Pharmacy Students' Self-Reported Cultural Competence in a Pharmacy Curriculum by Academic Year

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BACKGROUND

- Cultural competency is an essential skill that can help pharmacists provide effective patient care and reduce healthcare disparities[1,2]
- Cultural competency may be defined as "the ability to provide care to patients with diverse values, beliefs and behaviors, and to tailor care delivery to patients' social, cultural, and linguistic needs"[3]
- Although cultural competency is emphasized in the PharmD accreditation standards set by the Accreditation Council for Pharmacy Education for colleges of pharmacy, strategies to implement cultural competency education in the curriculum are non-standardized and vary between pharmacy colleges[1]

OBJECTIVE

This study aims to explore results of a Cultural Competency Assessment of Pharmacy Students (CCAPS) survey to identify areas of improvement in cultural competence content in one college of pharmacy curriculum

METHODS

- The CCAPS 39-item survey was developed and administered to Doctor of Pharmacy students from July to October 2022
- Survey items were developed based on the Cultural Competence Assessment Instrument (CCAI), which was originally created for rehabilitation practitioners, and the Clinical Cultural Competency Questionnaire (CCCQ), which has been used in medical students and adapted to pharmacy students in various studies
- Survey items included:
  - 14 questions on demographics and educational and work background
  - 8 questions were adopted from CCAI and aim to evaluate awareness and skills related to cultural competence
  - 7 questions assess comfort in interacting with diverse patient populations; those patient groups were adopted from the CCCQ
- Responses were collected anonymously and analyzed in the aggregate by academic year using SPSS

RESULTS

- Respondents reported gaining cultural competence from life experiences (73.3%), pharmacy classes (49.5%) and work or social media (42% each)
  - **Social media:** P3 (46.8%) > P4 (41.8%) > P5 (38.1%) > P6 (37.4%)
  - **Pharmacy classes:** P5 (62.6%) > P6 (56%) > P4 (54.7%) > P3 (24.1%)
- Two-thirds identified as "very or extremely" culturally competent, and 78% reported comfort interacting with culturally diverse patients
- 66% of students strongly agreed that it is important for pharmacists to be culturally competent
  - On a scale from 1 to 5, the highest agreement (mean ± SD) was in P3 class (4.6 ± 0.5) and the lowest agreement was in P5 class (4.4 ± 0.8); p=.041
- 33.8% strongly agreed that LIU produces culturally competent graduates
  - On a scale from 1 to 5, the highest agreement (mean ± SD) was in P4 class (4.2 ± 0.8) and the lowest agreement was in P6 class (3.6 ± 1.1); p=.000
- Although P6 students reported the most sensitive to respecting differences between their patients' cultures and their own (p=.004), they reported the lowest agreement that the program produces culturally competent graduates (p=.000)

RESULTS

Table 1. Participant Demographics (N=541)

Characteristics, n (%)	P3 (N=140)	P4 (N=169)	P5 (N=138)	P6 (N=91)	Total (N=541)
Age in years, mean ± SD	22.6 ± 5.1	23.0 ± 3.2	24.1 ± 3.9	24.8 ± 3.9	23.5 ± 4.1
Female	97 (69.3)	117 (69.2)	94 (68.1)	63 (69.2)	373 (69.0)
Race/Ethnicity					
White or European American	30 (21.4)	49 (26.2)	37 (26.8)	28 (30.8)	144 (26.6)
Black or African American	16 (11.4)	6 (3.6)	4 (2.9)	10 (11.0)	36 (6.7)
Latin or Hispanic American	8 (5.7)	13 (7.7)	8 (5.8)	4 (4.4)	33 (6.1)
East Asian	19 (13.7)	25 (14.8)	33 (23.9)	14 (15.4)	92 (17.0)
South Asian	21 (15.0)	34 (20.1)	28 (20.3)	15 (16.5)	100 (18.5)
Southeast Asian	10 (7.1)	12 (7.1)	1 (0.7)	6 (6.6)	29 (5.4)
Arab American or Middle Eastern	34 (24.3)	32 (18.9)	17 (12.3)	14 (15.4)	97 (17.9)
Pharmacy-related work experience	93 (66.4)	143 (84.6)	115 (83.3)	78 (85.7)	430 (79.5)
Fluent in language(s) other than English	105 (75.0)	114 (67.5)	90 (65.2)	60 (66.0)	369 (68.2)
Identify as religious	73 (52.1)	68 (40.2)	57 (41.3)	47 (51.7)	247 (45.7)
Identify as LGBTQIA	9 (6.4)	6 (3.6)	6 (4.4)	5 (5.5)	26 (4.8)
Experience interacting with diverse patient populations, mean ± SD*	3.2 ± 1.0	3.5 ± 0.9	3.5 ± 0.8	3.6 ± 0.8	3.4 ± 0.9

*Responses on a scale from 1-5 (1=no experience, 2=limited, 3=average, 4=above average, 5=expert level); P value between P3 and P6 classes: .001

Table 2. Comfort Interacting with Diverse Patient Populations

Responses on a scale from 1-5 (strongly disagree to strongly agree), mean ± SD				
Patient Population	**P3**	**P4**	**P5**	**P6**
Limited English proficiency	4.0 ± 0.9	4.0 ± 1.0	3.8 ± 0.9	3.8 ± 1.0
Low health literacy	4.2 ± 0.9	4.2 ± 0.8	4.0 ± 0.8	4.1 ± 0.7
LGBTQIA community	4.1 ± 0.9	4.3 ± 0.8	4.1 ± 0.8	4.2 ± 0.9
Patients who believe in natural or folk remedies	4.0 ± 0.9	4.1 ± 0.9	3.9 ± 0.8	4.0 ± 0.8
Patient who refuse medications due to culture	3.9 ± 0.8	4.1 ± 0.9	3.8 ± 0.9	3.9 ± 0.9
Patients who belong to a different religious background from self*	4.4 ± 0.7	4.3 ± 0.8	4.1 ± 0.8	4.2 ± 0.8
Patients who belong to a different culture or ethnicity from self*	4.4 ± 0.7	4.3 ± 0.8	4.2 ± 0.8	4.3 ± 0.7

*P value for different religion question between P3 and P5 classes: .03, P value for different culture question between P3 and P5 classes: .024

Figure 1. Percentage of Students who Agreed that They Have Effective Communication with Patients from a Different Culture than their Own

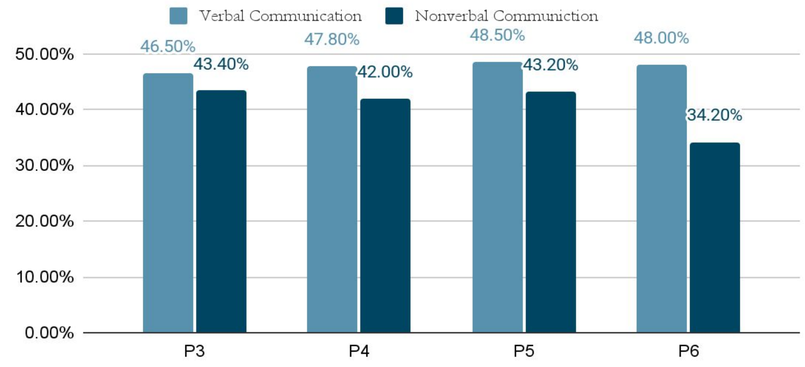
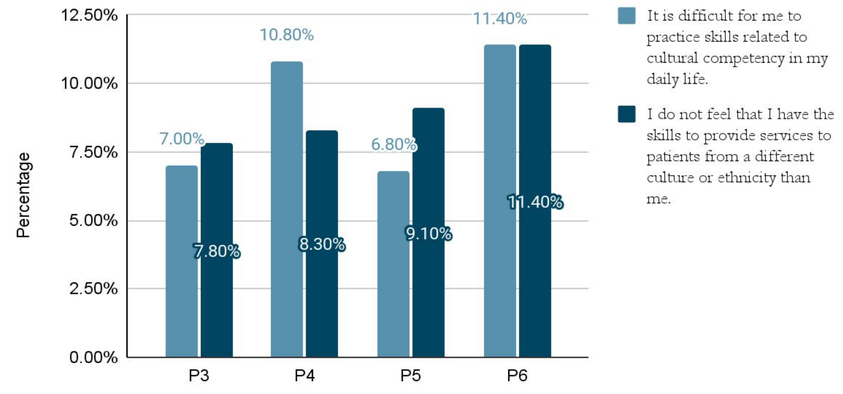


Figure 2. Results on Questions Related to Practicing Cultural Competence Skills

Percentage of Students who Strongly Agreed with each Statement



DISCUSSION

- Survey results implicate potential benefit from curriculum development:
  - Increasing comfort with patients with limited English proficiency and those who refuse medications due to culture
  - Improving non-verbal communication skills
  - Consider targeting P5 year as P6 respondents appeared to be the most aware of their need to be more culturally competent
- Possible reasons for higher self-reported cultural competence among underclassmen (P3):
  - Underclassmen reported more exposure to social media than the upperclassmen (P6)
  - Underclassmen may not have a clear understanding of what cultural competence is until practice in final year
  - College educators have been encouraged to incorporate more cultural diversity content in lectures in recent years
- Workshops, mock patients, and real-life scenarios should be utilized to focus on increasing skills, rather than awareness alone
- Limitations: Small sample size in P6 group; limited survey response rate; responses assess cultural competence at one time point

CONCLUSION

- Baseline characteristics (e.g., ethnic backgrounds, work experience, social media) may have led to high self-reported cultural competence
- Baseline data should be collected at entry of PharmD program and monitored annually to determine impact of curriculum, work, and life experience
- Use of CCAPS survey annually may assist in identifying areas for curriculum development for cultural competence

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