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# A Theory Based Didactic Offering Physicians a Method for Learning and Teaching Others About Human Trafficking


## Abstract:

Emergency clinicians are on the frontlines of identifying and caring for trafficked persons. However, most emergency providers have never received training on trafficking and studies report a significant knowledge gap involving this important topic. Workshops often employ a "train the trainer" model to address clinicians' knowledge gaps involving various topics (including trafficking). By offering participants knowledge and skills needed to both understand relevant content and teach this content to future learners, this model aims at promoting widespread dissemination of essential information. However, current "train the trainer" workshops typically involve full or multi-day sessions and employ multi-modal instructional techniques, making them time and resource intensive for both participants and facilitators.

To address these challenges, we created a 50 minute "train the trainer" workshop to teach emergency clinicians the knowledge and skills needed to recognize and care for trafficked patients while providing instructional techniques to teach learners this content in the clinical environment. Learning theory and principles informed the choice of instructional methods and were employed when designing the paper-based learning guides that functioned as this intervention's primary instructional resource. Guides contained detailed scripts used to perform role-playing exercises. These "scripted guides" were designed for participants to learn important content while simultaneously practicing techniques to teach this content to one another. They provided the scaffolding necessary to independently direct learning during the workshop (with

minimal facilitator intervention), while also being carefully formatted and organized to create an accessible tool for future use during clinical teaching.

The session was implemented at the 2018 National SAEM Conference in Indianapolis, Indiana. Based on participants self-assessment using a retrospective pre-post test, the workshop was successful in creating a "train the trainer" model that is brief, requiring minimal facilitator resources and offers instruction on both content knowledge and instructional methods to disseminate this knowledge to future learners.

## Need for Innovation

Human trafficking is a modern form of slavery involving the use of force, fraud or coercion to induce an individual to perform labor or commercial sex acts.[1] Human trafficking (HT) is a global public health crisis. In 2016, an estimated, 40.3 million persons were trafficked worldwide.[2] Emergency providers (EPs) are on the frontline of recognizing and caring for trafficked persons (TPs). One study demonstrated that 68% of TPs accessed health care while being trafficked with 56% of these individuals being seen in an emergency department (ED).[3] Fear, shame and language barriers often prevent self-disclosure, and low levels of awareness and attitudinal bias can challenge providers' abilities to recognize HT.[4,5] Despite the extent of the problem, only 2% of EPs have received training on HT.[6]

## Background

Currently available options for provider instruction on HT include multi-day seminars, brief on-line courses, massive open online courses (MOOCs), guidelines and published summaries for self-directed learning.[7,8] To our knowledge, there are no published "train the trainer" interventions focusing on EPs or providing instructional methods directed at teaching learners in the clinical environment. Additionally, prior literature describing "train the trainer" interventions on other topics involves lengthy or longitudinal instruction that is both multi-modal and

facilitator intensive.[9,10,11] Learning theory can offer the guidance necessary to thoughtfully develop a "train the trainer" intervention that is brief, requires limited facilitator guidance and provides emergency educators tools for engaging learners during regular clinical practice to promote knowledge dissemination and transfer of skills to the bedside to directly impact patient care.

## Objective

We created a 50-minute 'train the trainer' workshop focused on emergency care of TPs. Upon completion, participants should be able to: 1) describe knowledge and skills required to recognize and care for TPs in the ED and 2) employ brief, structured techniques while working clinically to teach learners about recognition and care of TPs. Additionally, we aimed to help participants develop a cognitive process for how educational theory and instructional principles can be used to inform the development of a train the trainer intervention that thoughtfully addresses current challenges.

## Development Process

Development of this instructional session was a joint effort by experts in the fields of human trafficking and medical education. As described below, there were three major parts of the development process. Table 1 illustrates how these three aspects were used to create the instructional design used for this session. Establishing *what* content is most relevant for EPs was determined by literature review and the team's trafficking experts.

To determine *how* this content was going to be taught, an instructional framework rooted in cognitivist theory that employed interactive learning techniques was developed. Using cognitivist theory, we set out to develop an intervention that would provide participants with an alternative method to "learn how to learn".[12] This intervention used printed instructional guides as the primary resource for learning during the workshop. Guides describing three different clinical scenarios were comprised of detailed scripts that participants read verbatim during the workshop while role playing as either the physician educator or learner opposite a partner

playing the reciprocal role. Informed by educational theory and instructional principles, these scripted guides (SG) were designed to provide the scaffolding and organization needed to allow participants with limited prior subject knowledge to learn essential HT content, while simultaneously teaching this content to their partner. In addition to the printed SGs used during the workshop, participants were provided a link to electronic versions that could be easily accessed while working clinically.

Cognitivist theory also informed key instructional design aspects of this intervention. Cognitivism emphasizes the importance of creating connections between new content and prior or common experiences. [13,14,15] For example, because HT is rarely encountered in daily practice, each case used a frequently encountered clinical presentation (e.g. lumbar strain) to prompt teaching about HT. This approach provides increased opportunity for participants to use these SGs to teach in the clinical environment and helps learners create connections between encountered presentations and potential TPs.

Established instructional techniques were used to format and organize the SGs. Content was formatted to highlight essential teaching points, which were organized using the instructional techniques of 'teaching scripts' or 'concept maps'. [16,17] This design was intended to: focus attention on essential information, suggest possible relationships, and prime participants to organize content to create personal meaning. The carefully organized teaching points were supported by detailed scripts. These scripts "filled in gaps" between essential teaching points and were intended to allow workshop participants to practice teaching one another about trafficking without requiring prior knowledge on the subject. The goal of this design is to promote more scaffolded learning initially (i.e. read entire script verbatim during the workshop), while reducing scaffolding over time (i.e. using only highlighted teaching points without the script as participants repeatedly used the SGs to teach learners in the ED).

Lastly, to determine *where* specific content should be integrated into SGs, Knowles' principles of adult learning were used with additional direction from other learning concepts such as cognitive load and cognitive debiasing.[18,19]

## Program Implementation

This 50-minute interactive workshop was developed for and implemented at the 2018 Society for Academic Emergency Medicine (SAEM) National Conference in Indianapolis, IN. For context, a 10-minute PowerPoint-based introduction provided reasons why clinicians need to know about HT, a description of the session's objectives, and a brief overview of the interactive component. Participants then paired off to role-play 3 cases (10 minutes per case). They alternated playing the role of the physician-educator ("teacher") or the learner and followed the detailed SGs to enact each teaching-learning scenario.

The guides started with instructions, case overview, and description of each participant's role. There were role-specific scripts for both the "teacher" and the "learner" that complemented each other and offered prompts for when each participant was to speak or perform certain actions (e.g. "complete box 2 on the concept map"). The SGs had all necessary instructions, and the scripts which were to be read verbatim, which created a "teacher-learner" interaction that did not require a facilitator. As the "teacher" read the script, essential learning points were emphasized, repeated, and given context. This encouraged the teacher to learn the content while simultaneously teaching it. As intended, there was very little facilitator-participant interaction during the session. To promote use of these guides when working clinically, electronic versions were made available to participants. Importantly, learner scripts incorporated what were felt to be common responses to questions contained in the learner guides. However, teacher guides were designed to still be effectively used when teaching learners in the clinical environment, whose responses are (typically) not scripted.

## Program Evaluation

Participants completed a four-item, retrospective pre-post survey at the conclusion of the session to assess learning and evaluate the session. Participants rated their abilities before and after the session on a 4-point Likert scale.[20] Nineteen individuals participated, consisting of both attending and resident EPs from multiple states. Results showed significant improvements in self-reported perceptions of participants' own abilities to: 1) describe different types of HT; 2) identify high risk signs of trafficking; 3) employ interactive learning methods in the clinical environment to instruct others on recognition and care of TPs; and 4) describe an effective approach for assessment and management of TPs (all results: $P<0.001$). Effect sizes were calculated and

ranged from 0.57 – 0.62. Cronbach's alpha calculated for all items was 0.66 for the pre-test and 0.61 for the post-test, demonstrating moderate internal survey consistency. All statistics were performed in Microsoft Excel™. Question (3) had the largest difference in scores which supports the utility of this intervention.

## Reflective Discussion

We have described the development of a brief "train the trainer" intervention using education theory and instructional principles to inform the thoughtful creation of scripted learning guides designed to impart new knowledge and teach how to teach this content in the clinical environment.

Creation of a novel didactic using role play with detailed scripts developed using educational theory, interactive learning methods and adult learning principles lends itself to topics where learners have limited content knowledge and subject matter that does not involve complex understanding (e.g. pathophysiology or critical care). When planning to create similar didactics for other topics, in addition to content experts, we recommend consulting experts in instructional design and theory to develop appropriately detailed scripted learning guides.

While this intervention is exciting, our results are based on a single workshop and outcomes involve self-reported impression of learning (Kirkpatrick's Level 1: learner's reaction). Furthermore, all participants were attendees of a national conference focusing on academic medicine who voluntarily chose to attend this didactic, likely creating a self-selection bias: Participants were more likely to be interested in the content (HT in the clinical setting) and/or in the concept of teaching unfamiliar material. Future research should assess if this intervention changed participants' behaviors and examine if they used the method to teach learners in the clinical environment.

## Bibliography:

1. VICTIMS OF TRAFFICKING AND VIOLENCE PROTECTION ACT OF 2000: PUBLIC LAW 106–386—OCT. 28, 2000 [Internet]. 2000 [cited 2018 Sep 19];Available from: https://www.gpo.gov/fdsys/pkg/PLAW-106publ386/pdf/PLAW-106publ386.pdf

2. International Labour Organization. (2017). Global estimates of modern slavery: Forced labour and forced marriage. [Internet]. 2017 [cited 2018 Sep 18];Available from: https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/publication/wcms_575479.pdf

3. Chisolm-Straker M, Baldwin S, Gaïgbé-Togbé B, Ndukwe N, Johnson PN, Richardson LD. Health Care and Human Trafficking: We are Seeing the Unseen. J Health Care Poor Underserved 2016;27(3):1220–33.

4. Macias Konstantopoulos W, Ahn R, Alpert EJ, et al. An International Comparative Public Health Analysis of Sex Trafficking of Women and Girls in Eight Cities: Achieving a More Effective Health Sector Response. J Urban Health [Internet] 2013 [cited 2018 Oct 9];90(6):1194–204. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3853176/

5. Stoklosa H, MacGibbon M, Stoklosa J. Human Trafficking, Mental Illness, and Addiction: Avoiding Diagnostic Overshadowing. AMA J Ethics 2017;19(1):23–34.

6. Chisolm-Straker M, Richardson LD, Cossio T. Combating slavery in the 21st century: the role of emergency medicine. J Health Care Poor Underserved 2012;23(3):980–7.

7. Powell C, Dickins K, Stoklosa H. Training US health care professionals on human trafficking: where do we go from here? Med Educ Online [Internet] 2017 [cited 2018 Jul 11];22(1). Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5328372/

8. Egyud A, Stephens K, Swanson-Bierman B, DiCuccio M, Whiteman K. Implementation of Human Trafficking Education and Treatment Algorithm in the Emergency Department. Journal of Emergency Nursing [Internet] 2017 [cited 2018 Jul 11];43(6):526–31. Available from: https://www.jenonline.org/article/S0099-1767(17)30041-7/abstract

9. Pearce J, Mann MK, Jones C, van Buschbach S, Olff M, Bisson JI. The most effective way of delivering a train-the-trainers program: a systematic review. J Contin Educ Health Prof 2012;32(3):215–26.

10. Gollub EL, Morrow KM, Mayer KH, et al. Three city feasibility study of a body empowerment and HIV prevention intervention among women with drug use histories: Women FIT. J Womens Health (Larchmt) 2010;19(9):1705–13.

11. Maruta T, Yao K, Ndlovu N, Moyo S. Training-of-trainers: A strategy to build country capacity for SLMTA expansion and sustainability. Afr J Lab Med 2014;3(2):196.

12. Ertmer PA, Newby TJ. Behaviorism, Cognitivism, Constructivism: Comparing Critical Features from an Instructional Design Perspective. Performance Improvement Quarterly [Internet] 1993 [cited 2018 Sep 19];6(4):50–72. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1937-8327.1993.tb00605.x

13. Torre DM, Daley BJ, Sebastian JL, Elnicki DM. Overview of current learning theories for medical educators. Am J Med 2006;119(10):903–7.

14. Merriam, Sharan, Bierema, Laura. “Traditional Learning Theories” in Adult Learning: Linking Theory and Practice. 2014.

15. Kay D, Kibble J. Learning theories 101: application to everyday teaching and scholarship. Adv Physiol Educ 2016;40(1):17–25.

16. Lee A, Joynt GM, Lee AKT, et al. Using illness scripts to teach clinical reasoning skills to medical students. Fam Med 2010;42(4):255–61.

17. Torre DM, Durning SJ, Daley BJ. Twelve tips for teaching with concept maps in medical education. Med Teach 2013;35(3):201–8.

18. Knowles MS, III EFH, Swanson RA. The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development. 7 edition. Amsterdam ; Boston: Butterworth-Heinemann; 2011.

19. Daniel M, Carney M, Khandelwal S, et al. Cognitive Debiasing Strategies: A Faculty Development Workshop for Clinical Teachers in Emergency Medicine. MedEdPORTAL [Internet] 2017 [cited 2018 Jul 12];(13). Available from: https://www.mededportal.org/publication/10646/

20. Bhanji F, Gottesman R, de Grave W, Steinert Y, Winer LR. The retrospective pre-post: a practical method to evaluate learning from an educational program. Acad Emerg Med 2012;19(2):189–94.

**Table 1:** This table illustrates how educational theory and instructional principles informed the instructional design used to create this intervention on human trafficking for the SAEM 2018 National Conference. It offers examples of how learning theory and instructional principles informed decisions regarding what specific content was included in each case and how this content is organized into the scripted guides used by participants during role playing exercises. ("HT" = human trafficking; "TP" = trafficked person); * Knowles adult learning principles of "motivation to learn" and "orientation to learning" are combined in the table below due to considerable overlap in their goals and content)

| | **Case 1** | **Case 2** | **Case 3** |
|---|---|---|---|
| **Goal** | i) Learn about how to build trust with a TP and why this is important.<br>ii) Understand HT frequently involves males and/or labor exploitation (HT does not just entail sexual exploitation)<br>iii) Offer introduction to identifying features of TPs | Recognize common identifying features of potential TPs ('red flags') | i) Learn the high incidence of mental health disorders and/or substance abuse disorders in TPs<br>ii) Learn about actions that should and should not be taken after a patient discloses their trafficking status |
| **Clinical presentation used to prompt HT teaching** ("Common Prompt") | Your learner presents a case of a young man with muscular lumbar pain | Your learner presents a young woman with a genitourinary (GU) concern | Your learner presents a young woman with history of depression presenting with a heroin overdose |

| **Interactive Technique Used:** | Teaching Script | Concept map | Teaching Script |
|---|---|---|---|
| **How Cognitivism was Applied:** | a) "Common prompt": By using frequently encountered (non-HT) presentations to prompt initiation of this learning exercise, learners make a connection to an encountered clinical presentation (lumbar pain, GU concern, mental health conditions, substance abuse)<br>b) Learner is probed to create further connections between concepts and relationships they currently understand and the new content that is being taught. (e.g. presentations of child abuse or interpersonal violence, heat exhaustion, or traumatic injuries)<br>c) Content is compared and contrasted both with other new content and with learner's currently held concepts regarding HT. | | |
| **Cognitive Biases:** | <u>Availability bias:</u> The first case of the session highlights features of HT (a) male TP and b) labor trafficking) that are not consistent with common assumptions. | <u>Anchoring bias:</u> Case involves a woman with a GU concern but challenges the learner to consider that male TPs may have trafficking presentations. | <u>Search satisficing:</u> Emphasize the idea that TPs can present with non-trafficking related illnesses, so a heightened awareness is important. |
| **Knowles Principles:** | | | |
| • Motivation to Learn*<br>• Orientation to Learning* | Emphasize the impact HT has on people's lives:<br>i) "HT is a form of 'modern slavery where an individual is commercially exploited by force, fraud or coercion for labor or sex"<br>ii) "Often TPs lose their freedom and experience physical, sexual, and mental violence" | Emphasize why emergency clinicians must learn about TPs:<br>i) 68-88% of TPs reported having contact with a healthcare worker while being trafficked<br>ii)Greater than 50% of TPs seen by healthcare are seen in the Emergency Department | Emphasize the extent of trafficking and co-morbid conditions:<br>i) Handout provided with trafficking statistics *specific to the learner's state*. (from "humantraffickinghotline.org"<br>ii) Greater than 40% of trafficked patients have either mental health or substance abuse issues. |
| • Need to Know | This concept guided the organization and ordered the presentation of content within the session.<br>• e.g. emphasizing the extent of the problem or the impact that HT has on patient's lives occurred earlier in the scripts; the details of how one builds trust with TP came after information on identifying features and rationale for why building trust is important. | | |
| •Readiness to | Ask learner: | | Ask learner: |

| | | | |
|---|---|---|---|
| Learn (life tasks) | i) "We frequently see patients with back pain in our daily clinical practice? ...If 96% of providers have never received training on HT, imagine how many TPs we may have missed?<br>ii)"We usually think of young women and sex trafficking but what percent of TPs are men?" (30-40%) | i) Ask learner: "How many patients with GU concerns do we see while working clinically?...How often do we think of these as potential TPs"<br>ii) Emphasize: TPs are not only non-citizens and/or non-native language speakers: Citizens become coerced or kidnapped into trafficking | i) "How frequently do we see patients with mental health concerns or drug overdose/dependence issues?"<br>ii) "If a TP discloses their status to you, they are reaching out for your help…do you know what to do next? What are their rights? What are your responsibilities?" |
| • Learner's Experience | Probe learner with questions such as:<br>i) "What do you know about human trafficking?"<br>ii) What are the 2 types of trafficking? (sex and labor) | Probe learner with questions such as:<br>i) "When there is a discrepancy between a patient's history and exam, what are we concerned for?<br>ii) "What types of emotions/feelings have TPs reported experiencing when seeking medical care? What other types of patients report similar emotions? | Probe learner with questions such as:<br>i) "What do you consider when a patient presents with controlling 'relative' or partner, bruising of varying ages, etc.? (child abuse or interpersonal violence) |
| • Learner Self-concept (self-directed learning) | • Simple web address and QR code listed on learning guides linked to electronic resources that included:<br>o Web links for national guidelines, "best-practices" PDF guides, etc<br>o Patient resources<br>o National Human Trafficking Hotline<br>o Informational and educational videos<br>o Massive Open Online Courses | | |