Safe Patient Handling and Mobility (SPHM) for Colleges and Universities - Resources for Educators

Content:

Posters describing how health care education schools have integrated Safe Patient Handling and Mobility (SPHM) into student curriculum.

ASPHP Curriculum White Paper

Nursing Schools

• Safe Patient Handling and Mobility (SPHM): Preparing Nursing Students for the Healthcare System of the Future. Kristy Lanciotti, MN, RN, CPN, Oregon Health & Science University School of Nursing and Lynda Enos, RN, BSN, MS, COHN-S, CPE, HumanFit, LLC.

Physical Therapy Schools

- Journey of a Thousand Miles-Jan's Story: Promoting Assistive Mobility Technology in DPT Curriculum. Jamie Haines PT, DScPT, Emmy Kinner SPT, Hunter Lamarch SPT, Mathew Malone SPT, Anna Zaremba SPT. Central Michigan University, Department of Physical Therapy, Mount Pleasant MI.
- SPHM Education in Doctor of Physical Therapy Curriculum: A Case Report. Jamie Haines, PT, DScPT, Central Michigan University Department of Physical Therapy & Margaret Arnold, PT, CEES, CSPHP, CEO, Earlymobility.com
- Translating Safe Patient Handling & Mobility Curriculum into Clinical Practice: Clinical Education Experiences of Doctoral of Physical Therapy Students. Dr. Jamie Haines, DPT ~ Darie Kirschling, SPT ~ Summer Demeuse, SPT Central Michigan University





The Association of Safe Patient Handling Professionals (ASPHP)



Safe Patient Handling and Mobility (SPHM) Education in Health Care Student Curriculum A White Paper

Background

The ASPHP SPHM Curriculum Task Force developed this white paper to facilitate integration of SPHM content into health care student education programs in the United States (US). The SPHM Curriculum Task Force is a subcommittee of the ASPHP Education Committee.

PROBLEM:

SPHM content is NOT being taught in health care educational programs.

PURPOSE:

Advocate for incorporation of SPHM content for all students in health care education programs across multiple disciplines who will mobilize people in the health care continuum.

The paper identifies:

- Why SPHM content is needed across all academic programs.
- Current state of SPHM education from the literature.
- Successful models of SPHM education published in the literature.
- Gaps/barriers to curriculum content adoption.
- Recommendations to better prepare students to practice safely and without injury to themselves or to their patients.
- A foundation for development of recommended SPHM curriculum for <u>all</u> health care student education programs in the US.



Why is this White Paper Needed?

- Without exposure to SPHM techniques and training, students are at greater risk for injury during their clinical internships, before they even graduate.
- Students don't have the latest evidence to keep themselves and their patients safe.
- Recovery of patients can be prolonged or impeded without new graduate SPHM knowledge.
- Creation of SPHM champions in every discipline at every education level.

Barriers to Implementation of SPHM Education in Health Care Student Curriculum

- Health care culture: Primary focus on patient safety
- Lack of national SPHM regulation
- ► No requirement by licensing entities to require SPHM in curriculum
- ► Few core textbooks include current evidence-based principles of SPHM
- ► Lack of consistent SPHM practices in clinical practice locations
- ► Lack of standardized SPHM curriculum

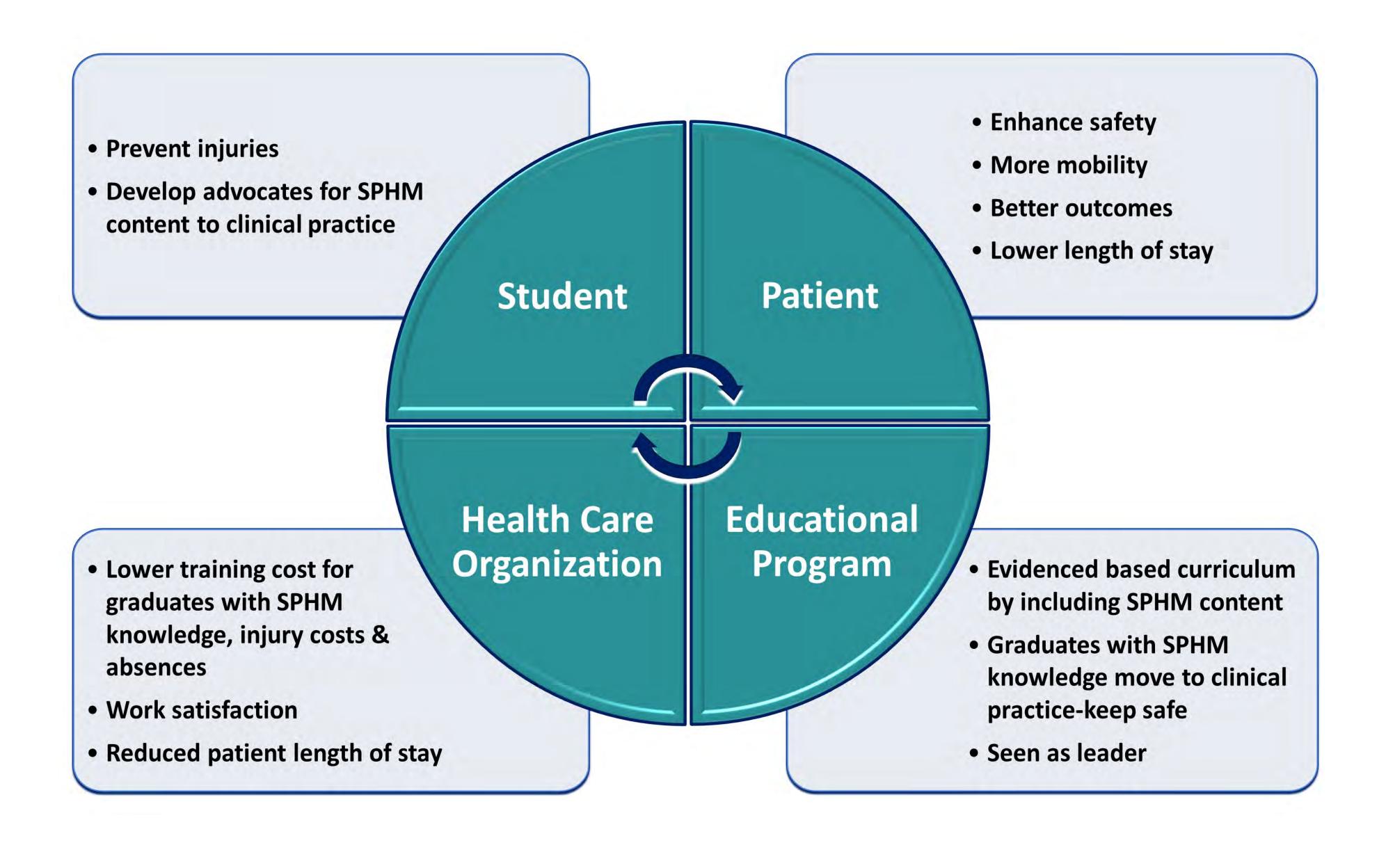
- ► Lack of awareness of evidence-based SPHM principles by leaders/faculty
- Lack of funding to support equipment in labs for more access
- Lack of expertise to teach content
- crowded curriculums
- SPHM not on licensing board exams

Perceived lack of time by faculty in

Not required specifically by accreditation bodies

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Benefits for SPHM Education in Health Care Student Curriculum in the US



Development Process

- **Extensive literature review informed this white paper.**
- Initial search produced 770 titles with abstracts.
- Title & abstract review by committee with 41 articles for inclusion.
- Committee members reviewed articles & contributed to writing sections of paper.
- Feedback was solicited from nursing and physical therapy faculty at 2 academic institutions prior to publication.

Next Steps

- Marketing strategy development to disseminate the paper and educate faculty.
- Development of core SPHM curriculum content for all health care students and content that is specific to different disciplines e.g., nursing, and physical therapy.



The SPHM Education in Health Care Student Curriculum White Paper is available at www.asphp.com

Please share with students, faculty, schools!!!

The White Paper was developed by the following members of the ASPHP Curriculum Committee

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Photos courtesy of:

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Safe Patient Handling and Mobility (SPHM): Preparing Nursing Students for the Healthcare System of the Future Kristy Lanciotti, MN, RN, CPN, Oregon Health & Science University School of Nursing and Lynda Enos, RN, BSN, MS, COHN-S, CPE, HumanFit, LLC.

Why integrate SPHM into nursing curricula?

- Manual patient handling and mobility poses significant risks of injury to patients and health care workers (HCWs).
- Nurses <u>and</u> nursing students experience high rates of low back pain and injury related to manual patient handling.
- o The average annual prevalence of low back pain in nurses is 50%, and recurrence rates of low back pain in nurses exceed 70%.
- A recent literature review found the 12-month incidence of low back pain in nursing students ranged from 29% to 67% (Wong et al., 2021).
- Over 40 years of research has demonstrated why the use of 'proper body mechanics' is <u>not</u> sufficient to mitigate the risk of injury to HCWs.
- Evidence based Safe Patient Handling and Mobility (SPHM) practices that include use of powered lifts can reduce these risks.
- SPHM content is NOT currently being taught in most health care educational programs.
 - Students don't have the latest evidence to keep themselves and their patients safe.
 - O Without exposure to SPHM techniques and training, students are at greater risk for injury during their clinical internships as well as after graduation, forcing some to leave the profession.
- o Patients' recovery can be prolonged or impeded without new graduate SPHM knowledge.
- In the current environment of nursing shortages and higher patient acuity, including SPHM principles and skills as part of nursing curricula can be a means to ensuring a nursing workforce that is prepared for the health care system of the future.

"Rather than accelerating culture change toward safe mobilization of patients, university level preparation may be retarding the progress."

Wiggermann et al. (2024, p. 6)



Nursing students at Oregon Health & Science University using an air assist device to transfer a dependent patient. Source: Lanciotti, K. (2024)

SPHM involves the use of assistive devices such a mechanical lifts, to reduce the risk of injury to HCWs and patients during handling and mobility tasks and enhance quality of patient care and outcomes.

SPHM is *not* the use of traditional body mechanics and/or gait belts to lift and mobilize patients.

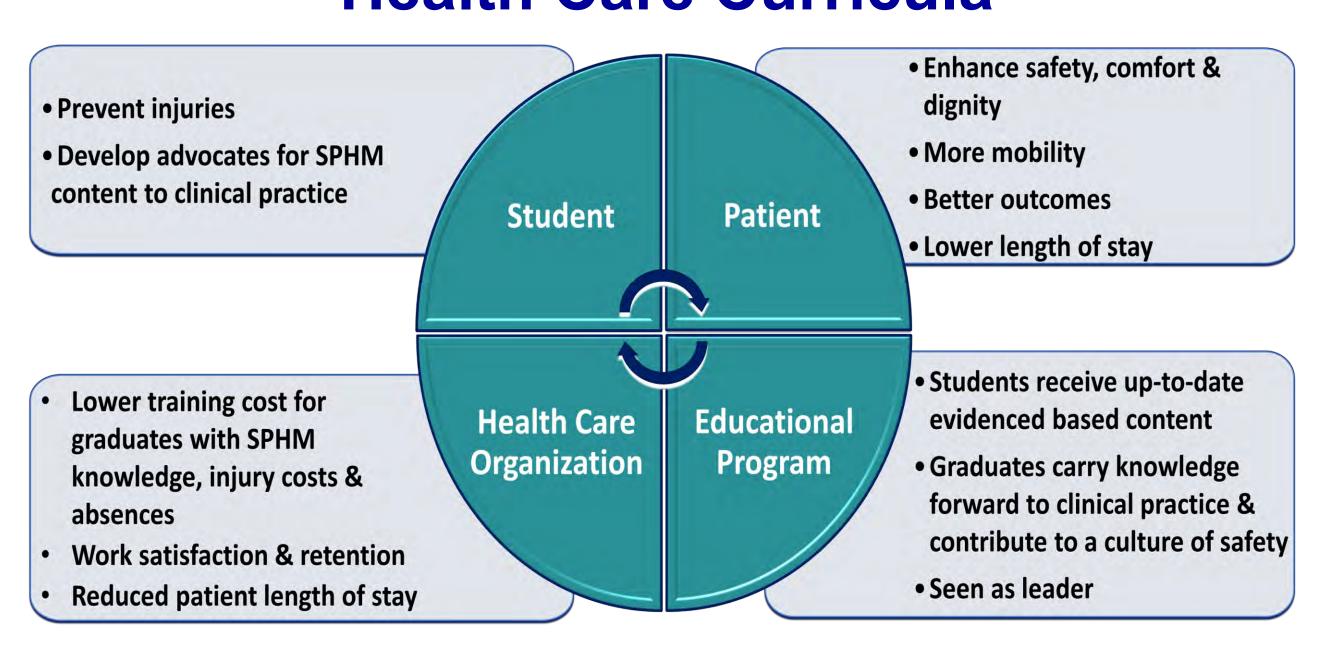
How does teaching SPHM align with nursing education standards?

American Academy of Colleges of Nursing (AACN) 2021 Essentials
 Domain 5: Quality and Safety

"Fundamental to the provision of safe, quality care, providers of care adopt, integrate, and disseminate current practice guidelines and evidence-based interventions. Safety is inclusive of attending to work environment hazards, such as violence, burnout, ergonomics, and chemical and biological agents; there is a synergistic relationship between employee safety and patient safety. A safe and just environment minimizes risk to both recipients and providers of care." (p. 39)

- Quality and Safety Education for Nurses (QSEN) Institute Pre-Licensure Competencies (Cronenwett et al., 2007)
 - o **Evidence Based Practice (EBP):** "Integrate best current evidence with clinical expertise and patient/family preferences and values for delivery of optimal health care" (p.126)
 - O **Safety:** "Minimizes risk of harm to patients and providers through both system effectiveness and individual performance" (p. 128)
- Competency Based Education
- American Nurses Association (ANA) Scope and Standards of Practice
- ANA Code of Ethics

Benefits of SPHM Education in Health Care Curricula



What are resources that nurse educators can use now?

- Safe Patient Handling and Mobility (SPHM) Education in Health Care Student Curriculum (2023). A white paper by the Association of Safe Patient Handling Professionals (ASPHP). Access the ASPHP White Paper at https://asphp.org/ or by using the QR Code to the right.
- Protect Health Care Workers and Recipients (2024) In press.

 A white paper by the American Industrial Hygiene Association (AIHA), the ASPHP and the ANA. Access the White Paper at https://aiha.org/ or by using the QR Code to the right from Oct 1, 2024.
- Safe Patient Handling and Mobility: Interprofessional National Standards Across the Care Continuum, 2nd edition. (2021). Published by the ANA to fulfill a need for national guidelines to reduce the risk of injuries and MSDs of healthcare workers. Access at https://www.nursingworld.org/
- Potter, P.A. Perry, A.G. Stockert, P.A., & Hall, A. (2022). Fundamentals of nursing, (11th ed.). Mosby. Contains chapter on SPHM.
- Nursing programs interested in including SPHM in their curricula can contact **Lynda Enos**, co-chair ASPHP Curriculum Task Force at email: info@asphp.org or humanfit@aol.com

How can barriers to integrating SPHM into nursing education be addressed?

"Health care education programs can and should play a critical role in driving... culture change in health care, equipping students with the knowledge and skills to ensure their health and safety and maximize the well-being of their patients." (ASPHP, 2023, p. 1)

Regulatory Factors

Challenges:

- Lack of national SPHM regulation
- Licensing board exams do not include SPHM
- Accreditation bodies do not specifically require SPHM in curriculum

Solutions:

- Incorporate requirements of applicable SPHM State laws and use professional standards (such as the ANA Interprofessional SPHM standards) as foundational material when implanting SPHM into curriculum
- Advocate for change to the above external regulatory drivers e.g., including evidence-based SPHM practices in licensure exams

Content Factors

Challenges:

- Lack of standardized SPHM curriculum
- Few core textbooks include current evidence-based SPHM principles
- Lack of leader/educator awareness of evidence-based SPHM principles
- Lack of educator expertise to teach content

Solution:

- Access, expand and disseminate resources that nursing educators can use (See list of existing resources to the left)
- Partner with clinical practice locations that have SPHM programs to help train faculty and students
- Educate publishers of nursing textbooks about the need to include information about SPHM

Nursing Program Factors

Challenges:

- Lack of funding to support access to equipment in labs
- Perceived lack of time by educators in crowded curriculum

Solution:

- Incorporate SPHM into existing content (similar to teaching correct use of personal protective equipment (PPE)) and spiral/reinforce SPHM practices through the curriculum
- Connect with clinical practice locations that have SPHM programs and/or with SPHM technology vendors who may be able to loan or donate SPHM equipment to a lab

Practice Factors

Challenges:

- Health care culture emphasizing patient safety to exclusion of worker safety
- Lack of consistent SPHM practices in clinical practice locations

Solution:

- Promote culture change by assisting health care facilities to understand relationship between HCW and patient safety and the role of SPHM. Non-injured nurses stay at the bedside, alleviating nursing shortage which improves patient safety
- Schools, as well as graduates who have been trained on SPHM, can be a part of this culture change leading to more consistent SPHM practices in workplaces through being champions and setting expectations towards worker well-being and patient safety

Poster:

Safe Patient Handling and Mobility (SPHM): Preparing Nursing Students for the Healthcare System of the Future

Kristy Lanciotti, MN, RN, CPN, Oregon Health & Science University School of Nursing and Lynda Enos, RN, BSN, MS, COHN-S, CPE, HumanFit, LLC.

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Journey of a Thousand Miles-Jan's Story: Promoting Assistive Mobility Technology in DPT Curriculum

HEALTH PROFESSIONS

PHYSICAL

THERAPY

CENTRAL MICHIGAN

LINIVEDSITY

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"Equipment is the Catalyst"

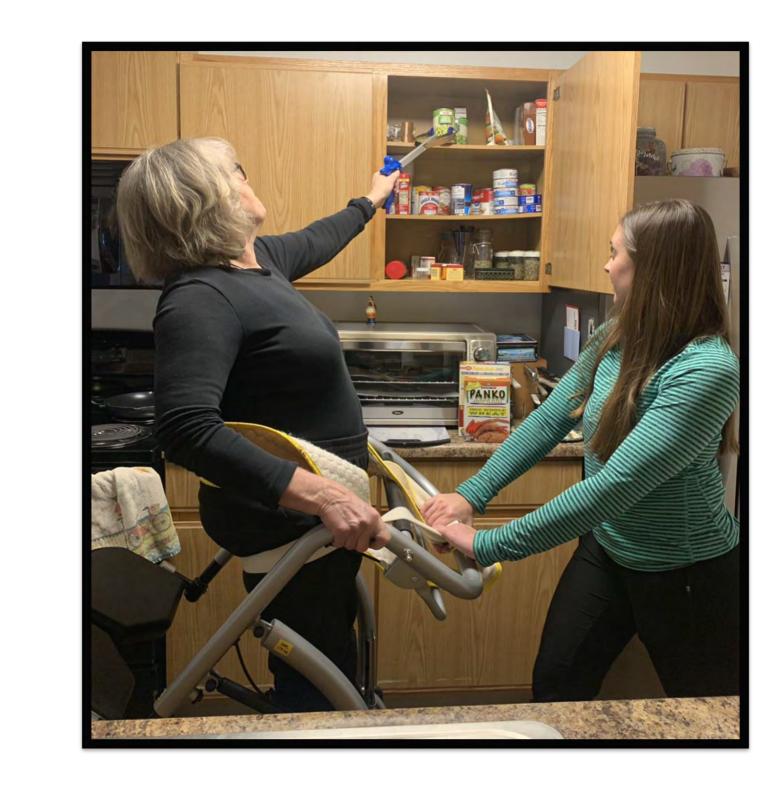


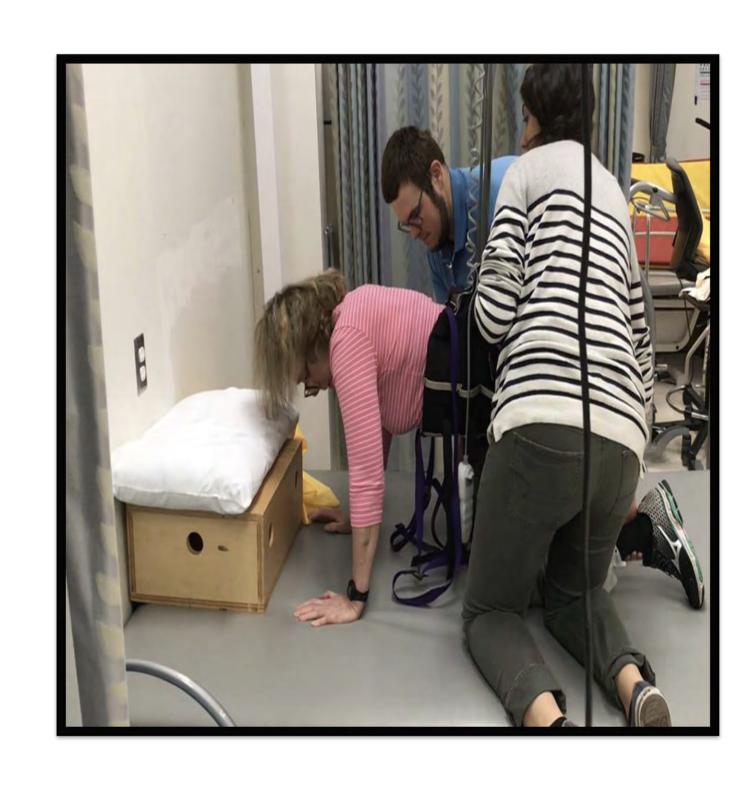


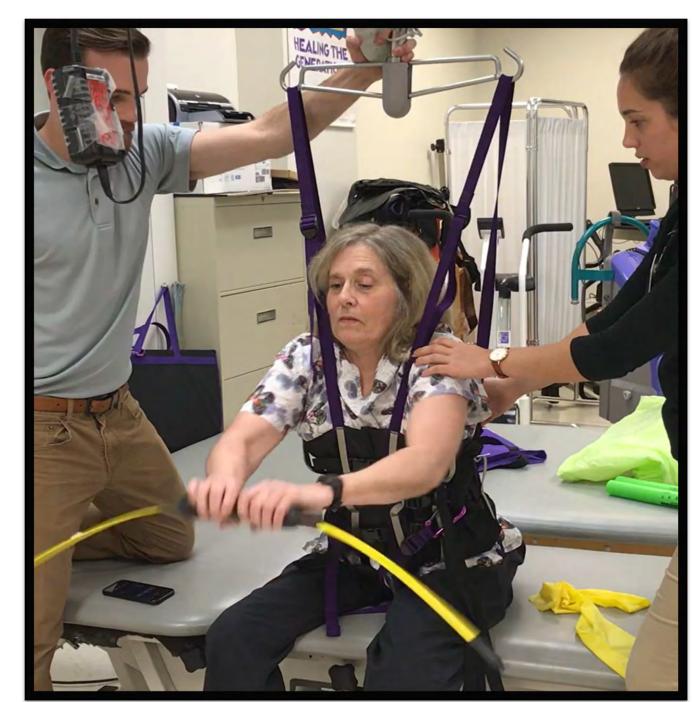


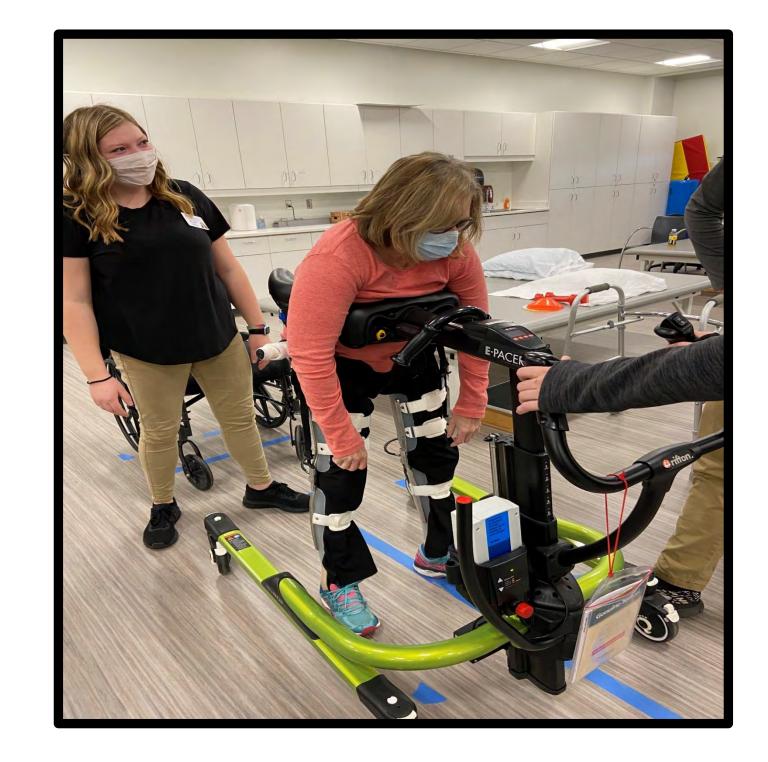




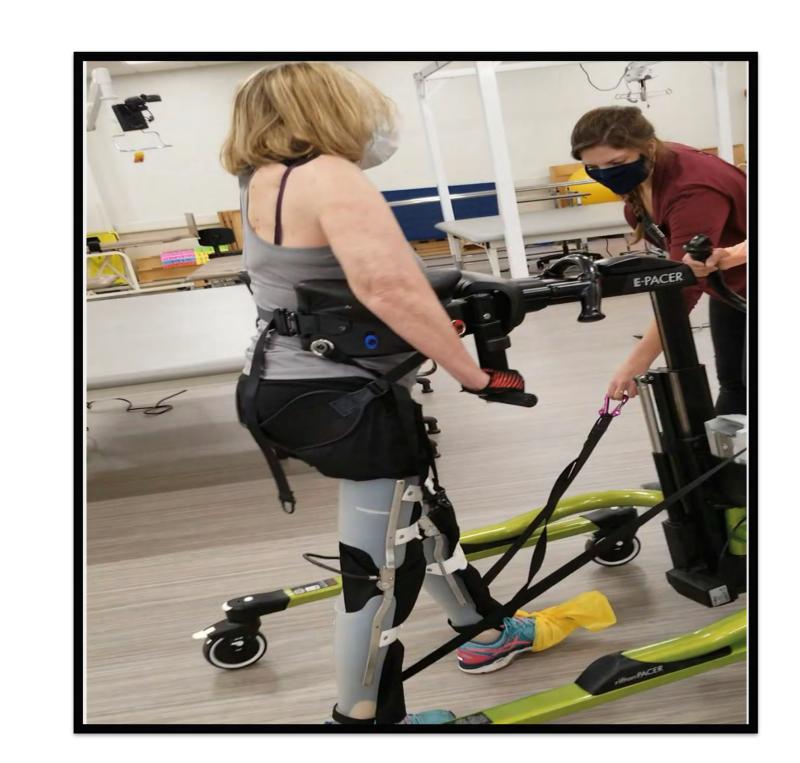


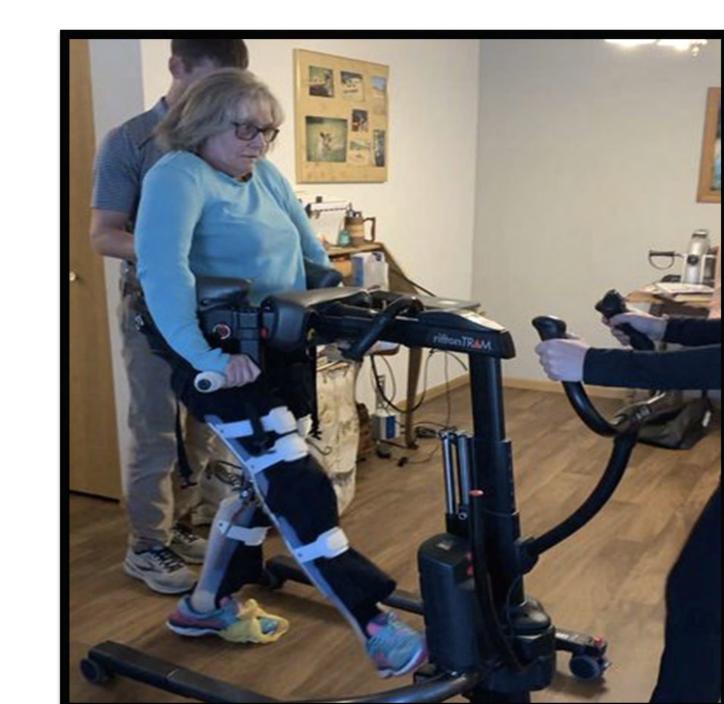






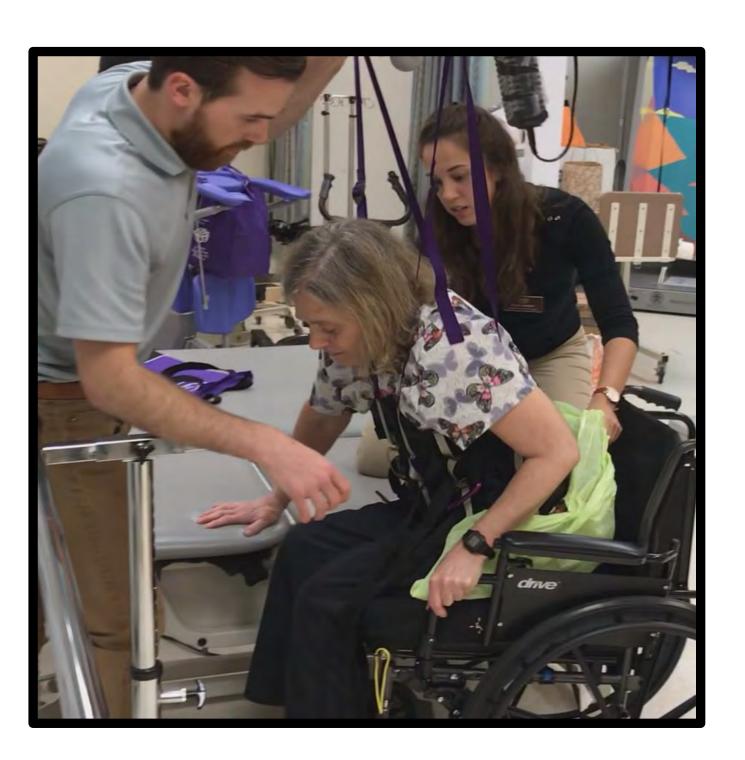






Bed Mobility/Transfers

Slide Board Transfer
1/19: 2:40 minutes 1 transfer
6/22: 1:12 minutes 5 transfers



Sitting Balance

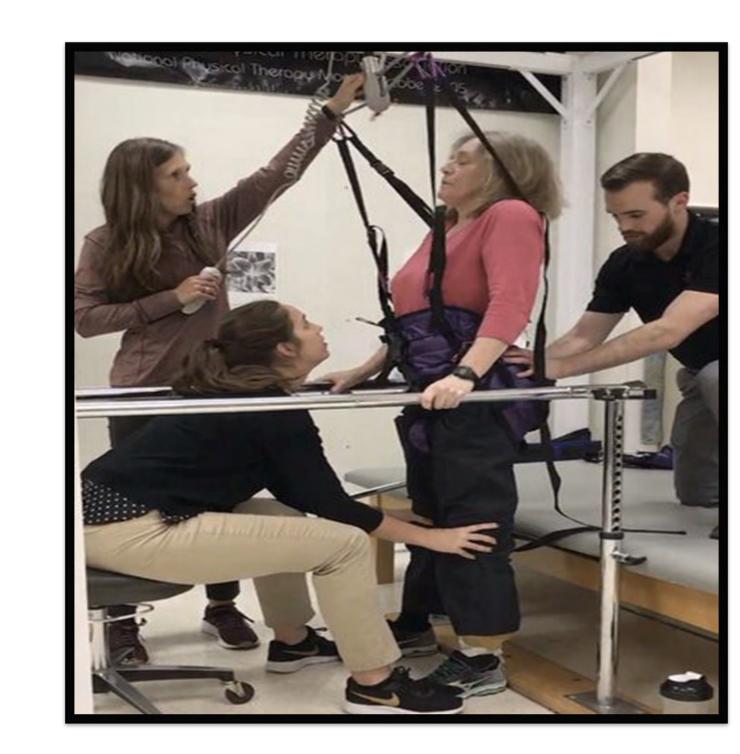
Midline Sitting Balance
1/19: 1 minutes before LOB
9/21: 5 minutes before LOB
Dynamic Reach

1/19: unable
5/19: forward 4 inches



Standing Endurance

9/19 Initial standing4/23: 3-minute rounds for24 total minutes



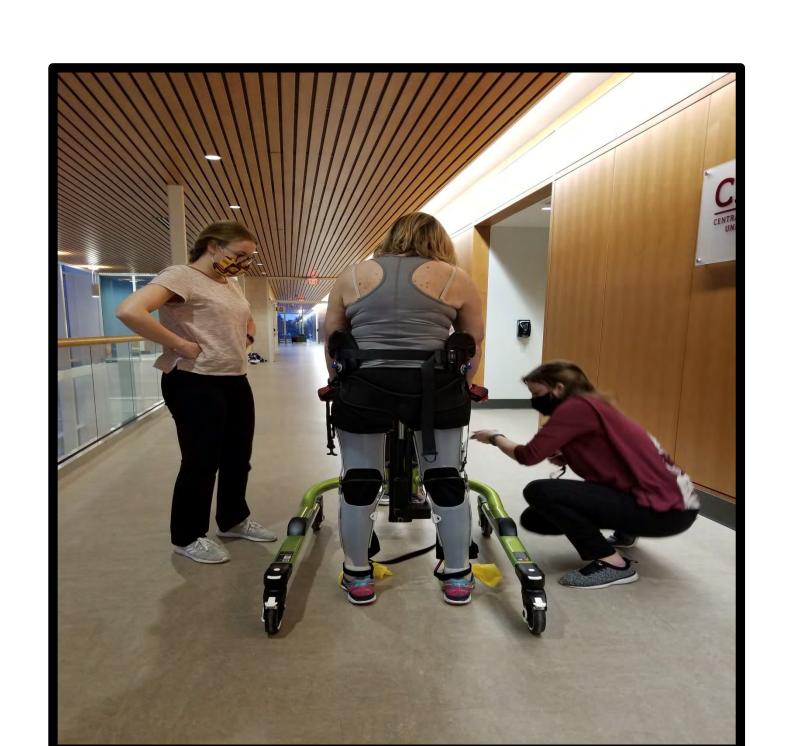
Pre-Gait "Sweet Spot"

8/22: Safely working on 'jack-knife' to 'sweet spot'



Early Walking

11/20: E-Pacer 10 ft 30# unweighted4/21: 513 ft per walk





4/23: TRAM 150 ft outdoors



"The equipment gives me more confidence and eliminates my fear of falling"



SPHM Education in Doctor of Physical Conclusions Therapy Curriculum: A Case Report

Jamie Haines, PT, DScPT¹; Margaret Arnold, PT, CEES, CSPHP²

¹ Central Michigan University Department of Physical Therapy ²CEO, www.earlymobility.com

Background

Safe Patient Handling and Mobility (SPHM) content is lacking across health care professional programs including nursing, occupational and physical therapy. 1-3

Barriers to implementation into DPT education include program leader resistance, lack of time in program, lack of equipment and faculty expertise to teach SPHM content.4

American Physical Therapy Association expects PT to be the leaders in using, teaching and advocating for SPHM in the profession.⁵

Didactic and classroom training impacts students' SPHM behaviors, attitudes and leadership expectations.⁶

Haines and Arnold proposed SPHM content be threaded through the curriculum with continuous access to equipment given to students.7

Central Michigan University PT program embeds 13 hours of SPHM content in 3 years.

Methods

Mixed methods study. Survey and semistructured interviews of DPT student perceptions regarding student confidence with SPHM principles before and after final clinical education experiences.

Pre-rotation surveys: n=33 Interviews-15

Post-rotation interviews: n=16

Analysis: Descriptive Statistics for mean with standard deviation for continuous and categorical variables. Pearson correlation coefficient identified associations between survey data and level of confidence (p=.05). Constant Comparative method identified themes.

Results

Pre-Final Rotation Interview and Survey

Theme #1: AWARENESS

"I think for me, being someone who's a little bit of a smaller physical therapist, safe patient handling will allow me to do so much more with my patients without the fear of them falling or the fear of hurting myself..."

Theme #2: APPLICATION

"I feel confident just because I've had so much experience with it outside of and in class and I've seen firsthand the difference it can make for patients."

Theme #3: ADVOCACY

"I feel like I'm pretty confident and able to articulate why it's beneficial and if I was in a facility where I saw a lot of need for something like that, I think I could have the resources to present to anybody that wanted actual research on it."

Table 1. Learning activities correlated with awareness, application and advocacy categories from interviews and factor for behavior change from the Integrative Behavioral Model (IBM)

Student Belief and, Attitude Survey Statements	Learning activities correlated to survey statements	IBM factor addressed to facilitate behavior change
Awareness (Q13) Confidence to identify risk of manual handling Q19) Sufficient Evidence is provided by DPT	 Watching SPHM videos Physically hooking someone up 6-week rotations in neuro, acute care, inpatient rehab agreed more that DPT SPHM curriculum was sufficient as 	Intention Saliency
program (Q17) SPHM Principles are Feasible in PT practice	compared to those in OP ortho settings	
Application (Q11) Confident to assemble/adjust and fit patient for equipment (Q12) Confident to use experience with familiar equipment to unfamiliar (Transfer knowledge)	 Reading articles Viewing mobility websites Watching others, Physically hooking someone up Implementing interventions Reflecting on outcomes of interventions Reflection on implementing recovery principles 	Intention Knowledge & skills Saliency Experience to Habit Few environmental constraints
Advocacy (Q20) Will advocate use of SPHM equipment and practice during upcoming clinical education experiences	 Physically hooking someone up Reflecting on interventions Reflection of outcomes 	Intention Knowledge and skills Saliency

Post-Final Rotation Interviews

- Searching/asking for equipment
- Aware of differences in pain with & without SPHM equipment Wanting to improve engagement
- Acute/inpatient rehab/subacute
- Combined recovery principles w/ SPHM knowledge to promote neuroplasticity & engagement Transferring knowledge (Dx, equipment, care continuum)
- Education to others through demonstration, provision of resources/research, in-services
- Working with barriers









This 3-year embedded SPHM curricular model improved DPT student confidence in awareness, application, and advocacy for SPHM principles from the classroom with transference to final clinical rotation, especially in acute, inpatient rehabilitation and subacute settings.

A combination of cognitive, psychomotor and affective learning strategies effectively developed student confidence and positive value/attitude for clinical use and advocacy of SPHM principles.

This study provides details educators can consider to successfully implement SPHM content in DPT education with positive results.

Limitations: Small sample size and limited generalizability.

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We wish to thank the CMU DPT students for participating in surveys and interviews.



Health Professions



Translating Safe Patient Handling & Mobility Curriculum into Clinical Practice: Clinical Education Experiences of Doctoral of Physical Therapy Students

Dr. Jamie Haines, DPT ~ Darie Kirschling, SPT ~ Summer Demeuse, SPT • Central Michigan University

Introduction

- The APTA recognizes physical therapists (PTs) as the leaders in advocating for Safe Patient Handling and Mobility (SPHM) principles including using equipment and educating other healthcare providers to reduce injuries and promote mobility.¹
- SPHM principles are not an embedded part of most Doctor of Physical Therapy programs, despite research on student injury² and ability to offer therapeutic activity options earlier and more often, with medically complex or difficult to mobilize clients.³
- Students enrolled in DPT programs that included SPHM curriculum have positive attitudes regarding SPHM principles leading to greater usage and advocacy for SPHM in clinical education and post-graduation.¹
- Central Michigan University DPT program incorporates SPHM principles across all three years of the program.
- The purpose of this study was to examine how a SPHM curriculum transferred to clinical practice during Doctor of Physical therapy students' final clinical education experiences.

Methods

Grounded theory qualitative research study:

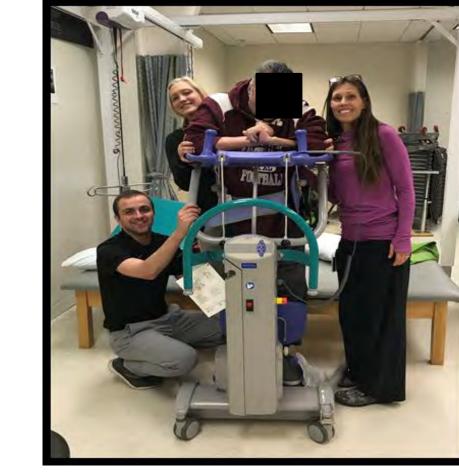
- <u>Subjects:</u> 16 third year Doctorate of Physical Therapy students who completed final clinical education experiences
- Sample of convenience
- <u>Data collection</u>: Semi-structured individual interviews completed; audio-recorded
- <u>Data Analysis</u>: Data transcribed; identifiable data removed; constant comparative method utilized to develop consensus of main themes

Results

Confidence to Apply SPHM Knowledge in Clinical Practice

Acute/Subacute/Inpatient rehabilitation settings

".....I decided [on what SPHM equipment to use] and I'd consult with [clinical instructor] if I really did have a question...but for the most part I was able to differentiate that on my own and we went with it."



Advocate for SPHM Principles Through Education of Others

"They [clinicians] felt the equipment would hinder them [patient] from being able to progress and so I had to defend my decision on why I wanted to use [the equipment], but I feel like I was able to effectively get the point across"

"When the Rifton TRAM came into the office my clinical instructor was like 'Oh what was this? This is cool looking.' So, I showed her how the harness worked, and I talked about how I used it for my patients to offload the patient...like weight bearing. My CI thought it was super cool."

Identify Barriers to Integrate SPHM Knowledge into Clinical Practice

CI knowledge/comfort level, access to equipment, lack of equipment, culture of facility

"I felt like [the patient] could have benefited from using the [equipment], but my CI said that the setup was extensive and[the patient] only had a week left and so [the CI] told me that we can't use it even though I know [the patient] would have benefited from it."

"I had asked about [using the equipment it while I was there, but the [facility] just reserved that [equipment] for the nurses and the neurological floor so it wasn't available to me."



Discussion

- Overall, students reported high confidence in using and advocating for SPHM principles and equipment in the clinical setting, especially in subacute, acute care, and inpatient rehabilitation settings.
- Students reported similar barriers in translating this knowledge into clinical practice as previous studies.²
- Students cited the repeated exposure throughout the program as the most important factor in developing confidence with SPHM.
- CMU SPHM curriculum provides continuous access to equipment, a variety of hands-on opportunities to develop confidence and critical thinking skills repeated through the three years program as recommended by Haines and Arnold⁴

Conclusion

Providing repeated, multi-modal experiences with SPHM equipment and principles throughout the DPT program appeared to provide students with enough confidence to apply and advocate for SPHM in clinical practice, especially in acute, subacute, and inpatient rehabilitation settings.

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