# Development of a Healthcare Education Program Assessment of Pain Management Knowledge,Skills, and Attitudes

Kimberly Bassler, SPT; Ankita Roy, SPT; Luke Reardon, SPT; Ryne Woodard, SPT; and Wil Kolb, PT, DPT, OCS, FAAOMPT

RADFORD UNIVERSITY
Department of Physical Therapy

RADFORD UNIVERSITY
Department of Physical Therapy

## Purpose + Foundation

Pain is the most common reason for medical visits (Louw, 2016), however lack of pain management curricula and assessment measures in healthcare education programs (HCEPs) has led to graduates feeling unprepared to treat patients with chronic pain management needs. Current HCEP measures place emphasis on pain management knowledge within a single discipline (e.g. prescription of opioids or neuroscience education) and are ill-suited for the shift to evaluate attitudes and skill competency as students enter the workforce. The International Association for the Study of Pain (IASP) developed an interprofessional pain management curriculum, however no assessment tools exist (Fishman, 2013). Based off the four domains developed by the IASP, a new survey, the pre-professional pain education survey (3-PES) was created to better analyze baseline knowledge and abilities regarding preparedness for treating patients with pain management needs

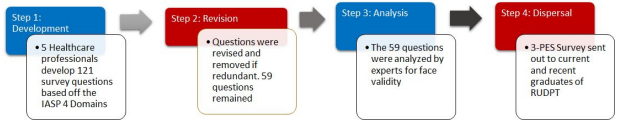
Domains of Pain

- Multidimensional Nature Of Pain: What is Pain? (D1)
- Management of Pain: How is Pain Relieved? (D2)
- Pain Assessment and Measurement: How is Pain Recognized? (D3)
- Clinical Condition: How does Context Influence Pain Management? (D4)

## Description

The main goal of this project was to create an assessment of pain management knowledge, skills, and attitudes (KSA's) for healthcare education programs (HCEPs) that also investigated how HCEPs teach pain management. A secondary aim was to see if any differences could be determined between graduates and current students.

A team of physicians, nurses, and physical therapists (PTs) teaching or working in pain management created the survey based on the IASP curriculum with assistance from a psychologist experienced in survey development. The survey was emailed to current students and graduates (classes 2017-2020) of a single HCEP, Radford University's Doctor of Physical Therapy (DPT) program, as a first step to develop the measure.



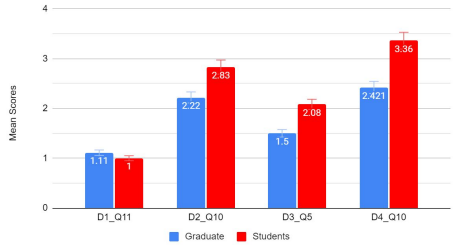

## Observations

### Demographics

| | | |
|---|---|---|
| **Current Students (n=36)** | *First-year* | *3* |
| | *Second-year* | *15* |
| | *Third-year* | *18* |
| **Recent Graduates (n=18)** | Years post graduation: | |
| | *0-1 years* | *6* |
| | *1-2 years* | *7* |
| | *2-3 years* | *4* |
| | *3-4 years* | *1* |
| **Gender** | *Male* | *18* |
| | *Female* | *34* |
| | *Other* | *1* |
| | *Chose Not to Answer* | *1* |
| | *Tota* | *54* |
| **Race** | *White* | *44* |
| | *Asian* | *5* |
| | *Native American/Pacific Islander* | *1* |
| | *Other* | *3* |

Survey return rate was 54 of 193 possible (27.5%) divided between 66.7% current students and 33.3% graduates. The majority of current students were third year students while the majority of graduates were 1-2 years post-graduation.

**Graduate vs. Current Student Mean Scores**




Statistically significant findings of nonparametric T-test comparisons between current students noted graduates were more confident to develop evidence-based plans for chronic pain patients (D3Q5) ($p$=.022), understand other roles in an interprofessional pain management team ($p$=.033), manage adults with emotional and cognitive factors (D4Q10) ($p$=.005), and identify opioid overuse (D2Q10) ($p$=.019). Current students have lower expectations for chronic back pain patients to fulfill work and family responsibilities (D1Q11) ($p$=.002).

## Discussion

The results of this survey suggest that DPT graduates are more confident than current students when it comes to developing plan of cares for patients with chronic pain, managing adults with emotional and cognitive factors, and understanding the roles of other professionals in co-managing patients with chronic pain conditions. The graduates included in this study have anywhere from four months to a little over three years of professional clinical experience, not including clinical rotations completed during their DPT program. This evidence supports the common notion that experience may be the most important factor in developing confidence and skills needed to manage patients with chronic pain conditions (Springer, 2018).

These results also suggest that current students may have lower expectations for patients with chronic back pain regarding fulfillment of work and family responsibilities. This could also relate to experience; graduates who are practicing clinicians have likely seen many patients with chronic pain be successful in their work and family lives.

However, this initial pilot of the survey includes a small sample from one healthcare program and did not receive enough responses to meet survey validation criteria. There is still a great need for validated tools that assess the attitudes and skill competency of healthcare students as they enter the workforce and begin managing the care of patients with chronic pain.

## Conclusion

Preliminary results support the assertion that clinical experience is needed to fully develop confidence with pain management skills. However, more participants are needed to complete the survey validation prior to making causal connections useful for HCEPs. Additional research in surveying more HCEPs is also needed to explore the ways various disciplines develop KSA's as students become practicing clinicians. Such research will allow HCEPs to determine the best delivery methods for pain management education to their students.

## References

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