

OP 4.

Perception Gap between Preceptors and Pharmacy Students on Clinical Pharmacy Practice Education (CPPE) in Hospital Pharmacy

Appendix

- Handout about full tables including omitted results that are not statistically significant.

A. Comparison of evaluations between preceptors and students

: Overall Evaluation of CPPE

Questionnaires	Preceptors (n=22)	Students (n=48)	Total (n=70)	p-value
Providing opportunities to acquire and develop qualifications and capabilities as a pharmacist				
Positive responses	14(63.6%)	46(95.8%)	60(85.7%)	0.001
Negative responses	8(36.4%)	2(4.2%)	10(14.3%)	
Utilizing informatics to evaluate patient’s drug therapy and learn skills to solve problems				
Positive responses	18(81.8%)	43(89.6%)	61(87.1%)	0.448
Negative responses	4(18.2%)	5(10.4%)	9(12.9%)	
Providing opportunities for training related to hospital pharmacy systems and practices				
Positive responses	20(90.9%)	48(100.0%)	68(97.1%)	0.096
Negative responses	2(9.1%)	0(0.0%)	2(2.9%)	
Expanding clinical expertise				
Positive responses	18(81.8%)	45(93.8%)	63(90.0%)	0.195
Negative responses	4(18.2%)	3(6.2%)	7(10.0%)	
Providing positive educational environment that could improve student achievement				
Positive responses	11(50.0%)	41(85.4%)	52(74.3%)	0.004
Negative responses	11(50.0%)	7(14.6%)	18(25.7%)	
Playing a positive role in career decision-making				
Positive responses	13(59.1%)	42(87.5%)	55(78.6%)	0.012
Negative responses	9(40.9%)	6(12.5%)	15(21.4%)	
Overall evaluation of CPPE at institutions				
Positive responses	15(68.2%)	44(91.7%)	59(84.3%)	0.029
Negative responses	7(31.8%)	4(8.3%)	11(15.7%)	

The data are reported as n(%).
P values were calculated using the Chi square test or Fisher's exact test.

B. Evaluation of Preceptor's Competency

Questionnaires	Preceptors (n=22)	Students (n=48)	Total (n=70)	p-value
Conducting effective orientation				
Positive responses	16(72.7%)	46(95.8%)	62(88.6%)	0.010
Negative responses	6(27.3%)	2(4.2%)	8(11.4%)	
Systematic education				
Positive responses	11(50.0%)	47(97.9)%	58(82.9%)	0.000
Negative responses	11(50.0%)	1(2.1%)	12(17.1%)	
Providing opportunities to perform pharmaceutical tasks presented in the training schedule				
Positive responses	16(72.7%)	48(100.0%)	64(91.4%)	0.001
Negative responses	6(27.3%)	0(0.0%)	6(8.6%)	
Providing opportunities for self-directed learning				
Positive responses	14(63.6%)	41(85.4%)	55(78.6%)	0.059
Negative responses	8(36.4%)	7(14.6%)	15(21.4%)	
Encouragement of acquiring new knowledge and skills				
Positive responses	16(72.7%)	47(97.9%)	63(90.0%)	0.003
Negative responses	6(27.3%)	1(2.1%)	7(10.0)%	
Providing an educational environment where opinions can be freely expressed				
Positive responses	11(50.0%)	42(87.5%)	53(75.7%)	0.002
Negative responses	11(50.0%)	6(12.5%)	17(24.3%)	
Passion and confidence in student education				
Positive responses	12(54.5%)	42(87.5%)	54(77.1%)	0.006
Negative responses	10(45.5%)	6(12.5%)	16(22.9%)	
Appropriate response to the question				
Positive responses	15(68.2%)	47(97.9%)	62(88.6%)	0.001
Negative responses	7(31.8%)	1(2.1%)	8(11.4)%	
Providing appropriate feedback and learning direction				
Positive responses	12(54.5%)	40(83.3%)	52(74.3%)	0.024
Negative responses	10(45.5%)	6(12.5%)	16(22.9%)	
Performing the role as a role model				
Positive responses	12(54.5%)	46(95.8%)	58(82.9%)	0.000
Negative responses	10(45.5%)	2(4.2%)	12(17.1%)	

The data are reported as n(%).
P values were calculated using the Chi square test or Fisher's exact test.

C . Comparison of preceptor evaluations by task performed

: Practice preceptor vs. Clinical lecture preceptor

Questionnaires	Practice (n=10)	Clinical (n=12)	Total (n=22)	p-value
Providing opportunities to acquire and develop qualifications and capabilities as a pharmacist				
Positive responses	3(30.0%)	11(91.7%)	14(63.6%)	0.006
Negative responses	7(70.0%)	1(8.3%)	8(36.4%)	
Utilizing informatics to evaluate patient’s drug therapy and learn skills to solve problems				
Positive responses	6(60.0%)	12(100.0%)	18(81.8%)	0.029
Negative responses	4(40.0%)	0(0.0%)	4(18.2%)	
Providing opportunities for training related to hospital pharmacy systems and practices				
Positive responses	9(90.0%)	11(91.7%)	20(90.9%)	1.000
Negative responses	1(10.0%)	1(8.3%)	2(9.1%)	
Expanding clinical expertise				
Positive responses	9(90.0%)	9(75.0%)	18(81.8%)	0.594
Negative responses	1(10.0%)	3(25.0%)	4(18.2%)	
Providing positive educational environment that could improve student achievement				
Positive responses	2(20.0%)	9(75.0%)	11(50.0%)	0.032
Negative responses	8(80.0%)	3(25.0%)	11(50.0%)	
Playing a positive role in career decision-making				
Positive responses	4(40.0%)	9(75.0%)	13(59.1%)	0.192
Negative responses	6(60.0%)	3(25.0%)	9(40.9%)	
Overall evaluation of CPPE at institutions				
Positive responses	4(40.0%)	11(91.7%)	15(68.2%)	0.020
Negative responses	6(60.0%)	1(8.3%)	7(31.8%)	

The data are reported as n(%).
P values were calculated using the Chi square test or Fisher's exact test.

D. Comparison of Preceptor Evaluations based on work experience as hospital pharmacist

: 5 ~ 10 years vs over 10 years

Questionnaires	5~10 years (n=9)	<10 years (n=13)	Total (n=22)	p-value
Providing opportunities to acquire and develop qualifications and capabilities as a pharmacist				
Positive responses	2(22.2%)	12(92.3%)	14(63.6%)	0.001
Negative responses	7(77.7%)	1(7.7%)	8(36.4%)	
Utilizing informatics to evaluate patient’s drug therapy and learn skills to solve problems				
Positive responses	5(55.5%)	13(100.0%)	18(81.8%)	0.017
Negative responses	4(44.4%)	0(0.0%)	4(18.2%)	
Providing opportunities for training related to hospital pharmacy systems and practices				
Positive responses	8(88.9%)	12(92.3%)	20(90.9%)	1.000
Negative responses	1(11.1%)	1(7.7%)	2(9.1%)	
Expanding clinical expertise				
Positive responses	7(77.8%)	11(84.6%)	18(81.8%)	1.000
Negative responses	2(22.2%)	2(15.4%)	4(18.2%)	
Providing positive educational environment that could improve student achievement				
Positive responses	2(22.2%)	9(69.2%)	11(50.0%)	0.080
Negative responses	7(77.8%)	4(30.8%)	11(50.0%)	
Playing a positive role in career decision-making				
Positive responses	4(44.4%)	9(69.2%)	13(59.1%)	0.384
Negative responses	5(55.6%)	4(30.8%)	9(40.9%)	
Overall evaluation of CPPE at institutions				
Positive responses	3(33.3%)	12(92.3%)	15(68.2%)	0.007
Negative responses	6(66.7%)	1(7.7%)	7(31.8%)	

The data are reported as n(%).
P values were calculated using the Chi square test or Fisher's exact test.