore the importance of providing the CI feedback on clinical instruction.

APPENDIX A

HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE-APPROVAL FORM

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

Institutional Review Board

118 College Drive #5147
Hattiesburg, MS 39406-0001
Tel: 601.266.6820
Fax: 601.266.5509
www.usm.edu/irb

HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: **R26041801**
PROJECT TITLE: **Perceived Attitudes Towards Clinical Instructor Feedback**
PROPOSED PROJECT DATES: **04/08/08 to 04/07/09**
PROJECT TYPE: **Dissertation or Thesis**
PRINCIPAL INVESTIGATORS: **Jessica Emlich**
COLLEGE/DIVISION: **College of Health**
DEPARTMENT: **Human Performance & Recreation**
FUNDING AGENCY: **N/A**
HSPRC COMMITTEE ACTION: **Renewal of a Previously Approved Project**
PERIOD OF APPROVAL: **04/08/08 to 04/07/09**

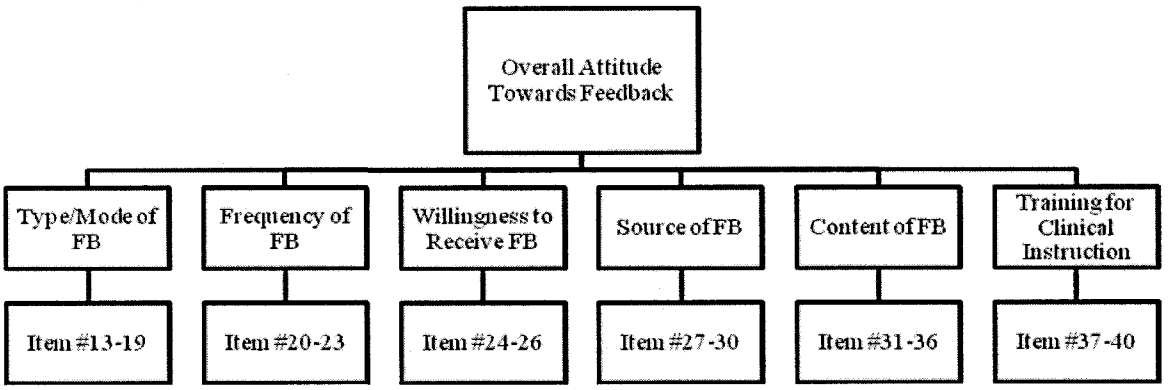
Lawrence A. Hosman
Lawrence A. Hosman, Ph.D.
HSPRC Chair

4-11-08
Date

APPENDIX B

NOMOLOGICAL NETWORK

Nomological network displaying the constructs of feedback and corresponding PAFI item numbers.



APPENDIX C

PERCEIVED ATTITUDE TOWARDS FEEDBACK INSTRUMENT

PAFT Survey

1.

Perceived Attitudes Towards Clinical Instructor Feedback

This questionnaire is designed to identify your perceptions towards feedback given to clinical instructors in athletic training education. It is important that you read each question/statement carefully and respond appropriately. Your participation in this study is voluntary; therefore informed consent will be implied upon receiving your response. Your responses will remain anonymous, and cannot be linked back to you.

1. I am (check all that apply)

- ☐ ATEP Program Director (PD)
- ☐ Clinical Coordinator (CC)
- ☐ Clinical Instructor (CI)
- ☐ Approved Clinical Instructor (ACI)

2. Are you a ATEP Program Director or Clinical Coordinator?

- ○ Yes
- ○ No

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PAFT Survey

2. Program Directors and Clinical Coordinators

Please answer the following questions from the perspective of your role as the clinical coordinator or program director.

1. Age

In years

2. Gender

- ○ Male
- ○ Female

3. Level of education (check the highest degree earned)

- ○ Bachelors Degree
- ○ Masters Degree
- ○ Clinical Doctoral
- ○ PhD, EdD

4. Professional Credentials (check all that apply)

- ☐ ATC
- ☐ PT
- ☐ MT
- ☐ OT
- ☐ EMT
- ☐ MD
- ☐ PA
- ☐ PTA
- ☐ Other

5. Are you currently a Certified Athletic Trainer?

- ○ Yes
- ○ No

6. Years of professional experience

Years

7. Total years as a Clinical Instructor (ACI/CI)

If applicable

8. Total years as Program Director

If applicable

9. Degree in teacher education?

- ○ Yes
- ○ No

Page 2

PAFI Survey

10. Currently a certified teacher?

- ◯ Yes
- ◯ No

11. How do you provide feedback to clinical instructors regarding their skills as a clinical instructor? (Check all that apply)

- ☐ Verbal by program director
- ☐ Written by program director
- ☐ Verbal by clinical coordinator
- ☐ Written by clinical coordinator
- ☐ Verbal by A.T. Student
- ☐ Written by A.T. Student

12. Approximately how often are clinical instructors provided feedback, regardless of source, on their clinical instruction?

- ◯ Multiple times a week
- ◯ One time a week
- ◯ Multiple times a month
- ◯ One time a month
- ◯ Every 2-3 months (semester/quarter)
- ◯ Every 6 months (2 times a year)
- ◯ Annually
- ◯ Never

Part II: Likert Type Scale
Directions: Please indicate how much you agree or disagree with each statement regarding your perceptions of feedback given to Clinical Instructors by the athletic training education program. Please mark the response that you feel best represents your opinion.

13. Please mark on the continuum between Strongly Disagree (SD) and Strongly Agree (SA)

	SD					SA
My visits to the clinical site will always improve the skills of a clinical instructor.	◯	◯	◯	◯	◯	◯

14. -

	SD					SA
Written evaluations of clinical instructors do not improve the effectiveness of clinical instruction.	◯	◯	◯	◯	◯	◯

15. -

	SD					SA
Clinical instructors need more written feedback from students.	◯	◯	◯	◯	◯	◯

16. -

	SD					SA
Clinical instructors need more verbal feedback from me.	◯	◯	◯	◯	◯	◯

17. -

	SD					SA
Clinical instructors do not receive enough different types of feedback on clinical instruction.	◯	◯	◯	◯	◯	◯

PAFI Survey

18. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

	SD					SA
Face to face feedback has the most positive effects on clinical instruction.	◯	◯	◯	◯	◯	◯

19. -

	SD					SA
The feedback clinical instructors receive should be followed up with suggestions for improvement in their clinical instruction.	◯	◯	◯	◯	◯	◯

20. -

	SD					SA
I do not provide the clinical instructors with enough feedback.	◯	◯	◯	◯	◯	◯

21. -

	SD					SA
Clinical instructors currently receive the ideal amount of feedback.	◯	◯	◯	◯	◯	◯

22. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

	SD					SA
Clinical instructors receive the ideal amount of feedback based on their experience level.	◯	◯	◯	◯	◯	◯

23. -

	SD					SA
Annual feedback is not enough to improve clinical instruction.	◯	◯	◯	◯	◯	◯

24. -

	SD					SA
Clinical instructors are eager to receive feedback on their performance.	◯	◯	◯	◯	◯	◯

25. -

	SD					SA
Clinical instructors do not care about the feedback they receive from students.	◯	◯	◯	◯	◯	◯

26. -

	SD					SA
Clinical instructors change their behaviors as a result of the feedback they receive.	◯	◯	◯	◯	◯	◯

27. -

	SD					SA
I have the most knowledge of student learning, thus I give the most helpful feedback to the CI.	◯	◯	◯	◯	◯	◯

28. -

	SD					SA
I feel the clinical instructor's self reflection on his/her abilities is an effective source of feedback.	◯	◯	◯	◯	◯	◯

29. -

	SD					SA
I should discuss ways to improve clinical instruction with the clinical instructors.	◯	◯	◯	◯	◯	◯

PAFI Survey

30. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

Frequent communication between myself and the CI will not improve clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

31. -

The more specific the feedback given, the more useful it is. SD ○ ○ ○ ○ ○ ○ SA

32. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

Written evaluations should not include information on the instructional skills of the CI. SD ○ ○ ○ ○ ○ ○ SA

33. -

Feedback referring to specific incidences is more helpful than general feedback. SD ○ ○ ○ ○ ○ ○ SA

34. -

Written evaluations should include information on verbal skills of the CI. SD ○ ○ ○ ○ ○ ○ SA

35. -

Student evaluations of CIs are best given to the CI shortly after the rotation. SD ○ ○ ○ ○ ○ ○ SA

36. -

I feel the feedback clinical instructors receive will always improve their abilities to supervise students. SD ○ ○ ○ ○ ○ ○ SA

37. -

The CI training provided by the ATEP has improved clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

38. -

The ATEP has provided clinical instructors with useful materials to improve clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

39. -

The instruction the ATEP gives the clinical instructor is not satisfactory to prepare them for clinical teaching. SD ○ ○ ○ ○ ○ ○ SA

40. -

I have a clear understanding of the roles and responsibilities of the clinical instructor. SD ○ ○ ○ ○ ○ ○ SA

Please indicate how much you agree or disagree with each statement, based on your best estimate, given your role as the program director or clinical coordinator for your athletic training education program.

PAFI Survey

41. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

Overall, clinical instructors are satisfied with the feedback they receive. SD ○ ○ ○ ○ ○ ○ SA

42. -

Overall, the delivery method through which clinical instructors receive feedback by the ATEP is satisfactory. SD ○ ○ ○ ○ ○ ○ SA

43. -

Overall, clinical instructor receive high quality feedback on their clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

44. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

Overall, the type of feedback clinical instructors receive is satisfactory. SD ○ ○ ○ ○ ○ ○ SA

45. -

Overall, clinical instructors receive the proper amount of feedback on clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

46. -

Overall, clinical instructors receive feedback on helpful subjects to improve clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

47. -

Overall, clinical instructors receive feedback from proper sources. SD ○ ○ ○ ○ ○ ○ SA

48. -

Overall, clinical instructors are well prepared for clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

PAFI Survey

3. Clinical Instructors and Approved Clinical Instructors

Please respond to each of the following statements by marking the response that best describes you.

1. Age

In years ____

2. Gender

- ○ Male
- ○ Female

3. Level of education (check the highest degree earned)

- ○ Bachelors Degree
- ○ Masters Degree
- ○ Clinical Doctoral
- ○ Phd, EdD

4. Professional Credentials (check all that apply)

- ☐ ATC
- ☐ PT
- ☐ MT
- ☐ OT
- ☐ EMT
- ☐ MD
- ☐ PA
- ☐ PTA
- ☐ Other

5. Are you currently a Certified Athletic Trainer?

- ○ Yes
- ○ No

6. Years of professional experience

Years ____

7. Total years as a Clinical Instructor (ACI/CI)

In whole years ____

8. Degree in teacher education?

- ○ Yes
- ○ No

9. Currently a certified teacher?

- ○ Yes
- ○ No

PAFI Survey

10. Setting where you are currently employed (check all that apply)

- ☐ High School
- ☐ University/College with AT Education Program
- ☐ Junior College
- ☐ University/ College without AT Education Program
- ☐ Clinic/ Hospital
- ☐ Professional Sports
- ☐ Industrial
- ☐ Other

11. *How do you receive feedback regarding your skills as a clinical instructor?* (check all that apply)

- ☐ Verbal by program director
- ☐ Written by program director
- ☐ Verbal by clinical coordinator
- ☐ Written by clinical coordinator
- ☐ Verbal by A.T. Student
- ☐ Written by A.T. Student

12. Approximately how often are you provided feedback, regardless of source, on your clinical instruction?

- ○ Multiple times a week
- ○ Every 2-3 months (semester/quarter)
- ○ One time a week
- ○ Every 6 months (2 times a year)
- ○ Multiple times a month
- ○ Annually
- ○ One time a month
- ○ Never

13. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

	SD					SA
Program director/clinical coordinator visits to the clinical site will always improve my skills as a clinical instructor.	○	○	○	○	○	○

14. -

	SD					SA
Written evaluations do not improve my effectiveness as a clinical instructor.	○	○	○	○	○	○

15. -

	SD					SA
I need more written feedback from students.	○	○	○	○	○	○

16. -

	SD					SA
I need more verbal feedback from the program director/clinical coordinator.	○	○	○	○	○	○

17. -

	SD					SA
I do not receive enough different types of feedback on my clinical instruction.	○	○	○	○	○	○

PAFI Survey

18. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

Face-to-face feedback has the most positive effects on my clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

19. -

The feedback clinical instructors receive should be followed up with suggestions for improvement in their clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

20. -

The program director/clinical coordinator does not provide me with enough feedback. SD ○ ○ ○ ○ ○ ○ SA

21. -

I currently receive the ideal amount of feedback on my clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

22. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

I receive the ideal amount of feedback based on my experience level. SD ○ ○ ○ ○ ○ ○ SA

23. -

Annual feedback is not enough to improve clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

24. -

I am eager to receive feedback on my performance as a clinical instructor. SD ○ ○ ○ ○ ○ ○ SA

25. -

I do not care about the feedback I receive from students. SD ○ ○ ○ ○ ○ ○ SA

26. -

I change my behavior as a result of the feedback I receive. SD ○ ○ ○ ○ ○ ○ SA

27. -

The program director has more knowledge of student learning, thus they give the most helpful feedback to me. SD ○ ○ ○ ○ ○ ○ SA

28. -

I feel self reflection on my abilities as a clinical instructor is an effective source of feedback. SD ○ ○ ○ ○ ○ ○ SA

29. -

The program director/clinical coordinator should discuss ways to improve clinical instruction with me. SD ○ ○ ○ ○ ○ ○ SA

PAFI Survey

30. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

Frequent communication between the program director/clinical coordinator and the CI will not improve clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

31. -

The more specific the feedback given, the more useful it is. SD ○ ○ ○ ○ ○ ○ SA

32. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

Written evaluations should not include information on my clinical instruction skills. SD ○ ○ ○ ○ ○ ○ SA

33. -

Feedback referring to specific incidences is more helpful than general feedback. SD ○ ○ ○ ○ ○ ○ SA

34. -

Written evaluations should include information on my verbal skills. SD ○ ○ ○ ○ ○ ○ SA

35. -

Student evaluations of my clinical instruction are best given to me shortly after the rotation. SD ○ ○ ○ ○ ○ ○ SA

36. -

I feel the feedback I receive will always improve my ability to supervise students. SD ○ ○ ○ ○ ○ ○ SA

37. -

The CI training provided by the ATEP has improved my clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

38. -

The ATEP has provided me with useful materials to improve clinical instruction. SD ○ ○ ○ ○ ○ ○ SA

39. -

The instruction the ATEP gives me is not satisfactory to prepare me for clinical teaching. SD ○ ○ ○ ○ ○ ○ SA

40. -

I have a clear understanding of the roles and responsibilities of the clinical instructor. SD ○ ○ ○ ○ ○ ○ SA

Please indicate how much you agree or disagree with each statement based on your best estimate given your role as a clinical instructor for the athletic training education program.

PAFI Survey

41. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

	SD					SA
Overall, I am satisfied with the feedback I receive.	○	○	○	○	○	○

42. -

	SD					SA
Overall, the delivery method through which I receive feedback by the ATEP is satisfactory.	○	○	○	○	○	○

43. -

	SD					SA
Overall, I receive high quality feedback on my clinical instruction.	○	○	○	○	○	○

44. Please mark on the continuum between strongly disagree (SD) and strongly agree (SA)

	SD					SA
Overall, the type of feedback I receive is satisfactory.	○	○	○	○	○	○

45. -

	SD					SA
Overall, I receive the proper amount of feedback on my clinical instruction.	○	○	○	○	○	○

46. -

	SD					SA
Overall, I receive feedback on helpful subjects to improve my clinical instruction.	○	○	○	○	○	○

47. -

	SD					SA
Overall, I receive feedback from the proper sources.	○	○	○	○	○	○

48. -

	SD					SA
Overall, I am well prepared for clinical instruction.	○	○	○	○	○	○

PAFI Survey

4. Random Selection

You are asked to answer one question to randomly take you to the last portion of this survey.

1. Do you prefer the color RED or GREEN?

- ○ RED
- ○ GREEN

FI Survey

Vignette

ıse read the following story and respond to the following statements. The statements require that you rate your
ıl of agreement or disagreement. Please indicate your response that best represents your opinion.
ıngly Disagree (SD), Disagree (D), Agree (A), Strongly Agree (SA)

1. Chris is an athletic trainer with two years of experience. Chris serves as a clinical instructor for the athletic training education program. All of the clinical instructors receive feedback on their clinical instruction annually.

	SD	D	A	SA
I feel this scenario is important.	○	○	○	○
As Chris,I would function well in this scenario.	○	○	○	○
Overall, I feel satisfied with the feedback Chris has been given.	○	○	○	○

PAFI Survey

6. Vignette

Please read the following story and respond to the following statements. The statements require that you rate your level of agreement or disagreement. Please indicate your response that best represents your opinion.
Strongly Disagree (SD), Disagree (D), Agree (A), Strongly Agree (SA)

1. Chris is an athletic trainer with fourteen years of experience. Chris serves as a clinical instructor for the athletic training education program. All of the clinical instructors receive feedback on their clinical instruction annually.

	SD	D	A	SA
I feel this scenario is important.	○	○	○	○
As Chris,I would function well in this scenario.	○	○	○	○
Overall, I feel satisfied with the feedback Chris has been given.	○	○	○	○

PAFI Survey

7. Open Ended Responses

1. How could feedback to clinical instructors be improved, for the future?

2. What delivery method or type of feedback do you prefer?

3. How often should feedback be provided to clinical instructors, what factors should influence the frequency?

4. OPTIONAL Please provide the name of the college/university in which you are associated with. This information will only be used to compare institutions, and will NOT be reported back to the institution. All information provided is confidential.

APPENDIX D

PANEL OF EXPERTS

PAFI Panel of Experts Member Descriptions

	Panel of Experts Member	Background Description
1	Assistant Professor of Athletic Training	ATEP director 3 years ATC 15 years Research Area: Athletic Training Clinical Education
2	Assistant Professor of Athletic Training	ATEP director 2 years Clinical Education Coordinator 7 years ATC 12 years Research Area: Athletic Training Clinical Education
3	Associate Dean and Director of Institutional Analysis	PhD in Sociology 25 years of experience
4	Assistant Professor of Sociology	Specialization in Quantitative Methods Interdisciplinary Specialization in Survey Research

APPENDIX E

INFORMED CONSENT

My name is Jessica Emlich and I am an instructor of Athletic Training at Franklin College of Indiana. I am in the process of completing my doctoral degree from The University of Southern Mississippi, in Hattiesburg. You are receiving this e-mail as a request to participate in my study.

This study is investigating attitudes towards clinical instructor feedback within NATA District 4 Great Lakes Athletic Trainers' Association (GLATA) athletic training education programs. Additionally, I am interested in comparing the attitudes towards feedback of Clinical Instructors/Approved Clinical Instructors and Athletic Training Education Program Directors/Clinical Coordinators. Given the importance of clinical education in preparing our future professionals, studies aimed to improve this experience will serve to further the growth of our profession and the quality of education. As a result, I am looking **for Program Directors, Clinical Coordinators, Approved Clinical Instructors and Clinical Instructors (on campus and off campus)** within GLATA to participate. This study is limited to members of GLATA, due to the limited amount of programs within our district- your responses are crucial.

All potential subjects are being contacted via e-mail and are being asked to participate in my study electronically by clicking on the link listed near the end of this e-mail. This completely anonymous survey should take approximately 10-12 minutes to complete. Upon submission neither your name nor any personal information will be attached to the results. This e-mail acts as your informed consent for your participation in this study. This study has been reviewed by the Human Subjects Protection Review Committee at The University of Southern Mississippi, which ensures that research projects involving human subjects follow federal regulations.

Your participation is vital to the success of this study.

To participate, please go to the following web address:

http://www.surveymonkey.com/s.aspx?sm=XC7hVDJmT76VfL6nwK0klA_3d_3d

Thank you, in advance for your time and assistance. If you have any questions regarding the nature of this study, please feel free to contact me.

Jessica Emlich

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Instructor of Athletic Training
Franklin College
101 Branigin Blvd
Franklin, IN 46131
317-738-8123
Fax 317-738-8248

APPENDIX F

PAFI RELIABILITY TESTS

Reliability Statistics

Cronbach's Alpha	N of Items
.840	36

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q13	143.4430	249.726	.356	.835
q15	143.0443	264.692	-.043	.848
q16	142.7089	273.571	-.252	.853
q17	142.9241	278.797	-.368	.857
q18	142.4620	256.989	.226	.839
q19	142.1076	259.154	.137	.841
q21	143.9684	242.324	.551	.830
q22	143.6835	240.982	.565	.829
q24	142.3861	252.442	.274	.838
q26	142.5380	254.454	.317	.837
q27	143.8038	250.910	.300	.837
q28	142.9430	253.213	.293	.837
q29	142.3481	260.241	.114	.841
q31	141.8481	258.130	.216	.839
q33	142.6392	257.340	.187	.840
q34	142.3544	256.511	.244	.838
q35	142.1962	252.541	.288	.837
q36	142.5823	250.423	.380	.835
q37	143.0823	243.974	.503	.831
q38	143.2278	245.566	.413	.834

q40	142.0443	253.176	.323	.836
q41	143.0316	241.509	.611	.828
q42	143.1266	240.608	.618	.828
q43	143.2975	237.828	.654	.826
q44	143.0759	240.351	.632	.828
q45	143.4684	238.658	.646	.827
q46	143.4241	235.889	.682	.825
q47	143.0823	238.535	.638	.827
q48	142.8165	245.093	.538	.831
q14rev	142.4367	254.655	.216	.839
q25rev	141.9241	252.325	.308	.837
q30rev	141.9747	257.541	.192	.839
q32rev	142.1392	259.293	.143	.840
q39rev	143.0316	242.986	.504	.831
q20rev	143.8861	246.866	.341	.836
q23rev	144.6203	257.078	.132	.842

APPENDIX G

FREQUENCIES OF AGE AND YEARS OF PROFESSIONAL EXPERIENCE

Program Director and Clinical Coordinators: Age

pdage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	26	2	1.1	3.4	3.4
	27	1	.6	1.7	5.2
	28	1	.6	1.7	6.9
	29	3	1.7	5.2	12.1
	30	2	1.1	3.4	15.5
	31	2	1.1	3.4	19.0
	32	1	.6	1.7	20.7
	33	5	2.8	8.6	29.3
	34	2	1.1	3.4	32.8
	36	4	2.2	6.9	39.7
	37	3	1.7	5.2	44.8
	38	1	.6	1.7	46.6
	39	2	1.1	3.4	50.0
	41	5	2.8	8.6	58.6
	42	4	2.2	6.9	65.5
	44	1	.6	1.7	67.2
	45	2	1.1	3.4	70.7
	46	2	1.1	3.4	74.1
	47	1	.6	1.7	75.9
	48	1	.6	1.7	77.6
	49	3	1.7	5.2	82.8
	50	4	2.2	6.9	89.7
	51	1	.6	1.7	91.4
	55	1	.6	1.7	93.1
	57	2	1.1	3.4	96.6
	59	2	1.1	3.4	100.0
	Total	58	32.0	100.0	
Missing	1	1	.6		
	System	122	67.4		
	Total	123	68.0		
Total		181	100.0		

Program Directors and Clinical Coordinators: Years of Professional Experience

pd_yrpro

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	2	1.1	3.4	3.4
	5	1	.6	1.7	5.1
	6	2	1.1	3.4	8.5
	8	4	2.2	6.8	15.3
	9	3	1.7	5.1	20.3
	10	4	2.2	6.8	27.1
	11	2	1.1	3.4	30.5
	12	6	3.3	10.2	40.7
	14	3	1.7	5.1	45.8
	15	1	.6	1.7	47.5
	16	2	1.1	3.4	50.8
	17	2	1.1	3.4	54.2
	18	2	1.1	3.4	57.6
	19	3	1.7	5.1	62.7
	20	4	2.2	6.8	69.5
	21	2	1.1	3.4	72.9
	22	3	1.7	5.1	78.0
	23	1	.6	1.7	79.7
	25	1	.6	1.7	81.4
	26	2	1.1	3.4	84.7
	27	2	1.1	3.4	88.1
	28	3	1.7	5.1	93.2
	29	1	.6	1.7	94.9
	33	2	1.1	3.4	98.3
	37	1	.6	1.7	100.0
	Total	59	32.6	100.0	
Missing	System	122	67.4		
Total		181	100.0		

Clinical Instructor's: Age

ciage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	22	1	.6	1.0	1.0
	23	4	2.2	4.0	5.1
	24	7	3.9	7.1	12.1
	25	8	4.4	8.1	20.2
	26	7	3.9	7.1	27.3
	27	6	3.3	6.1	33.3
	28	5	2.8	5.1	38.4
	29	6	3.3	6.1	44.4
	30	4	2.2	4.0	48.5
	31	6	3.3	6.1	54.5
	32	6	3.3	6.1	60.6
	33	3	1.7	3.0	63.6
	34	3	1.7	3.0	66.7
	35	2	1.1	2.0	68.7
	36	1	.6	1.0	69.7
	37	3	1.7	3.0	72.7
	38	2	1.1	2.0	74.7
	39	1	.6	1.0	75.8
	40	1	.6	1.0	76.8
	41	5	2.8	5.1	81.8
	42	4	2.2	4.0	85.9
	43	3	1.7	3.0	88.9
	44	3	1.7	3.0	91.9
	45	1	.6	1.0	92.9
	46	1	.6	1.0	93.9
	47	1	.6	1.0	94.9
	52	1	.6	1.0	96.0
	55	1	.6	1.0	97.0
	56	1	.6	1.0	98.0
	57	1	.6	1.0	99.0
	62	1	.6	1.0	100.0
	Total	99	54.7	100.0	
Missing	System	82	45.3		
Total		181	100.0		

Clinical Instructors: Years of Professional Experience

ci_yrpro

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	1.1	2.0	2.0
	1	8	4.4	8.1	10.1
	2	9	5.0	9.1	19.2
	3	10	5.5	10.1	29.3
	4	6	3.3	6.1	35.4
	5	4	2.2	4.0	39.4
	6	5	2.8	5.1	44.4
	7	3	1.7	3.0	47.5
	8	9	5.0	9.1	56.6
	9	5	2.8	5.1	61.6
	10	8	4.4	8.1	69.7
	11	1	.6	1.0	70.7
	12	2	1.1	2.0	72.7
	15	5	2.8	5.1	77.8
	16	2	1.1	2.0	79.8
	18	4	2.2	4.0	83.8
	19	3	1.7	3.0	86.9
	20	3	1.7	3.0	89.9
	21	2	1.1	2.0	91.9
	22	3	1.7	3.0	94.9
	24	1	.6	1.0	96.0
	25	1	.6	1.0	97.0
	27	1	.6	1.0	98.0
	28	1	.6	1.0	99.0
	34	1	.6	1.0	100.0
	Total	99	54.7	100.0	
Missing	System	82	45.3		
Total		181	100.0		

APPENDIX H

ANALYSIS OUTPUT FOR HYPOTHESIS TESTING

Hypothesis 1

Group Statistics

	role	N	Mean	Std. Deviation	Std. Error Mean
feedback	1	59	4.0513	.41461	.05398
	2	99	4.1007	.47371	.04761

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
feedback	Equal variances assumed	.321	.572	-.664	156	.508
	Equal variances not assumed			-.687	134.994	.494

Independent Samples Test

		t-test for Equality of Means			
				95% Confidence Interval of the Difference	
		Mean Difference	Std. Error Difference	Lower	Upper
feedback	Equal variances assumed	-.04941	.07445	-.19646	.09764
	Equal variances not assumed	-.04941	.07197	-.19175	.09293

Hypothesis 2

Group Statistics

	offcampus	N	Mean	Std. Deviation	Std. Error Mean
feedback	0	61	4.0642	.51208	.06557
	1	38	4.1594	.40423	.06557

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
feedback	Equal variances assumed	1.273	.262	-.972	97	.334
	Equal variances not assumed			-1.026	91.541	.308

Independent Samples Test

		t-test for Equality of Means			
				95% Confidence Interval of the Difference	
		Mean Difference	Std. Error Difference	Lower	Upper
feedback	Equal variances assumed	-.09515	.09793	-.28951	.09921
	Equal variances not assumed	-.09515	.09273	-.27933	.08903

Hypothesis 3

Correlations

		age	feedback
age	Pearson Correlation	1.000	.023
	Sig. (2-tailed)		.771
	N	157.000	157
feedback	Pearson Correlation	.023	1.000
	Sig. (2-tailed)	.771	
	N	157	158.000

Hypothesis 4

Correlations

		feedback	yrpro
feedback	Pearson Correlation	1.000	.067
	Sig. (2-tailed)		.404
	N	158.000	156
yrpro	Pearson Correlation	.067	1.000
	Sig. (2-tailed)	.404	
	N	156	156.000

Hypothesis 5

Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
feedback	1	83	4.0465	.43494	.04774
	2	75	4.1219	.46956	.05422

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
feedback	Equal variances assumed	.662	.417	-1.047	156	.297
	Equal variances not assumed			-1.043	151.204	.299

Independent Samples Test

		t-test for Equality of Means			
				95% Confidence Interval of the Difference	
		Mean Difference	Std. Error Difference	Lower	Upper
feedback	Equal variances assumed	-.07533	.07196	-.21748	.06681
	Equal variances not assumed	-.07533	.07224	-.21807	.06740

Hypothesis 6

Group Statistics

	random	N	Mean	Std. Deviation	Std. Error Mean
vign1	1	75	3.0000	.65760	.07593
	2	83	2.8072	.65253	.07162

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
vign1	Equal variances assumed	4.540	.035	1.847	156	.067
	Equal variances not assumed			1.847	154.143	.067

Independent Samples Test

		t-test for Equality of Means			
				95% Confidence Interval of the Difference	
		Mean Difference	Std. Error Difference	Lower	Upper
vign1	Equal variances assumed	.19277	.10434	-.01333	.39888
	Equal variances not assumed	.19277	.10438	-.01344	.39898

Hypothesis 7

Group Statistics

	random	N	Mean	Std. Deviation	Std. Error Mean
vign2	1	75	2.3600	.62903	.07263
	2	83	2.7952	.63934	.07018

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
vign2	Equal variances assumed	1.233	.269	-4.305	156	.000
	Equal variances not assumed			-4.309	154.860	.000

Independent Samples Test

		t-test for Equality of Means			
				95% Confidence Interval of the Difference	
		Mean Difference	Std. Error Difference	Lower	Upper
vign2	Equal variances assumed	-.43518	.10108	-.63484	-.23552
	Equal variances not assumed	-.43518	.10100	-.63469	-.23567

Hypothesis 8

Group Statistics

	random	N	Mean	Std. Deviation	Std. Error Mean
vign3	1	75	1.9600	.66658	.07697
	2	83	2.3855	.72971	.08010

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
vign3	Equal variances assumed	6.862	.010	-3.813	156	.000
	Equal variances not assumed			-3.831	155.979	.000

Independent Samples Test

		t-test for Equality of Means			
				95% Confidence Interval of the Difference	
		Mean Difference	Std. Error Difference	Lower	Upper
vign3	Equal variances assumed	-.42554	.11160	-.64598	-.20511
	Equal variances not assumed	-.42554	.11108	-.64497	-.20612

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