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Using authentic learning environments to bridge the theory-practice gap in pharmacy education.

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USING AUTHENTIC LEARNING ENVIRONMENTS TO BRIDGE THE THEORY-PRACTICE GAP IN PHARMACY EDUCATION

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INTRODUCTION

- Authentic learning is defined as “a pedagogical approach that situates learning tasks in the context of real-world situations” (Herrington *et al.* 2013 pp.401-402).
- Published literature has established authentic learning in healthcare education as a way of bridging the theory-practice gap and preparing graduates for the increasing complexity of modern health and social care systems (Lee *et al.* 2022).

AIM

- This study aimed to evaluate the impact of an educational activity on student pharmacist learning and personal and professional development.

METHOD

ACTIVITY DESIGN

- Activity design aimed to provide student pharmacists with an opportunity to experience working situations like those in practice, allowing them to develop as reflective practitioners, facilitating professional development and encouraging best professional practice.
- The principles of constructive alignment were applied, mapping workshop learning outcomes to module learning outcomes intended to support development of competencies assessed during Direct Observation of Practical Skills (DOPS) (Biggs and Tang 2011).

IMPLEMENTATION

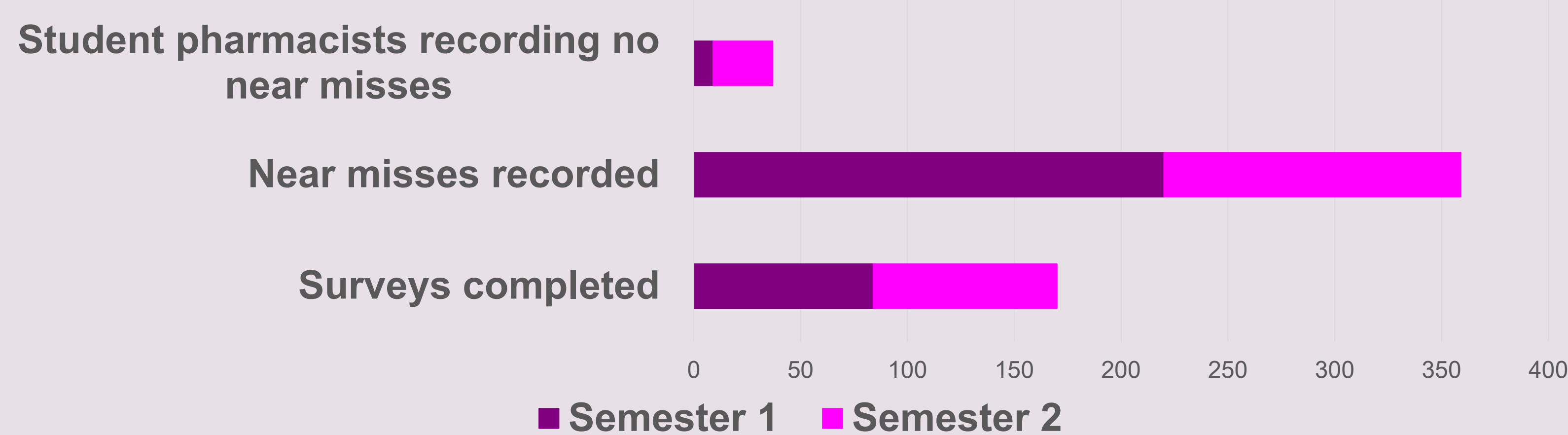
- Included in a Year 2 Professional Practice module delivered as part of the Master of Pharmacy programme at Robert Gordon University.
- The activity was integrated into weekly 1.5 hour simulated community pharmacy workshops; student pharmacists were presented with various scenarios which included dispensing several prescriptions.
- Academic staff asked student pharmacists to complete an entry into the “Near Miss Error Log” if an error was recorded during the final accuracy check (Royal Pharmaceutical Society 2023).

EVALUATION

- A paper evaluation survey was developed including both open-ended questions and closed questions, relating to the number and type of errors recorded, key learning points and personal and professional development leading to changes in practice and improved patient safety.
- Purposive sampling was used. All Year 2 student pharmacists (n=101) were invited to complete the survey twice – at the end of semesters one and two. Surveys were distributed and collected during the last ten minutes of class time; an identification code was used to allow for both surveys to be linked.
- Survey responses were transcribed into a Microsoft Excel spreadsheet and descriptive statistics used for responses to closed questions. Thematic analysis was employed to analyse data from responses to open-ended questions.
- Classed as a service evaluation, ethics review by the School of Pharmacy and Life Sciences Ethics Review Committee was not required.

FINDINGS

Descriptive Statistics

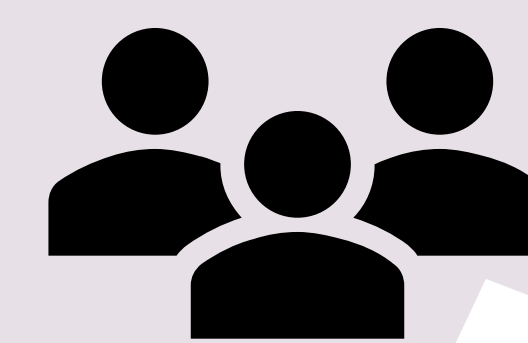


- Research findings showed that of the 75 student pharmacists completing evaluation surveys in both semester one and semester two, 64% (n=48) recorded less errors in semester two when compared to semester one.

Identified Themes

Theme 1: Key learning points for student pharmacists
“Most of my near misses are label errors. I need to exercise more caution reading the label against the prescription”.
 (ER97)

Theme 2: Student pharmacists’ perceived value of activity
“A good learning tool; makes you think about why it happened and ways to prevent”.
 (ER24)



Theme 3: Bridging the theory-practice gap
“I think it is beneficial as in a pharmacy they are used. It also helps take away the stigma of making a mistake as it will happen and by making them you can learn”. (ER29)

Table showing the type of near misses recorded

*** missing data

Code	Type of near miss	Number recorded in semester one*	Number recorded in semester two**
D	Wrong drug	11	15
E	Out of date product	7	4
F	Wrong form	10	11
L	Wrong label	88	34
M	Missing item	0	3
N	Wrong patient name	19	16
P	Misread prescription	27	16
Q	Wrong quantity	26	17
S	Wrong strength	27	20

CONCLUSION

- This activity has provided students with an opportunity to experience real-world working situations, allowing them to develop as reflective practitioners.
- It has extended their learning experience, facilitating professional development and encouraging best professional practice.
- Findings have informed further patient safety curriculum development within the Master of Pharmacy programme at Robert Gordon University.

References

- Biggs, J. and Tang, C. (2011). Teaching for Quality Learning at University. 4th edition. Maidenhead: Open University Press.
- Herrington, J. *et al.* (2013). “Authentic learning environments”, J.M. Spector *et al.* (Eds), Handbook of Research on Educational Communications and Technology, Springer Science + Business Media: New York, pp.401-412.
- Lee, J. *et al.* (2022). “Authentic learning in healthcare education: a systematic review”, Nurse Education Today, 119:105596. DOI: 10.1016/j.nedt.2022.105596.
- Royal Pharmaceutical Society (2023). “Errors and near misses: pharmacy guide”. [online]. London: Royal Pharmaceutical Society. Available at: <https://www.rpharms.com/resources/pharmacy-guides/errors-and-near-misses>.