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The Use of Virtual Patients to Promote Inter-professional Learning for Medical and Dental Students

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This is a PedRIO project not a TFAS one – they used the wrong template
Teaching Fellowship Award Scheme: Final Report

The final report should consist of a two-page summary of the project and its findings (using the fields below as a guide).

Along with this form, please also send (where relevant):

- Ethical approval forms
- Conference papers and/or articles for publication
- (If your initial TFAS application was 'approved with conditions') Evidence that these conditions have been met (in 'Other')

Send all forms to: deborah.white@plymouth.ac.uk

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Names of other staff involved: Prof Ruth Endacott, Dr Arunangsu Chatterjee, Dr Mahrukh Mirza, Ms Mel Joyner

Title of project: The Use of Virtual Patients to Promote Inter-professional Learning for Medical and Dental Students

Type of project (e.g. Survey/ Case Study/ Action Research/ Development): Development of Learning Resource

Keywords (that describe/reflect the project): Inter-professional learning, Virtual patients, Patient Safety, Learning Resources

Aims of project: The aim of the project is to develop a shared learning resource for nursing and medical students to promote inter-professional learning.

Background/context to project:

Virtual Patients (VP) are being developed with medical and nursing students to be used as a resource to promote inter-professional learning and patient safety. The main emphasis is on the use of VP to promote good practice in relation to medical ward rounds. The joint document by the Royal College of Physicians and the Royal College of Nursing "Ward rounds in Medicine, Principles for best practice" has been used as a guide to develop the themes.(1)

There is no single agreed definition of a 'medical ward round'. However, it can be described as a complex clinical process during which the clinical care of hospital inpatients is reviewed. This process includes (1):

1. Establishing, refining or changing the clinical diagnoses

2. Reviewing the patient's progress against the anticipated trajectory on the basis of history, examination, NEWS (national early warning score)² and other observations, and results of investigations
3. Making decisions about future investigations and options for treatment, including DNAR (do not attempt resuscitation) and any ceilings of care
4. Formulating arrangements for discharge
5. Communicating all of the above with the multidisciplinary team, patient, relatives and carers
6. Active safety checking to mitigate against avoidable harm
7. Training and development of healthcare professionals.

The above areas have been used to develop scenarios of Virtual Patients (VP) in which medical and nursing students conducted simulated ward rounds in the simulated ward in the clinical resource centre in the John Bull Building, Peninsula Schools of Medicine and Dentistry, Plymouth.

Methods used:

The VP have been structured to include an initial video clip of a multidisciplinary ward round. An element of defective communication is integrated in the initial video clip. Medical and Nursing students will be asked to answer a few questions regarding the clip they have seen with emphasis on aspects of effective communication and patient safety during a hospital ward round. At the end of the VP, the students will be shown a second video clip demonstrating the 'good practice'.

The VP are developed using 'open labyrinth'. A member of the TELMed team supports medical and nursing students on how to use 'open labyrinth' so that students can work together in a special study module in the future to develop Inter-professional learning VP in the next academic year.

Scenario One

Communication between members of the team.

A patient is reviewed by the team prior to discharge. She has been complaining of leg pain following her laparoscopic surgery. This is not clearly highlighted to members of the team with the potential for missing a serious complication.

Scenario Two

Formulating arrangements for discharge

A patient is reviewed on the ward round by the multi-disciplinary team. He was admitted with severe epistaxis (nose bleeds) and had nasal cautery. The team communicate the plan to the patient but this is not very clear. On the

follow up from the ward round, the patient is not informed he has to see his GP to have his INR checked.

Scenario Three

Active safety checking to mitigate against avoidable harm

A patient is reviewed on the ward round. One of the student nurses has noticed that the patient has been prescribed Benzyl Penicillin for acute tonsillitis. The patient does not have an 'allergy' wristband but she knows from talking to the patient he has previously developed a severe rash on taking a penicillin. This is not clearly communicated during the ward round.

Scenario Four

Making decisions about future investigations and options for treatment, including DNAR (do not attempt resuscitation) and any ceilings of care

A patient is reviewed on the ward with a chest infection. They have a known diagnosis of dementia. Their DNAR status is not recorded in the clinical records. It transpires that a member of the team has spoken to the patient's daughter regarding the patient's previously expressed wishes.

The evaluation will utilise both qualitative and quantitative instruments. Evaluation will include

- expert review of the VP scenarios using the eVIP toolkit.
- Participants will be invited to complete the eVIP questionnaire (again part of the toolkit) with constructs around learning and clinical reasoning experiences with virtual patient.
- student led nominal group to capture their experiences qualitatively/quantitatively. The nominal group technique (NGT) is an evaluation method that provides semi-quantitative, rank-ordered feedback about a group of learners' perceptions of the good and bad aspects of an educational program. The data gathered through the NGT will help triangulate the data obtained through evaluation surveys (eVIP questionnaire). Through NGT, participants will get the opportunity to comment on issues not covered by the survey items.

The questionnaires will be administered at the end of each VP case and nominal groups will be arranged a few weeks after the intervention.

Results:

These will be reported as per evaluation strategy highlighted above and after the students have used the resource in the academic year 2015/2016.

Associated publications:

Dissemination:

Some of the recorded videos were presented by Prof Khalil in the GMC patient-safety conference in London in March, 2015 as an area of good practice as part of the PU PSMD patient safety curriculum.

The results of this project will be presented in clinical education conferences and published in peer-reviewed journals. I

Other:

Total project expenditure:

(If you do not have this information readily available, we can source on your behalf) The payments to the research assistant and students who participated in the filming and production of the VP will be made shortly.

I would like to present my findings at the following conference/s:

- Fifth PedRIO Annual Conference: 8th April 2016 Yes
- VC's 14th Teaching & Learning Conference: 30th June 2016 Yes

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Are you happy for us to use this project for future marketing purposes? Yes

References

Ward rounds in medicine Principles for best practice. (2012) A joint publication of the Royal College of Physicians and Royal College of Nursing.

https://www.rcplondon.ac.uk/sites/default/files/ward_rounds_in_medicine.pdf

Accessed 2 June, 2015.