The relationship between federal state budgets and the results of the second part of medical licensing exam in Germany

AUTHOR(S):
- Jana Jünger, The German National Institute for state examinations in Medicine, Pharmacy and Psychotherapy (IMPP), Germany (Presenter)
- Oliver Klimanski, IMPP, Germany
- Richard Lux, IMPP, Germany
- Hossein Shahla, IMPP, Germany
- Eckard Nagel, Institut für Medizinmanagement und Gesundheitswissenschaften, Germany

ABSTRACT

Background: In Germany, about 11,000 students begin medical studies every year, which end with an examination at the end of the clinical part with different results between the universities. The studies are regarded as one of the most expensive educational programs in Germany with a total cost around €200,000/student. These costs are paid by the state, so the students don’t have to pay tuition fees. However, the state grants to universities vary from €45 million to €185 million per year. The aim of the study was to analyze to what extent the federal state budget is an indicator for a successful result of the German medical licensing examination.

Summary of Work: With regard to the correlation of budget and examination results, the results of the clinical part of the medical study examination were chosen as the outcome parameter, as these are carried out in a standardised manner twice a year and thus permit excellent comparability of the candidates. Variables were gender, proportion of students with German citizenship, student career in the pre-clinical phase, school report and school leaving certificate due to differing medical faculty admission criteria (best school-leaving examination ratio, waiting times, selection procedures). As it was assumed that the amount of budget had a delayed effect on examination results (dependent variable), a 3-year delay was calculated for the correlation. The calculations also included the independent variables ‘€1,000 per student/year’ and ‘professor-student ratio’. Two time series were used for analysis: 2009-2011 and 2012-2014.

Summary of Results: The time series showed that the test results were significantly influenced by the selected variables. After adjustment, the effect was increased and the variable ‘€1,000 per student/year’ is significant in the second time series (b-coefficient: .548). The variable professor-student-ratio has no significant influence. The explained sum of squares of the two time series can be attributed to approximately 7% respectively 20%.

Discussion and Conclusions: Even first results show that a higher budget generates better exam results than a lower one but the explained sum of squares is very small. The results can contribute to the discussion on the rational use of public funds in medical education.

Take-home Messages: Finally, public funding can influence the exam results.
Forging a new identity: experiences of, and perceived attitudes towards, Physicians Associates

AUTHOR(S):
• Megan Brown, Hull York Medical School, UK (Presenter)
• William Laughey, Hull York Medical School, UK
• Gabrielle Finn, Hull York Medical School, UK
• Martin Veysey, Hull York Medical School, UK

ABSTRACT

Background: Physician Associates (PAs) are relatively new within the UK, although the government aims to increase recruitment (BMA 2017), citing time and cost benefits (Drennan et al 2015). Given their emergent status, PAs are still defining their professional identity (PI), defined as ‘a representation of self … resulting in an individual thinking, acting and feeling like a [PA]’ (Creuss et al 2014). New fields of practitioners often encounter prejudicial attitudes (Jackson 2017), with the attitudes one perceives from others affecting PI within adjacent professions (Cruess et al 2015). We explored student PA’s experiences, including attitudes they encounter, to evaluate their needs as developing professionals.

Summary of Work: Two Hull York Medical School (HYMS) authors (MB, WL) conducted semi-structured interviews with 19 PA students at HYMS and University of Sheffield. Research was conducted in line with a general inductivist approach (Thomas, 2006). Interviews were transcribed verbatim and independently coded by two researchers inductively. All researchers conducted thematic analysis, using the thematic network approach (Attride-Stirling 2001). Themes concerning identity formation and role perception were explored, and links made to explain findings.

Summary of Results: Key negative themes identified were: mistaken identity, negative role perceptions and lacking political support. PAs were frequently referred to as medical students and encountered negativity from staff and patients, sometimes precipitating ‘identity crises’. Many also felt pressure to be role ambassadors, given the novelty of their profession. Key positive themes included recognizing supportive influences for identity development: continuity; autonomy; graduate status and clinical skills acquisition. Resilience was noted as indispensable.

Discussion and Conclusions: Identity dissonance was common due to poor access to PA role models and lacking identity support. Perceived attitudes towards students from staff were mixed with a recent increase in positivity, secondary to role familiarity. Yet, resistance and role ignorance persisted, proving destructive. In response to negativity, some students withdrew from learning, while others built resilience, highlighting how individuality determines how attitudes impact identity.

Take-home Messages: Perception of PAs is improving, yet students often initiate advances. Harmful influences and dissonance have propagated from a lack of focus on PA identity. Medical educators must provide support for student PA identity development to ensure career and, therefore, PA workforce success.
Adopting a Quality Improvement Framework to improve Undergraduate Medical Education

AUTHOR(S):
- Anum Pervez, Royal Free Hospital, UK (Presenter)
- Charlotte Pallett, Royal Free Hospital, UK
- Brian Craven, Royal Free Hospital, UK
- Momin Ahmed, Royal Free Hospital, UK
- Efthimia Karra, Royal Free Hospital, UK
- Paul Dilworth, Royal Free Hospital, UK

ABSTRACT

Background: Quality Improvement (QI) has been developed over the past few decades and has proven successful in many healthcare settings, from patient (and population) outcomes to organisational (and system) performance. The science of QI involves reviewing and implementing rapid change strategies through a systematic framework to deliver sustained improvement. The use of QI within the field of undergraduate teaching has remained unexplored with no evidence of it in the current literature. We have thus adopted a QI approach in the delivery of the Undergraduate Medical Education Programme in a major London Teaching Hospital.

Summary of Work: The main aim statement of our QI project (‘how good, by when’) was to improve student feedback to meet 95% positive experience over a twelve-week period. In order to implement the necessary rapid feedback cycles, we selected the two-week haematology rotation of 4th year medical students. We began by engaging our stakeholders, who included the Haematology department (Junior Doctors, Consultants and Specialist nurses), Undergraduate Teaching Department (Clinical Teaching Fellows, Administrative team, Sub Dean), a QI coach and the 4th year medical students. Using a nominal group technique, we developed our driver diagram to generate change ideas. We then implemented the changes through several PDSA cycles (Plan, Do, Study, Act).

Summary of Results: The following change ideas were implemented: redesign of the timetable, local departmental induction, immediate point of contact for students and end of rotation case presentations. During each PDSA cycle, we tested the impact of the intervention and redesigned further changes according to the student response. Overall, student experience significantly improved from 58% to (final results pending), demonstrated in a run chart.

Discussion and Conclusions: Effective and high quality Undergraduate teaching is essential in training the future workforce. We were able to demonstrate how the implementation of QI methodology (by stake holder engagement and PDSA cycles) can achieve significant improvement in the student experience. This method can also be adopted in other areas within Undergraduate teaching.

Take-home Messages: The science laid out in the QI framework can be effectively used to improve student experience in the Undergraduate teaching programme.
Transition to academic autonomy of medical universities in Kazakhstan

AUTHOR(S):
- Viktor Riklefs, Karaganda Medical University, Kazakhstan (Presenter)
- Anar Turmukhambetova, Karaganda Medical University, Kazakhstan
- Alma Muratova, Karaganda Medical University, Kazakhstan
- Aliya Bukeyeva, Karaganda Medical University, Kazakhstan
- Aigul Munassipova, Karaganda Medical University, Kazakhstan

ABSTRACT

Background: Three Kazakhstan medical universities participate in Erasmus+ CBHE project Transition to university autonomy in Kazakhstan (TRUNAK). The partners from European Association of Universities (EUA) analysed the status of university autonomy in Kazakhstan and gave recommendations. The primary goal for the project is to develop the model of autonomy that suits the country and create the consulting group for sustainability of project results and providing assistance to other universities to transit to autonomy.

Summary of Work: Having analysed the survey results from several medical and non-medical universities in Kazakhstan, EUA experts gave recommendations for university to take much more active part in selecting its students, defining quantity and qualifications of its teaching staff, completely defining the contents of its educational programs. KSMU created a working group to analyse the feasibility of these recommendations and to create the model for autonomy.

Summary of Results: All medical universities in the country gathered for discussion of the future model of autonomy. The participants expressed significant concerns on feasibility of all recommendations for the current state of development of medical education in the country. The population in the country is not yet ready for free selection of students by universities, the content of educational programs needs to reflect national healthcare priorities, the universities do not yet feel confident to completely regulate qualifications and quantity of staff. Besides that, autonomy requires well-developed external and internal quality assurance system; the increased academic autonomy needs to be accompanied by staff development and training.

Discussion and Conclusions: While all medical Universities in Kazakhstan recognize the benefits of academic autonomy, they express serious concerns on feasibility of immediate autonomy. There needs to be elaborations on gradual and consistent approach to transformation. Academic autonomy goes hand in hand with quality assurance and responsibility. It is first necessary to set up those before adopting full academic autonomy.

Take-home Messages: The academic autonomy in countries with former direct governmental control is best achieved through collaborative efforts of universities participating in joint projects with universities where academic freedom and quality assurance has already become the inherent and inseparable part of educational process.
Nurse-scientists as advocates for nursing: identity development over a two year leadership programme in nursing research

AUTHOR(S):
- Manon Kluijtmans, University Medical Center Utrecht, the Netherlands (Presenter)
- Shaun Cardiff, Fontys, the Netherlands
- Thóra Hafsteinsdottir, University Medical Center Utrecht, the Netherlands
- Marieke Schuurmans, University Medical Center Utrecht, the Netherlands

ABSTRACT

Background: Clinician-scientists, such as nurse-scientists, are bi-directional (knowledge) brokers between care and research. By connecting these fields, they strengthen patient-orientation in research, and enhance clinical application of research and innovation in care. International concern exists about the low numbers among this important category of scientists. The ‘Leadership and Mentoring in Nursing Research (LMNR)’ programme was developed for postdoctoral nurse-scientists to stimulate research capacity within the nursing science field. Formation of an integrated professional identity is considered an important learning outcome of clinician-scientist programme’s to enhance brokering and career resilience.

Summary of Work: We studied professional identity development over the course of a two-year leadership programme for nurse-scientists. Semi-structured interviews were conducted with the LMNR participants: first upon starting in 2016 (n=12: 25% male, age 43 [range 30-54] year), midterm in 2017 (n=11), and lastly after graduation in 2018 (n=10). Interviews were transcribed verbatim, thematically analysed and discussed using dialogical self theory. Results were member-checked.

Summary of Results: During the programme all participants were engaged in postdoctoral research (n=12), often combined with education (n=8), and less frequently with patient care (n=4), or policy and/or management (n=3). Over the course of the programme two participants stopped for personal reasons. Participants reported increased awareness of their different identity positions as a researcher and a nurse. Many then released this dichotomy for a new identity as ‘scientist leader of and for nursing and nurses’. Their clinical identity expanded from being an active specialist clinician to becoming an active member of a wider community with trans-specialist interests. Fundamentally, there was a strong desire to retain a nurse identity. Participants maintained acceptance among nursing peers while strengthening (group) connection with nurse-scientist peers as they sought innovative ways of embedding themselves within the wider field of nursing, aiming to enable/lead (knowledge) brokerage between the worlds of (nursing) science and practice.

Discussion and Conclusions: The leadership programme strengthened and solidified a nurse-scientist leader identity. Although literature defines clinician-scientists as researchers active in direct care, our study indicates that clinical practice as ‘hands-on care’ is not necessarily a prerequisite for strong nurse-scientist identity.

Take-home Messages: Nurse-scientists can be strong advocates for nursing, even when no longer active in patient care themselves.
Teaching Medicine to a General Public: How to Assess If Your Audience Is Learning

AUTHOR(S):
- Malgorzata Kaminska, University of Northern British Columbia, Northern Medical Program, Canada (Presenter)
- Trina Fyfe, University of Northern British Columbia, Northern Medical Program, Canada
- Cirisse Stephen, University of British Columbia, Northern Medical Program, Canada
- Lisa Munro, University of Northern British Columbia, Northern Medical Program, Canada
- Sonya Kruger, University of Northern British Columbia, Northern Medical Program, Canada
- Lindsay Mathews, University of Northern British Columbia, Northern Medical Program, Canada

ABSTRACT

Background: Many public medical education programs, such as Mini Med Schools (MMS), frequently limit evaluations to self-reported learner satisfaction. An evaluation program is most helpful when it focuses on Kirkpatrick's hierarchy levels of learning and transfer. Instruments like retrospective pre/post surveys (RPPS) can assess interventions where a shift in learners' understanding can be expected, while script concordance tests (SCTs) can measure clinical reasoning skills in healthcare learners. Could RPPS and SCTs be used to evaluate MMS programs?

Summary of Work: We organized a MMS for the general public consisting of 2-hour weekly for 6 weeks lectures on basic science and biomedical topics, delivered by our medical faculty, and covering the same material as regular medical school lectures. RPPS and SCTs were administered to all participants at the end of each lecture.

Summary of Results: Of the 59 participants (<16 to 69 years old) 30% possessed a college education, 24% had less than a high school diploma, and 20% had a bachelor's degree or higher. RPPS showed an increase of at least 2 points on a 6-point Likert scale. The SCTs' Cohen d effect size between participants and experts was 2.81 (98% response rate), remaining unchanged with a repeat SCT administered 8 weeks post-MMS (47% response rate). The SCT instrument reliability index (Cronbach's alpha) was 0.69. 98% of participants found the assessments to be 'fun and useful'.

Discussion and Conclusions: The RPPS consistently showed a significant self-assessed increase in understanding of the material presented. The ability of our varied non-medical participants to apply their newfound medical knowledge in SCTs was within the effect size typical for medical students. The ability to apply this knowledge 2-3 months later was maintained over time. We are unaware of any other published quantitative data regarding knowledge increase, application, and retention in MMS participants. Most MMS intend to increase the public's health-related knowledge but seemingly only capture enjoyment-related data. Our project suggests that there are easy, reliable, and well-received ways to measure knowledge acquisition and application using RPPS and SCTs.

Take-home Messages: The use of RPPS and SCTs can be used to help guide and improve a MMS curriculum, thus ensuring that the intended knowledge is successfully transmitted.