Southern Illinois University Edwardsville School of Pharmacy

Assessing the impact of virtual simulation activities on student confidence in pharmacy practice

Maci Rieman, PharmD Candidate; Stephanie Hunziker, PharmD, BCMTMS; Jingyang Fan, PharmD, BCPS

BACKGROUND

- 2016 ACPE Standards require PharmD graduates to have the skills to manage a medication use system with a patient-centric approach[1].
- Virtual simulations can help promote a successful transition from student to practicing professional by providing a controlled, safe environment to make mistakes with no harm to patient safety[2].
- MyDispense has been identified as an effective tool to improve dispensing knowledge and skills, but its impact on student confidence is unknown[3,4].

OBJECTIVE

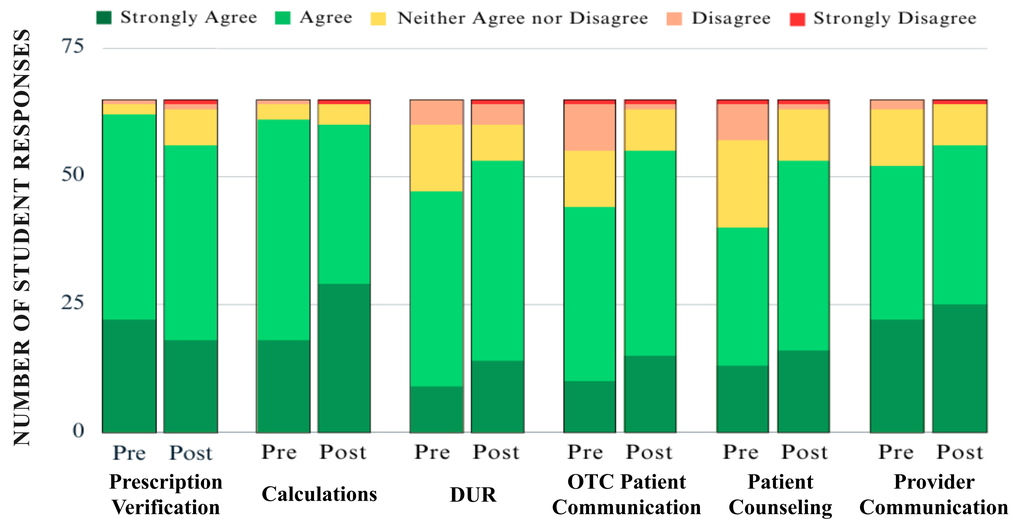
- Assess student confidence in various competencies that are essential for pharmacy practice as a result of utilizing MyDispense

METHODS

- Observational, cross-sectional, survey design
- Included students actively enrolled in their third year of SIUE School of Pharmacy
- Pre-survey included demographic questions assessing age, gender identity, pharmacy work experience, and prior use of MyDispense
- Pre- and post-surveys utilized a 5-point Likert scale to assess student confidence of:
  1. Prescription verification
  2. Medication-related calculations
  3. Prescription DUR
  4. Communication with patients about OTC products
  5. Patient counseling on prescription medications
  6. Provider communication regarding medication-related problems
- Intervention of five required modules and three optional modules within MyDispense
- Post-survey included open-ended questions for students to provide feedback about their experience using MyDispense
- Data reported as frequencies, percentages, and mean differences; statistical analysis using t-tests within Microsoft Excel

RESULTS

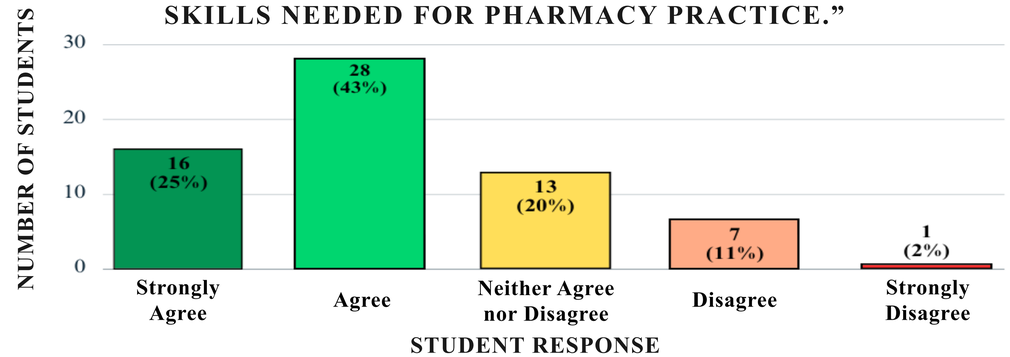
PRE- AND POST-SURVEY CONFIDENCE RESPONSES



DIFFERENCE OF MEAN CONFIDENCE AFTER MYDISPENSE

	Prescription Verification	Calculations	DUR	OTC Patient Communication	Patient Counseling	Provider Communication
Difference	-0.18	0.14	0.15	0.37	0.34	0.11
p-value	0.07	0.10	0.14	0.01	0.01	0.20

STUDENT AGREEMENT TO THE STATEMENT, "PRACTICING IN MYDISPENSE HAS IMPROVED MY CONFIDENCE IN THE SKILLS NEEDED FOR PHARMACY PRACTICE."



DISCUSSION

- Student confidence of pharmacy practice skills including medication-related calculations, DUR, patient counseling, and provider communication were improved after utilization of MyDispense
- Significant difference of increased confidence was seen in both OTC and prescription counseling
- Benefits of the virtual simulation program are its ability to replicate a realistic scenario and allow students to follow through the entire process
- Challenges include unfamiliarity with the program resulting in utilization and navigation issues
- Limitations were the inability to match pre- and post-surveys for analysis and potential extraneous factors affecting student confidence in the studied areas
- More research incorporating MyDispense earlier in student coursework could further support findings and help reduce technical challenges

CONCLUSION

- Virtual simulation MyDispense has significant impact on improving student confidence in patient and provider communication.
- Students had a positive perception of MyDispense with majority agreeing that it helped improve their confidence in skills needed for pharmacy practice
- MyDispense has the potential to be incorporated throughout pharmacy curriculum to ensure students are adequately prepared for pharmacy practice

REFERENCES

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