

#5HH - Posters - Transition

5HH02 (1303)

Date of Presentation: Monday, 26 August 2019

Time of Session: 1600-1730

Location of Presentation: Hall/Foyer F, Level 0

Medical students' learning strategies during transition to clinical training are strongly associated with their levels of burnout and wellbeing

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ABSTRACT

Background: Transition to clinical training involves numerous learning and personal challenges for medical students. Not surprisingly, this period is associated with significant erosion in students' wellbeing, with one in two students developing burnout, a syndrome characterized by emotional exhaustion, depersonalization and diminished personal accomplishment. The objective of this study was to characterize the learning strategies used by medical students in this transition and study its association with burnout, wellbeing and academic performance.

Summary of Work: 1,394 medical students (44.4% females) from eleven Chilean universities enrolled in years 4 and 5 of a 7-year curriculum participated in this cross-sectional study. They answered validated questionnaires of burnout (Maslach Burnout Inventory, MBI), psychosocial wellbeing (Mental Health Continuum, MHC-SF) and clinical learning strategies (Clinical Learning Strategies Questionnaire, CEACLIN). CEACLIN is a 48-item scale rated with a 4-point frequency scale and comprised of four dimensions: Academic Engagement (AE), Study Techniques (ST), Emotion Regulation (ER) and Stress Management (SM).

Summary of Results: Women reported using more frequently the learning strategies associated with AE, ST and ER, compared to men. The pattern of strategies used by students also varied across universities. The prevalence of Burnout among the participants reached 53.8%. Burnt-out students reported lower use of strategies associated with AE, ST and ER as well as higher levels of SM use. Inversely, flourishing students reported higher levels of AE, ST and ER use and lower levels of SM. Grades were directly associated with the level of AE-related learning strategies and inversely associated with ER and SM, after controlling for sex, university, burnout and wellbeing status.

Discussion and Conclusions: The frequent use of clinical learning strategies associated to AE, ST and ER dimensions is strongly associated with lower levels of burnout and higher wellbeing. SM is inversely associated. AE, ER and SM, but not ST, were associated with grades.

Take-home Messages: Learning strategies such as academic engagement, study techniques and emotion regulation in clinical training could help students to deal better with the inherent distress of medical studies. Academic engagement appears as a key learning strategy to achieve better grades. SM seem to be a response to burnout. Funding provided by FONDECYT 1150340.



#10M Short Communications - Student: Burnout and Resilience

10M4 (1434)

Date of Presentation: Wednesday, 28 August 2019

Time of Presentation: 0915-0930

Location of Presentation: Room 0.94-95, Level 0

Learning strategies of Chilean medical students change along clinical training and predict their levels of burnout and wellbeing at graduation

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ABSTRACT

Background: Transition to clinical training poses a learning challenge to medical students; they have to adapt their study approaches in order to learn from clinical experiences within complex health-care settings. This transition is marked by increases in stress levels and burnout prevalence. Aim. To characterize medical students' learning strategies along the clinical training and determine whether these strategies predict students' burnout and wellbeing status at graduation.

Summary of Work: 700 medical students (43.7% females) from eleven Chilean universities were evaluated at the beginning (T1) and two years later, at the end of their clinical training (T2). Participants answered validated questionnaires of burnout (Maslach Burnout Inventory), psychosocial wellbeing (Mental Health Continuum Short Form) and clinical learning strategies (Clinical Learning Strategies Questionnaire, CEACLIN). CEACLIN is a 48-item scale rated with a 4-point frequency scale and comprised of four dimensions: Academic Engagement (AE), Study Techniques (ST), Emotion Regulation (ER) and Stress Management (SM).

Summary of Results: Students changed their clinical learning strategies: the use of AE (i.e. autonomy-seeking and proactive behaviors, and resorting to others) and ER strategies decreased whereas ST and SM strategies use increased. The likelihood of suffering burnout at T2 was associated with a less frequent use of SM strategies two years before. On the other hand, the chances of being in a flourishing state in T2 were associated with a more frequent use of AE and ST strategies in T1.

Discussion and Conclusions: Medical students change their learning strategies along the clinical training decreasing their engagement and emotional regulation in favor of the use of study and stress management techniques. The state of burnout and flourishing at the end of the undergraduate studies was significantly associated with the type of clinical learning strategies used two years before.

Take-home Messages: The learning strategies used by medical students change along the clinical training years. This probably reflects an attempt to cope with the increased academic challenges. Acquiring tools to better deal with stress and to enhance the academic engagement early in medical career could decrease students' vulnerability to burnout and increase their chances of achieving higher levels of wellbeing.



#31 Short Communications - Self Assessment, Peer Assessment and Portfolios

315 (848)

Date of Presentation: Monday, 26 August 2019

Time of Presentation: 1130-1145

Location of Presentation: Room L2, Level 1

Reflective practice promotion through electronic portfolio implementation in extramural dental internship

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ABSTRACT

Background: Portfolio is an assessment instrument that reports academic work in a period of time to demonstrate students' competences in the 'does' level in Miller's pyramid, with special emphasis on developing reflective practice. Particular needs were identified in the extramural internship at the School of Dentistry of Pontificia Universidad Católica de Chile. Methodologies and assessment were focused on the cognitive domain with lack of those that promote reflective thinking and professionalism. The aim of this study is to describe the implementation of an undergraduate electronic portfolio in a dental extramural internship, its evolution and perception after two years of experience.

Summary of Work: Implementation of an extramural internship electronic portfolio was analyzed including design, methodologies, assessment results, grades and students' perceptions.

Summary of Results: 104 students participated (2017 and 2018) supported by 5 tutors. Portfolio included different sections like standardized virtual clinical cases of adult and pediatric patients, reflection on action report, clinical activity record, honor commitment for plagiarism and confidentiality for clinical cases. Essays were used as methodology for promote reflection and a final work was assessed with rubrics. Formative and summative assessment accompanied by feedback were fundamental in the successful of the process. The grades improved between first and last work, with statistically significant difference ($p=0,001$). There were no cases of plagiarism, likely due to the implementation of a software to detect it.

Discussion and Conclusions: In general strengths and weaknesses of this electronic portfolio were consistent with previously published experiences, as an exception that the academic work load and allotted time were mostly well evaluated by the students. In addition, plagiarism - an issue frequently mentioned in medical education - was not detected. With these results the portfolio responds to the proposed aim: being pertinent, coherent and feasible to implement.

Take-home Messages: In health professions it is fundamental to promote reflective practice as part of professionalism. For this purpose the portfolio is an excellent tool which will be successful with active participation of the students, tutors' support and feedback also being careful not to overload with activities leaving schedules protected for their development.



#3JJ Poster - Management and Leadership

3JJ07 (762)

Date of Presentation: Monday, 26 August 2019

Time of Session: 1015-1200

Location of Presentation: Hall/Foyer F, Level 0

Piloting a formative assessment tool on leadership and communication skills in Emergency Medicine residents at Pontificia Universidad Católica de Chile

AUTHOR(S):

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ABSTRACT

Background: Developing leadership and communication skills is a fundamental aspect of healthcare professional's training and should be considered within the curriculum. This study aimed to pilot a formative assessment, observing senior Emergency Medicine (EM) residents as team leaders. The formative aimed to encourage reflective practice, self-awareness and allow residents to identify their future learning needs.

Summary of Work: The assessment tool was developed using educational frameworks, institutional policies and stakeholders' opinions. A list of competencies to be measured was identified and constructed into a checklist. Three residents were observed during three shifts each by senior staff members. All participants were asked to watch an explanatory video of the project before the implementation phase and to reflect upon their experience during the process, providing guidance questions. At the end of each shift, staff members provided feedback and discussed with the resident an action plan for improvement. Upon completion of three observations, both staff and residents provided a written reflection of their experiences.

Summary of Results: Reflections from residents and staff showed that they found this activity useful, suggesting that it becomes part of the curriculum. Residents describe how it gave them more clarity on what their responsibilities were and how to manage themselves, increasing their confidence. They found the checklist and immediate feedback useful for identifying strengths and weaknesses. Staff members found the assessment tool useful, however timely feedback was a challenge. The activity did not negatively impact on the normal running of the clinical area. Residents described how their view of leadership changed and requested further training on EM leadership and administration skills.

Discussion and Conclusions: Reflections from this pilot study confirm the need for including assessment of abstract skills such as leadership and communication in our EM training programme. Formative assessment led to residents feeling better prepared to perform as team leaders and plan for further development. A similar formative assessment could be used in other contexts to assess and develop these skills.

Take-home Messages: This formative tool allowed assessment of leadership and communication skills in the workplace. Residents describe increased confidence and understanding of their responsibility as leaders. This experience encouraged reflection and identification of learning needs.



#10GG Posters - Patient as Educators/Patient Safety

10GG12 (785)

Date of Presentation: Wednesday, 28 August 2019

Time of Session: 00830-1015

Location of Presentation: Hall/Foyer F, Level 0

Evaluation of a patient safety course for intensive medicine residents using the Kirkpatrick's model

AUTHOR(S):

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ABSTRACT

Background: Critically ill patients admitted to the Intensive Care Units (ICU) are especially vulnerable to adverse events. The severity of their medical condition, concomitant with the complexity of their management can result in treatment and procedure errors. Daily, 1.7 errors/patient have been described during the ICU stay, and a large part of them can cause significant harm to patients. Despite this, the teaching of patient safety (PS) is limited in many intensive medicine (IM) residency programs. During 2018 a pilot PS course was developed within the IM residency program of the Pontificia Universidad Católica de Chile. This course was developed in 4 sessions by a team of multidisciplinary facilitators, stimulating active learning. The objective of our study was to evaluate this course using levels 1 and 2 of Kirkpatrick's evaluation model.

Summary of Work: To assess level 1 (satisfaction) an 11-statement survey was conducted after the first and last session. To evaluate level 2A (perception) an 8-statement survey was applied before and after the course. The results were described with percentages and the evolution of the responses was analyzed using the Fishers Test. A value $p < 0.05$ was considered significant.

Summary of Results: The 18 residents of the program participated in the course and answered the surveys. In the initial satisfaction and perception surveys 88% and 67% of the statements, respectively, were qualified with good scores. The results of both surveys improved after the course was finalized, but without statistical significance.

Discussion and Conclusions: Other studies have also shown that it is difficult to improve the perception of PS in residents, even after developing learning programs. These results will help us to improve this course using different learning methodologies. Future intensivists should be experts in PS, so it is imperative to improve the perception that they have of this topic. In conclusions, levels 1 and 2A of Kirkpatrick's model could be improved during a pilot course of PS. This learning activity should be optimized to generate an important change in the perception of PS.

Take-home Messages: Learning programs of PS for residents have the challenge to positively stimulate the perception of this topic.

