7CC01 (134148)
The Initial Clinical Experience (ICE): A Novel Approach to Interprofessional Education through Early Immersion in Healthcare Teams

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Background: Although the practice of medicine is increasingly team-based, few curricula deliberately expose learners to longitudinal interprofessional education (IPE) in clinical environments early in their medical school careers. The goal of this course was to expose students to patients, healthcare professionals, and healthcare teams during the first year of medical school.

Summary of Work: In 2015-16, the Initial Clinical Experience (ICE) was launched to provide learners with an immersive, longitudinal exposure to health professionals in clinical practice. Students are assigned to a clinical setting and work with one of the multiple health professionals at that site going every other week for their first year.

Summary of Results: 168 first-year students were placed at one of 18 sites where they “actively observed” members of healthcare teams including nurses, physical and occupational therapists, social workers and pharmacists. Following each session, students engaged in reflective exercises and received feedback. The course included a classroom-based session to introduce different healthcare professional roles.

Discussion: Identifying participating clinical sites for student placements presented an initial logistical challenge. Scheduling of the multiple learners, sites, and health professionals required assistance from outside the medical school. Other obstacles came up regarding transportation and time to get to sites. Early feedback has been largely positive.

Conclusion: Students may not fully realize the value of ICE until their clinical years. One student noted, “I found myself paying a lot of attention to the roles of the physician assistants, pharmacists, paramedics, nurses, and social workers. I am 100% sure I would not have done that had I not been in ICE.”

Take Home Messages: As medical schools around the country look to infuse team-based, interprofessional learning in their curricula, the ICE course provides a replicable template. Plans to introduce learners from other health professions into the clinical environment, and include them in classroom-based simulations are now underway.

#7CC02 (135493)
Evaluation of interprofessional education with FILE – Freiburg Questionnaire for Interprofessional Learning Evaluation

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Background: Interprofessional collaboration is considered a promising approach to meet the challenges of an increasingly complex health care system. Hence, the WHO calls for the development of interprofessional education in medical studies. In evaluating interprofessional courses in Freiburg, we found that there is currently no valid German tool for evaluating interprofessional teaching. The RIPLS, a questionnaire broadly used internationally, turned out to be not applicable because of its unstable factor structure and partially unacceptable subscale reliabilities [1]. Thus, we developed the Freiburg Questionnaire for Interprofessional Learning Evaluation (FILE).

Summary of Work: We assembled a large pool of items to reflect the dimensions knowledge, teamwork, professional identity, and roles and responsibilities. Experts from different professions selected 21 items corresponding to these dimensions. In order to analyze the questionnaire we surveyed 217 medical students and students from other health care professions visiting interprofessional courses. Responses were factor-analyzed using principal axis factoring followed by varimax rotation. Cronbach’s alpha was computed to determine the internal consistency of each subscale. Pre- and post-test subscale scores were compared by paired t-tests.

Summary of Results: Three factors were identified: relevance of interprofessional learning and collaboration, interprofessional role perception and teamwork ability. The internal consistencies of the corresponding subscales were .90, .78 and .69. All subscales post-test scores were significantly higher than the pretest scores.

Discussion: The FILE’s factor structure is similar to the one intended by the RIPLS. Its subscales are reliable and may be used to evaluate differences in student’s perception and attitudes towards interprofessional learning before and after visiting interprofessional courses.

Conclusion: Further work is necessary to validate the scales amongst a larger population.

Take Home Messages: The evaluation of interprofessional education is possible with FILE.
Collaborative decision making and team outcomes: Mediating role of shared purpose and voice

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Background: There is an urgent need to understand how interprofessional collaboration occurs across a range of practice settings (Institute of Medicine Report, 2015). This mixed-methods study examines the predictors which mediate the combined impact of shared leadership (SL) and transactive memory system (TMS) on self-reported satisfaction and effectiveness in a geriatric interprofessional team.

Summary of Work: Using tertile cutoffs of locally validated scales of TMS and SL, we classified 112 team members (86% response rate) into 3 groups: 1) High SL/High TMS (n=18); 2) Low SL/Low TMS (n=23); and 3) Intermediate (n=71). We compared open-ended qualitative responses between the 3 groups to elucidate factors which promote collaborative decision making. Using self-reported outcomes of satisfaction with geriatrics work and ability to perform effectively, we built linear regression models to compare between the three groups adjusting for age, gender, interprofessional role, number of IPTM attended, and factors identified in qualitative analysis.

Summary of Results: Two differentiating themes emerged in the high SL/TMS group: 1) shared purpose, namely common understanding of team objectives to ensure a focus on collective goals; and 2) voice, namely degree to which team member have a say in the final discharge plan. Compared to the low and intermediate groups, high SL/TMS group scored significantly higher for satisfaction and self-effectiveness outcomes (p<.01). After adjusting for shared purpose and voice, satisfaction and effectiveness outcomes in the high SL/TMS group were no longer significant.

Discussion: Our study underscores the over-arching importance of interprofessional team members sharing a common purpose which transcends individual professional identities, and of giving voice to different professional groups so that they can actively participate in and influence the decision making process.

Conclusion: We explicated the critical elements of shared purpose and voice in promoting SL and TMS in collaborative decision making for the betterment of team outcomes.

Take Home Messages: Shared purpose and voice are critical antecedents of good team outcomes.

“Am I ready to be an interprofessional healthcare practitioner?”- Health professions students’ collaborative care experiences in the primary healthcare setting

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Background: Exposing healthcare students to primary care settings to learn about interprofessional collaborative care is considered to be one of the educational strategies to equip students with interprofessional collaborative practice (IPCP) competency. In 2015, the Health Sciences Cluster, Universitas Indonesia organized an interprofessional course for 290 4th year nursing and public health students. The study is aimed to assess students' perceptions toward their own professions and other healthcare professionals after completing the interprofessional course.

Summary of Work: Groups of students were distributed to 15 primary healthcare settings and each of them was assigned with a specific task, either a clinical case, family home visit or community service project (Bridges et al., 2011), that required an interprofessional approach. Using the Interdisciplinary Education Perception Scale/IEPS (Luecht et al., 1990), with 18 statements and a 6-point Likert scale, students’ perceptions were captured at the end of the course.

Summary of Results: A total of 168 students (57.9%) responded to the IEPS. Overall, the results demonstrated that students have positive perceptions toward their own and other healthcare professions, with mean score ranges from 4.05 to 5.19. The statement with the highest mean score is “individuals in my profession need to cooperate with other professions”.

Discussion: The results indicated that students have positive perceptions and awareness that healthcare practitioners need to work with each other. It is expected that the positive perception can then be translated into a teamwork ability to provide safe and optimum patient care.

Conclusion: A ‘hands-on’ interprofessional program positively influences healthcare students’ perceptions toward interprofessional approach.

Take Home Messages: Students’ exposure to a real practice setting is important for IPCP development.
#7CC05 (137211)
Considering clinical protocols and guidelines: what lessons for IPE?

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Background: Interprofessional collaboration is enhanced if professionals are able to work across discursive boundaries. While interprofessional education interventions may encourage this the practice environment may militate against the implementation of understandings developed in educational settings.

Summary of Work: Interviews with doctors and nurses highlighted differences between each professions’ views of clinical protocols and guidelines. This prompted us to conduct a critical discourse analysis of a number of clinical guidelines and the systems which guide their development and approval. We then considered what this might mean for those charged with delivering interprofessional education.

Summary of Results: Protocols exemplify a neo-liberal discourse where the objects of care are positioned as clients or consumers amenable to standardised aliquots of diagnosis and care justified on the basis of scoring systems and a ‘scientific’ evidence base. They also suggest flattened structures, a democratising discourse where all professional voices are equal.

Discussion: Nursing identity relies on experience, holistic views of patients and collective approaches to practice. Medical identity is based on craft-based development of expertise associated with distinctive and sometime idiosyncratic responses to a patient’s needs. This means each comes to protocols with different ‘agenda’ and that protocol may reinforce disciplinary boundaries.

Conclusion: The collectivist and democratic discourses of protocol development do not seem to carry through to their implementation and utilisation. Instead, protocols appear to act as objects that reinforce discursive boundaries between the groups. Understanding this may assist in improving interprofessional training and enhance boundary crossing.

Take Home Messages: Critical discourse analysis allows researchers to illuminate ways in which artefacts like clinical protocols might be understood by different health professionals. The analysis suggests that widely used protocols may militate against interprofessional collaboration. Understanding the discursive role protocols play might help educators design more effective IPE programmes.

#7CC06 (194637)
SBAR as an interprofessional communication tool: Beyond conveying information to a framework for thinking

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Background: Though the Situation-Background-Assessment-Recommendation (SBAR) tool is widely endorsed for use in urgent clinical settings, its applicability in non-clinical scenarios and amongst non-clinicians remains relatively unexplored. We examined the perceptions of clinicians and administrative professionals towards adoption of SBAR as an interprofessional communication tool beyond urgent clinical settings.

Summary of Work: We studied 20 (67%) clinicians and 10 (33%) administrative professionals who participated in an Interprofessional Leadership Program. The SBAR interactive module comprised role-plays of non-urgent clinical and non-clinical scenarios, followed by group discussions about their experiences when applying SBAR. Participants completed a post-course survey, comprising 5-point Likert scale and open-ended questions. We performed mixed-methods analyses of quantitative and qualitative data.

Summary of Results: Although administrative professionals had lower prior usage of SBAR compared with clinicians [Mean(SD):2.1(0.88) vs 3.65(1.35); p<0.01], both groups endorsed SBAR as being beneficial in organizing information in complex situations and conveying information in a clear succinct manner. Thematic analysis identified three critical factors for successful adoption of SBAR beyond urgent clinical settings: (i) contextual sensitivity, including time constraints, complexity of problem to be solved, and other party’s familiarity with SBAR; (ii) person-centredness, emphasizing a two-way responsive communication that incorporates communication strategies such as active listening and clarification questions; and (iii) conduit of communication that organizes thinking and permits flexibility in selecting and sequencing the SBAR components.

Discussion: Both clinicians and administrative healthcare professionals value SBAR as a versatile framework of thinking, rather than a rigid step-by-step communication tool per se. Our results pave the way for future curriculum design that harnesses SBAR’s relatively untapped potential as a versatile interprofessional communication tool beyond urgent clinical settings.

Conclusion: Beyond providing a reliable model for conveying information, SBAR offers a pliable framework for organizing thinking and facilitating context-sensitive and person-centred communication to accommodate dynamic communication situations across different settings.
Take Home Messages: SBAR provides a framework for thinking beyond an information-conveying tool.

#7CC08 (193509)
Cultural adaptation and validation of the Japanese version of the Interprofessional Facilitation Scale (IPFS)

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Background: Effective interaction and shared learning among professionals necessitates interprofessional facilitation skills. In this study, we aimed to produce a Japanese adapted version of the Interprofessional Facilitation Scale (IPFS) and to validate it for use with healthcare professionals in Japan.

Summary of Work: The original 18-item IPFS (Sargeant, 2010) can be used to enhance interprofessional facilitation skills. We developed the Japanese version of the IPFS according to the guidelines for cross-cultural adaptation (Beaton, 2002). Three translators and a subject matter expert confirmed its face and content validity. Exploratory factor analysis was performed to explore the underlying structure of the items.

Summary of Results: The study participants consisted of 165 healthcare professionals. The translated items were amended during back-translation and expert reviews. In exploratory factor analysis, we obtained two factors with good internal consistency (Cronbach’s alpha > 0.8). These factors were labeled as follows: 1. Encouraging interprofessional interaction, 2. Respect for each profession.

Discussion: The original factor “Encouraging interprofessional interaction” was divided into two factors in this study. These seem to be affected by Japanese culture; most Japanese might understand that “facilitation” can encourage relationships, apart from respect for others. To achieve a more robust construction of the factors and to scrutinize the relationships between each factor, further investigations will be needed with the present Japanese version of the IPFS.

Conclusion: We developed the Japanese version of the IPFS for healthcare professionals. Different factors of the original study might be affected by Japanese healthcare professionals’ perspectives of facilitation.

Take Home Messages: This study is the first to perform a cultural adaptation and validation of the Japanese version of the IPFS.

Take Home Messages: The effectiveness of holistic patient care and interprofessional training for dietitians

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Background: In recent years, the multidisciplinary care team began including dietitians, which was why it’s important to train dietitians have the ability to cooperate with the care team. Interprofessional education (IPE) is one way to enhance the clinical care quality of dietitian, implementation modalities including large lecture and practical exercises. The purpose of this study was to analyze the effectiveness of practical exercises for holistic patient care.

Summary of Work: A protocol of holistic patient care and inter-professional education was implemented from June 2014 to November 2015 in pediatric department. The protocol includes 4 phases, pre-conference, conference, post-conference, and learning/observation feedback. The questionnaire contains 12 items, and each item was divided into five scales. Pre- and post-tests were performed before phase 2 and after phase 4, respectively. Differences were considered statistically significant when P < 0.05.

Summary of Results: Total number of participate dietitians were 18. All items in the pre- and post-test showed statistical significance, p < 0.05, in addition to “Patient-centered interprofessional education with body, mind and spirit” and “the definition of safety culture”. Subjects were further allocated into two groups based on dietitians with/without qualifications of holistic patient care teacher. It was showed different statistically significance in four items between two group. The overall average satisfaction for the training protocol was 95.8%.

Discussion: This study should be further included data collection about that provides insight into how IPE affects changes in health care processes and patient outcomes. The result would provide better evidence of the impact of IPE on professional practice and healthcare outcomes.

Conclusion: The practical exercise of holistic patient care for could effectively promote dietitians to understand the concept of holistic health and mode of procedures.

Take Home Messages: The clinical staffs felt satisfied and agreed with practical training which closer to the truth could promote them to understand the concept of holistic health and mode of procedures.
Introduction of Interprofessional learning concept in faculty development

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Background: The interprofessional collaboration can be fulfilled not only in clinical practice but also in clinical teaching and learning. A workshop was held to develop an interprofessional learning environment for clinical teachers, including physicians and other health professionals, to exchange the experience of clinical assessment techniques and execution methods.

Summary of Work: A workshop “Interprofessional Education of Clinical Evaluation Activities and Tools” was held in MacKay Memorial Hospital, Taipei, Taiwan. The background of the participants was quite diverse, included physicians, nurses, medical laboratory scientists, dietitians, pharmacists, occupational therapists, physical therapists and respiratory therapists. Experience sharing of how to establish a professional-specific assessment and evaluation system was conducted.

Summary of Results: High satisfaction was observed just after the workshop. The participants reflected that they learned from each other about how to identify the special need of clinical evaluation in different health professionals and organize the professional-specific evaluation activities.

Discussion: The most valuable part in the interprofessional learning is that clinical teachers found they themselves can be the resource of each other in creating a better way to do clinical evaluation. Institutional commitment and support will be the propulsion to maintain the positive faculty interaction.

Conclusion: Interprofessional learning in the field of clinical evaluation give hospital faculties the opportunity to do reflections on how to organize distinctive evaluation process by the special need of each health professional.

Take Home Messages: Introduction interprofessional learning concept in the faculty development is valuable and encouraging.

The Impact of interdisciplinary teaching on Administration of Aerosol Drug Therapy

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Background: Administration of aerosol drug therapy is an universal treatment in chronic obstructive pulmonary disease (COPD). However, inappropriate use of inhaler devices is a common problem even in chest medicine ward, and poor compliance may reduce bronchodilator therapeutic effect. We hypothesize that the therapeutic outcome of preparation of aerosol drug therapy is improved by training nurses guided by respiratory therapist.

Summary of Work: Interdisciplinary teaching program was executed in chest medicine ward. We made a checking list of the skills of inhaler devices and all participates received tests before and after the education intervention by respiratory therapists for inhaler technique.

Summary of Results: The correct rate of the using skills for inhaler devices improved significantly in pMDI (44% vs 89%), DPI (34% vs 100%) and respimat device (28% vs 100%) after introducing this program in 16 nurses. We also recruited 15 patients with COPD were treated with inhalation devices and re-instructed by these trained nurses. All these patients had received evaluations of the skills of inhalation devices before and after re-instruction. Patients’ practice skills were improved obviously after education intervention in pMDI (33% to 86%), DPI (20% to 90%) and respimat device (28% to 86%).

Discussion: We make sure that all of the nurses own knowledge of correct technique is up-to-date, and ask patients to show us how they use their inhaler devices, give verbal instruction accompanied with handout forms, and repeat instruction regularly in their daily nursing care. And we implemented a successful education program of inhalation devices for nurses and the excellent outcome was examined in the terminal users (patients).

Conclusion: Though the application of interdisciplinary teaching, respiratory therapist can help nurses to understand drug aerosol therapy, and provide patients well-trained education.

Take Home Messages: We believe that make interdisciplinary teaching as a culture in clinical medicine in Taiwan, which can increase bronchodilator effect and physician-patient relationship.
**Effect of Holistic Patient Care Conferences on Quality of Patient Care**

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**Background:** The focus of holistic patient care education is patient-centered care that emphasizes the concept of a whole person, whole family, and whole team and promotes patient safety and quality of care. Through the holistic education, inter-professional staffs may increase the respect to patients’ and their families’ values and improve the safety culture and quality of care.

**Summary of Work:** From April 2015 to December 2015, a protocol of holistic patient care and inter-professional education and learning was implemented in our hospital. A total 248 inter-professional staffs participated in 23 holistic patient care conferences in a small group. Patients and families were invited to join the individual conference. Pre- and post-tests were performed before and after the session. Comparisons between the two tests were analyzed using the t-test. The cutoff significance was a p value of 0.05.

**Summary of Results:** After these education sessions, staffs improved their knowledge, attitude and skill of teamwork in all 13 measuring items, p < 0.001. When evaluated the knowledge and application of ‘Team Strategies and Tool to Enhance Performance and Patient Safety’, participants' scores were raised from 3.13 to 4.49 and improved 21.80% of Team STEPPS for holistic patient care.

**Discussion:** A holistic medical education is focused on the patient-centered care. Inter-professional education via holistic patient care conferences can enhance knowledge, attitude and skill of teamwork. It improves the medical staff-patient relationship and understanding of the expectation of patients and the families as well as the collaboration among inter-professional members.

**Conclusion:** This holistic education enhances the knowledge, attitude and skill to our inter-professional staffs for patient safety and quality of care.

**Take Home Messages:** The small group conferences are effective method for inter-professional holistic patient care education.
Call for Cultural Sensitive Education on Underprivileged Minority’s Health Issues: A Case Study on Aboriginal Drinking in Taiwan

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Background: The prevalence of alcohol-related diseases among aboriginal people in Taiwan increased dramatically in recent half century. Since 2012, Hsinchu Mackay Memorial Hospital has been carrying out an outreach programme to assist aboriginal communities in Wufeng, where the prevalence of drinking problems has been extremely high. However, the plan still results in poor outcomes.

Summary of Work: I have been conducting ethnographic fieldwork in Wufeng since 2012. During this time I have collected data on aboriginal drinking including year-long participant observation in psychiatric clinical sessions, focus groups, interviews with participants of the intervention programme, local leaders, medical practitioners, and observation of aboriginal everyday life practices, traditional rituals and festivals.

Summary of Results: The difficulties of medical intervention for drinking problems largely resulted from the gap between indigenous understandings of illness and modern medicine. Local medical practitioners, may still regard them selves lacking of expertise on this specific issues, and expects more medical resources to shift in. Currently, the aboriginal areas still rely on certain plans held by the government and local hospitals to fulfill the medical resources, as well as public scholarships to train more indigenous medical students. However, drinking problems were not eventually solved. Local medical staffs still take ambiguous attitude on identifying drinking as whether indigenous culture or pathological behaviours.

Discussion and Conclusion: Problematic drinking among aboriginal people cannot be seen as merely a medical issue, but a more complex agenda with social, cultural and historical causes. The poor outcomes of medical interventions revealed both lacking of cultural competence training for current medical practitioners.

Take Home Messages: Policy makers should not only aim at increasing medical resources, more importantly, improving cultural sensitive and cross-disciplinary education for medical students and practitioners should be more fundamental tasks.
Facebook as the course platform for the delivery of cultural competence curriculum from the pre-graduation to graduated students in health profession

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Background: The number of immigrant residents is gradually increasing in Taiwan, which leads to multicultural stimulation and impact on Taiwan society. Improvement of multicultural health care service is a life-long learning process for professionals, requiring a training course not only aiming to provide cultural knowledge but also strengthen care-providers’ cultural competencies.

Summary of Work: This study mainly used social network Facebook as its course platform for the delivery of multicultural care course. The framework of the curriculum was consisted of four dimensions, including multicultural knowledge, awareness, self-confidence, and skill. Three months of basic curriculum was offered to the healthcare professionals at six months before graduation. After assessment, a transitional course was offered to the graduates.

Summary of Results: A total of 13 materials were developed at the basic course stage. 173 participants in the experimental group and 160 in the control group completed the baseline assessment. Compared to the control group, the course intervention significantly improved the performance of the experimental group on the knowledge and skills dimension.

Discussion: After graduation, the transitional course with real cases as the main theme significantly improved the self-confidence and awareness towards health care of multicultural populations. The results indicated that, compared to the control group, the course intervention significantly improved the performance of the experimental group on the knowledge dimension. After graduation, the transitional course with real cases as the main theme significantly improved the self-confidence and awareness towards health care of multicultural populations.

Conclusion: Students from healthcare demonstrated a gradually decreased ability in providing multi-cultural care over time after graduation. Pre-graduation education serves as an effective tool to improve students’ multicultural care competency. However, the enhancement of awareness, self-confidence levels, and skills requires real-life case study and sharing.

Take Home Messages: 1. Facebook could serve as the life-long learning platform for continuing professional curriculum among health care professionals. 2. The teaching materials for improving cultural competence through FB need to tail for pre-graduate and post-graduated student regarding to their care experience in clinical setting.