

# Boosting Student Confidence in Core Curricular Competencies Through Student-Led Journal Clubs

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## Introduction

- Pharmacy professionals must be skillful in reading and evaluating existing and new scientific literature. The structured environment of journal club provides an ideal outlet for shared discussion with peers and mentors, as well as a platform for students to develop capabilities in core competencies.
- LECOM Erie has a robust Drug information series, offering 6 credit hours over two years, but does not provide an opportunity for students to individually lead a journal club session.
- The Erie Chapter of the Student College of Clinical Pharmacy (SCCP) implemented quarterly, student-led journal club sessions during the 2017-2018 academic year.
- Articles were aligned with topics in the Pharmacotherapeutics course in an attempt to maximize impact and increase student interest.
- We hypothesized that student-led journal club attendance would positively impact students' confidence, most notably in assessing primary literature.

## Objectives

- To assess the impact of student-led journal club on student self-reported confidence in Pharmacotherapeutics, biostatistics, and research methods knowledge.
- To evaluate the impact of student-led journal club on self-reported confidence in critically evaluating medical literature and participating in journal club sessions.

## Methods

- Journal club sessions were advertised via social media and student email. Complimentary snacks and beverages were provided.
- An anonymous and voluntary 10-question survey was emailed to participants following each session. Nine questions utilized a 5-point Likert-scale, while the 10<sup>th</sup> question was free-response.
- Students were permitted to take the survey multiple times if they attended more than one journal club session.
- The quantitative data was dichotomized and analyzed using Chi-squared test to determine statistical significance.
- "Neutral" responses were excluded from the analysis.
- Institutional Review Board exemption was obtained.

## Results

- Twenty-five out of 29 (86%) students in attendance completed the survey.

Question	SD/D*	A/SA*	p-value
1. I felt that journal club was a good use of my time.	0	25	< 0.001
2. Journal club has increased my knowledge of the related topics of pharmacy.	0	24	< 0.001
3. Journal club has increased my knowledge of biostatistics and research methods.	0	23	< 0.001
4. I feel that understanding journal club will help me understand concepts in Pharmacotherapeutics and other courses in an improved way.	0	25	< 0.001
5. I feel more confident in assessing primary literature since attending journal club.	1	22	< 0.001
6. I would attend another journal club in the future.	0	25	< 0.001
7. I felt that having a faculty member present at journal club improved the process.	0	25	< 0.001
8. I felt comfortable assessing primary literature BEFORE attending journal club?	5	12	0.08
9. I feel comfortable assessing primary literature AFTER attending journal club?	1	20	< 0.001

\*SD/D = Strongly Disagree/Disagree, A/SA = Agree/Strongly Agree

- "Neutral" responses accounted for 7.6% of the total data that was collected, and most significantly impacted questions 8 and 9 (32% and 16% of responses, respectively).
- Students reported feeling more comfortable assessing primary literature after attending journal club sessions (p = 0.002).

## Discussion

- Majority of students (89.7%) in attendance were advanced students with some previous journal club experience which could influence results.
- Pharmacy students found journal club sessions to be valuable in improving confidence in both drug literature evaluation skills and Pharmacotherapeutics.
- A SWOT analysis was performed, and is summarized below:

### STRENGTHS

- Provides data to measure the impact of journal clubs (JC)
- Attempts to identify ways to improve JC

### WEAKNESSES

- Small sample size
- Study only measures subjective perceptions

### OPPORTUNITIES

- Correlate objective data such as exam scores and other performance metrics in future studies

### THREATS

- Pharmacy students have limited time for voluntary events
- Curriculum currently requires students to participate in JC

## Implications

- Student-led journal clubs show promise as a valuable addition to student programming, even in curricula that have a heavy drug information emphasis.
- Colleges of pharmacy currently hosting student-led journal clubs, or planning to add such programming, should consider coordinating article topics with Pharmacotherapeutics coursework to enhance the overall learning experience of students in attendance.
- Future directions of research will include an objective correlation of student participation in journal club and performance on Pharmacotherapeutics examinations to determine the value of this student-led program.

**Disclosure:** Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter presented: The authors have nothing to disclose.