

BACKGROUND

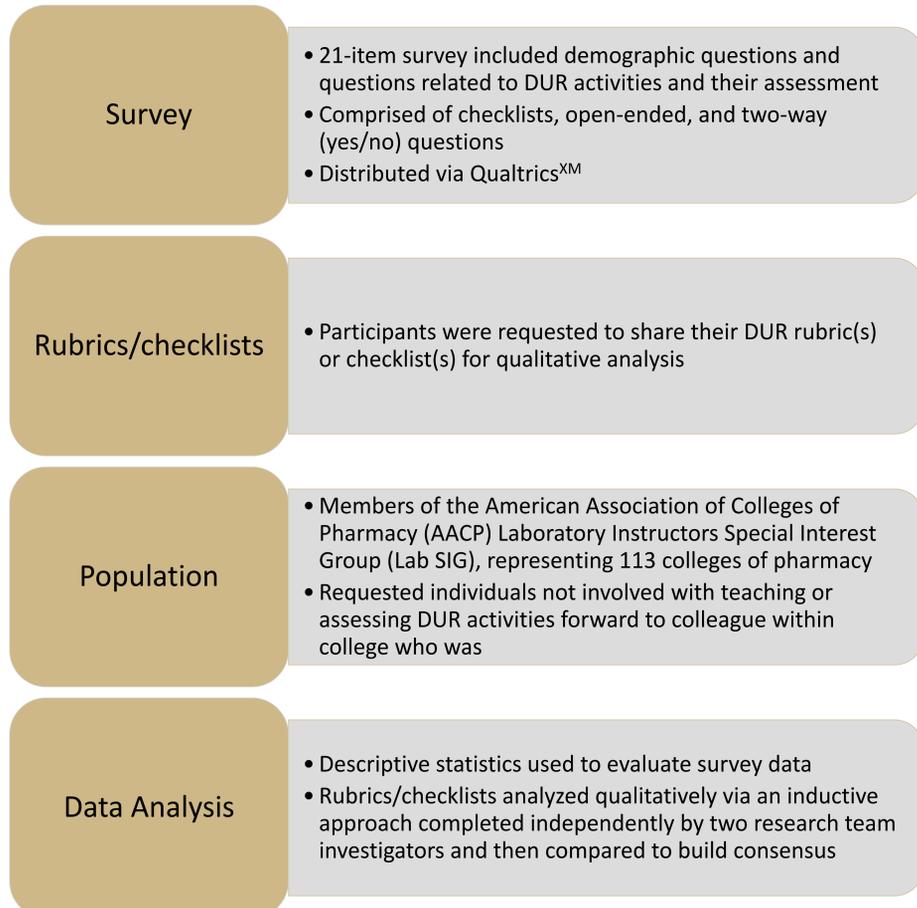
- Drug utilization review (DUR) is defined as “an authorized, structured, ongoing review of prescribing, dispensing, and use of medication” and is the professional responsibility of the pharmacist entrusted to provide safe and effective care.
- Although the Omnibus Budget Reconciliation Act of 1990 (OBRA'90), which mandated new guidelines and structure to the pharmacist verification processes, outlines what a DUR should include, it does not define how the review should be conducted or best practices.
- Ambiguities in interpretation of requirements have led to many variations of training and assessing student pharmacists on DUR.
- Students must be trained using effective methods to provide comprehensive DURs that enable them to provide quality patient care.
- Limited literature regarding current practices in teaching and assessing DUR skills in United States colleges of pharmacy exists.

OBJECTIVES

1. Examine whether and how assessment is conducted for drug utilization review (DUR) activities
2. Summarize the assessment strategies of DUR activities via analysis of rubrics/checklists in colleges of pharmacy

METHODS

Figure 1. Study Design



RESULTS

Figure 2. Survey Response Rate

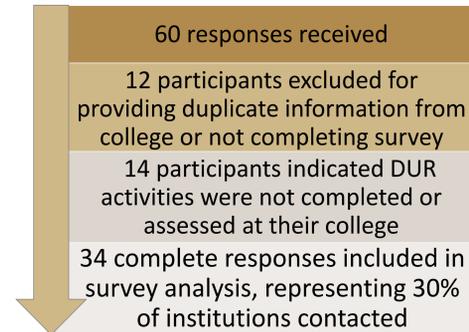
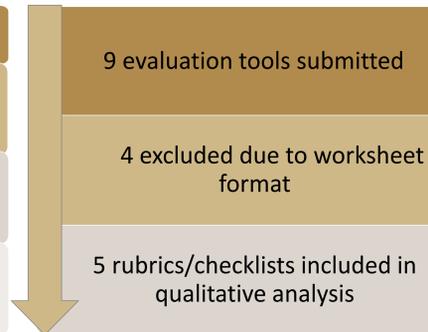


Figure 3. Rubric/checklist Submission



Demographics

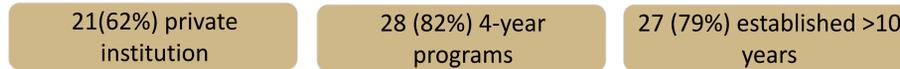


Table 1. Select Questions Regarding Assessment of DUR Activities

Question ^a	Number (%) N=34
Different types of assessment rubrics/checklists for DUR activities	
Outpatient (community and ambulatory care)	26 (76%)
General rubric/checklist (covers all settings and academic semesters/years)	12 (35%)
Inpatient	11 (32%)
Multiple rubrics/checklists increasing in difficulty with academic semesters/years	7 (21%)
Other (Long-term care, etc.)	1 (3%)
Type of DUR assessment(s) used by the institution	
Formative	29 (85%)
Summative	24 (70%)
Tool used to assess DUR activities	
Paper rubric/checklist	26 (74%)
Educational electronic health record/software (EHRGo, MyDispense, etc.)	15 (43%)
Exam software (ExamSoft, etc.)	10 (29%)
Learning management system (Canvas, Blackboard, etc.)	10 (29%)
Other (Nia Rx, Choose-Your-Own-Adventure platform)	2 (6%)
Survey tool (SurveyMonkey, Google form, etc.)	0 (0%)
Use of DUR assessment rubric/checklist by academic year	
Professional year 1	21 (62%)
Professional year 3 (4-year program)	19 (56%)
Professional year 2 (4-year program)	17 (50%)
Professional year 2 (3-year program)	10 (29%)
Advanced pharmacy practice experience (APPE) rotations (3- & 4-year programs)	2 (6%)

^aParticipants selected all responses that applied

- 82% developed rubric/checklist within their institution
- Drug related problems (DRP) assessed by more than 75% included drug interactions, allergies, incorrect dosage, adverse reactions, inappropriate drug selected, and duplicate therapy
- Most common rubric/checklist strengths were ‘ease of use’ (55%) and ‘adequately assesses knowledge/skills’ (55%)
- 85% agreed validation improvements were needed and 50% felt delivery of student feedback could be more robust with inclusion of technology

RESULTS (continued)

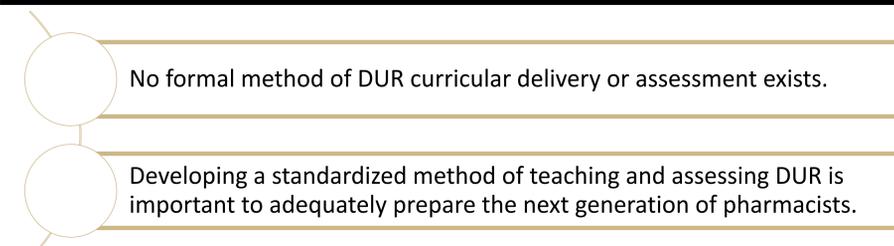
Table 2. Qualitative Analysis of DUR rubrics/checklists submitted

Number	Type	Total # of Items	General or Case-Specific	Graded Components	DUR-Specific Activity
1	Rubric	Not specified	General	1 point each for indication 2 points each for DRP problem category (indication, effectiveness, safety) 2 points each for DRP description	Yes
2	Rubric	11-items	General	Scored out of 1-3 points per item for a total of 15 points	Yes
3	Rubric	16-items related to counseling and 2 DUR-specific items	Case-Specific	3-point Likert scale	No - part of counseling rubric
4	Checklist	23-items related to counseling; 5 DUR items regarding communication with physician or patient	Case-Specific	2 points each for 23 counseling items 5 DUR items graded as completed or not completed	No - part of counseling rubric
5	Checklist	Listed 6 categories of DRP with multiple components under each specific to case	Case-Specific	Graded as either not identified by the student, self-identified by student, or identified by student after faculty prompting	Yes

DISCUSSION

- Wide variability existed in whether and how colleges incorporated and assessed DUR activities.
- Flexibility of tools could be advantageous to delineate qualities of students’ work, provide understanding for targeted learning, and outline criteria for success.
- Most DUR rubrics/checklists included an assessment to determine the patient issue and the action needed to resolve the DRP. Some also included a component of communication, in which students had to speak with a prescriber or patient to resolve the DRP. These are essential components in building students’ confidence in preparation for pharmacy practice, as they may be able to identify problems, but struggle with formulating and communicating a plan.
- Limitations include the survey was sent only to faculty teaching in skills lab settings, limiting information from other stakeholders, and the small number of rubrics/checklists submitted may not be representative of colleges nationwide.

CONCLUSIONS



DISCLOSURES AND ACKNOWLEDGEMENTS

- The investigators have no actual or potential conflict of interest in relation to this study.
- This research was supported by a grant from the AACP Laboratory Instructors SIG.