**5GG: Posters: Professional Identity**

**Location:** Hall 4.1, CCB  
**Date:** Monday 27th August  
**Time:** 1600-1730 hrs

**5GG1 (2451)**

"I found myself a despicable being": Medical Students’ emotional reactions to moral dilemmas and their influences on professional identity formation

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**Background:** Medical students often face moral dilemmas during their undergraduate course, especially when they start clinical practice. Living these moral dilemmas provokes emotional reactions that can interfere with their future professional attitudes. The aim of this study was to understand these moral dilemmas and the evoked emotional responses to map their influence on professional identity development.

**Method:** Eight undergraduate students from a Brazilian medical school made a Rich Picture about a complex scenario in which they experienced a moral dilemma. Rich Pictures are visual tools enhancing data collection aiming at capturing the ‘hard-to-put-into-words.’ The researcher explored through a semi-structured interview the moral dilemmas, the emotions and the reflections of the students in relation to the experience represented in the drawing. The interviews were transcribed and a thematic analysis was performed.

**Results:** The relevant moral dilemmas revealed by Rich Pictures were: patient-centered medicine versus physician-centric medicine; patient’s needs versus system’s requirements; excitement with the disease versus the suffering of the human being; patient’s needs versus physicians’ needs. The emotional reactions involved guilt, impotence, frustration, sadness, anger, feelings of inferiority, anguish and despair. Students valued the participation in the drawing activity as it provided several opportunities for insight and reflection on the often non-conscious influence that these experiences had on the development of their professional identities.

**Conclusion:** Rich Pictures allowed the identification of intricate moral dilemmas experienced by medical students during undergraduate training. In addition, it enabled students to share and explain the emotional reactions that originated from these dilemmas. Identifying moral dilemmas and accompanying emotional reactions may represent an important mechanism for nurturing a professional identity that is committed to the values of medical practice.

**Take-home message:** The Rich Pictures methodology helps to understand the moral dilemmas, identify emotional reactions, and help students in their reflection process. The understanding of this process allows the idealization of pedagogical activities to help young students to maintain their commitment to good medical practice.

**5GG2 (1398)**

Development of scales to evaluate medical trainees’ professional identity formation

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**Background:** Medical educators now focus on professional identity formation (PIF), and medical students’ and residents’ values and attitudes related to PIF have been qualitatively analyzed using reflective writing and interviews. This study aimed to develop an instrument to evaluate PIF that can be applied to a large group of medical trainees.

**Method:** Using Kegan’s human development model as the conceptual framework, a self-administered questionnaire composed of items on a seven-point scale was created. Fourth- and 6th-year medical students and 2nd-year residents at Kagoshima University, and experienced medical doctors (instructors) in private clinics or teaching hospitals responded to the questionnaire. One scale which evaluated personal and professional development and socialization (developing scale; DS), as well as scales that evaluated four of Kegan’s stages of development were developed using factor analysis and respondent group comparison.

**Results:** Using data from 291 respondents, a DS with 15 items was developed (alpha = 0.68). The instructor group had the highest mean score, and respondent group, but not gender, was a significant variable of DS. Kegan’s stage 2, 3, and 4, and higher stage specific scales were also developed. Among the respondent groups, the student group had the highest mean score in stage 2, and the instructor group had the highest mean score in stage 4 and higher stage scales.

**Discussion:** Multiple scales were used to quantitate the complexity and divergent processes of PIF. One scale evaluating the overall degree of PIF combined with scales evaluating different stage-specific attributes might reveal the values and attitudes related to profession among individuals and groups. This study indicated Japanese medical students and residents were on their way towards PIF, and experiences and environments after the residency program may further PIF.

**Conclusion:** Assessment scales for PIF that can be applied to medical trainees were developed. These scales would provide important information about individuals, groups, and education that is different from assessment data of medical knowledge or professional skills.

**Take-home message:** PIF of medical trainees, which is a goal of medical education, might be quantitatively estimated by a new self-administered instrument.

**5GG3 (1532)**
Sense and sensibility: comparative analysis of students’ codes of conduct

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Background: Professional identity formation and development of ethical conduct are embedded in the medical curriculum. Throughout their learning process, medical students get involved in patient care and gain privileged access to patients and their clinical data. It is therefore essential that the student’s behaviour justifies the trust placed in medical profession. Concerns regarding unprofessional students’ behaviour may arise in several key areas that depend significantly on culture-specific context. To correctly identify and address these concerns, an explicit and implementable code of student conduct is required.

Method: Using search terms related to student conduct and ethics documents from 82 universities located on 6 continents were identified. Of these, 56 met the inclusion criteria (full text in English, document referring to medical students). 20 documents representative for diverse cultural backgrounds were further analyzed using the General Medical Council professionalism guidance for medical students as initial framework for qualitative coding performed with Atlas.ti.

Results: Selected documents varied considerably in content and precision of description. Although many codes presented the disciplinary processes and possible sanctions, the regulations were not always specific. Only two of them presented remediation strategies, student guidance and support in addition to sanctions. Many codes were based chiefly on traditional (nostalgic), Hippocratic values with less than half of the documents including statements referring to ‘modern’ areas of concern, like social media and electronic information. We’ve also identified a number of culture-specific themes, especially important in the era of students’ and doctors’ mobility.

Conclusion: Medical schools, due to distinctive areas of concern regarding student conduct - such as confidentiality of patient information - require specific codes of student conduct, different than general university regulations that apply to students of all faculties. Absence of regulations describing the process of addressing contemporary professional concerns (including minor professional lapses), specific sanctions, remediation and support following the disciplinary process, raises questions about applicability of the particular code.

Take-home message: Comprehensive and modern students’ codes of conduct are necessary to facilitate professional identity formation, taking into account both the global standards and local cultural contexts.

Learning effects of interview with senior nurses on professional identity among first-year nursing students

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Background: “Nursing History” is the core of nursing education and also the necessary learning platform for nurturing nurses. This study is to enable students to get to know the meaning of nursing work as early as possible, and to understand the roles and professional identities of senior nurses in the workplace as well as to comprehend theoretical and clinical mutual proofs through dialogues between senior nurses and students in this class.

Method: With semi-structured questionnaires and in-depth interviews as the research method, it is expected to provide a further understanding of nursing for the first-year nursing students. Nursing is a stressful and challenging profession. How to enhance the students into this career is a very important issue. In addition to providing students with the best learning outcomes through their experience, in the interview students are able to see the importance of the nursing profession and cultivate their interests in the nursing profession by exploring the future career directions through practical field interviews. Students learn knowledge, attitudes and behaviors in this process and affirm their commitment to become a professional.

Results: Through this study, It helps to understand the students’ willingness to engage in nursing work and their cognition of the nursing profession. Based on the results of this study, I will provide a reference for further planning nursing courses and construct a training strategy and content.

Conclusion: Students’ perceptions of nursing come from experience, media, traditional socio-cultural impressions and nursing education. In addition, experience sharing with senior nursing staff also helps students understand nursing and reduce anxiety of clinical learning as well as enhance nursing professional identity.

Take-home messages:
1. To strengthen the willingness to work in nursing.
2. To let students know what they actually encounter when they enter the workplace.
5GG5 (1369)
Inter-professional clinical simulation education developing professional identity and professionalism in the Japanese medical and nursing students

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Background: In the preceding research, it is reported that professionalism education is effective for forming occupational identity. However, it was unclear that the students’ experience and learning through IPE has influenced identity formation and professionalism. In this study, we conducted a multi-occupational team simulation training consisting of undergraduate students of both medical and nursing department, and clarified how professional identity and professionalism attitudes change before and after IPE education.

Study design: Forty 4th grade medical students and forty 2nd grade nursing students were enrolled and divided to educational intervention group and control participants. We use a scale of professional identity including lower four scales, a scale of professionalism including lower five scales and readiness for inter-professional learning scale (RIPLS).

Education contents: Scenario: Acute abdominal pain in the hospitalized patients with Stage IIia colon cancer. Briefing for 10 minutes, physical assessment by nursing students for 8 minutes, transmission of clinical information from nursing to medical students and physical assessment by medical student and discussion for 10 minutes, and 10 minutes debriefing.

Outcome of training: Technical outcome; Take an appropriate physical assessment and clarify the sign and symptoms, finally know the cause of abdominal pain. Non-technical outcome; effective communication and ethical attitude.

Results: In medical students, IPE curriculum improved RIPLS (p=0.004), scale of professional identity (p=0.009), establishing a view on medical workers (p=0.014), and pride of what is needed for a medical career (p=0.032). In nursing students, lower scale of professionalism, formation of human qualities was elevated (p=0.015). There were no alteration of scale in control group.

Conclusion: It was suggested that multi-occupational team clinical simulation by medical and nursing students in medical university is useful for establishing professional identity and readiness for profession.

Take-home message: On the job training using simulated clinical training promote the readiness and motivation to learning as an educational model of behavior change.

5GG6 (994)
Exploring professional identification with family medicine among medical students in the Kyrgyz Republic

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Background: As part of a project on medical education reform in the Kyrgyz Republic (MER project) in which the Geneva University Hospitals and the Unit of Development and Research in Medical Education have been providing technical support since 2008, we are conducting a study to examine students' views on Family Medicine (FM) and its dynamics over the course of medical training. This study aims to shed light on the global trend of declining interest and shortage of family doctors both in urban and rural areas through a case study in Kyrgyzstan.

Method: The study consisted in an explanatory sequential mixed-methods design, which involved two consecutive and interrelated phases. The first phase explored students’ perception through a quantitative survey at three key moments; (year 1, start of the pre-clinical teaching; year 4, between pre-clinical and clinical teaching; year 6, fully clinical teaching). The second phase used qualitative methods based on focus groups to assist in interpreting the findings of the first phase. The location of the study is the Kyrgyz State Medical Academy (KSMA), the main faculty of medicine in Kyrgyzstan, in Bishkek.

Results: In general, Kyrgyz medical students negatively perceived the discipline and profession of FM and found it unattractive. They identified the context and academic discourse as an influential factor. They described FM as a highly difficult profession, demanding a lot of knowledge without being coupled with correct wages or working conditions, especially in rural areas. First year students were less reluctant to the idea of being trained in family medicine, feeling better informed about the context and the objectives of the medical education reform.

Conclusion: This study hopes to inform interventions in medical education reform to render FM more attractive. Such changes may include redesigning the curriculum, involving medical associations and implementing incentives for FM employment.

Take-home message: The situation in this low and middle-income country echoes the global trend of declining interest and shortage of family doctors, this stems from lack of accurate information about this profession and the genuine working condition which prevail.
Background: The value of role models in professional identity development is well established in the literature. However, there is still a need for a better understanding of factors and characteristics that influence their impact and understanding. Cultural accountability seems to be particularly important in professional identity development. In this way, there should be a deeper understanding of the influence of cultural setting for role models in professional identity development.

Method: A questionnaire was created to identify medical students' role models, their perspective on expected behavior and its change from the first to the last clinical year. Topics related to clinical practice and attitude towards teaching were included. This questionnaire was applied to medical students in two medical schools, in Portugal and Egypt, and results were analyzed.

Results: Two hundred and seven students answered the survey, most of them perceived role models as very important/important for their experience in their medical school (82.1%); students from both countries considered that their main role models were clinical tutors (57%) followed by basic sciences tutors (12.5%) and residents (12%). Results on specific characteristics of role models were similar in both medical students’ groups, with higher agreement on role models’ capacity to show clinical reasoning skills, demonstrate clinical competence and having a positive interaction with colleagues and other health professionals.

Conclusion: Although, professional identity development is a context specific process, role modeling seems to be universally important. In this study, we were able to identify common aspects of role models in two different countries. This can be the early approach to find shared perspectives that may contribute to further knowledge and experience on this topic. Those specific aspects that students associated with their role models can be important to find common points to promote faculty development on professionalism in different cultural settings having a common framework.

Take-home message: Promoting cultural accountability in the understanding of student’s perspectives on role models for professional development can help to promote partnered strategies for faculty development.

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care (100%), discrimination (45%), respecting patient privacy (71%), and informed consent (73%), including for clinical teaching purposes.

**Conclusion:** Medical student narratives deepened our insight into professionalism, serving as a source of medical professionalism education evaluation. Encouraging the strengths and improving the weaknesses within Kuwait's professionalism is warranted.

**5GG9 (2042) Demystifying the Roles of Advanced Practice Nurse (APN) through pre-Master-nursing-Mentorship (MnM) Program**

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**Background:** Professional socialization, developing professional identity through the learning of norms, attitudes, roles and values of the profession, is a critical aspect of nursing development.

**Method:** Registered Nurses (RN) pursue a Masters course to become Advanced Practice Nurses (APN). Our APN faculty selects candidates using Multiple Mini Interview method one-year in advance. Some candidates have expressed unpreparedness and uncertainty about their choices. A pre-Master-nursing-Mentorship (MnM) Program was developed to help them understand the APN identity. In the MnM Program, RNs were buddied up with inflight Masters students on their clinical practicum to allow interaction with them and their preceptors (doctors and APNs). Upon completion, RNs used the Rolfe Reflective Model to guide self-reflection. They reflected on the purpose and benefits of the program and key lessons from their buddies and preceptors (“What”), clarified their own capabilities and potential to be an APN (“So what”), and how they would overcome their own limitations (“Now what”).

**Results:** 8 RNs participated in the program from March 2015 - August 2017. Their reflective journals were analyzed and themes that emerged are broadly summarized: (1) understanding the APN role, (2) resilience needed for the journey, (3) mastery of advanced clinical knowledge/skills, and (4) importance of near-peer and peer support. Comments included: “I felt that it (MnM) has given me a head start to the Masters course...” and “It (MnM) acts as a prelude to my Masters study.” All RNs subsequently enrolled in the Masters course.

A big part of professional socialization is personal socialization where the “newcomer” identifies, interacts and learns from the existing members in the social environment. Peer support and learning has a profound impact on self-development.

**Conclusion:** The MnM Program is a useful platform to facilitate professional socialization. Our Program was useful in providing insight to the RNs as we encouraged them to be active engineers of their own career choice. The faculty played a supportive role by engaging the stakeholders and planning the program.

**Take-home message:** Professional socialization programs similar to MnM can be useful in helping nurses build professional identity and direct career plans.

**5GG10 (1153) Being and becoming: Emergency physicians' conceptualisations of their roles and professional identities**

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**Background:** Emergency physicians (EPs) work in highly-stressed environments and face high levels of burnout. Coping well with these stresses can aid in the development of a sustainable professional identity (PI). However, there is a paucity of research exploring EP's PI. Our study aimed to investigate how members of the emergency medicine (EM) profession conceptualise their roles and PI, and the factors that influenced this.

**Method:** A semi-structured interview study with 25 EPs (6 senior residents ,19 attending physicians) was undertaken across four branches of a large hospital group in Taiwan. Interviews were recorded, transcribed, and analysed thematically.

**Results:** We will report our latest findings. So far, EPs consider personal traits, such as having a trustworthy character, as suitable for EM practice, to enable them to work well in teams. However, indecisiveness and sluggishness are deemed as unsuitable; hindering the EPs' ability to make decisions quickly and prioritise their work. EPs identify unique strengths in their multidisciplinary approach towards medicine, acute thinking processes and multitasking skills. They highlight how facing uncertainty and risks are characteristics of EM and therefore their ability to stabilise patients amidst these facilitates PI. PI is further enhanced through their societal role –being seen as society’s ‘last line of safety net’ and the hospital’s ‘first line of contact’. Family and organisational support also contributes to EP's PI.

**Conclusion:** Facilitating an appropriate professional identity of EM depends on having better coping ability, quality of life, practical wisdom and professional recognition from the institution and public. The barriers included cost saving strategy of health insurance,
overcrowded working environment, facing medical disputes, lack of respect, and so on. EM has acquired unique clinical capabilities that differentiate it from other specialties. EP’s role and PI could be conceptualized through investigating their personal and professional characters whereby the facilitated and threatened factors could be identified accordingly. Future research on the intervention for strengthening EP’s PI is needed. 

**Take-home message:** EP’s PI is influenced by personal, professional, and institutional factors. The professionalisation of EPs’ roles has led to a multifaceted development of their PI along multiple growth pathways.

**5GG11 (3160)**

*Teaching Pre-Clinical Medical Students How to Think Like Doctors: A Novel Model For Early Learners to Understand Cognitive-Based Clinical Reasoning*

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**Background:** Although clinical reasoning (CR) has been traditionally acquired informally during clinical rotations, with greater understanding of cognitive principles underlying CR, there is now intentional effort to teach this skill to undergraduate medical learners. However, current models cognitive-based CR models are complex and difficult for medical students to understand and apply. 

**Method:** Based on adult learning theory, we developed a visual model of clinical reasoning focused on early learners that provides visual clarity for underlying cognitive principles. Rooted in the work of Gruppen, Norman, Mamede and Croskerry, it visually represents dual-processing and “integrative” models, as well as concepts such as hypothesis testing and application of evidence based medicine to the CR process. This model was introduced in a required CR course for pre-clinical medical students at our institution. It was developed due to poor student feedback involving CR models from published literature initially used in the course.

**Results:** Our clinical reasoning model has received terrific feedback from both students and faculty. Faculty report it is easy to teach and use during case-based instruction. Pre-clinical students overwhelmingly report the model is easy to learn, process and apply to patient cases and provides scaffolding to help understand “foundational science” content from other courses. Students that have finished the clinical wards report they frequently used the model as an anchor to process patients’ case information.

Our CR course, centered around this model, is currently in its third year, has received the second highest student evaluation rating for the past two years (average 4.7/5) and was awarded our institution-wide Provost Teaching Innovation Prize.

**Conclusion:** Clinical reasoning is essential for safe and effective practice of clinical medicine. However, understanding CR is often abstract and difficult for early learners. Our CR model is rooted in cognitive theory, provides educators a tool to introduce complex CR process and allows early learners a visual method to recall and apply this important skill during clinical care.

**Take-home message:** Clinical reasoning is an important yet complex process. Our novel model allows pre-clinical medical students an easily accessible method to learn and apply this skill.

**5GG12 (540)**

*Coinvestigating e-professionalism and online identity with medical students via the Social Media Mentor Club*

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**Background:** E-professionalism is more complex than applying the usual standards of professionalism to one’s online activity. Professional use of social media is encouraged within medicine for networking and collaboration however the public nature and audience collapse that social media provides means that medical students have to consider how they portray themselves. Guidelines on how to use social media professionally are provided by UK governing bodies. Creating effective ways for medical students to use these guidelines for developing their online identity and awareness of e-professionalism are needed, hence the Social Media Mentor Club (SMMC) was formed.

**Method:** Eleven Year 1 and 2 medical students at Brighton and Sussex Medical School (BSMS) signed up to the SMMC which met weekly for 6 weeks. Club members gave written consent for their social media profiles to be searched by other club members and for their social media behaviour to be judged against the guidelines provided by UK governing bodies. Memo notes and reflective pieces on what club members were learning about managing their online identity throughout the club term were collected by the researcher. End-interviews were conducted on members to evaluate the usefulness of the club and to gather suggestions for developing methods of educating students on professional social media use. Ethical approval was granted by the Research Governance and Ethics Committee at BSMS.

**Results:** Thematic document analysis revealed that club members valued the peer-judging exercise as an active approach to learning about how one’s online identity maybe perceived by the public. Members reported that the current guidelines are predominantly cautionary in...
nature rather than advising students on how to engage with social media professionally.

**Conclusion:** The SMMC recommend that all medical students conduct a similar peer-judging exercise as part of the professionalism component of the medical curriculum. Members concluded that perceptions of professionalism on social media vary hugely between individuals and that there is a need to develop more practical guidance on how to use social media professionally.

**Take-home message:** Medical students have called for more proactive guidance on developing their online identity.