Morphine administration by Paramedics

An application of the Theory of Planned Behaviour

Anthony Weber

Paramedic Boot Camp

Pain Management

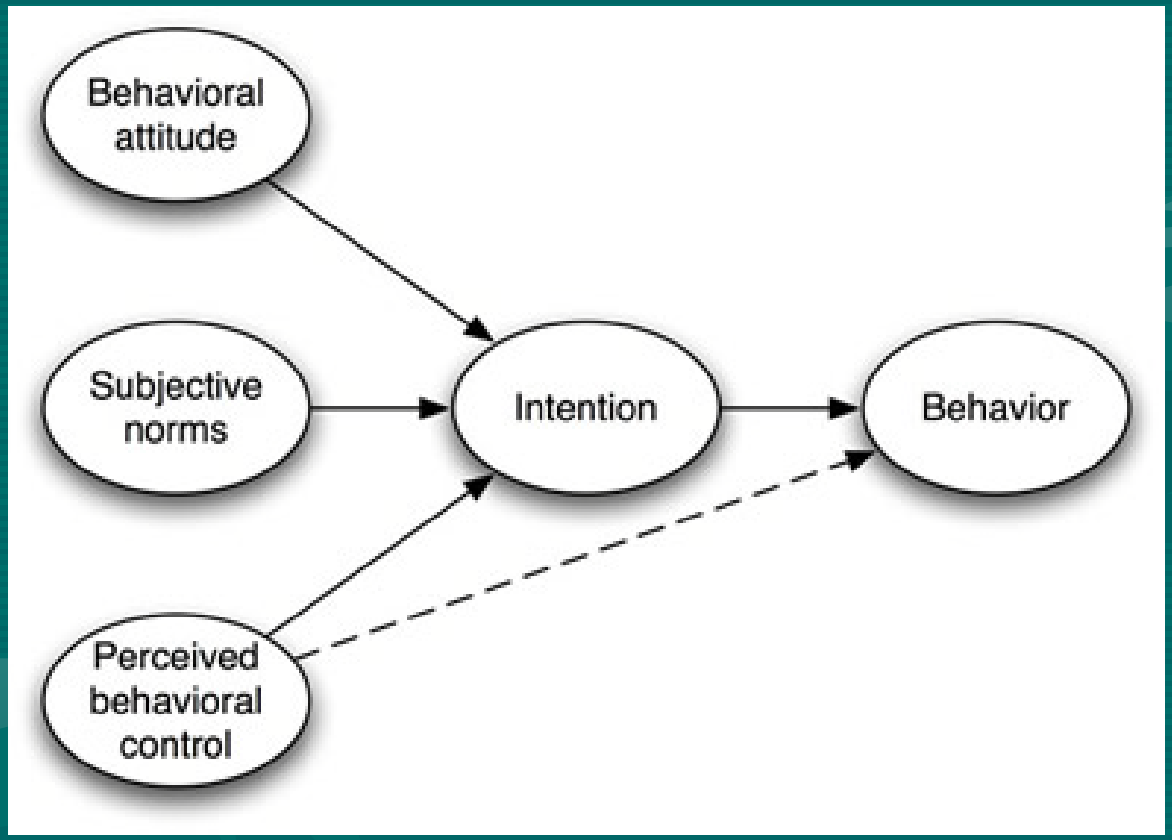
Pain is inevitable. Suffering is optional.

Albert Schweitzer

Pain is a more terrible lord of mankind than death itself

- Current prehospital research focus on range and efficacy of analgesics
- No theoretical model to investigate paramedics behavioural intent

Theory of Planned Behaviour



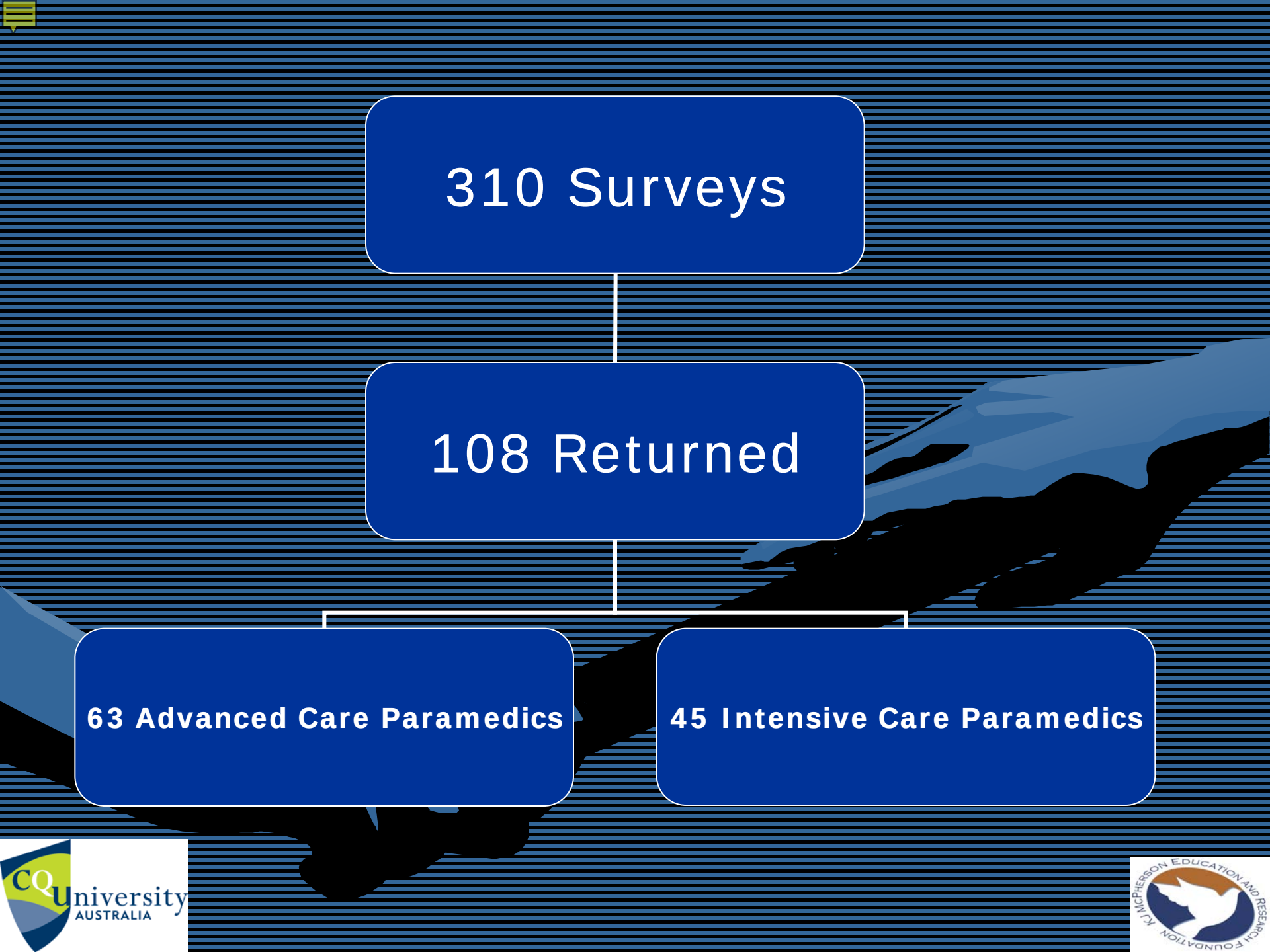
Empirical Studies

- alcohol and caffeine consumption
- eating
- exercising and training adherence
- health screening
- oral hygiene
- nurse initiated defibrillation

- Attitudes
- Subjective norm
- Perceived control

Methodology

- Cross-sectional non-experimental survey design
- All active operational and practicing advanced care and intensive care paramedics
- Ethical approval by CQUniversity Human Ethics Committee


310 Surveys
108 Returned
63 Advanced Care Paramedics
45 Intensive Care Paramedics

Demographics

- Career Length

  Mean 12 years (SD = 6.2)

- Qualified Length

  Mean 6.5 years (SD = 3.8)

Demographics

Measures

- Self-report, electronic web survey
- The TPB constructs consisted of 27 items through a likert-type scale

Attitude

Administering Morphine to a patient with pain is

Harmful 1 2 3 4 5 6 7 Beneficial

Reduce 1 2 3 4 5 6 7 Enhance
my confidence my confidence

means auditing 1 2 3 4 5 6 7 means it misses audit

Be extra responsibility 1 2 3 4 5 6 7 be my responsibility

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Subjective Norm

Most peers who are important to me think that

I should not 1 2 3 4 5 6 7 I should administer morphine

It is expected of me that I administer Morphine to patients who have pain

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

I feel under social pressure to administer Morphine to patients who have pain

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

People who are important to me want me to administer Morphine to patients who have pain.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

Perceived Behavioural Control

I am confident that I could administer Morphine to my patients if I wanted to.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

For me to administer Morphine to my patients is

Difficult 1 2 3 4 5 6 7 Easy

The decision to administer Morphine is beyond my control

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

Whether I administer Morphine or not is entirely up to me

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

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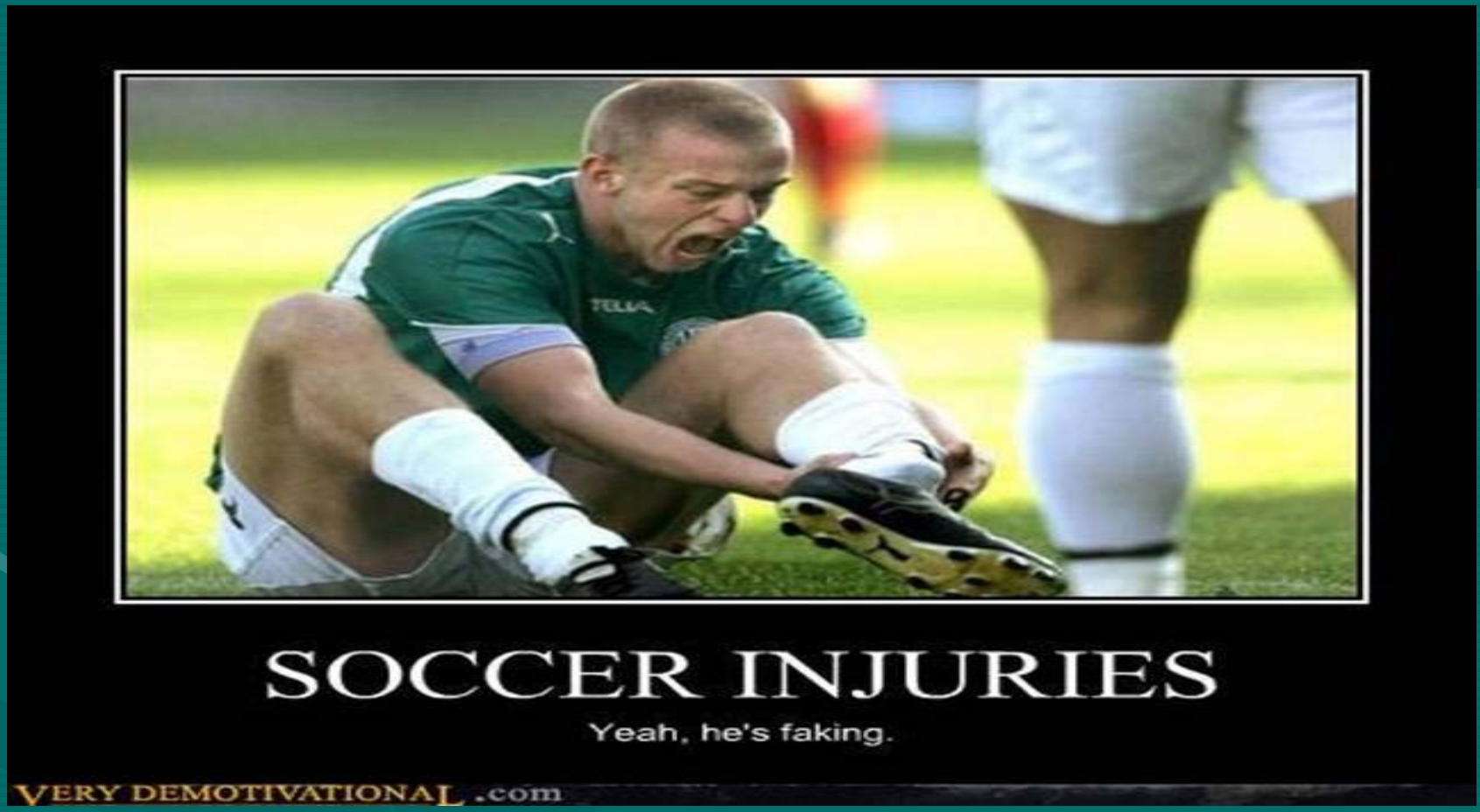
Attitudes

$R^2 = -0.22(22\%)$ $P < .05$

Subjective Norm

$R^2 = 0.42(42\%)$ $P < .0001$



Perceived Behavioural Control

$R^2 = -0.04(4\%)$ P=0.7

Study Findings

- 26% of total variance in behavioural prediction

  $R^2 = 0.23(232\%)$ $P < .0001$

- Subjective norm most statistical significant construct

- Attitude statistical significant negative construct


LATE
DRUNK
LIPSTICK

PARAMEDICS IN AUSTRALIA

Contemporary challenges of practice

PEARSON
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PETER O'MEARA and
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FOCUS ON PEDIATRIC PAIN

PREHOSPITAL PAIN MANAGEMENT:

A COMPARISON OF PROVIDERS' PERCEPTIONS AND PRACTICES

Halim Hennes, MD, MS, Michael K. Kim, MD, Ronald G. Pirrallo, MD, MHSA

ABSTRACT

Objective. To assess the knowledge of emergency medical technicians paramedics (EMT-Ps) and compare their practice perceptions with actual pain management interventions in adults and pediatric patients (adolescents and children) with chest pain (CP), extremity injuries, or burns. **Methods.** This study included a cross-sectional survey of EMT-Ps and review of the emergency medical services (EMS) system patient care database. EMT-Ps were surveyed for 1) knowledge of pain treatment protocol; 2) estimation number of CP, extremity injury, or burn encounters and the frequency of morphine administration; and 3) barriers in providing morphine. Data on patients transported with any above conditions and those who received morphine were abstracted from the EMS patient care database. Data were analyzed using descriptive statistics, and 95% confidence intervals (CIs) were calculated. **Results.** Of 202 EMT-Ps, 155 (77%) completed the survey. Eighty-two percent reported knowledge of pain treatment protocol for both adults and pediatric patients. For adults, EMT-Ps estimated they administered morphine to 37% with CP (95% CI 35, 40), 2–3% with extremity injuries (95% CI 17, 30), and 89% with burns (95% CI 52, 93). In children and adolescents, inability to assess pain (93%) was the most common reason for withholding morphine. According to the EMS database, 5% of adults with CP (95% CI 4, 5), 12% extremity injuries (95% CI 8, 15), and 14% burns (95% CI 8, 20) received morphine. In children and adolescents, 3% with extremity injuries (95% CI 1, 5) and 9% with burns (95% CI 0, 26) received morphine. Pain score was documented in 67.2% of adult patients, compared with only 4.0% in pediatric patients (*p* = 65.7%, 95% CI: 60, 65). **Conclusions.** Significant disparity exists between EMT-Ps' perceptions of acute pain assessment and the frequency of providing analgesia and their actual practice. Children and adolescents had less documentation of pain assessment and received less analgesic interventions compared with adults. Inability to assess pain may be an important barrier to the provision of analgesia. **Key words:** prehospital; pain; adults; children; emergency medical services; and analgesia.

PREHOSPITAL EMERGENCY CARE 2005;9:32–39

Nearly 14.5 million patients are transported by ambulances to emergency departments annually, and approximately 20% of these have moderate to severe pain.[1] The Emergency Medical Services Outcome Project I (EMSOP) has identified relief of discomfort as one of the most relevant outcome measures for many prehospital conditions.[2] In addition, the National Association of EMS Physicians (NAEMSP) issued a position paper stating that relief of pain and suffering of patients must be a priority for every emergency medical service (EMS) system. The statement further recommended that every EMS system should have a clinical care protocol to address prehospital pain management.[3]

In most EMS systems, pain management medical protocols advise prehospital providers to administer intravenous analgesia to patients with moderate to severe pain.[4] However, over the past decade, published reports noted significant deficiencies in prehospital pain management.[5–10] Some reports have identified barriers to pain management in adult patients by prehospital providers.[5,6,8,11,12] To date, all of the published studies on prehospital pain management have focused on adult patients.

This study was undertaken to assess the current knowledge of EMS providers and compare their perceptions with actual practice interventions in adults and children with chest pain (CP), extremity injuries, or burns. We further examined the EMS providers' perceived barriers for providing analgesia in the prehospital setting.

Received June 10, 2004, from the Department of Pediatrics, Pediatric Emergency Medicine Section (HH, MKK), and the Department of Emergency Medicine (RGP), Medical College of Wisconsin, Milwaukee, Wisconsin. Revision received September 10, 2004; accepted for publication September 16, 2004.

Presented at the Ambulatory Pediatric Association annual meeting, Seattle, Washington, May 2003.

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doi:10.1080/10903120590891705

TPB studies

- 100 Australian nurses
- TPB accounted for 21% of intention
- Perceived Behavioural Control significant predictor[10]

- 446 hospital nurses examined intention to administer morphine PRN
- TPB accounted for 39% of variation
- Attitude, subjective norm and perceived behavioural control supported the TPB[11]

Limitations

- Low response rate (35%)
- Bias due to clinical judgement vs protocol
- Electronic-based survey causes selection bias
- A specific TPB questionnaire template used
- This target group not previously exposed

Conclusion

- This research is among the first to use a theoretical model
- The TPB provides a well defined framework to examine behavioural intention
- This study supported by findings from other studies

Recommendations

- Replicating this study using a larger population
- Identifying other 74% variance
- Identify external factors such as knowledge, education, continuing education, and negative aspects of attitude

Recommendations

- Future continuing education programs to be educated to a small group of paramedics initially to then "sell" the program to their peers.
- Conduct an initial examination of the attitudes of student paramedics regarding pain and pain management
- Longitudinal study analysing paramedic students' attitudes regarding pain and pain management over time as they progress through their studies and post graduation

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Acknowledgements

- KJMcPherson Foundation
- CQUniversity Australia and supervisors
  - Dr Trudy Dwyer
  - Professor Kerry Mummery
- Paramedics and management of the QAS
- **Lastly and more importantly**
  - **My Family**

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