

Impact of Interprofessional Health Education for Formerly Incarcerated Individuals on Pharmacy and Medical Students' Perceptions and Delivery of Patient Care

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Objective

To assess the impact of providing client-directed community health education on students' perceptions and delivery of patient care.

Design

Medical students and student pharmacists who participated in a weekly reentry education program for formerly incarcerated individuals between 2022 and 2023 were invited to complete an anonymous online Qualtrics survey. The survey consisted of 13 multiple-choice, Likert scale, and open-ended questions assessing students' perceptions regarding their experiences. Participants were asked to reflect on the effects of delivering a standardized, interprofessional, 45-minute preventive medicine presentation on their perceptions toward this patient population and the program's impact on patient care.

Results

Twenty-six of 50 (52%) students responded to the survey. Most students did not have prior experience working with this patient population (80%), or personal, friend, or family history of incarceration (84%). Overall, student comfort and interest increased with 84% reporting increased interest in working with formerly incarcerated individuals (Table 1). Self-reported bias towards clients improved from pre-program (2.5) to post-program (3.4) [0(very negative); 5(very positive)]. Since participating, 73% reported an impact on patient care.

Conclusion

Brief interprofessional exposure to individuals with histories of incarceration improves students' attitudes and knowledge of barriers to equitable care.

Table 1. Students' Perceptions after Program Delivery

Statement	Strongly increased	Slightly increased	No change	Slightly decreased	Strongly decreased
Fear of working with people who have been incarcerated, n (%)	0 (0)	0 (0)	4 (16)	16 (64)	5 (20)
Knowledge of barriers for people who have been incarcerated to accessing medical care, n (%)	7 (28)	15 (60)	3 (12)	0 (0)	0 (0)
My comfort working with people who have been incarcerated, n (%)	7 (29)	15 (63)	1 (4)	1 (4)	0 (0)
My interest in working with people who have been incarcerated, n (%)	5 (20)	16 (64)	3 (12)	1 (4)	0 (0)

Assessing Interprofessional Simulation Activities in Pharmacy Education Using Kirkpatrick's Model

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Objective:

- To use Kirkpatrick's Evaluative Model to assess the effectiveness of IPE simulation activities in pharmacy education.

Design:

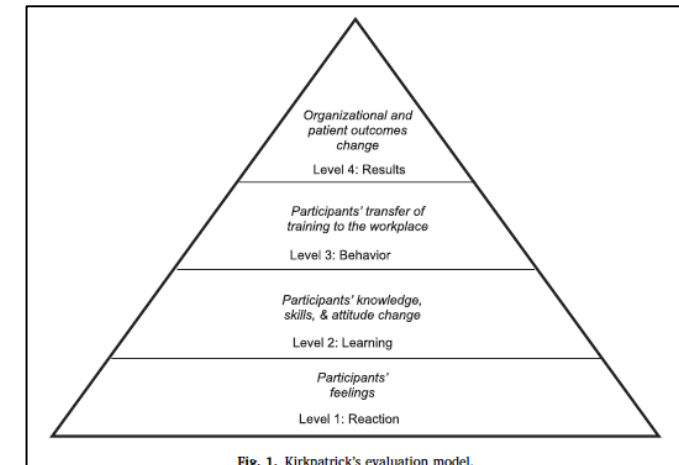
- Systematic Review (PROSPERO CRD42021244892) searched MEDLINE, CINAHL, PsycINFO, Web of Science on March 2021 for peer-reviewed articles post Sep 2015 which included reported outcomes of IPE simulation activities. Included articles (n=14) were then assigned Kirkpatrick level 1-4.

Results:

- Most studies achieved levels 1 and 2 indicating positive experience and acquisition of knowledge and skill. One study achieved level 3 due to its longitudinal design.

Conclusion

- Studies lacked a of transfer design of knowledge and mentorship in the workplace which are needed for for the effective transfer of learned information to the workplace (Holton's Model)
- Although universities invest in guiding students to achieve the first 2 levels, without intermediate guidance to bridge the learning curve between university and work settings, it is unlikely that IPE activities will yield improved patient outcomes (level 4).

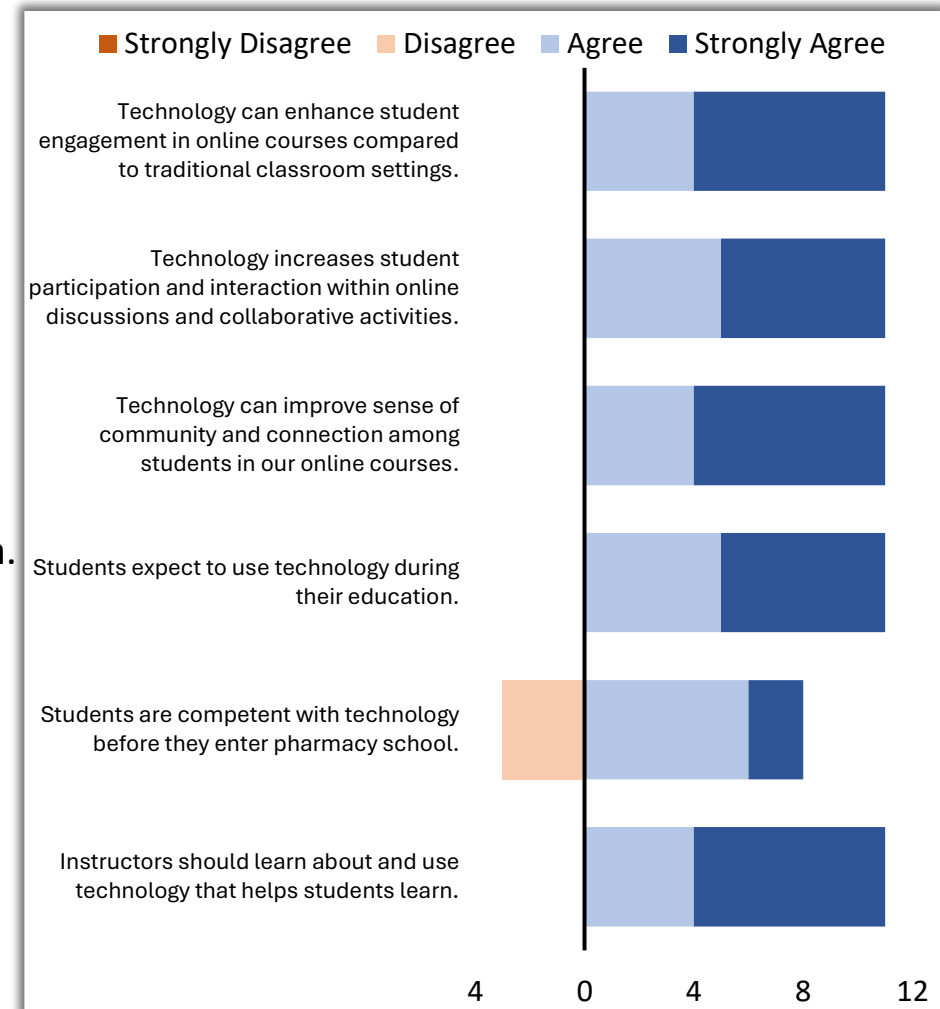


Empowering Students for Success in the Digital Era: Strategies for Effective Preparation in a Technological Environment

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- **Objective:** Expose students to various technologies to help prepare them for a career in an era of evolving technology.
- **Design:** Innovative technologies integrated throughout the curriculum:
 - Virtual Pharmacy (Designed in-house): simulates real-world pharmacy workflows through virtual reality.
 - Blast Learning: interactive and engaging tool for learning the top 300 drugs using Alexa.
 - InteDashboard: platform for collaborative and team-based learning.
 - Kahoot: gamification of quizzes.
 - Class Technologies: Enhanced online classroom that fosters real-time collaboration.
 - CORE ELMs: online experiential learning management tool.
- **Results:** Preliminary data suggest favorable outcomes, including reduced attrition rates, positive feedback from instructors, and increased student engagement, as a result of implementing these measures.
- **Conclusion:** Integrating technology in the curriculum is an important step in preparing future pharmacists for the technical demands of their career.

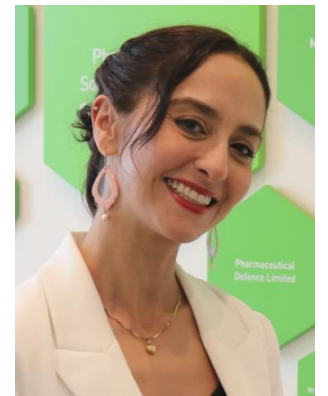


The Adverse Inpatient Medication Event and Frailty Model (AIME-Frail) to Predict Patients at high-risk of Medication Harm

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The University of Queensland

Princess Alexandra Hospital Metro South QLD



Objective:

To evaluate the predictive performance of the AIME model after incorporating frailty, in a cohort of geriatric and general medical patients.

Design:

Retrospective study of general medical and geriatric inpatients at two tertiary Australian hospitals between 1st January and 31st April 2020.

Medication harm identified by ICD-10 Y-codes and senior pharmacist review of medical records.

The Hospital Frailty Risk Score (HFRS) and Logistic regression used to construct a modified AIME model

Variables in original AIME model were LOS, prior hospitalisation, laboratory markers and medications were tested in the regression analysis. As well as new variables thought to be clinically important, i.e. PINCHA medications, renal function, frailty.

Results:

3944 patients median (IQR) age of 67 (28) years and mean (SD) HFRS 6.2 (+/-5.9).

187 (4.7%) experienced one or more medication harm events (total 208 events).

AIME-Frail tool incorporated 5 of the original variables; **LOS, anti-psychotics, antiarrhythmics, immunosuppressants, anticoagulants (as surrogate for VTE and INR)**, plus 4 new variables; **frailty, antibiotics, insulin and opioid use**.

AUC: 0.79 (95% CI: 0.76-0.83) = good predictive performance.

Sensitivity 69%, Specificity 81% at optimal probability threshold of 0.05

DCA: clinical utility between the probability thresholds of 0.05–0.4.

Conclusion:

The new AIME-Frail model, with the inclusion of frailty demonstrated good predictive performance.

Screening patients using AIME-Frail tool could provide an efficient approach to identify those at high-risk of medication harm for timely pharmacist review.

Education partnership with community partners

Shaun Lee, Monash University Malaysia



- Communication with older adults from ethnic minorities can be difficult
- Community partnerships can be a solution
- We delivered a communication workshop with older adults online to teach students on how to communicate with the ethnic minorities.
- Qualitative comments from students suggest the importance
 - Mastery of language
 - Understanding cultural practice
 - Roles of family member
 - Empathy



Competence of pharmacy students and community pharmacists within social prescribing in Norway

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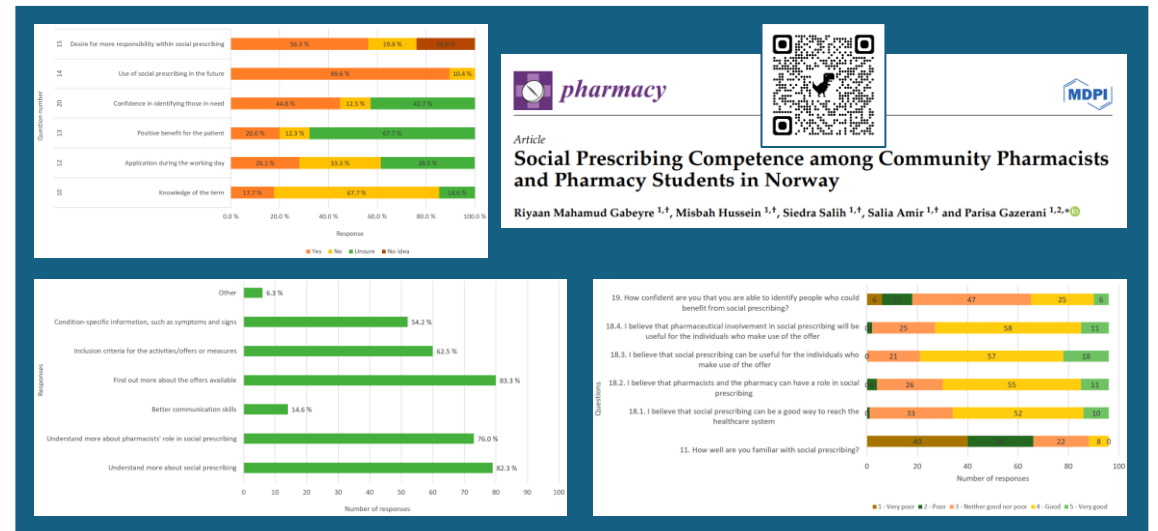


Background and Aim: Social prescribing links patients to non-clinical community services. The role of pharmacists has been largely neglected in this regard. We assessed the competence of pharmacy students and community pharmacists in Norway regarding social

prescribing.

Methods: An anonymous survey was used to collect necessary information from community pharmacists and pharmacy students. Besides demographic information, general knowledge, attitudes, and potential barriers to the adoption of social prescribing within the pharmacy profession were collected.

Results: 96 responded (79.2% female, 40.6% 25-34 years, 91.7% in pharmacies). 31.3% had >10 years of work experience. Experience, education level, and gender did not influence social prescribing competence. Low knowledge and positive attitude towards social prescribing were evident.



Conclusion:

- Pharmacy students and community pharmacists exhibit limited knowledge but are keen on further education.
- Enhancing competence can be acquired through educational interventions, including integrating social prescribing into pharmacy school programs and offering continued education for practicing

Exploring Gender Disparities in Pharmacy Education and Practice in Norway and Charting a Path to Equity

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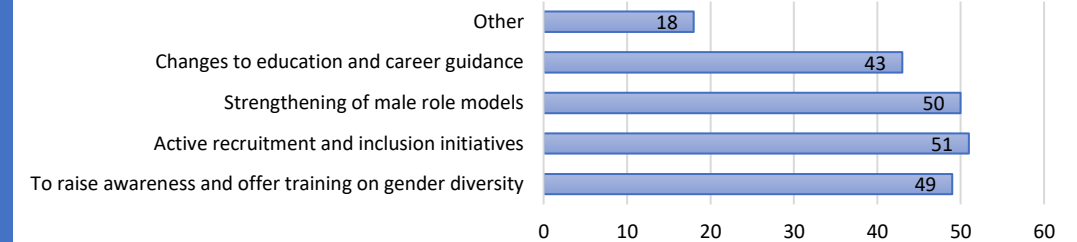


Background and Aim: Norway's pharmacy sector faces a gender imbalance. This study investigated gender disparities in Norwegian pharmacy education and practice, and factors influencing female predominance.

Methods: An anonymous quantitative survey covering demographic information, educational, and professional information explored various reasons of gender disparities in Norwegian pharmacy education and practice.

Results: 124 responded (76.6% women aged 18-24 (29.8%), where 58.1% were pharmacists, and 40.3% were pharmacy students. 87.9% recognized gender imbalance, independent of being male/female, having diverse perceptions, payment level, or age-related factors.

Strategies for achieving gender balance in Norway



Conclusion:

- Gender imbalance in the pharmacy profession is evident and an important challenge.
- Raising awareness, implementing recruitment strategies, and creating an inclusive environment through informational campaigns can help.
- Ongoing research, monitoring, and strategic interventions are also essential.

What are employers looking for in future pharmacists? A qualitative study

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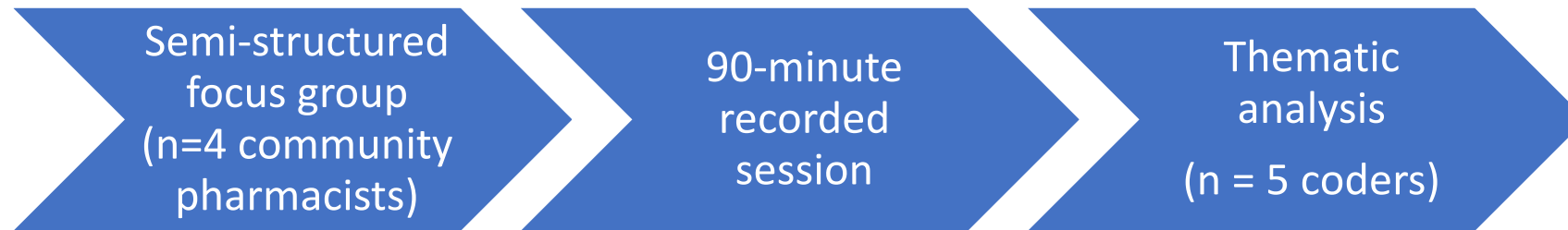


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Objective: To identify the skills and characteristics desired by community pharmacist employers for graduates of an extension intern pharmacy program

Design:



Results : Three main characteristics/skills desired by community pharmacy employers emerged



Communication



Leadership/Management



Speciality Practice



Conclusion: Understanding the skills and characteristics desired by community pharmacy employers help inform future curriculum for pharmacy graduates

Equipping Pharmacy and Dental Learners in a Dental Clinic Practice Rotation to Identify Social Determinants of Health

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OBJECTIVE

To assess the impact of an interprofessional clinical care (IPCC) rotation on learners' understanding of identifying social determinants of health (SDoH) and health inequities that were impacting their patients' dental treatment plans.

DESIGN

Third- and fourth-year dental students submitted medically complex patient cases active in their care for consultation and asked to identify pharmacological and psychosocial issues

Social work and pharmacy students and faculty preceptors discussed the issues with the dental students and covered the SDoH impacting the patients' health conditions

1. Pharmacy students completed retrospective chart review on all patient cases.
2. Dental student reflective evaluations were analyzed for major themes.

RESULTS

Of the 290 patient cases discussed:

- Average age was 59 years (19-93) with 56.6% female
- Top medical condition categories were hypertension, mental health, and inflammatory conditions

Qualitative Themes

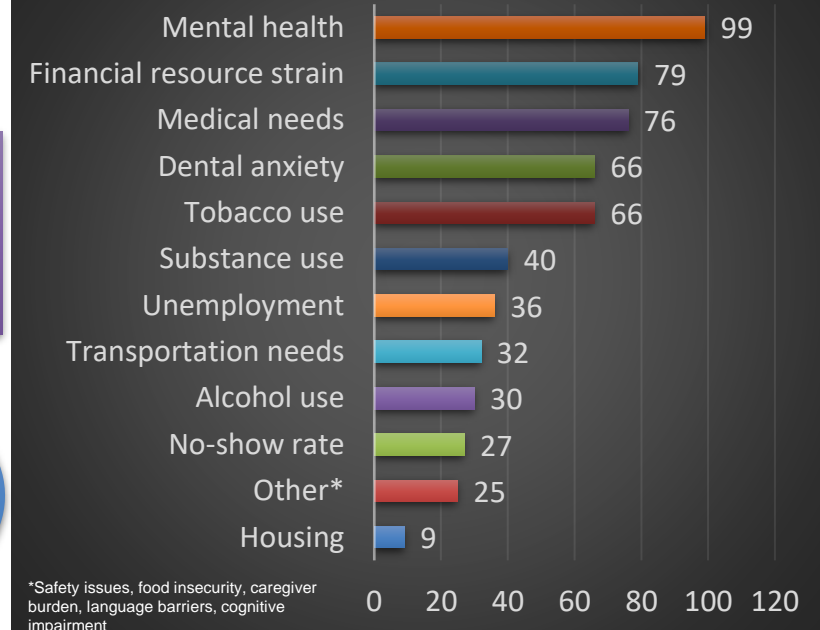


"I learned how to better start conversations about "sensitive topics" such as substance use or mental health."

"I learned about how to manage patient cases based on language and other resources which is important because I want to be a cognizant provider in the future."



Psychosocial Intervention Requests (n = 585)

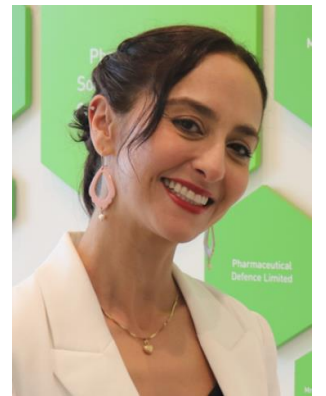


CONCLUSION

IPCC rotation can serve as an interprofessional practice model that uses peer-to-peer teaching and encourages deep clinical discussion regarding the holistic needs of dental patients and how to address SDoH and health inequities.

Roles, Responsibilities and Educational requirements of Informatics Pharmacists in Australia

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Princess Alexandra Hospital Metro South QLD



Objective:

To explore pharmacists' and other health professionals' perspectives of the roles of informatics pharmacists in Australian health care.

Design:

- Design: Semi-structured interviews via Zoom
- Participants: Senior pharmacists, directors of pharmacy and/or informatics experts
- The interviews were audio-recorded and transcribed
- Dates: 2020 -2021
- Analysed using inductive thematic techniques to identify major themes
- HREC: 020000069



Results:

N = 11 participants

Six key themes identified - with 24 codes

- (1) **Promising future for the informatics pharmacists**, e.g. maturity of the field
- (2) **Educational needs**, e.g. systems knowledge, project management, qualifications
- (3) **Skills**, e.g. technical skills and soft skills
- (4) **Scope**, e.g. navigator, problem solver, data and analytics
- (5) **Impact**, E.g. patient safety and health crisis management
- (6) **Barriers**, E.g. data privacy and security, and funding



Conclusion:

A key role will be to facilitate optimal use of digital systems to prevent medication errors and improve patients' safety.

Urgent need for digitally prepared pharmacy workforce

Implementation of undergraduate curriculum and postgraduate courses.

Pharmacist-led heroin addiction management: What do students think?

Herrera, H; Coowar, A; Alam S; Warren N; Rutter P. University of Portsmouth, UK



Objective

Gauge 'future pharmacists' opinion on an extension to opioid substitution therapy

Design

Self-completed survey to final year (year 4) MPharm students

Results

- 56% thought Heroin assisted treatment (HAT) should be available if other methods unsuccessful
- 34% thought could/should be pharmacist-led
- 41% would be hesitant to provide a HAT service based on current knowledge/competence

Conclusion

Greater preparedness needed to overcome apprehensiveness to offer such a service



Impact of a Pharmacy School Operated, Pharmacist-led, Interdisciplinary Chronic Pain Teaching Clinic on Referring Health Provider Practice

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Background: USask Chronic Pain Clinic (UCPC) referring health provider mentorship program aims to improve patient care and increase capacity of family doctors to manage chronic pain

Study objective: Measure impact of the program on referring health provider practice

Design: Postal survey mailed to referring providers who participated from June/23 – Jan/24

Results: *Response rate 44.9% (n=35/78)*

- 74% agreed that their knowledge of safe / evidence-based opioid prescribing improved
- 77% agreed that this knowledge had been applied to care of additional patients
- 74% agreed that they were more confident managing chronic pain independently
- 95% agreed that the service improved the outcomes of their patient
- 100% agreed that they would recommend the program to colleagues

Conclusion:

- UCPC health provider mentorship program may be achieving the goal of improving care and increasing the capacity of family doctors to manage chronic pain





Brainwave analysis: Exploring its potential in evaluating audiovisual personalized patient education to quit smoking or vaping

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Objective To explore electroencephalogram (EEG) analysis in evaluating response to emotional cues of audiovisual among smokers or vapers.

Study design 10 cigarette smokers or vapers between 20 - 30 years old, viewed videos showcasing smoking or vaping scenarios for 15 minutes. Brainwave data was recorded using Emotiv Epoc X with sensors.

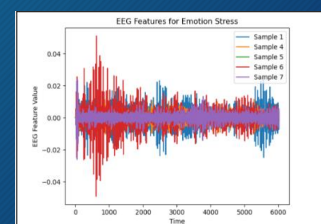
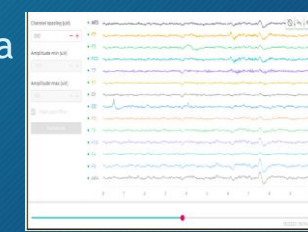
Results EEG data partitioned into various sections based on video timelines to obtain analysis of emotion. Graphical representations were generated for each emotion related to smoking or vaping cessation, such as stress, sadness, happy.

Conclusion A pre-processed EEG dataset was developed to enhance visualization and facilitate further development toward an AI-based digital health web application framework.

Emotiv Epoc X fastened to the head



Raw EEG data recorded



Pre-processed EEG data

Revolutionising Pharmacy Recognition: Evolution of the Australian and New Zealand College of Advanced Pharmacy

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Aims

To enable the ongoing professional achievements of practitioners to be clearly and concisely understood by their employers and peers, by healthcare colleagues, and most importantly by the patients in their care.

Methods

Three recognition programs were developed.

- Foundation program: recognition conferred based on evidence of prior professional experience.
- Independent program: recognition through development and submission of a portfolio of forty learning experiences.
- Training programs: adaptation of existing 2-year intensive workplace-based programs for pharmacists working towards Resident or Registrar recognition.

Results

- Through the Foundation program, over 2000 pharmacists across Australia and New Zealand have been recognised at all levels.
- Initial portfolio submissions from the Independent program launched in November 2023, are expected from mid-late 2024.
- Existing training program candidates have been transitioned to the ANZCAP platform with new candidates automatically enrolled.

