



PennState
College of Medicine

Implementing ADEPT-CARE as a Novel Teaching Tool to Improve Medical Education

Lydia Smeltz
Third-Yea Medical Student, Penn State COM



Financial Disclosures and Acknowledgements

Funding: LS is funded by the Alliance for Disability in Health Care Education and the Woodward Center for Excellence in Health Sciences Education (Penn State College of Medicine).

Publications: Smeltz L, Carpenter S, Benedetto L, et al. ADEPT-CARE: A Pilot, Student-Led Initiative to Improve Care for Persons with Disabilities via a Novel Teaching Tool. *Disability and Health Journal*. 2023;101462.

Smeltz, L., Carpenter, S., Benedetto, L., Newcomb, N., Rubenstein, D., King, T., Lunsford, C., Shaw, T., DeWaters, A. Introduction to Disability and Anti-Ableist Healthcare: A Pilot, Student-Led Module for Preclinical Medical Students. *Am J Phys Med Rehabil*. 2024 Jan 12. doi: 10.1097/PHM.0000000000002399. Epub ahead of print. PMID: 38261784.

Prior Presentations: DAC Med Conference (15 October 2022) and American Academy for Cerebral Palsy and Developmental Medicine Annual Meeting (22 September 2022) - Both of these presentations were educational and void of data.

Association of Academic Physiatry Medical Student Council May Journal Club - Medical Education; Smeltz, L., Churukha, C., King, T., Newcomb, N., & DeWaters, A. (5 November, 2023). "ADEPT-CARE" for Disabled Patients: Continuing Medical Education for Patient-Facing Employees. AAMC Learn Serve Lead Conference.; Smeltz, L., Churukha, C., King, T., Newcomb, N., & DeWaters, A. (18-20 October, 2023). "ADEPT-CARE" for Disabled Patients: CME for Academic Medical Center Patient-Facing Employees. AMA Abstract Research Challenge - Poster Symposium Hall. Virtual. Member Site, Underline Science Inc. DOI: 10.48448/xfka-9a66.

+ Objectives

- (1) Describe how ADEPT-CARE was developed
- (2) Provide an overview of the ADEPT-CARE Protocol
- (3) Describe implementation amongst PSCOM and PSH
- (4) Results of initial implementation
- (5) Next Steps & Involvement

What is the problem? State of Medical Education & Disability Health

- Only 52% of accredited MD and DO schools include “disability awareness” in their curriculum¹
 - 80% of medical students at one institution felt their disability education was inadequate²
 - Specific discomfort with H&P
 - Lack of available, standardized, comprehensive resources
- Goal: To develop, pilot, and evaluate a novel teaching mnemonic (ADEPT-CARE) for performing a comprehensive H&P for disabled patients

1 Ioerger M, Flanders RM, French-Lawyer JR, Turk MA. Interventions to Teach Medical Students About Disability: A Systematic Search and Review. *American Journal of Physical Medicine & Rehabilitation*. 2019;98(7):577-599; 2 Chardavoine PC, Henry AM, Sprow Forté K. Understanding medical students' attitudes towards and experiences with persons with disabilities and disability education. *Disabil Health J*. 2022;15(2):101267.

ADEPT-CARE Development

- Inter-institutional collaboration, importantly - **with involvement** from disabled medical students and mentors
- Leveraged ADHCE Core Competencies on Disability and National League for Nursing materials
- Created a mnemonic → “ADEPT-CARE”

Pearl:

Medical Students are capable of creating change at their own institutions and other institutions.

Table 1

A summary of the ADEPT-CARE protocol for obtaining a history and performing an exam for persons with disabilities.

Letter	Recommendation	Description & problem representation	Sample questions/statements
A	Ask about Access needs and Accommodations in the healthcare environment	<ul style="list-style-type: none"> • Accessibility-related barriers to healthcare, especially transportation and communication barriers, are common and mitigatable. • There is a lack of accessible medical diagnostic equipment. When accessible equipment is available, it is not consistently utilized. • Consider access needs related to interpreter services, physical facility accessibility, medical equipment, medical forms, time, face masks, services animals, assistive technologies, transportation, and scheduling. • When appropriate, document accommodations in the medical record for future visits. 	<ul style="list-style-type: none"> • What can we do to make your visit to our clinic more accessible to you? • Did you have any difficulty accessing the clinic today? • Did you find our scheduling system accessible?
D	Defer to the Disabled person	<ul style="list-style-type: none"> • It is okay to ask a patient about their disability. • Inquiring about a patient's disability status and/or identity can build rapport and allow one to provide enhanced patient-centered care. • When meeting someone for the first time, default to person-first language (i.e., a person with a disability). • Some patients may prefer identity-first language (i.e., a disabled person) • Use the patient's language preference after inquiring. 	<ul style="list-style-type: none"> • How do you explain your [disability/diagnosis] to others? • How does your [disability/diagnosis] affect you?
E	Engage with the patient	<ul style="list-style-type: none"> • Talk directly to the disabled person. • Avoid directing the conversation at whomever may be accompanying them to the appointment. • Communicate as you would with a non-disabled patient: Speak in the same manner, tone, and volume. • Effective communication lets disabled patients know you are attuned to their concerns and needs which increases the likelihood of seeking care and following through with recommendations. • Communication may be supported by an interpreter, communication board, or other tools. 	<ul style="list-style-type: none"> • What is your preferred method of communication? • Do you need any accommodations for communication? • I'm sorry, I don't think I understood you. Let me try explaining this in a different way.
P	Promote Participation and Patient-Centered care	<ul style="list-style-type: none"> • Promote patient autonomy by engaging with the patient, even if they are accompanied by someone or are non-speaking/non-verbal. • Consider the use of shared or supported decision-making. • Respect boundaries. Adaptive and assistive devices, such as wheelchairs and service animals, are an extension of a person with a disability. You should not touch these devices or attempt to help a disabled person without first asking for consent or permission. 	<ul style="list-style-type: none"> • Are you comfortable with everyone here being present for our discussion? • What is the best way to help you? • Do you need assistance with dressing or getting onto the table? • May I move your belongings for you?
T	Take Time for a Thorough medical history and physical exam	<ul style="list-style-type: none"> • Perform a comprehensive physical exam. Avoid examining a patient in their wheelchair as this may lead to an incomplete exam. • Disparities in physical, sexual, reproductive, and mental health are stark for disabled patients. Do not skip any parts of the history or exam. • As with non-disabled patients, variable clinical encounter lengths are inherent to medical practice. 	<ul style="list-style-type: none"> • Do you need a lift to help you transfer to the exam table for the physical exam? • What is the best way for me to do this [exam maneuver]? • Is there any [exam maneuver] or body area I should avoid? Is there anything I should be aware of before I perform [exam maneuver]?

C	Consider disability-related Conditions	<ul style="list-style-type: none"> • People with disabilities are disproportionately exposed to risk factors for preventable health conditions, manifesting in increased prevalence of chronic conditions, such as cardiovascular diseases, diabetes, obesity, and depression. • These co-existing conditions are further exacerbated by physical inactivity and mental health conditions, which have increased prevalence among the disabled community and are major risk factors for chronic disease. • Both disabled men and women are at a higher risk of experiencing sexual violence, sexual coercion, and unwanted sexual experiences. • Some disabled people may be more vulnerable to abuse due to the need for personal assistant and personal caregiving. • Healthcare providers are mandatory reporters for abuse or neglect. 	<ul style="list-style-type: none"> • Have you ever felt unsafe with a caregiver or other person in your life? • Has anyone physically hurt you? • Has anyone forced you to have sexual activities? • Has anyone ever prevented you from using an assistive device? • Has anyone you depend on refused to help you?
A	Ask about Access needs and Accommodations in the home and community	<ul style="list-style-type: none"> • When assessing social determinants of health and social needs for people with disabilities inquire about the accessibility of community-based resources and accommodations. • Transportation barriers affect access to society, physical activity sites, grocery stores, pharmacies, social support, and more. 	<ul style="list-style-type: none"> • What accommodations [modifications, supports] do you have at home? • Do you have home modifications? • Tell me about the community where you live. • Do you have personal care assistance? • How long have you had your current [assistive device]?

(continued on next page)

ARTICLE IN PRESS

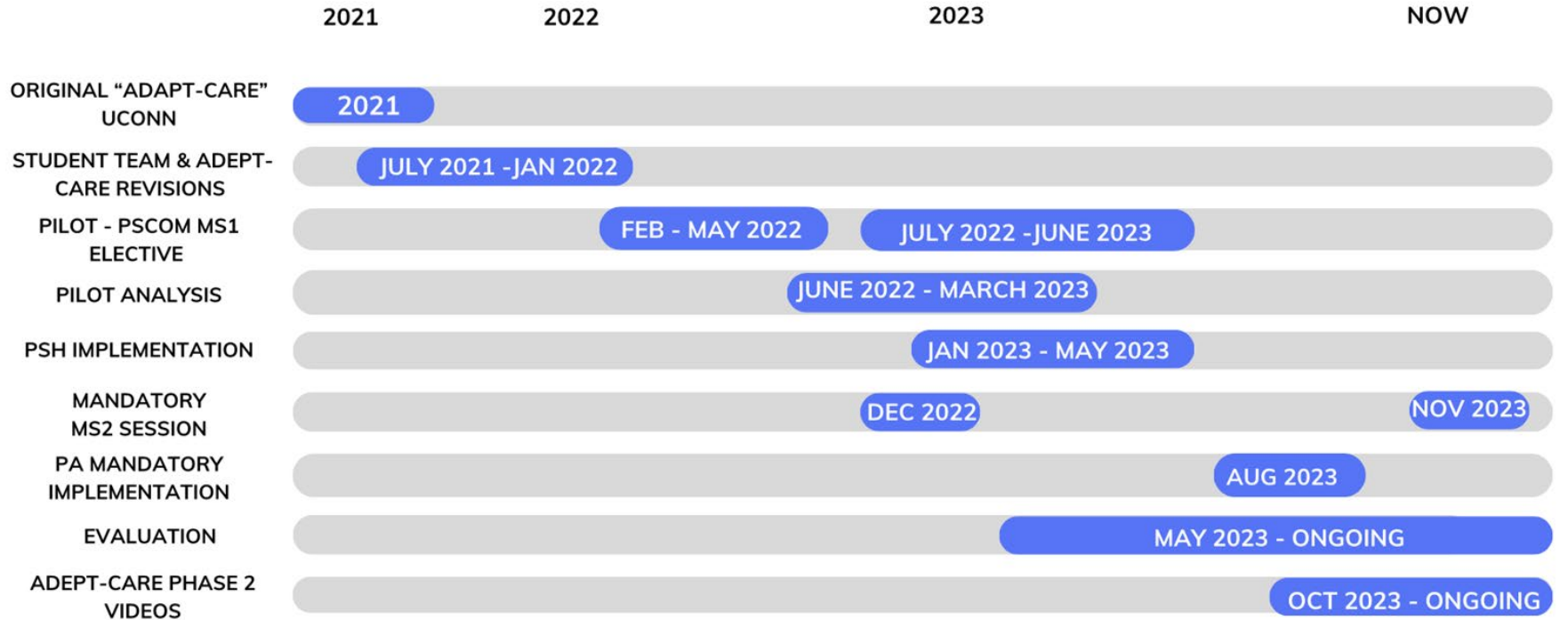
L. Smeltz, S. Carpenter, L. Benedetto et al.

Disability and Health Journal xxx (xxxx) xxx

Table 1 *(continued)*

Letter	Recommendation	Description & problem representation	Sample questions/statements
R	Review the treatment plan and Respond to feedback	<ul style="list-style-type: none"> • The cost of home modifications illustrates financial and physical accessibility barriers. • Review the treatment plan to assess the patient's understanding and solicit feedback on how to provide better care. • When a disabled patient corrects you or offers feedback, actively listen, and change your behavior accordingly. • Provide after-visit summaries and follow-up information in a format that is accessible to the patient. 	<ul style="list-style-type: none"> • Tell me about your exercise routine. • I want to make sure that I was clear today. Can you please summarize what we just went over in our visit and what the plan is going forward? • How would you like me to give you the after-visit instructions?
E	Ensure accessible follow-up and referral	<ul style="list-style-type: none"> • Consider the accessibility of any patient education materials and/or referrals. • Recognize the importance of interprofessional care for disabled patients. • Collaborate and communicate with other providers to optimize care. • Ensure that the patient has a method to communicate with your clinic that is accessible to them in case questions arise. 	<ul style="list-style-type: none"> • What questions do you have for me about what we went over during your visit today? • I will call the imaging facility to let them know what accommodations you require for your mammogram. • I confirmed that this specialist has an accessible practice. • Let us talk more about this [health program] in your local community that may be accessible to you.

A Brief History of ADEPT-CARE



Implementation Details

	Penn State COM Pilot - Spring 2022	USF	PSH	Penn State COM Current
Year in Training	First-year medical students	Medical students and residents	All patient-facing employees voluntarily invited to participate	First-year medical students Second-year medical students First-year Physician Assistant students
Number of Participants	33 pre-survey responses 21 post-survey responses	47 pre-survey responses 42 post-survey responses	14,000	All [Mandatory Session(s)]
Implementation Environment	“Flex Hours” within Health Systems Science course Asynchronous, self-paced	Online, self-paced, stand-alone	Asynchronous module/video	MS1 - asynchronous module/video MS2 - In-person with panel PA - asynchronous module/video

ADEPT-CARE Results

First-Year Medical Students

- ALL (100%) of student participants reported (agree/strongly agree) ...
 - That they will **use** ADEPT-CARE to assess patients with disabilities
 - ADEPT-CARE will help them to **take better care** of patients with disabilities
 - A desire to receive more training on disability

Smeltz L, Carpenter S, Benedetto L, et al. ADEPT-CARE: A Pilot, Student-Led Initiative to Improve Care for Persons with Disabilities via a Novel Teaching Tool. *Disability and Health Journal*. 2023;101462.

PSH Patient-Facing Staff

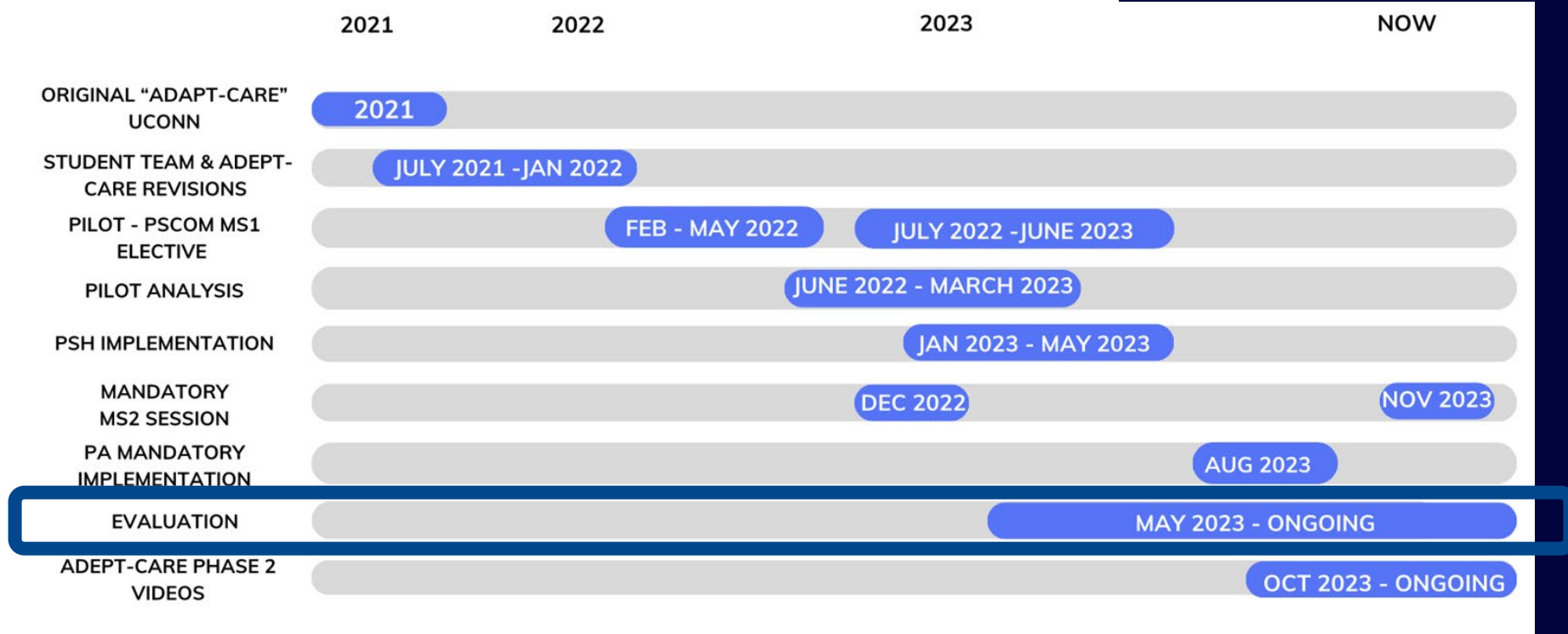
- Nearly all participants agreed that the ADEPT-CARE module ...
 - Increased their **confidence** in caring for PWD (N = 1,396, 93.1%)
 - Improved their **knowledge** of disability health (N = 1,425, 94.6%)
 - Will help them **take better care** of PWD (n = 1,463, 96.5%)

"ADEPT-CARE" for Disabled Patients: Continuing Medical Education for Patient-Facing Employees. AAMC Learn Serve Lead Conference; Smeltz, L., Churukha, C., King, T., Newcomb, N., & DeWaters, A. (18-20 October, 2023). "ADEPT-CARE" for Disabled Patients: CME for Academic Medical Center Patient-Facing Employees. AMA Abstract Research Challenge - Poster Symposium Hall. Virtual. Member Site, Underline Science Inc. DOI: 10.48448/xfka-9a66.

Recap & Progress Thus Far

- Pilot PSU results were promising! → *manuscript published*
- Assess generalizability with USF data analysis → *manuscript in process*
- Assess generalizability with other health professions students, i.e. nursing students, physician assistant students, etc. → *data collected, analysis in process*
- Assess efficacy and generalizability with practicing healthcare professionals → *data analysis phase*
- Continue to promote ADEPT-CARE as a valuable teaching tool → *ongoing*

More Analysis & Results Coming Soon!



Next Steps

- Evaluation of PA data & manuscript writing
- PSH data manuscript writing
- Longitudinal data evaluation with students
- Development of phase II videos → focused on pediatrics patients and patients with I/DD
 - ARC of PA partnership
- Curriculum sustainability
- Curriculum dissemination
 - Institutional partnerships
 - DIT
 - Academic conferences/presentations
 - Community presentations

+ Summary

- Goal: To develop, pilot, and evaluate a novel teaching mnemonic (ADEPT-CARE) for performing a comprehensive H&P for disabled patients
- Fills a reported gap in medical education → directly address students' discomfort performing an H&P with disabled patients
- ADEPT-CARE has the potential to be an easily understandable teaching tool
- Could be effectively and flexibly implemented into medical education



PennState
College of Medicine

Thank you!

Lydia Smeltz
Twitter/X: @LydiaSmeltz
ismeltz1@pennstatehealth.psu.edu
lydiasmeltz@gmail.com

