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Preceptors play a critical role in athletic training clinical education, but they lack training to be effective in this role. The One Minute Preceptor method (OMP) is a simple five-step clinical teaching tool that provides succinct guidelines for clinical educators. The purpose of this study was to determine the influence of an OMP method training on preceptor knowledge and use of the OMP skills. A one-group pre-post design was used with surveys assessing knowledge and use of the OMP skills completed pre-, post-, and 4 weeks following OMP training. Eleven certified athletic trainers completed the pre- and post-training surveys, and six completed the surveys at all three intervals. The OMP training consisted of watching a 20-minute narrated PowerPoint presentation that included three student-preceptor case examples using the OMP. Familiarity with the OMP method increased significantly between the pre- ($M = 1.18 \pm .405$) and post-training ($M = 3.0 \pm 1.138$) surveys, $t(10) = -4.822$, $p < .001$. Participants ($n = 6$) mean knowledge scores increased from of $6.33 \pm .82$ at pre-training to 7.33 ± 1.63 at post-training, which was a significant increase in knowledge, $t(5) = -2.739$, $p < .05$. Knowledge scores remained the same at the 4-week follow-up. There were no changes in the overall use of the OMP or in any OMP microskills; this could be due to high baseline scores. Future studies should assess use at multiple intervals over a longer period of time. Overall, participants rated the OMP training favorably. Seven participants rated the presentation as “Very Good” while two rated it as “Excellent” and the other two rated it as “Good”. All participants also “Agreed” or “Strongly Agreed” that they learned a lot about the OMP method and that they would be more likely to use it. Findings show that the OMP training was effective at improving knowledge of the OMP.

PREPARING PRECEPTORS TO BE CLINICAL EDUCATORS

by

Leah D. Wise

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Approved by

Dr. Diane L. Gill
Committee Chair

DEDICATION

This project is dedicated to my loving and supportive husband, Robby, without his constant encouragement I would not be where I am today. Also, in memory of my grandmother, Nancy Stoner, who taught me to never stop learning.

APPROVAL PAGE

This dissertation written by Leah D. Wise has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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CHAPTER I: PROJECT OVERVIEW

Clinical education is a central component of producing quality healthcare professionals (Fitzgerald et al., 2012; Weidner & Henning, 2002a). The goals of clinical education are to authenticate students' knowledge, interpret theoretical and applied knowledge, develop and refine skills, familiarize students with the workplace, and develop problem-solving and time management skills (Benes et al., 2014; Mannix et al., 2006). The success of the clinical education process depends on the preparation, development, training, and evaluation of quality preceptors, yet most preceptors do not feel adequately prepared for their role, particularly in the areas of teaching and evaluating (Lauber et al., 2003; Yonge et al., 2005). Providing preceptors with training in the areas they need not only helps improve their confidence and comfort in being a preceptor, but also ensures they provide high quality instruction and experiences to students. They need an effective approach that is easy to learn and implement, as they try to maintain high-quality patient care and keep up with demanding schedules. The One Minute Preceptor (OMP) method is a five-step clinical teaching tool that provides succinct guidelines for clinical educators and allows development of clinical reasoning (Gatewood & De Gagne, 2019). With the OMP method, preceptors can use their time more efficiently, have more effective student interactions, and improve their overall teaching behaviors (Furney et al., 2001). Through this project, preceptors will receive training in the OMP method so that they can create a constructive clinical education experience for both preceptor and students.

Background Literature

The following review starts with an overview of AT (athletic training) clinical education and the significant role of preceptors. The review continues with an explanation of the OMP method and discusses related research.

Clinical Education in Athletic Training

Clinical education is an essential part of AT curriculum (Fitzgerald et al., 2012; Lauber et al., 2003; Weidner & Henning, 2002b). AT curriculum development began in the 1950s and 1960s, however, it was not until the 1970s that clinical education formally began taking shape (Weidner & Henning, 2002b). In June 1990, the American Medical Association (AMA) formally recognized AT as an allied health profession, and following this in 1991, standards and guidelines were developed and approved by AMA Council on Medical Education for accreditation of Athletic Training Education Programs (ATEP) (Delforge & Behnke, 1999).

Clinical education is defined as the "practice of assisting a student to acquire the required knowledge, skills, and attitudes in practice settings to meet the standards as defined by a professional accrediting board" (Rose & Best, 2005), and is an experiential learning opportunity that facilitates the students' learning of cognitive, psychomotor, and affective domains fundamental to clinical practice (Lauber et al., 2003). Specifically, for AT, this includes applying knowledge and practicing skills on an actual patient base, while clinical abilities are evaluated and feedback is provided by a preceptor (*Implementation and Guide to the CAATE 2020 Professional Standards*, n.d.). According to the 2020 Standards for Accreditation of Professional Athletic Training Programs, clinical education is a broad umbrella term that includes three types of learning opportunities--AT clinical experiences, simulations, and supplemental clinical experiences--that prepare students for independent clinical practice (*Implementation and Guide to the CAATE 2020 Professional Standards*, n.d.). The goals of clinical education are to authenticate students' knowledge, improve students' skill development, and help students mature professionally (Benes et al., 2014; Mannix et al., 2006). Clinical education is able to bridge the gap between higher education and the workplace (Benes et al., 2014; Myrick & Yonge, 2001).

For a clinical education experience to be positive, it should be realistic and offer diverse experiences (Benes et al., 2014). Therefore, the role of the preceptor is paramount to make this experience meaningful to the AT student. Although students expect preceptors to have current clinical knowledge, expertise, and good clinical judgment, Walker and Grosjean (2010) found students ranked preceptors' clinical knowledge and experience as less important than their knowledge of the precepting process. Allen (2002) found that students believed that preceptors would have had some form of training and many were dismayed to find this was often not the case. A positive and realistic clinical educational experience will help the AT student develop a positive view of the profession, so that they become committed, passionate professionals.

The primary influencer of the clinical education experience is the preceptor; therefore, it is vital for the preceptor to be equipped to fulfill this significant role. In addition, as the demands of healthcare continue to grow, preceptor preparedness becomes increasingly important (Bagioni et al., 2020; Coates & Gormley, 1997; McCarty & Higgins, 2003). The most critical factors in the success of the clinical education process is the preparation, development, training, and evaluation of quality preceptors (Lauber et al., 2003; Yonge et al., 2005). Unfortunately, most preceptors do not believe they are adequately prepared for their role, particularly in the areas of teaching and evaluating (Allen, 2002; Bagioni et al., 2020; Coates & Gormley, 1997; Lauber et al., 2003; McCarty & Higgins, 2003; Yonge et al., 2005). Many preceptors do not have formal training in education or teaching; consequently, they may be ill-prepared to be an effective preceptor. In a study of dietetic preceptors, 58% of preceptors reported they received no training for their role as preceptor, 32% reported they received informal training, and only 10% reported they received formal training (Marincic & Francfort, 2002). Therefore, preceptors rely on their experience when it comes to teaching and evaluating, which may not be effective in developing

important skills (e.g., critical thinking and clinical decision making) needed to be a competent practitioner. An effective preceptor should be able to provide a learning experience that assists students in meeting the required competencies outlined by a professional accrediting agency (Sarcona et al., 2015). A quality clinical education experience relies heavily on the preceptor and their abilities. With the degree elevation, CAATE made several substantial changes to accreditation requirements. One of which is the inclusion of periods of full-time clinical engagement. With the increased requirement in clinical education, preparing preceptors is of more importance now than ever before.

Preceptors

Preceptors play an integral role in AT education as they serve as mentors to AT students during their clinical education experience. For the purposes of this review, a preceptor will be defined as a licensed healthcare professional who supervises, instructs, evaluates, and mentors students (*Implementation and Guide to the CAATE 2020 Professional Standards*, n.d.). Because AT students will be spending more time in clinical education with the AT education degree change, it is crucial to develop strategies to prepare preceptors for such an influential role. The role of a preceptor can be both challenging and rewarding (Dodge & Mazerolle, 2015). It is important for preceptors to exhibit signs they enjoy teaching and are excited to share their knowledge and skills (Walker & Grosjean, 2010), all while engaging students in learning (Huggett et al., 2008). Acquiring the knowledge and mastering the skills necessary to be an effective preceptor does not just happen. Preceptors need training to develop these skills (Kertis, 2007). In a study on AT preceptors' perceived learning needs, the area of teaching and learning in the clinical setting, specifically developing students' critical thinking skills and teaching clinical decision making, was identified as most helpful (Hankemeier et al., 2017).

Preceptors should be introduced to strategies to promote critical thinking skills, including clinical decision making along with methods to evaluate and deliver feedback (Kertis, 2007). These teaching strategies must be clearly focused on teaching in a practice setting, which is distinct from the principles of teaching and learning in a formal classroom setting (McCarty & Higgins, 2003). Through skill demonstration and instruction, providing scenarios, and discussing patient cases, the preceptor is able to not only reinforce didactic education, but also teach students new clinical skills, strategies, and concepts (Nottingham & Kasamatsu, 2018). Critical thinking can be a difficult skill for preceptors to help the student develop. However, through real-life situations or in preceptor-led scenarios, the AT student can connect what they learn in the classroom and apply it in the clinical setting; thus developing their critical thinking skills. By using critical thinking skills, AT students relate and retain information better (Burningham et al., 2010). Nottingham & Kasamatsu (2018) found students place a high value on active instruction and critical thinking opportunities and often desired more of these.

The load preceptors carry is high, as they maintain high quality patient care, keep up with demanding schedules, and teach students (Hankemeier et al., 2017); even if they are adequately prepared it can be difficult for them to meet the student's learning needs (Yonge et al., 2005). They do not have hours to spend in workshops training them to be better clinical teachers, nor do they have time in the clinical setting to spend long, uninterrupted sessions teaching students clinical skills (Nottingham, 2015). They need an effective but easy-to-learn tool that is practical to implement, such as the OMP method.

The One-Minute Preceptor (OMP) Method

AT programs must have a plan for ongoing preceptor training (*Implementation and Guide to the CAATE 2020 Professional Standards*, n.d.) because the quality of clinical instruction the

AT student receives in the clinical setting is an essential component of their development (Lauber et al., 2003). The 2020 Standards-for-Professional-Programs set by the Commission on Accreditation of Athletic Training Education states preceptor education must be designed to promote an effective learning environment and may vary based on the educational expectations of the experience (*Implementation and Guide to the CAATE 2020 Professional Standards*, n.d.).

The OMP method is a widely used and successful teaching program developed in 1992 by a group of family physicians at the University of Washington. The goal was to provide preceptors with a teaching tool they could use to teach a general principle in five minutes or less (Furney et al., 2001; Neher et al., 1992; Neher & Stevens, 2003). The aim of the OMP is to improve teaching effectiveness and efficiency (Neher et al., 1992). The OMP focuses on a few relatively simple teaching behaviors that can be easily performed (Neher et al., 1992), while including important components of adult learning theory, such as knowledge assessment, clinical reasoning and feedback (Puri, 2020). The OMP is comprised of five microskills: (1) get a commitment; (2) probe for supporting evidence; (3) teach general rules; (4) reinforce what was done well; and (5) correct errors. The five microskills were garnered from the Koen & Vivian (1980) study that identified five major modes and 18 microskills found to be effective in clinical teaching. The five microskills included in the OMP were chosen to focus the student-preceptor encounter on the decision-making process used by the student (Neher et al., 1992). The sequence of the microskills is designed to maximize the benefits of the teaching encounter, even if it got interrupted (Neher et al., 1992). The OMP teaches preceptors a different way to question students, focusing on their thought process more than specific content knowledge, which helps develop critical thinking (Furney et al., 2001; Neher et al., 1992). By using the OMP method,

preceptors can use their time more efficiently, have more effective student interactions, and improve their overall teaching behaviors (Furney et al., 2001).

The first step is get a commitment. This is a prompt for preceptors to encourage students to make a commitment to what is going on with a patient based on their interaction. This makes students process information from their knowledge base. The commitment could be related to a diagnosis, a treatment plan, or similar. For example, the preceptor could ask, "what do you think is the most likely diagnosis?" Prompts from the preceptor will depend on the situation, but require the learner to assess the clinical situation (Gatewood & De Gagne, 2019). By making a commitment, the student becomes involved in the patient's care, giving them a sense of responsibility. If a student is hesitant to make a commitment, it could mean they have not processed the information they have received from a patient interaction, they are afraid of showing a weakness, or depend on others' thinking (Neher et al., 1992). Preceptors should encourage commitments from students and explain that an incorrect commitment is better than no commitment at all.

The second step is probe for supporting evidence, which begins the reflection process. This step allows the preceptor to get an idea of how the student came to their assessment, while gaining insight on what the student does and does not know. Good questions for the preceptor to ask during this phase would be, "what evidence supports your commitment?", "what other choices did you consider?", and "what evidence supports or refutes these alternatives?". The student's response allows the preceptor to evaluate the student's clinical reasoning (Gatewood & De Gagne, 2019). The point of these questions is not to "grill" the student but to make them think out loud, which gives the preceptor a way to identify teaching points and modify their instruction to the student's existing level of understanding (Gatewood & De Gagne, 2019).

The third step is to teach a general rule. When information is given as a general rule, it is more memorable and more transferable to other situations (Neher et al., 1992). This is the time when preceptors can share their expertise. The information from the student during the first two microskills should reveal any teaching points for the preceptor, such as missed connections or knowledge gaps. Information shared by the preceptor should be succinct, so it is easily processed by the student. If the student has performed well, this step can be skipped.

The last two steps relate to feedback. The OMP method should be used in a supportive manner, and if a mistake is made, the preceptor should use it as a teaching opportunity. It is important to remember that feedback, whether positive or constructive, "should be timely, selective, behavior-related, specific, and provide the rationale for the corrective reasoning" (Ende, 1983; Hewson & Little, 1998). This helps reinforce to the student what they did well and should continue doing, as well as what they could have done better and need to improve on.

The fourth step is reinforce what was done well. This is an opportunity for the preceptor to provide positive feedback. Statements like, "Your question on mechanism of injury was especially helpful in arriving at the diagnosis," helps build the student's professional self-esteem. Preceptor can actively involve the student in the evaluation, which allows for reflection to incorporate new learning into practice (Kaufamm, 2003).

The fifth and last step is to correct errors. Although correcting mistakes is important, it is only a part of the teaching encounter. Preceptors should be mindful of the time and place when correcting mistakes to make sure not to embarrass the student. It can also be beneficial to present the mistake as "not the best" rather than "bad" (Neher et al., 1992). The preceptor can also ask the student to critique their own work. This can provide an opportunity for active learning. When correcting mistakes, current knowledge can be built upon while encouraging the student to seek

out additional learning opportunities (Kaufamm, 2003). Lastly, when talking about mistakes, it is important to focus on how to correct the mistake and avoid it in the future.

The OMP method is relatively easy to learn and can then be immediately put into practice (Neher et al., 1992). In a critical review of residents as teachers to medical students, Post (2009) found that the OMP is one of the most frequently used techniques in “Resident as Teacher” curricula across the country. It has also been shown to improve student ratings of residents (Furney et al., 2001). Puri (2020) reported that residents who completed a 30-minute workshop on the OMP recommended the workshop to their peers and indicate that they are “likely” or “very likely” to use the OMP to teach medical students and other residents. According to Neher et al. (1992), workshop evaluations have been positive in respect to relevance and applicability to clinical teaching. In Neher et al.’s (1992) study all respondents believed that the OMP was at least "somewhat helpful," while 58% thought that it was "extremely helpful" to them as clinical teachers. Also, 90% of respondents reported using material learned from the five-step microskills model in 90% of their teaching encounters (Neher et al., 1992).

Clinical education is a key component of producing quality healthcare professionals (Dodge & Mazerolle, 2015; Fitzgerald et al., 2012) and preceptors have been identified as some of the most influential individuals in an AT student’s academic preparation (Laurent & Weidner, 2001; Weidner & Henning, 2002a). The OMP is a simple five step clinical teaching tool that provides succinct guidelines for clinical educators and allows development of clinical reasoning (Gatewood & De Gagne, 2019).

Purpose & Specific Aims

Clinical education is an integral part of the AT student becoming a healthcare professional. Despite the importance of the clinical education experience, preceptors continue to

be ill-prepared for this role. Given the importance of clinical education and that preceptors are the primary facilitators of the clinical education experience, it is of the utmost importance that the preceptor is prepared to fill this role. The OMP method can be a beneficial teaching tool for preceptors.

The purpose of this study was to determine the influence of an OMP method training on preceptor knowledge and use of the OMP skills.

Specific Aim #1: Determine the influence of the training on preceptor knowledge of OMP method skills.

Specific Aim #2: Determine the influence of the training on preceptor self-reported use of OMP method skills.

Specific Aim #3: Evaluate the OMP training based on participant feedback.

Methods

A one-group pre-post design was used in this study. Data were collected using pre-, post-, and follow-up training surveys. The pre-training survey collected demographic information and assessed current knowledge and use of the OMP method. The post-training survey included the same OMP knowledge and use assessment, as well as participants' evaluation of the training. The four-week follow-up survey included the same OMP knowledge and use assessment questions. All surveys were distributed electronically via Qualtrics version 2023. Qualtrics is an online survey tool that allows for building surveys, distributing surveys, and analyzing responses.

Participants

Once recruited, all participants provided informed consent. The participants in this study were certified/licensed athletic trainers in good standing and either serve or have served as

preceptors for AT education programs. A total of 23 certified/licensed athletic trainers were recruited and completed the pre-training survey. Following the OMP training, 11 certified/licensed athletic trainers completed the post-training survey. The majority of participants were female, and all participants identified as White. Most hold a master's degree, work in the secondary school practice setting, and have been credentialed as well as served as a preceptor for 10+ years. Six certified/licensed athletic trainers completed the 4-week follow-up survey. Complete demographic information can be found in Table 1.

Table 1. Participant Demographic Information

Demographic Factor	Criteria	Pre-training Survey (n = 23) n	Post-training Survey (n = 11) n	4-week follow-up Survey (n = 6) n
Age	20-29	9	3	2
	30-39	5	3	3
	40-49	4	3	n/a
	50+	5	2	2
Gender Identity	Male	6	3	2
	Female	17	8	4
Race/Ethnicity	White	23	11	6
Years Credentialed	1-3 years	1	1	1
	4-6 years	8	2	1
	7-9 years	1	1	1
	10+ years	13	7	3
Years Served as a Preceptor	1-3 years	5	3	2
	4-6 years	6	2	2
	7-9 years	4	1	n/a
	10+ years	8	5	2
Highest Degree Earned	Bachelor's	5	2	2
	Master's	18	9	4
Primary Practice Setting	Secondary School	14	8	3
	College/University	6	3	3
	Clinic/Hospital	2	n/a	n/a
	Other	1 (PhD student)	n/a	n/a

Measures

The pre-training survey included participants' demographic information and assessed participants' knowledge and use of the OMP method. Level of education, years credentialed, years served as a preceptor, and clinical practice setting were also included. Following the training, participants (n=11) completed an immediate post-training survey that included the same questions assessing knowledge and current use of the OMP skills, and questions evaluating the training, along with their suggestions for improvement. Four weeks after the training, participants were sent a follow-up survey with the same OMP knowledge and use questions.

The *OMP knowledge assessment,* developed for this study, included 10 multiple choice/ true false questions, and was scored as number correct responses out of 10. A mini pilot of these questions was done with two athletic trainers who have served as preceptors and as clinical education coordinators. This was done to gather feedback on clarity of the questions. Participants agreed questions were clear and no changes were made. Specific questions can be found in Appendix A.

Use of the OMP skills was assessed through a 13-item questionnaire (Appendix A) adapted from Furney et al. (2001), which was derived from a previously validated instrument (Litzelman et al., 1998). Three questions were modified to fit the context of the AT clinical education experience. Specifically, "medical facts" was replaced with "athletic training facts," "organization of clinical education experience" replaced "organization of work rounds," and "work rounds" was replaced with "student-preceptor interactions." Nine questions assessed the five microskills and were rated on a standard Likert scale from strongly disagree (1) to strongly agree (5). Two questions assessed the "get a commitment" skill, two evaluated the "probe for supporting evidence" skill, one looked at the "teach a general rule" skill, and four assessed

"giving feedback". Three questions assessed the overall clinical education experience and were rated on a standard Likert scale from very poor (1) to excellent (5). One final question was added to determine how familiar the preceptor was with the OMP method and was rated on a standard Likert scale of not at all familiar (1) to extremely familiar (5).

The *OMP training evaluation* (Appendix A) included 11 questions: one overall rating, two questions rating the presenter, two ratings on overall knowledge imparted, one question about each section (lecture and case examples) of the training, and four open-ended questions about the strengths and weaknesses of the training program. The overall rating question was rated on a 5-point scale of very poor (1) to excellent (5). The other six questions were rated on a 5-point scale of strongly disagree (1) to strongly agree (5). The full survey can be found in Appendix A.

Procedures

Institutional Review Board (IRB) approval was obtained prior to the start of the study. Recruitment was done via email with the assistance of MSAT program directors and/or clinical education coordinators, along with colleagues within athletic training. Recruitment emails (Appendix B) directed participants to a Google form to fill out if they were interested in participating in the OMP training. The primary investigator (PI) developed the OMP training based on the previous literature. The training was piloted with other athletic trainers who have been preceptors, or are currently preceptors for other colleges/universities, and revised based on comments and suggestions from the pilot work. All surveys were administered through Qualtrics Version 2023 and sent to participants via email.

The OMP training was initially done in a synchronous virtual format via Zoom. To increase participation, three different training sessions were offered on different days and at

different times. Unfortunately, due to low participation, only one training session was warranted. The primary investigator was the facilitator for the intervention training. In total, the training took about 60 minutes, and was separated into three sections. First, the OMP method was taught in a 20-minute PowerPoint presentation, followed by a 25-minute role-play session, where participants practiced the OMP method using one-sided scripted examples (Appendix C). The training concluded with a discussion/question and answer session.

For the role-play section, there were three roles, the "preceptor", the "student", and the "observer(s)". The person playing the "preceptor" listened to the "student" present the given scripted case and then used the five microskills to find and deliver a brief teaching point. The role of the "observer" was to guide the discussion after the role-play and was given a discussion guide. The "observer" recorded and reported on the major points that highlighted what happened in the role-play, with a focus on what the "preceptor" did and how it worked for them. The discussion focused on the questions the "preceptor" asked and the kind of responses that were received. The "observer" was responsible for generating a few comments about the role-play but did not comment on how or what they would have done until the end during the discussion. The role-play between the "student" and "preceptor" using the OMP skills took approximately two minutes (after the case presentation). The group debriefed for approximately 5-7 minutes after the role-play. Participants then switched roles for each of the case examples, getting to play the "preceptor" and the "student".

After the training, participants were sent an email instructing them to fill out the immediate post-training survey. Participants were asked to complete this before leaving the Zoom meeting.

Because participation was low initially, the OMP training was changed to an asynchronous virtual format. By moving to an asynchronous format, the scheduling and time barriers were decreased, and the participant could do the training on their own time. The primary investigator narrated the intervention training. The training was about 20 minutes and consisted of the same PowerPoint presentation as the synchronous training but instead of a role-play section, three case examples (Appendix C) of the OMP were added. After the training, participants were directed to the post-training survey.

The PowerPoint presentation consisted of a brief bio of the PI, the history of the OMP method, a description of the five microskills: (1) get a commitment; (2) probe for supporting evidence; (3) teach general rules; (4) reinforce what was done well; and (5) correct errors, as well as implementation strategies, such as questions to ask and how to respond to the student. Further details of the OMP training can be found in Appendix D.

Those who participated in the synchronous OMP training were sent a follow-up survey six weeks later. Those who participated in the asynchronous training received their follow-up survey four weeks after the training. Both sets of participants were emailed the follow-up survey, which included the same OMP knowledge and use questions. Reminder emails were sent twice a week, for two weeks or until all participants completed the follow-up survey.

Analysis

Data were analyzed using IBM SPSS Statistics for Windows, version 28. Open-ended responses were reviewed, and common responses were identified. Descriptive statistics (mean, standard deviations, and frequencies) were calculated on all rating items. Paired *t*-tests were used to determine if there were any differences in knowledge before and after the OMP training and 4-

weeks after the completion of the post-training survey. The same assessment was done for the self-reported use of the OMP skills by preceptors.

Results

Familiarity with the OMP method increased significantly between the pre- (M = 1.18 ± .405) and post-training (M = 3.0 ± 1.138) surveys, t (10) = -4.822, p < .001. Results for knowledge of the OMP at the pre-training, post-training and 4-week follow-up is presented first, followed by the self-reported use of the OMP at the same intervals. Then the results of participants' evaluation of the OMP training are reported.

Knowledge of the OMP

The participants who completed the pre- and post-training knowledge survey (n=11) had a pre-training knowledge test mean score of 6.09 ± .701, which is equivalent to 60.9%. Following the OMP training, the mean score increased significantly, t (10) = -3.20, $p < .01$, to 7.55 ± 1.63 or 75.5%. For the six participants that completed the pre-, post- and follow-up survey there was a significant increase, t (5) = -2.739, $p < .05$, in knowledge scores from pre- (M = 6.33 ± .817) to post- training (M = 7.33 ± 1.63), and they stayed the same at the follow-up.

Use of the OMP

There were no significant differences in any of the use of OMP items between the pre- and post-training survey, between the pre- and 4-week follow-up, or the post-training and 4-week follow-up. Use scores were relatively high, even at the pre-training. Several scores dropped at the post-training which could be indicative of more accurate score given participants had a better understanding of the OMP. All scores did increase from post- to the 4- week follow-up, although not significantly. When looking at effect size, for efficiency of student-preceptor interactions a medium effect size was seen, with a Cohen's d of .515. A large effect size

(Cohen's d = .087) was seen in giving feedback frequently. See Table 2 for full results for the six participants that completed surveys at all three intervals.

Table 2. Changes in self-reported use of the OMP microskills in 6 participants

Microskill	Item	Pre	Post	Follow-Up
Commit	Ask for a diagnosis	3.50	3.50	4.33
Commit	Involve in the decision-making	3.67	3.83	4.50
Probe	Asked for the reasoning	4.00	3.67	4.67
Probe	Evaluate knowledge	3.83	3.67	4.67
Rules	Teach general rules or "pearls"	3.83	4.00	4.83
Feedback	Give positive feedback	3.83	3.50	4.67
Feedback	Explain why the student was correct or incorrect	3.67	3.33	4.33
Feedback	Offer suggestions for improvement	3.67	3.5	4.83
Feedback	Give feedback frequently	3.5	3.5	4.5
Overall	Organization of clinical education experience	4.17	3.67	4.17
Overall	Efficiency of student-preceptor interactions	3.83	4.00	4.33
Overall	Overall teaching effectiveness	3.83	3.67	4.17

Using a scale of 1 = Strongly disagree to 5 = Strongly Agree

OMP Training Evaluation

When asked to rate the OMP training overall the majority of participants who completed the post-training survey (n=11) rated the presentation as "Very Good" (n=7), while two rated it as "Excellent", and the remaining two rated it as "Good". Regarding the presenter, most participants (n=8) strongly agreed that the presenter was knowledgeable on the OMP method.

Nearly all participants either agreed (n=4) or strongly agreed (n=6) that the presenter was effective in delivering the information. All the participants who completed the post-training survey stated they "Agreed" (n=6) or "Strongly Agreed" (n=5) that they learned a lot about the OMP method from the presentation. All participants reported they would be more likely to use the OMP method when teaching students following the training. Most participants (n=8) strongly agreed that the lecture portion of the training increased their knowledge of the OMP. When asked if the case examples increased their understanding of the how to use the OMP all participants either agreed (n=5) or strongly agreed (n=6). See Table 3 for full evaluation rating results.

When asked what the strongest or best part of the program was, five participants stated the scenario examples as being the most helpful, and that these helped them see how to apply the information. Other comments about strengths had to do with the lecture portion. Participants stated the lecture was helpful, provided simple and easy to understand explanations of the parts of the OMP, and was information they can utilize daily with students.

When asked what the weakest part of the program was, one participant thought it would be helpful to have a checklist when learning how to use the OMP. Another thought the lecture was too brief, and one did not think the scenarios were helpful.

When asked to provide suggestions to improve the program, participants suggested going deeper into the OMP method and its effectiveness, as well as making the training interactive and having handouts. Other comments about the program included that they found the training useful and informative, that they enjoyed the training, and it made them reflect on how they interact with their students.

Table 3. Frequency Rating of the OMP Training

	Good n = 11	Very Good n = 11	Excellent n = 11
How would you rate this OMP training program overall?	2	7	2
	Somewhat Agree	Agree	Strongly Agree
The speaker was knowledgeable on the OMP method.	0	3	8
The speaker was effective in delivering information.	1	4	6
I learned a lot about the OMP method from this presentation.	0	6	5
Following this presentation, I am MORE likely to use the OMP method when teaching students.	0	6	5
The lecture portion of the training increased my knowledge of the OMP.	1	2	8
The OMP case examples increased my understanding of how to use the OMP.	0	5	6

In addition, two participants completed the synchronous OMP training. One of these participants completed only the post-training survey. The other one completed the surveys at all three intervals. This participant had knowledge scores of 6, 9, and 9 at the pre, post-, and 4-week follow-up intervals, respectively. Like those who participated in the asynchronous group, this participant's use score remained stable throughout, and their rating of familiarity with the OMP went from not familiar to moderately familiar following the OMP training.

Both the participants that completed the synchronous OMP training rated the training favorably, rating the OMP training overall as very good and excellent. All other rating questions were rated either agree or strongly agree. Overall, these results and trends were much the same as those from the asynchronous OMP training group.

Discussion

The purpose of this study was to determine the influence of a OMP method training on preceptor knowledge and use of the OMP microskills. The results revealed OMP training was effective at increasing preceptor knowledge of the OMP. Although, a significant increase in self-reported use of the OMP skills was not seen, use scores where relatively high at the pre-training survey and all use scores increased from post- to follow-up surveys.

The lack of significant increase in use of the OMP can in part can be explained by the high initial self-reported use scores. Participants may have over reported use before the OMP training due to a lack of knowledge of the components of the OMP. Following the training knowledge of the OMP clearly increased therefore post-training use scores may be more accurate. Also, all use scores increased from post- to follow-up, although not significantly. Efficiency of student-preceptor interactions showed medium effect size, and a large effect size was seen in giving feedback frequently. The increase in efficiency of student-preceptor interactions is promising, as this is one of the overall benefits of using the OMP. The short follow-up window and small sample size should also be considered when evaluating whether use was impacted be the training.

The positive ratings of the OMP training are indicative of the training being well-received. Participants noted that the speaker was knowledgeable and effective at delivering information regarding the OMP method. Plus, participants stated that they learned a lot about the OMP method and that they were more likely to use the OMP method when teaching students following the training. This information suggests that the OMP training would be a useful tool for AT education programs to include as part of their mandatory preceptor training or a continuing education course or workshop. Based on suggestions from participants, future OMP

trainings could go into more detail, have an interactive component, and involve handouts with key principles.

Conclusion

Limitations to this study included, changing the OMP training format, the short follow-up window, and small sample size. The OMP training significantly improved preceptor knowledge of the OMP method and was favorably rated by participants. Participants reported they learned a lot and were more likely to use the OMP method during student-preceptor interactions. Participants reported high use of the OMP skills throughout the study, but use was the highest at the follow-up. Overall, the OMP training was effective and received positive ratings.

CHAPTER II: DISSEMINATION

For immediate dissemination, the PI's focus will be to present the findings as part of the Model Practice Showcase at the 2023 Athletic Training Educators' Conference (ATEC), which typically occurs in the fall. The Model Practice Showcase is intended to share innovative and model practices from all aspects of athletic training education in a short and focused format. Participants in the showcase present short, focused presentations that are no more than 5-7 minutes in length. Presenting at the ATEC is important because the primary attendees are AT educators. These key stakeholders in the educational development of the students not only have a vested interest in whether the preceptors they are trusting to provide high-quality clinical education to their students are prepared to meet the expectations but also have a professional obligation via CAATE to train the preceptors with their program.

Presentation Script

The below script will be used to present the findings and implications. The slides can be found in Appendix E.

Slide1 Preparing Preceptor to be Clinical Educators

Hello everyone, thank you for taking the time to be here. I'm Leah Wise and I will be talking about the study I conducted on Preparing Preceptors to be Clinical Educators. The goal of my presentation today is to not only provide you with evidence that supports you using the One Minute Preceptor Method as a tool to prepare your preceptors but also how you can use and implement the OMP. I'm going to give you a brief overview of my study, talk about what the One Minute Preceptor is, and the results and implications of my study.

Slide 2 Introduction

So, we all know that preceptors play a critical role in AT students' development. In fact, the most critical factors in the success of the clinical education experience start with the preparation, development, training, and evaluation of quality preceptors (Lauber et al., 2003; Yonge et al., 2005). However, most preceptors do not believe they are adequately prepared for their role, as many do not have formal training in education or teaching (Bagioni et al., 2020; Lauber et al., 2003; Yonge et al., 2005). I want you to take a moment to think about yourself serving as a preceptor, and how you taught in the clinical setting, were you ever trained in any strategies to be effective? A quality clinical education experience relies heavily on the preceptor and their abilities. AT students will be spending more time (National Athletic Trainers' Association Board of Directors, 2013) in the clinical education setting given the recent degree elevation, and there is a critical need to develop strategies to prepare preceptors for such an influential role.

I chose the One Minute Preceptor also referred to as the OMP method because of its proven effectiveness, it's easy to learn, and can be immediately put into practice (Neher et al., 1992). By using the OMP, preceptors can use their time more efficiently, have more effective student interactions, and improve their overall teaching behaviors (Furney et al., 2001).
The One Minute Preceptor method was developed in 1992 by a group of family physicians. The goal was to provide preceptors with a teaching tool they could use to teach a general principle in five minutes or less (Neher et al., 1992). And the aim was to improve teaching efficacy and efficiency (Neher et al., 1992).

Slide 3 OMP

In case you are unfamiliar with the One Minute Preceptor Method, I want to give you a quick overview. There are five microskills that make up the OMP (1) get a commitment; (2) probe for supporting evidence; (3) teach general rules; (4) reinforce what was done well; and (5) correct errors. The first 2 step can be thought of as diagnosing the learner and take about half of the interaction. The other 3 steps are about teaching the learner. Let's take a minute to listen to how this might sound during a preceptor: student interaction [play audio recording of OMP example].

Slide 4 Purpose & Aims

That brings me to the purpose of my study, which was to determine the influence of the One Minute Preceptor training, that I developed, on preceptor knowledge and use of the OMP skills.

Slide 5 Methods & Participants

For my study, I used a one group pre-post design to gather data. The OMP training was done in an asynchronous virtual format. The training was 20 minutes and consisted of a narrated PowerPoint presentation and three student- preceptor interaction case examples, to demonstrate how to put the OMP into practice. I assessed knowledge and use of the OMP before, after and 4-weeks following the training. Participants were asked to give feedback following the training. Participants were certified/licensed athletic trainers in good standing that either serve or have served as a preceptor for a MSAT programs.

Slide 6 Results

What I found was knowledge of the OMP was low prior to the training, which I expected. Following the OMP training, knowledge score increased significantly and then remained the

same at the 4-week follow-up. The fact that follow-up scores remained the same shows that the participant retained the knowledge for at least that month.

As for use, self-reported use scores were high initially. Participants may have over reported use before the OMP training due to a lack of knowledge of the components of the OMP. As I mentioned before knowledge of the OMP clearly increased therefore post-training use scores may be more accurate and this could explain the mixed changes in use score from pre-to post-training. All use scores did increase from post- to follow-up. Efficiency of student-preceptor interactions showed medium effect size, which is promising, as this is one of the overall benefits of using the OMP.

Slide 7 OMP Training Evaluation

Let's take a minute to look at what participants had to say about the OMP training. When asked what the strongest or best part of the program was, the scenario examples were frequently mentioned as being the most helpful, and that these helped them see how to apply the information. Participants also appreciated the lecture portion and stated it was helpful, provided simple and easy to understand explanations of the parts of the OMP, and was information they could utilize daily with students. Some suggestions to improve the program, included going deeper into the OMP method and its effectiveness, as well as making the training interactive and having handouts. Other comments about the program included that they found the training useful and informative, that they enjoyed the training, and it made them reflect on how they interact with their students.

I wanted to share these comments with you as I think it shows that preceptors are receptive to being taught tools that will help them be better preceptors.

Slide 8 Conclusion

To wrap things up these findings are beneficial because it is helpful to know, that even a brief 20-minute training in the OMP method can increase preceptor knowledge of the OMP and that they appear to retain the knowledge. It is also promising that all participants said they were more likely to use the OMP and use scores showed this as well. The overwhelming positive ratings of the OMP training are encouraging and indicative of the training being well received by participants.

Slide 9 Impact

So, what does that mean for you? The findings suggest that including training in the OMP method would be advantageous for AT education programs to incorporate into their mandatory preceptor training. My study shows the even a brief 20-minute training improved their knowledge of the OMP, that they retained the information and that they thought the OMP method was beneficial to their clinical teaching and they would put it into practice. Since you as athletic training educators interact with preceptors regularly incorporating some sort of OMP training into your preceptor education has the potential for the biggest impact. Another avenue for introducing the OMP to preceptors is to have it offered as a continuing education course or workshop, whether in person or virtually but this would require the preceptor to seek out the information on their own.

Slide 10 &11 Thank you & Questions, References

Again, thank you for your time. I hope you found this information useful, and I am happy to answer any questions you might have.

CHAPTER III: ACTION PLAN

In addition to presenting this work at the Model Practice Showcase at the 2023 ATEC, additional steps will be taken to share the findings as well as improve the OMP training. The same presentation will be shared with program directors and/or clinical coordinators of MSAT programs in North Carolina and surrounding areas. It is important to distribute this information more directly to MSAT programs because not all will attend the ATEC or be able to attend all session even if they attend the ATEC.

The OMP training will also be critically evaluated and improved upon based on participant feedback. This is essential so the OMP training can be a prominent preceptor development tool. Based on participant feedback aspects of the training that should remain are the combination of lecture and scenarios. Participants appreciated the lecture because it provided a simple and easy to understand explanation of the OMP and was information they could use daily with students. While the scenarios helped them see how to apply the OMP. Things to change about the training are providing a handout with key principles to participants and expanding the lecture to go further in-depth into the OMP method and its effectiveness. The other big thing participants wanted was for the training to be interactive so they could practice the OMP. This could be accomplished by doing an asynchronous learning module and then an interactive role play section.

The OMP training could be used by MSAT programs as part of their annual preceptor training, as a NATA Learning Lab, as well as an ATEC Breakout Session. Depending on the setting the OMP training could take on different forms. If being used by a MSAT program the OMP training could be an interactive asynchronous module that is in the institutions learning management software like Canvas, Blackboard or Google Classroom. Whereas, if the OMP

training was being offered as a Learning Lab at NATA or as an ATEC Breakout Session the training would likely be a synchronous training the included a lecture portion and then an interactive role play session.

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APPENDIX A: ASSESSMENT TOOLS

Demographic Survey

Pre- only

The following section is designed to gather demographic information. Please answer the following questions to the best of your ability.

1. Age:
    a. 20-29
    b. 30-39
    c. 40-49
    d. 50+
2. What is your gender identity?
    a. Female
    b. Male
    c. Other: _____
    d. Prefer Not to Answer
3. Race/Ethnicity: (check all that apply)
    a. White
    b. Black or African American
    c. Hispanic, Latino, or Spanish
    d. Asian
    e. Native Hawaiian or Pacific Islander
    f. American Indian or Alaska Native
    g. Other: _____
    h. Prefer Not to Answer
5. Years credentialed as an athletic trainer (to the nearest year, including the current year as a full year):
    a. 1-3 years
    b. 4-6 years
    c. 7-9 years
    d. 10+ years
6. Years served as a preceptor/approved clinical instructor (to the nearest year, including the current year as a full year):
    a. 1-3 years
    b. 4-6 years
    c. 7-9 years
    d. 10+ years
7. Highest level of education completed:

a. Bachelor's degree
b. Master's degree
c. Clinical doctorate (e.g., DAT)
d. Academic doctorate (e.g., PhD, EdD)
e. Other: _____

8. Current primary practice setting:
    a. Secondary School
    b. College/University
    c. Clinic/Hospital
    d. Professional Sports
    e. Emerging Setting (i.e., Military, Industrial, Public Safety)
    f. Other: _____

Preceptor Self-Reported Skill Use Assessment

Pre-, post-, and follow-up

The following section is designed to assess your current usage of Preceptor teaching skills. Please indicate your agreement with the following statements using the scale from strongly disagree (1) to strongly agree (5).

In the **past**, during student-preceptor interaction, I generally… **(pre-& post-training)**

In the **past 4 weeks**, during student-preceptor interaction, I generally… **(4-week follow-up)**

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. Ask for a diagnosis, work-up or therapeutic plan before giving input.	1	2	3	4	5
2. Involve the student in the decision-making process.	1	2	3	4	5
3. Ask the student for the reasoning behind their decisions.	1	2	3	4	5
4. Evaluate the student's knowledge of athletic training facts and their analytic skills.	1	2	3	4	5
5. Teach general rules or "pearls" that the student can use in future patient care.	1	2	3	4	5
6. Give positive feedback on things the student does correctly.	1	2	3	4	5
7. Explain why the student was correct or incorrect.	1	2	3	4	5
8. Offer suggestions for improvement.	1	2	3	4	5
9. Give feedback frequently.	1	2	3	4	5

The following section is designed to assess the overall clinical education environment you create. Please rate the following using the scale from very poor (1) to excellent (5).

	Very Poor	Poor	Fair	Good	Excellent

10. Organization of clinical education experience.	1	2	3	4	5
11. Efficiency of student-preceptor interactions.	1	2	3	4	5
12. Overall teaching effectiveness.	1	2	3	4	5

Please rate how familiar you are with the OMP using the scale from not at all familiar (1) to extremely familiar (5).

	Not at all familiar	Slightly familiar	Somewhat familiar	Moderately familiar	Extremely familiar
13. How familiar are you with the OMP method now?	1	2	3	4	5

Adapted from Furney et al.

OMP Knowledge Assessment

Pre-, post-, and follow-up

The following section is designed to assess your knowledge of the OMP Method. Please answer the questions to the best of your ability. Please do **not** use notes or Google answers. It's OK if you don't know – just give your best guess.

1. What is the correct order of the OMP 5 microskills?
    a. Correct errors, get a commitment, reinforce what was done well, probe for supporting evidence, teach general rules
    b. Get a commitment, teach general rules, reinforce what was done well, correct errors, probe for supporting evidence
    c. **Get a commitment, probe for supporting evidence, teach general rules, reinforce what was done well, correct errors**
    d. Reinforce what was done well, correct errors, get a commitment, probe for supporting evidence, teach general rules
2. Which microskill/s are used to "diagnose" the learner?
    a. Correct errors
    b. Reinforce what was done well and probe for supporting evidence
    c. Get a commitment and teach general rules
    d. **Get a commitment and probe for supporting evidence**
3. What type of questions will you ask in the probe for evidence step?
    a. **Open-ended questions**
    b. Direct questions
    c. Both a and b
    d. Neither a nor b
4. With which microskill would you use a phrase like, "When this happens, do this…"
    a. Get a commitment
    b. Correct errors
    c. Probe for supporting evidence
    d. **Teach general rules**
5. Studies have shown that following OMP training preceptors give up to ___ times as much specific feedback.
    a. **2**
    b. 5
    c. 9
    d. 12
6. In what year was the OMP developed?
    a. 1980
    b. **1992**
    c. 2002

d. 2015

7. When correcting mistakes, it can be helpful to _____.
    a. Tell the student how to correct their mistake
    b. Have the student critique their own performance
    c. Both a and b
    d. Neither a nor b
8. Which of the following are true about the OMP?
    a. Leverages adult learning principles
    b. Targets clinical reasoning
    c. Student-oriented
    d. **All of the above (a, b, & c)**
9. A wrong commitment is better than no commitment.
    a. **True**
    b. False
10. The goal of the OMP is to increase your efficiency and effectiveness in student-preceptor interactions.
    a. **True**
    b. False

* Correct answers are in bold

OMP Training Evaluation

Post- only

The following section is designed for you to provide feedback on the OMP training. Please answer the questions below to the best of your ability.

Please rate the following using the scale from poor (1) to excellent (5).

	Poor	Fair	Good	Very Good	Excellent
1. How would you rate this OMP training program overall?	1	2	3	4	5

Please rate the following using the scale from strongly disagree (1) to strongly agree (5).

	Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
2. The speaker was knowledgeable on the OMP method.	1	2	3	4	5
3. The speaker was effective in delivering information.	1	2	3	4	5
4. I learned a lot about the OMP method from this presentation.	1	2	3	4	5
5. Following this presentation, I am MORE likely to use the OMP method when teaching students.	1	2	3	4	5
6. The lecture portion of the training increased my knowledge of the OMP.	1	2	3	4	5
7. The OMP case examples increased my understanding of how to use the OMP.	1	2	3	4	5

8. What were the strongest or best parts of the program?

_____

9. What were the weakest parts of the program?

_____

10. What suggestions do you have for improving the program?

_____

11. Please add any other comments you have about the program.

_____

APPENDIX B: RECRUITMENT EMAIL

RE: Participation in Dissertation Study

Dear Preceptor,

My name is Leah Wise, and I've been an athletic trainer for 15 years. I am now completing my dissertation through the University of North Carolina Greensboro EdD in Kinesiology program.

I am looking for athletic training preceptors for Master's of Athletic Training programs to participate in my research. You were identified as a possible participant by the Program Director/Clinical Coordinator for the institution you serve as a preceptor for.

The purpose of my study is to determine the influence of a professional development training in the *One Minute Preceptor* method on preceptor-student interactions following a training session. Participation for this study will involve taking a pre training survey, watching a 20-minute training video, taking a post training survey, and completing a follow up survey 4 weeks later. All responses will be anonymous. Participation in the study is beneficial to you as the One Minute Preceptor has been shown to improve the efficiency and effectiveness of preceptor-student interactions. Thus, making your role as a preceptor easier and saving you time.

If you choose to participate you will be eligible to receive one of four $15 gift cards. These will be sent when the survey data collection is complete.

I'd like to thank you in advance for your help in completing my dissertation. Your time is greatly appreciated. If you are interested in participating please click here so I can contact you about next steps for the One Minute Preceptor training.

For more information about this study please contact myself, the principal investigator, by email at ldwise@uncg.edu, or my chair Dr. Diane Gill by email at dlgill@uncg.edu.

Thank you,

Leah D. Wise
Principal Investigator
UNC Greensboro, Dept of Kinesiology
ldwise@uncg.edu

Study Title: Preparing Preceptors to be Clinical Educators

APPENDIX C: ROLE PLAY SCRIPTS AND CASE EXAMPLES

Script 1

Student Instructions:

You are an athletic training student presenting a case to your preceptor on a 15-year-old female lacrosse player who has a torn ACL, an MCL sprain, a medial meniscal tear, and a bone contusion. Once you read the presentation please stop and wait for the "preceptor" to respond. Stay in your role as the "student" until the end.

Please read the following case:

I just evaluated Suzie, one of the women's lacrosse players. She presented to the athletic training room complaining of left knee pain that started yesterday when she was jogging away from play and she forcefully externally rotated her left knee on a planted foot when she went to changed directions. Her chief complaint is left knee pain and swelling, and states that she felt a "snap" inside of her knee.

From my evaluation, she is point tender over the lateral femoral condyle of the involved knee. There is no obvious deformities or discoloration; however, moderate swelling is present. She has pain with active and passive knee flexion that she rates as a 6+ out of 10. Strength of the quadriceps and hamstrings muscle groups are a 3/5. The Lachman's and McMurry's were inconclusive due to the amount of swelling and muscle guarding. The patella apprehension test, as well as a varus stress test were also negative. The valgus stress was positive.

At this point, please stop and wait for the "preceptor" to respond.

Script 2

Student Instructions:

You are an athletic training student presenting a case to your preceptor on a 21-year-old male soccer player with a Type 2 AC sprain. Once you read the presentation please stop and wait for the "preceptor" to respond. Stay in your role as the "student" until the end.

Please read the following case:

Ben just came over to me on the sideline after hitting the goal post directly on the point of his right shoulder after going in for a header during practice. The injury occurred just 5 minutes ago. He complains of pain primarily at the AC joint and also on the upper trapezius as well as with overhead motions. I observed some trapezius spasm, a slight step deformity, and some bruising over and displacement of the clavicle. When I palpated over the acromioclavicular joint it was painful. But not anywhere along the shaft of his clavicle.

He has pain with AROM in shoulder flexion above 90 degrees. He also has pain with protraction and retraction of the scapula and with horizontal adduction. With PROM he has pain with shoulder flexion and horizontal adduction. He has decreased strength in all shoulders movements, that I would rate as 2/5. I performed an AC traction test, AC compression test, and an AC resisted extension test, all of which were positive.
Neurological and circulatory exam are WNL.

At this point, please stop and wait for the "preceptor" to respond.

Script 3

Student Instructions:

You are an athletic training student presenting a case to your preceptor on a 17-year-old elite gymnast with a right navicular stress fracture. Once you read the presentation please stop and wait for the "preceptor" to respond. Some suggested responses are given if the preceptor uses the 5 microskills of the OMP. You can also adlib responses as long as they follow the case presentation. Stay in your role as the "student" until the end.

Please read the following case:

I just evaluated Sarah who is a 17-year-old elite gymnast. Her chief complaint is nonspecific right dorsal foot pain that she's had for 5 months. Sarah states her pain began when she landed on the hard part of the springboard used for vault. She denies hearing or feeling a pop or snap, swelling, discoloration, deformity, paresthesia, or weakness. She continued participating that day. She later, treated herself with K tape, ibuprofen 400 mg BID, ice, analgesic creams, and saw a chiropractor who did some manipulation. She reports some improvement. Running, jumping, and landing increase her pain. She is able to perform bars and beam without limitations, but has had modified vault and floor routines. Only pertinent history is a couple mild ankle sprains that resolved with rehab and usual conservative treatments. She's currently taking NSAIDs, a multivitamin, iron, and vitamin D. Besides primary amenorrhea, review of systems is otherwise unremarkable: She denies history of eating disorder. She trains 30 hours per week and expects to participate in college gymnastics.

My physical exam revealed right foot full range of motion, no swelling or discoloration. Mild tenderness on palpation at dorsal side of navicular. No other tenderness. Symmetric strength, no pain with resisted foot or ankle motions. Pulses and sensations intact.

At this point, please stop and wait for the "preceptor" to respond.

Case Example 1

Student: Ben just came over to me on the sideline after hitting the goal post directly on the point of his right shoulder after going in for a header during practice.

Preceptor: Ok, tell me what you think is going on. (COMMITMENT)

Student: I think he has a clavicle fracture.

Preceptor: Tell me more about why you made that decision. (PROBE)

Student: He's complaining of pain along the clavicle. There's a slight step deformity and some bruising and displacement of the clavicle. He was tender to palpation but mostly over the AC joint. And he has pain with active range of motion.

Preceptor: Clavicle fractures and AC sprains can have similar mechanisms of injury, including a direct blow, fall on point of shoulder, or fall on outstretched arm. (GENERAL RULE) A direct blow fits what Ben told you. It seems like you did a thorough inspection of the area (REINFORCE) but try not to jump to conclusions or get tunnel vision. Let's go over your findings and see if you still think it's a clavicle fracture versus an AC sprain. (CORRECT MISTAKES)

Case Example 2

Preceptor: I just saw Suzie come in. She's complaining of left knee pain that started yesterday when she was jogging away from play and she forcefully externally rotated her left knee on a planted foot when she went to changed directions. Why don't you go evaluate her and then come tell me what you find.

Student: Sure, I saw that happen at practice yesterday and wondered if she'd come in today.

Preceptor: Alright, so tell me what you think is going on. (COMMITMENT)

Student: Based on what she told me about the mechanism of injury and what I found during my exam I think she has an MCL sprain and possibly a torn ACL.

Preceptor: Ok, and why do you think this? (PROBE)

Student: She has moderate swelling; she has pain with active and passive range of motion. The Lachman's and McMurry's were inconclusive due to the amount of swelling and muscle guarding, but the valgus stress was positive.

Preceptor: That sounds like a good assessment. Do you remember what it's called if the ACL, MCL and medial meniscus are all injured?

Student: Ahhh, no I don't think I remember a name for that.

Preceptor: It's called the unhappy knee triad. You should be able to find more information about that in your eval book, why don't you brush up on that tonight. (GENERAL RULE) It was good that you didn't rule out an ACL tear even though you didn't get a positive Lachman's. (REINFORCE) While I was watching you do your special tests, I didn't see you do the varus and valgus 0 and 30 degrees, make sure you do that next time. (CORRECT MISTAKES)

Preceptor: So, what do you want to do next with her? (COMMITEMENT)

Student: Since I'm unsure about the ACL I want her to see the team doc for further evaluation. And I think we should have her use crutches and put her in a knee immobilizer until then.

Preceptor: All those things sound great. (REINFORECE) Don't forget to give her at home instructions. (CORRECT) For acute injuries like this the RICE treatment is good, and you could tell her to take some ibuprofen too. (GENERAL RULE)

Student: Ok, I'll make sure I go over all that with her.

Preceptor: Let's say she goes to see doc, has an MRI and all it shows is an isolated grade 2 MCL sprain. How would you treat her for that? (COMMITMENT)

Student: Big picture I'd start with range of motion, then balance, then strengthening. Once her strength is better, I'd start more sports specific stuff.

Preceptor: Why would you follow that general order with your rehab plan? (PROBE)

Student: I want to start with range of motion first so we can do strengthening through the full range to be able to get her strength back fully. And to do balance work she'll need her motion and strength.

Preceptor: Keep in mind while progressing her through rehab that return to full function can range anywhere from 3-4 weeks to 2-3 months (GENERAL RULE). You're on the right track with the rehab plan. (REINFORCE) However, in this situation we would likely start strengthening exercises before balance training. (CORRECT) She may be on crutches for 2-4 weeks depending on how long it takes her to be able to fully weight bear with a non- antalgic gait, we should wait to do balance exercises until she can fully weight bear but we can start strength exercise before then with isometrics and open chain strengthening exercises.

Case Example 3

Student: I just evaluated Sarah from the gymnastics team. She's had nonspecific right dorsal foot pain for about 5 months. It started when she landed on the hard part of the springboard. She denies hearing or feeling a pop or snap. She was able to continue participating that day. She has full range of motion and no swelling. Mild tenderness on the dorsal side of the navicular. Symmetric strength and no pain with resisted foot or ankle motions. Running, jumping, and landing increase her pain. She is able to perform bars and beam without limitations but has modified vault and floor. She's training 30 hours a week since she anticipates participating in college and she told me she hasn't had her period in several months.

Preceptor: What are your differential diagnoses? (COMMITEMENT)

Student: I think she either has a Tarsal navicular stress fracture or Lis Franc joint sprain.

Preceptor: What made you choose those two? (PROBE)

Student: Well, it sounds like she's over training and I'm concerned she might fall into the female athlete triad, even though she denies an eating disorder, she does have amenorrhea and she could have low bone density, which would make me suspect a stress fracture. But she also said she landed on the hard part of the spring board and a hard landing is the classic mechanism of injury for Lis Franc joint sprain.

Preceptor: So, what do you want to do with her? (COMMITMENT)

Student: I would put her in a short leg walking boot for 2 weeks and then reevaluate her.

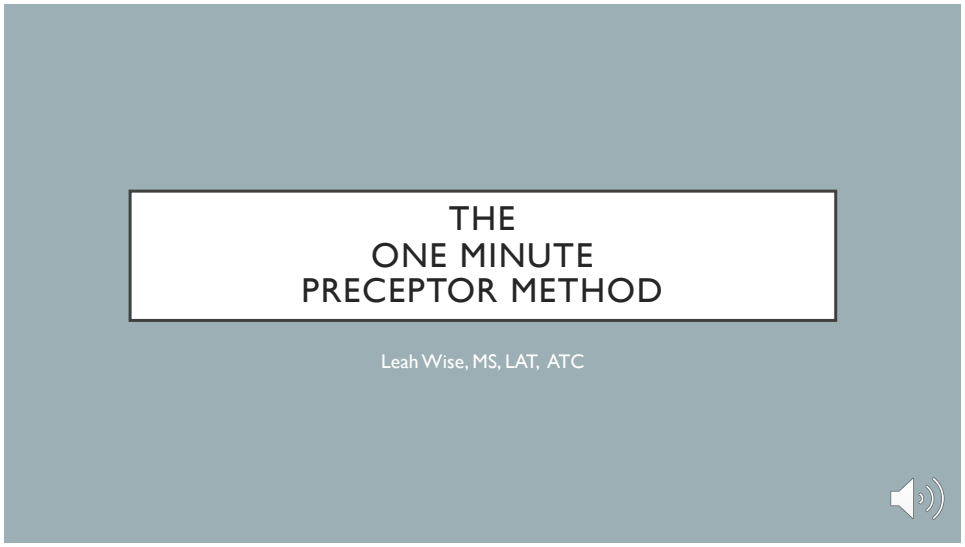
Preceptor: What made you choose that course of action? (PROBE)

Student: Since she's able to perform bars and beam without limitations, and able to continue vault and floor routines with modifications, I figured I'd try some conservative treatment to see if she starts to feel better.

Preceptor: Immobilizing either of these injuries is a great first step. (REINFOCE) Both injuries can be challenging injuries to identify, so maintaining a high index of suspicion is key. Early intervention is also important. (GENERAL RULE) So, I wouldn't wait to have her further evaluated. (CORRECT)

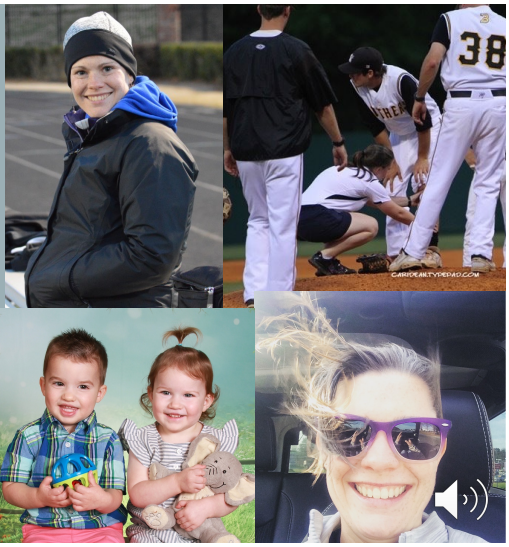
It's also great that you considered the female athlete triad. (REINFORCE) A gymnast with a stress fracture should raise that suspicion. If we are dealing with the female athlete triad we want to take an interdisciplinary approach to treatment and refer her to her PCP or gynecologist for further work up as well as getting a mental health specialist and nutritionist involved. (GENERAL RULE)

APPENDIX D: OMP TRAINING PRESENTATION



ABOUT ME

Certified Athletic Trainer for 15 years
Worked in high school, college & clinic setting
Been a preceptor throughout my career
Mom of twins
Avid indoor cyclist
Jeep enthusiast
Love to be in the kitchen & read



LEARNING OUTCOMES

WHAT'S IN IT FOR ME

- 1. List the steps of the One-Minute Preceptor method of clinical teaching.
- 2. Explain how each step fosters effective and efficient teaching.
- 3. Demonstrate understanding of the One-Minute Preceptor.
- 4. Integrate the One-Minute Preceptor model into your clinical teaching.

HISTORY

ONE MINUTE PRECEPTOR AKA OMP

- Developed in 1992 by a group of family physicians at the University of Washington
- Goal: provide preceptors with a teaching tool they could use to teach a general principle in five minutes or less
- The One Minute Preceptor strategy has been taught and tested across the nation (Irby 1997a, 1997b; STFM, 1993).
- The approach allows the preceptor to take full advantage of the entire encounter in order to maximize the time available for teaching.
- The teaching encounter will still take longer than a minute but the time spent is more efficiently used and the teaching effectiveness is optimized.

WHAT, WHY, AND HOW

WHAT & WHY

- A time-efficient 5-step teaching approach that leverages adult learning principles and targets clinical reasoning
- Get a commitment
- Probe for supporting evidence
- Teach general rules
- Reinforce what was done well
- Correct errors

- Demonstrated benefits include improved learner and teacher confidence, enhanced self-directed post encounter learning, improved feedback quality, and higher rates of accurate diagnosis (Parrot)
- Fosters ownership of clinical problems and allows both learners and teachers to identify and target learning gaps (Neher)
- Preceptors rate the OMP as more effective and more efficient than the traditional model (Aagaard)

HOW TO DO IT WELL

5 MICROSKILLS OF THE OMP

- Get a commitment
- Probe for supporting evidence
- Teach a general rule
- Reinforce what was done right
- Correct mistakes

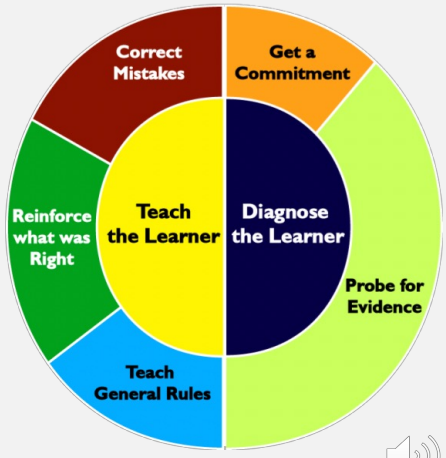
OMP CLOCK

Diagnose Learner =

Get a commitment + Probe for evidence

Teach the Learner =

Teach a general rule + Reinforce what was done right + Correct mistakes



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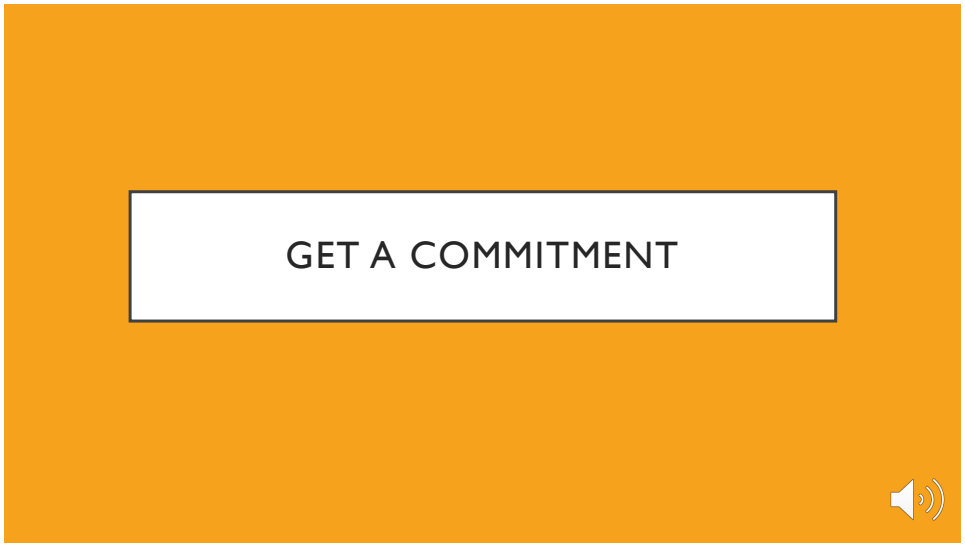


COMMITMENT

- Ask an open-ended question to encourage the student to commit to one or more aspects of the assessment/management of the patient

- Tell me what's happening.
- What do you think is going on with this athlete/patient?
- Describe your thinking to help me understand.

PROBE FOR SUPPORTING EVIDENCE

SUPPORT

- Use more direct questions to bring out and evaluate the learner's knowledge base and clinical reasoning underlying the commitment

- Tell me more about why you made that decision.
- What made you come to this conclusion?
- What else did you consider?
- What are your subsequent choices?
- How did you rule out a specific diagnosis?

TEACH A GENERAL RULE

GENERAL RULE

- Allows the teacher to generate and communicate a general teaching point resulting from the case

- In this situation, we should…
- Based on best practice, we should…
- We have a protocol to address this.

REINFORCE WHAT WAS DONE RIGHT

POSITIVE FEEDBACK

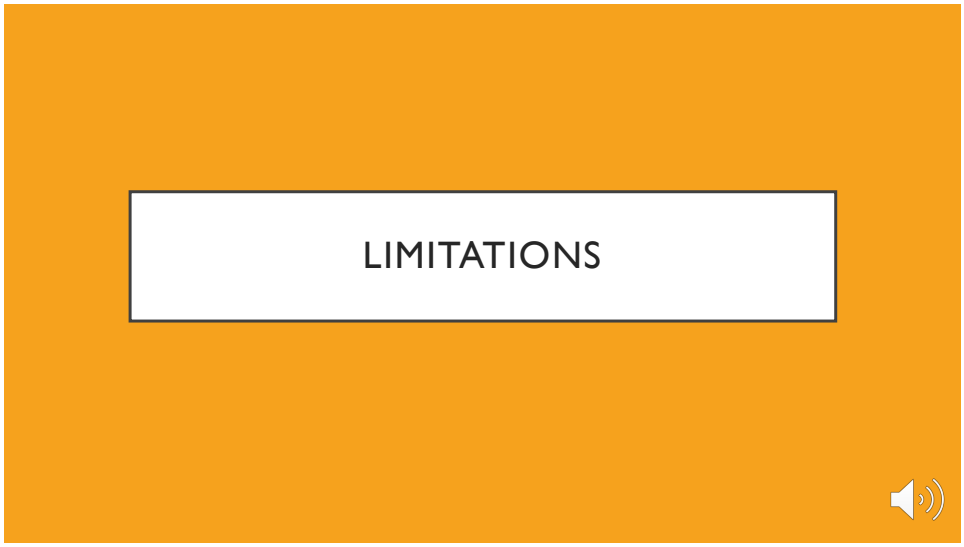
- Deliver POSITIVE feedback

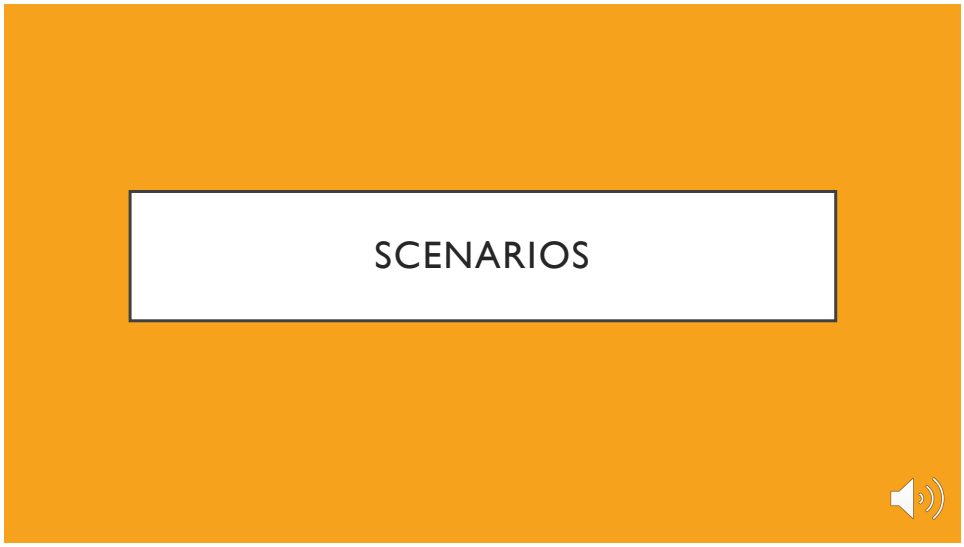
- I like how you…
- You thought it through and that is good.
- You are on the right track.
- You didn't jump to a conclusion but instead let the findings guide you.

CORRECT MISTAKES

CONSTRUCTIVE FEEDBACK

- Provide CONSTRUCTIVE feedback
- What would you do differently next time?
- Were there other options you considered?
- Why did this not work as well as you had hoped?


LIMITATIONS

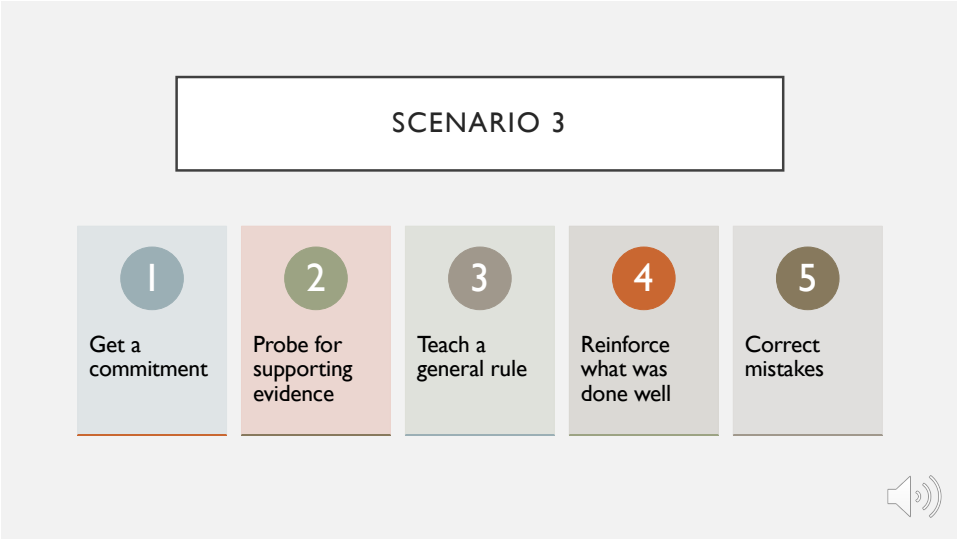

SCENARIOS

SCENARIO 1

1	2	3	4	5
Get a commitment	Probe for supporting evidence	Teach a general rule	Reinforce what was done well	Correct mistakes

SCENARIO 2

1	2	3	4	5
Get a commitment	Probe for supporting evidence	Teach a general rule	Reinforce what was done well	Correct mistakes


SCENARIO 3
1
Get a commitment
2
Probe for supporting evidence
3
Teach a general rule
4
Reinforce what was done well
5
Correct mistakes


THANK YOU

APPENDIX E: ATEC MODEL PRACTICE SHOWCARE PRESENTATION

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Preparing Preceptor to be Clinical Educators

Leah D. Wise, MS, LAT, ATC

Introduction

- **Preceptors**
  - Play a critical role in AT students' development
  - They do not believe they are adequately prepared for their role
- Critical factors for a successful clinical education experience
  - Preparation
  - Development
  - Training
  - Evaluation

  of preceptors

(Bagioni et al., 2020; Lauber et al., 2003; Yonge et al., 2005)

- **One Minute Preceptor (OMP) Method**
  - **Goal** = Provide a teaching tool to teach a general principle in five minutes or less
  - **Aim** = Improve teaching efficacy and efficiency
  - Easy to learn
  - Can be immediately put into practice

(Neher et al., 1992)

1

OMP

- 5 Microskills
  - Get a commitment
  - Probe for supporting evidence
  - Teach a general rule
  - Reinforce what was done well
  - Correct errors

Created by Dan Cronin, MD

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Purpose & Aims

Determine the influence of the One Minute Preceptor method training on preceptor ***knowledge*** and ***use*** of the OMP skills following the training session.

Aim 1:
Determine the influence of the training on preceptor ***knowledge*** of One Minute Preceptor method.

Aim 2:
Determine the influence of the training on preceptor self-reported ***use*** of One Minute Preceptor.

Aim 3:
Evaluate OMP training based on participant feedback.

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Methods

- One-group pre-post design
- Asynchronous virtual training
- Surveys
  - Knowledge
  - Use
  - OMP Evaluation
- Intervals
  - Pre (n = 23)
  - Post (n = 11)
  - 4-week follow-up (n = 6)

Participants

- Certified/licensed athletic trainers in good standing
- Serve or have served as a preceptor for a MSAT program
- Majority female
- All identified as White
- Most hold a master's degree & work in secondary school practice setting

Results

- <u>Knowledge</u>
  - OMP training was effective at increasing preceptor knowledge of the OMP

	Pre	Post	Follow-up	Significance
Mean (n =11)	6.09	7.55		p < .01
Mean (n = 6)	6.33	7.33		p < .05
Mean (n = 6)	6.33		7.33	p < .05

- <u>Use</u>
  - No significant increase
  - High initial scores
  - Lack of opportunities
  - Small sample

OMP Training Evaluation

n = 11	Good	Very Good	Excellent
Overall Rating	18.2%	63.6%	18.2%
	Somewhat Agree	**Agree**	**Strongly Agree**
Speaker was knowledgeable	n/a	27.3%	72.7%
Speaker was effective	9.1%	36.4%	54.5%
I learned a lot	n/a	54.5%	45.5%
More likely to use the OMP	n/a	54.5%	45.5%
Lecture portion increased my knowledge	9.1%	18.2%	72.7%
Case examples increased my understanding	n/a	45.5%	54.5%

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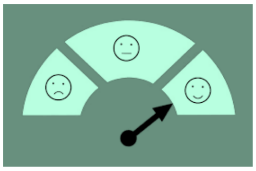
Conclusion

Increased knowledge of the OMP

Training favorably rated



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Impact

- The OMP is an effective yet efficient clinical teaching tool that can be easily learned & then put into practice
- MSAT programs can include OMP training as part of mandatory annual preceptor training

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Thank You & Questions

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