



# Improving Student Confidence in the Pharmacists' Patient Care Process: A Defined Instructional Approach



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## BACKGROUND

The Pharmacists' Patient Care Process<sup>1</sup> (PPCP) and clinical reasoning skills are essential elements utilized by pharmacists daily. Recent NAPLEX data results identified potential opportunities for improvement within the curriculum focusing on the student's ability to assess patient information and develop an appropriate treatment plan for an identified drug therapy problem.

Throughout the curriculum, students are given opportunities to assess patients by various faculty members; however, a defined metacognitive instructional approach using the PPCP had not been implemented.

## OBJECTIVE

To determine whether a defined metacognitive instructional approach improves student confidence in their ability to perform the PPCP.

## METHODS

A module was developed describing essential metacognitive steps to perform the PPCP (Figure 1) which includes key elements of clinical reasoning. The instructor utilized the instructional approach in the module to facilitate each of 3 patient cases. The module contained four essential elements.

1. A metacognitive guide, displayed in a chart format, mapped the PPCP with what a pharmacy learner should consider and then act upon for each step.
2. A seven drug therapy problems table<sup>2</sup> provided possible causes and categories for medication related problems.
3. A patient documentation form, used in concert with the metacognitive guide, provided a place to collect and document the assessment and plan for the patient.
4. An appendix that included standard disease state and medication specific questions for the pharmacy learner to consider.

Students enrolled in the P3 2022 spring skills lab course were given a pre-survey prior to the initial case to rate their confidence level in their ability to evaluate and manage a patient's drug therapy problems. This was compared to a post-survey given after the completion of the 3 patient cases.

Student perception data were analyzed. A sign test was used to compare pre and post responses.

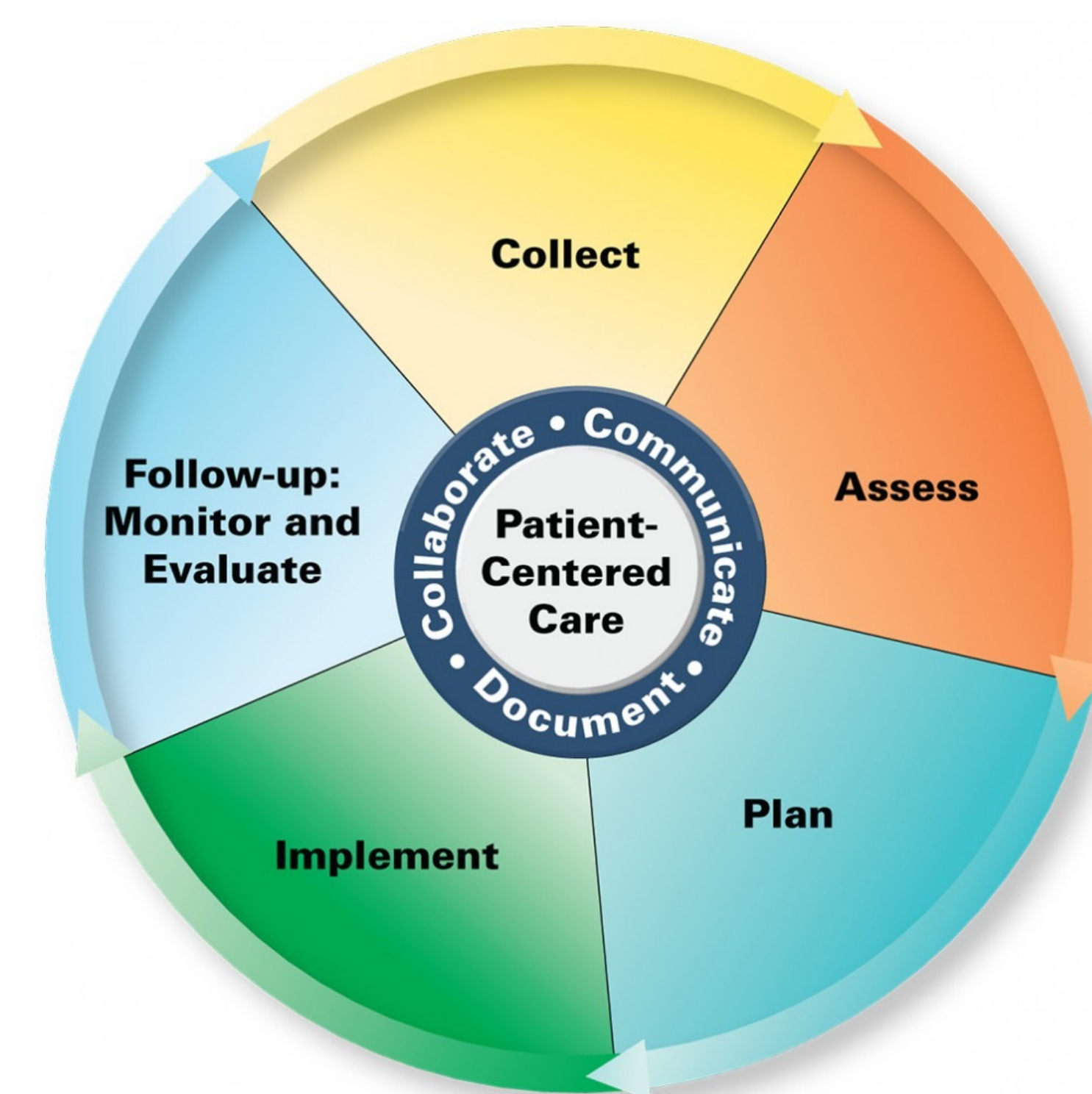
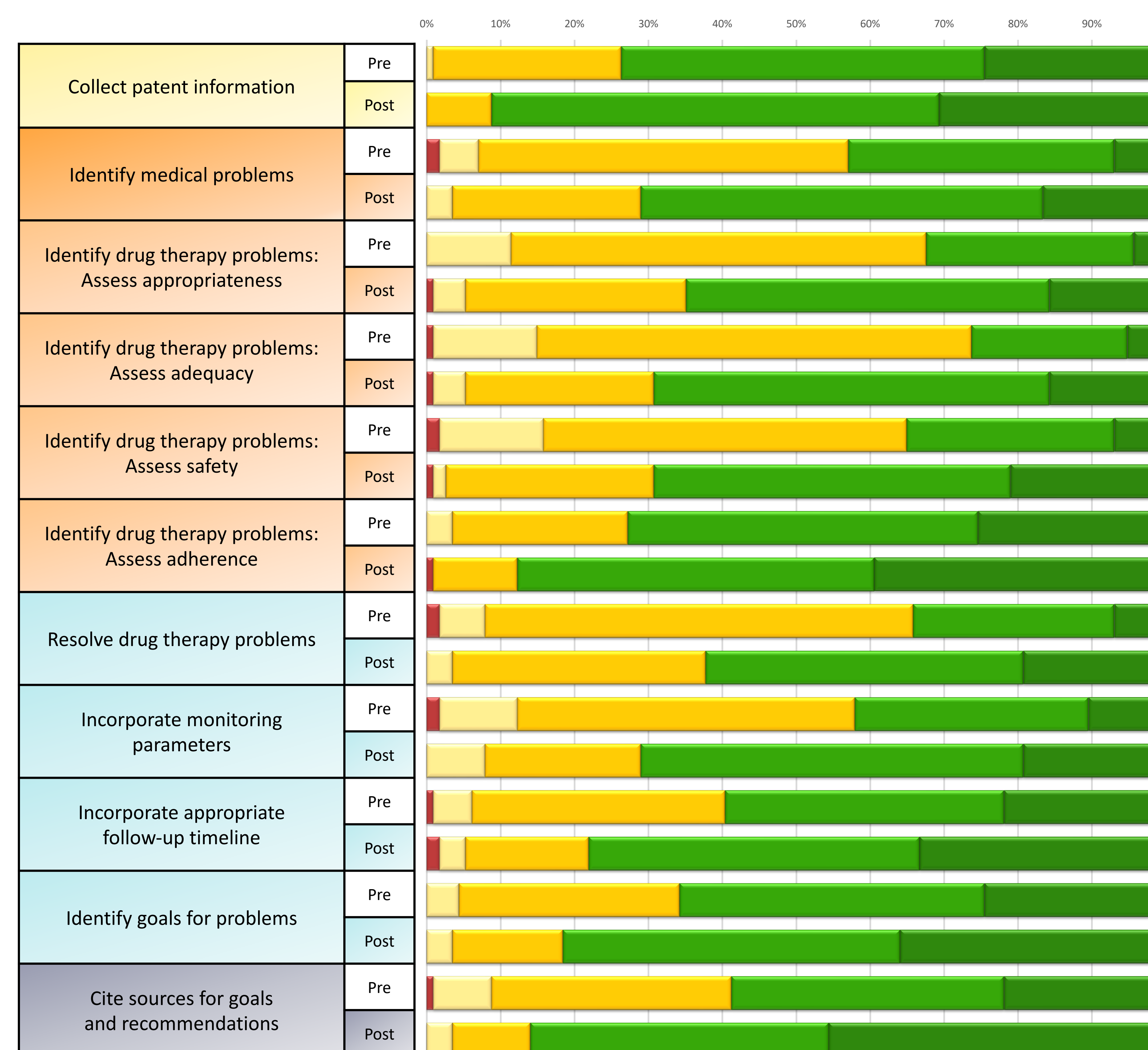


Figure 1: Patient Pharmacists' Care Process (PPCP)

## RESULTS

Student Confidence in Performing PPCP: Pre and Post Survey  
(n=114)

■ Not confident ■ Slightly confident ■ Somewhat confident ■ Fairly confident ■ Extremely confident



## RESULTS

Of the 153 students enrolled in the course, 114 completed both the pre-survey and post-survey. All survey items showed students had a statistically significant higher confidence level with  $p < .05$  after completing the 3 cases.

The post-survey included an item to assess the overall helpfulness of the instructional approach and tools. Of the 141 students who completed the post-survey, 93.6% indicated this approach was helpful. Of the students who commented, 25 suggested more frequent cases using this format.

## CONCLUSIONS

Students in the P3 spring skills lab course found the defined instructional approach and module to be beneficial in their ability to perform the PPCP. Overall, students commented that an increased exposure to complex cases in this format early in the curriculum would be valuable.

Limitations of the study include a small sample size conducted in one P3 cohort and utilization of student perception data rather than performance data.

Based on student perception data and comments, the module and instructional approach were incorporated into integrated case sessions throughout the therapeutics and skills lab series in Fall 2022.

Additional study is needed to determine the impact on the student's performance in assessing patient information and developing an appropriate treatment plan for an identified drug therapy problem.

## REFERENCES

1. Joint Commission of Pharmacy Practitioners. Pharmacists' Patient Care Process. May 29, 2014. Available at: <https://jcpp.net/wp-content/uploads/2016/03/PatientCareProcess-with-supporting-organizations.pdf>.
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