

EVALUATING A WEB-BASED EDUCATIONAL MODULE DESIGNED TO ENHANCE ADVANCED PRACTICE NURSE PRECEPTORS' CLINICAL TEACHING EXCELLENCE

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DISCLOSURES AND CONFLICTS OF INTEREST

- **Disclosures and conflict of interest**

- The presenters attest that they have no relevant disclosures or conflicts of interest.
- All presenters are faculty or affiliated with The Catholic University of America.
- Dr. Sandra O'Brien conducted this study as her leadership project, while participating as a scholar in Sigma's Nurse Faculty Leadership Academy third cohort. Elsevier supported the Nurse Faculty Leadership Academy.

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LEARNER OBJECTIVES

The learner will be able to:

1. explain several challenges associated with providing appropriate education and training for graduate nurse practitioner preceptors.
2. name three educational priorities identified by graduate nurse practitioner preceptors.
3. describe the five clinical teaching strategies associated with the One Minute Preceptor.
4. discuss three of the study's findings.
5. apply the findings to a similar educational situation.

Introduction



- This presentation reports on a control-comparison study of an educational intervention.
- The purpose was to evaluate the effectiveness of a web-delivered evidence-based educational module featuring the One Minute Preceptor.
- The specific aim was to increase knowledge of clinical teaching strategies and self-efficacy of advanced practice nurse (APN) preceptors.
- The findings demonstrated both short-term and long-term gains in APN preceptor knowledge acquisition.

Why did we undertake this study?

TEAM LEADERSHIP PROJECT

Precepting Skills for Graduate Nurse Preceptors

Team members:
Dr. Jeanne Moore,
Dr. Sandra O'Brien,
Dr. Mary Flynn, and
Dr. William Howie



- We noted there are several challenges associated with providing appropriate education and training for graduate nurse practitioner preceptors, especially in a distance education program.
- These challenges include orienting preceptors and ensuring quality clinical teaching.

NP Precepting

Incentives

- Learning opportunities
- Prior relationship with faculty, school, and/or student
- Professional obligation
- Credit toward recertification
- Tax incentives

Barriers

- **Time constraints**
 - Limited time for teaching and feedback in busy settings
- **Productivity demands**
 - How to be an effective teacher while maintaining clinical workload?

Challenge #1: Orienting Preceptors

Local Preceptors	Distant Preceptors
1st week of class, email welcome letter: <ul style="list-style-type: none">• Preceptorship objectives (and where course is positioned in curriculum)• Course syllabus and weekly schedule of topics• Clinical evaluation instrument• Typhon instructions	
Multiple semesters <ul style="list-style-type: none">• Familiar with clinical courses and school curriculum over time	1-2 semesters <ul style="list-style-type: none">• Limited knowledge of clinical courses and school curriculum
<ul style="list-style-type: none">• Familiar with clinical evaluation instrument	<ul style="list-style-type: none">• Unfamiliar with clinical evaluation instrument
<ul style="list-style-type: none">• Experience using Typhon	<ul style="list-style-type: none">• Lack of experience using Typhon

Challenge #2: Ensuring Quality Clinical Teaching

Local Preceptors

Distant Preceptors

Independence Expectations:

- Student shadows preceptor
- Student conducts visit, preceptor in room at all times
- Students assesses H&P independently, relies on preceptor for Dx and Plan
- Student assesses H&P, formulates Dx & Plan, consults with preceptor

Case Presentation Expectations:

- Informal discussion
- Formal presentation in SOAP format

Teaching strategies:

- Quantity: see more, learn more vs Quality: see less, learn more
- Giving answers vs. Guided questions to increase students' clinical reasoning
- Student research a clinical question/problem
- Etc.

Visit preceptor/student each semester

Phone call each semester

Visit student/preceptor once*

* Each online student is visited on-site once

A Preliminary Delphi Study



- Conducted to determine the educational priorities identified by graduate nurse practitioner preceptor
- Was completed the summer prior to this control-comparison study

Findings:

- The number one educational priority was “strategies to developing critical thinking of nurse practitioner students”.
- Other important priorities were:
 - “strategies to bridge the gap between the program’s academic content and the realities of actual clinical practice”, and
 - “strategies to enhance the development of student's rapport with patients”

One minute preceptor: Developing critical thinking skills

The Five Steps:

1. GET A COMMITMENT

2. PROBE FOR SUPPORTING EVIDENCE

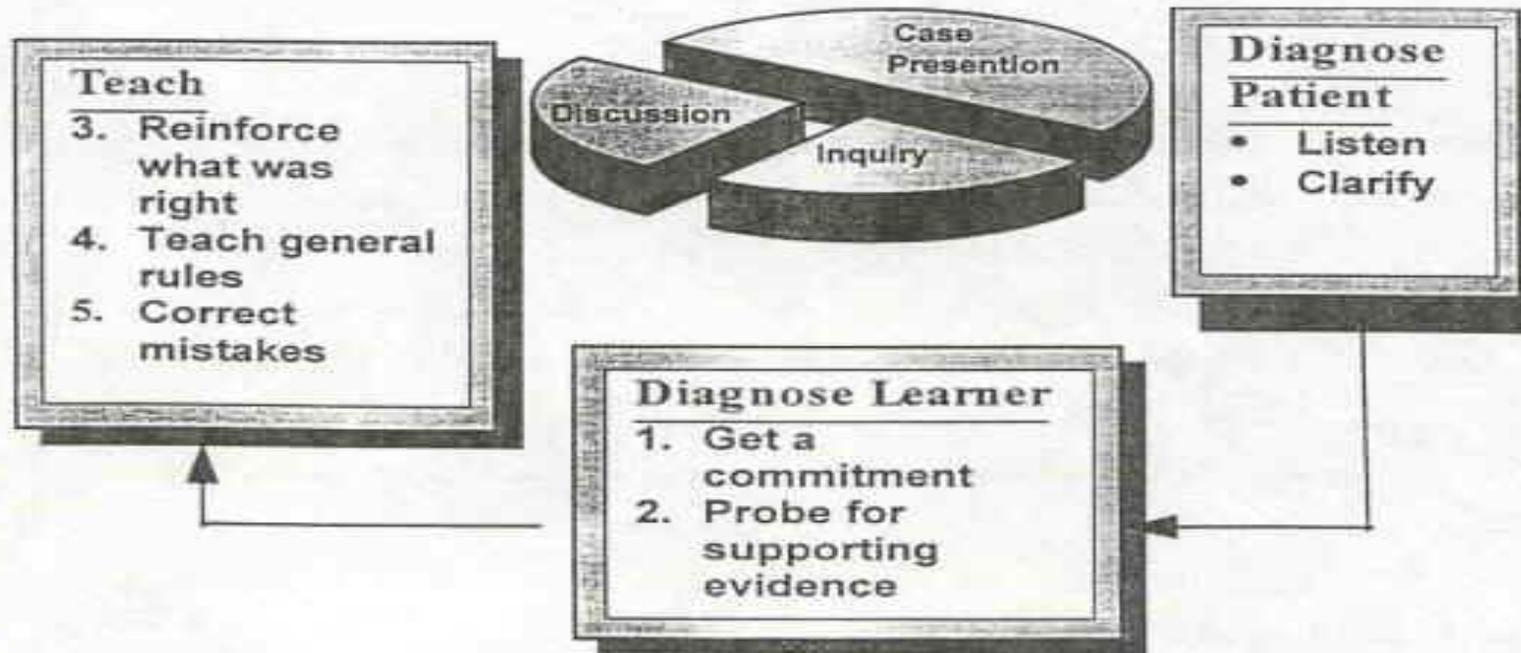
3. REINFORCE WHAT WAS DONE WELL

4. GIVE GUIDANCE ABOUT ERRORS AND OMISSIONS

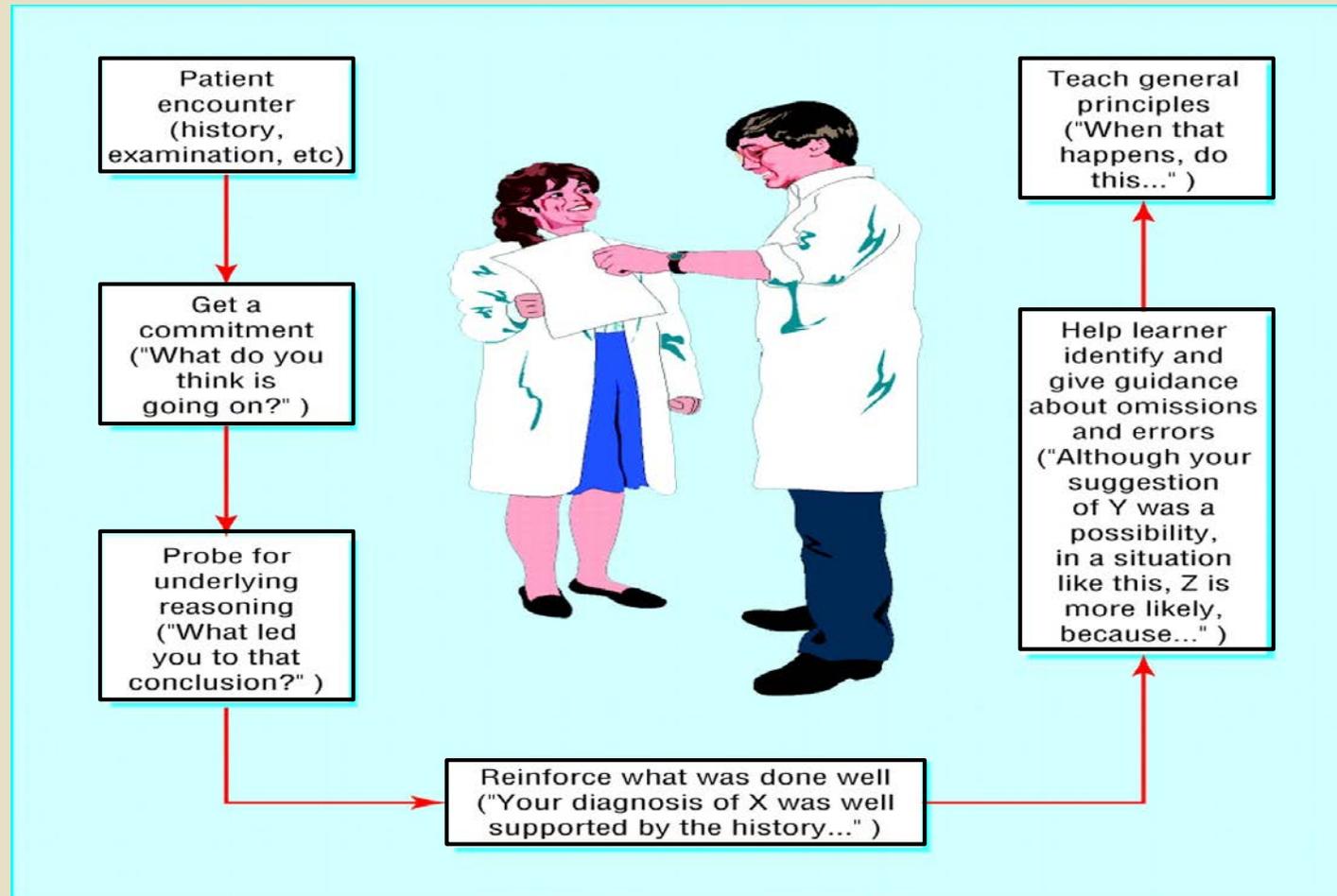
5. TEACH A GENERAL PRINCIPLE

One Minute Preceptor at a glance

Case Presentation and Discussion Process, Teacher Reasoning and Five Microskills



One minute preceptor in action example



Example of OMP in action

- Demonstration of the One-Minute Preceptor
Bob Trowbridge

<https://www.youtube.com/watch?v=lCeyzpU7PMw&t=2s> <https://urldefense.proofpoint.com/v2/url?u=https-3A_www.youtube.com_watch-3Fv-3DlCeyzpU7PMw-26t-3D2s&d=DQMFaQ&c=ST5Jxgx_zZ9nYuPWkSm01Luus8kzn0TCuX9tmQgnWms&r=LlJnfeTqj3mNggIXZp4J_w&m=bwnZAuz21mtHDa_neyn7ZGmCd1yQmcbme0ZzRst9PII&s=-i6inl4ctiRVXUIlgok5bFc-iy4YyCkHklBx26FlE&e=>

- This video is used with permission of Robert Trowbridge, MD

This study



- Designed to evaluate a web-based educational module which aimed to enhance advanced practice nurse preceptors' clinical teaching excellence
- The One Minute Preceptor clinical teaching strategy was the basis to assist the advanced practice nurse preceptor develop critical thinking skills in their students

Randomized emailed invitations



- After approval of the CUA IRB
- Randomized invitations to participate to 150 intervention and 150 standard methods preceptors
- All those participating were asked to complete a survey at the beginning and again at the end of the semester

Web-based educational module

- Deployed via shared Google Drive
- Included several sets of materials
 - What's this all about?
 - Links to Survey Monkey Pre-test
 - Educational module
 - Links to Survey Monkey Post test
 - Opportunity to obtain CEU



Selected Findings



Immediately after completion of the Educational Module,

- There was a 74.62% increase in One Minute Preceptor Clinical teaching strategy knowledge scores.
- 77.78% of the participating preceptors indicated they were extremely likely to use the One Minute Preceptor clinical teaching strategy with their nurse practitioner students.
- Participants expressed satisfaction with content and course delivery.

Selected Findings



- Demographic results- no statistically significant differences between the groups of preceptors
- **Educational Module Group (Treatment)**
 - Eleven preceptors were female (84.6%) and 2 were male (15.4%).
 - The majority (n=11, 69.2%) had MSN/MPH degrees, 23.1% (n=3) held DNP degrees, and 7.7% (n=1) held MD degree. None held PhD degrees.
 - The mean age of the preceptors was 53.46 years. The range was 29-65 years.
 - The mean number of years the providers had been precepting was 11 years; the range was 1-29 years.

Selected Findings



◦ **Standard Methods Group (Control)**

- Thirty-three preceptors were female (91.7%) and 3 were male (8.3%).
- The majority (n=26, 72.2%) had MSN/MPH degrees, 2 held MS PA (5.6%), 8.3% (n=3) held DNP degrees, and 11.1% (n=4) held MD degree, 1 held PhD degree (2.8%).
- The mean age of the preceptors was 48.37 years. The range was 26-68 years.
- The mean number of years the providers had been precepting was 6.8 years, the range was 1-20 years.

Selected Findings: Sustained OMP knowledge

- The results show a statistically significant increase in knowledge of the OMP clinical teaching strategy over the course of the semester. The results of the Friedman Test indicated that there was a statistically significant difference in the preceptor knowledge of OMP across three different time points, pre-intervention, post-intervention and 3 month follow up $\chi^2(2, n=5) = 10.00, p < .005$).

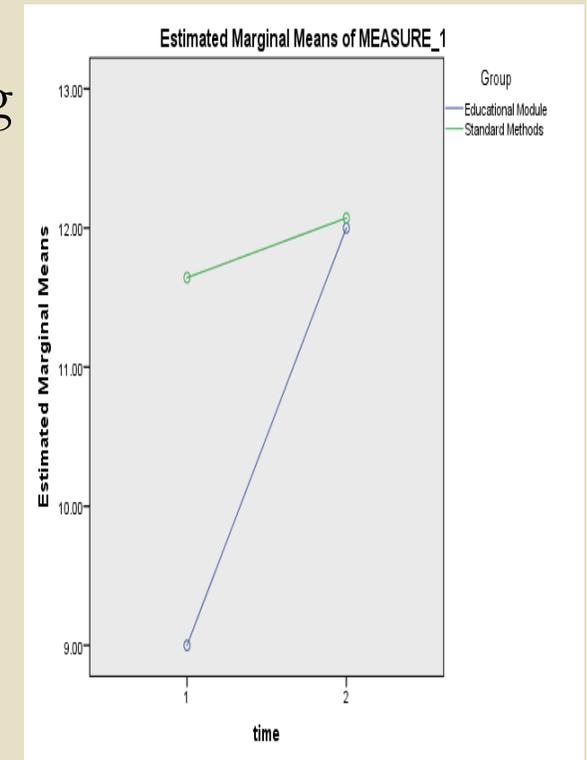
Because of the violation of assumptions and the small sample size, a non parametric Friedman Test was utilized instead of a one-way repeated measures ANOVA.

Test Statistics ^a	
N	5
Chi-Square	10.000
df	2
Asymp. Sig.	.007
a. Friedman Test	

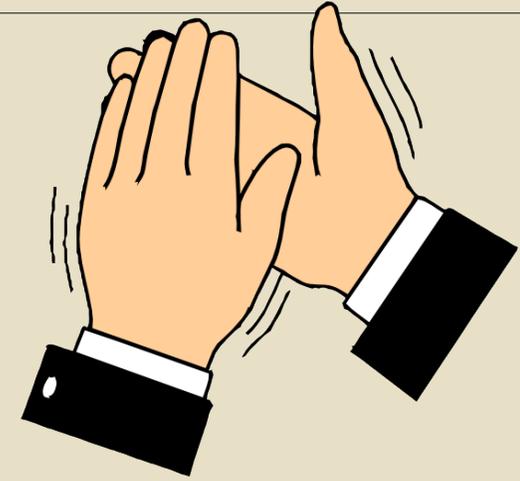
Selected Findings: Perceived preceptor self-efficacy

◦ The two groups of preceptors (control vs treatment) had very different initial perceptions of their ability to develop critical thinking skills in their nurse practitioner students. This gap closed dramatically in a statistically significant way for the group participating in the Educational Module, Mixed Design ANOVA, $F=12.18$ ($df=1$) $p = .01$ partial eta squared .33

◦ Initially the Standard Methods (control) group rated their self-efficacy as 11.64 and at the end of the semester as 12.07
Initially the Educational Module (treatment) group rated their self-efficacy as 9 and at the end of the semester as a 12

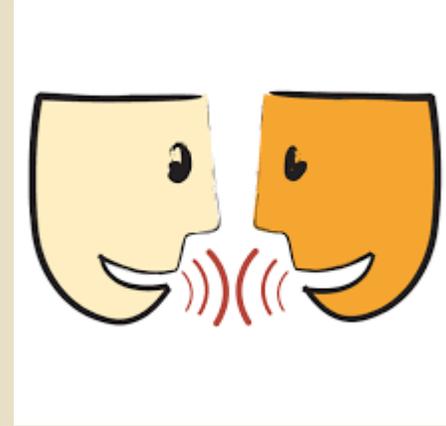


Selected Findings



- Preceptors praised the One Minute Preceptor clinical teaching strategy
- Preceptors recommended it be required of all graduate nurse preceptors
- The web-based content delivery enables this Educational Module to be utilized by other centers for advanced practice nursing education

Pair-Share



- Turn to a colleague and discuss if this information might be relevant to your setting.
- If so, how could it be useful?

Group Share

- Please share your thoughts and any insights you gained while sharing with your colleague



images

- Educational unit <https://phil.cdc.gov/Details.aspx?pid=13718>
- Priority free clip art http://www.clipartpanda.com/clipart_images/top-priority-high-priority-62105534
- Computer- free clip art <http://clipartix.com/computer-clip-art-image-50586/>
- Invitation free clip art <http://www.clker.com/clipart-invitation.html>
- Thinking free clip art <http://clipart-library.com/clipart/481710.htm>
- Survey-free clip art <http://clipart-library.com/teacher-survey-cliparts.html>
- Preceptor- free clip art <http://clipartix.com/doctor-clip-art-image-51442/>
- Clapping hands- free clip art <http://www.clipartlord.com/2012/11/01/free-clapping-hands-clip-art/>
- Communicating faces- free clip art <http://clipart-library.com/clipart/6TypE7Xkc.htm>
- Microphone free clip art http://www.clipartpanda.com/clipart_images/microphone-clip-art-4004847

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Neher, J. O., Gordon, K. C., Meyer, B., & Stevens, N. (1992). A five-step "microskills" model of clinical teaching. *Journal of the American Board of Family Practice*, 5, 419-424
- Demonstration of the One-Minute Preceptor
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<https://www.youtube.com/watch?v=lCeyzpU7PMw&t=2s><[10.1016/j.nurpra.2015.06.003](https://urldefense.proofpoint.com/v2/url?u=https-3A_www.youtube.com_watch-3Fv-3DlCeyzpU7PMw-26t-3D2s&d=DQMFaQ&c=ST5Jxgx_zZ9nYuPWkSm01Luus8kzn0TCuX9tmQgnWms&r=LIJnfeTqj3mNggIXZp4J_w&m=bwnZAuz21mtHDa_neyn7ZGmCd1yQmcbme0ZzRst9PII&s=-_i6inl4ctiRVXUIlgok5bFc-jyy4YyCkHklBx26FlE&e=>◦ Webb, J., Lopez, R.P., and Guarino, A.J. (2015). Incentives and barriers to precepting nurse practitioner students. <i>The Journal for Nurse Practitioners</i>, 11(8), 782-789. doi: <a href=)