

School of Pharmacy

Assessment of Prior Experience with Pharmacists and Perceptions of Pharmacists' Education and Training on Metabolic Syndrome (MetS) Patients' Willingness to Accept Pharmacy Services Olajide Adekunle¹, Marc Fleming¹, Jon C. Schommer², Sherry Y. Wang¹, Ismaeel Yunusa³, Enrique Seoane-Vazquez¹, Lawrence M. Brown¹ ¹Chapman University School of Pharmacy, Irvine, CA, ²University of Minnesota, Minneapolis, MN, ³University of South Carolina College of Pharmacy, Columbia, SC

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BACKGROUND

- Non-treatment of existing conditions and poor rate of management effectiveness remain a challenge for people with metabolic syndrome (MetS).
- This could be due to poor willingness to accept pharmacy services (WAPS), which is still considered low.
- Consequently, utilization of disease management services is impacted.
- Meanwhile, patients' experience with pharmacists (PEwP) and perception of pharmacist education and training (PPET) may provide more insight into how WAPS can be improved.

OBJECTIVES

- The study assessed PEwP, PPET and WAPS and explored the relationships between the three variables.
- We also assessed the mediating effect of PPET on the relationship between PEwP and WAPS.



METHODS

- Cross-sectional data were collected from the Qualtrics Panels with obesity and at least two comorbidities in the Southern region of the United States and Washington DC.
- Data on PEwP were assessed using the Consultation and Relational Empathy questionnaire(CARE), while PPET, and WAPS were assessed using the National Consumer Survey on Medication Experience and Pharmacist Roles (NCSME&PR) tool.
- Ordinal regression was used to predict the association between the variables.
- Mediation analysis through Haye's Model 4 explored the direct and indirect influence of PPET on the relationship between PEwP and WAPS.

RESULTS

- A total of 706 complete surveys were collected and used for analyses. The median age was 58 years.
- The study recorded an average of three comorbidities with 63.6% having at least three comorbidities. The median number of prescription drugs taken was 6.



Demographic Characteristics				
Variables		n (%)		
variables	n = 706 (100%)			
A	45 - 64 years	484 (68.6)		
Age group	65 years or older	222 (31.4)		
Gender	Male	204 (28.9)		
	Female	502 (71.1)		
Education	High school degrees or lower	171 (24.2)		
	associate degree	321 (45.5)		
	Bachelor's or higher degree	214 (30.3)		
Marital Status	Single (Never married)	85 (12.0)		
	Single (separated/divorced)	204 (28.9)		
	Married or partnered	333 (47.2)		
	Widowed	84 (11.9)		
	\$40,000 or lower	347 (49.2)		
Annual riousenoid	\$40,001 - \$80,000	235 (33.3)		
Income	\$80,001 or higher	124 (17.6)		
Race	Non-white	158 (22.4)		
	White/Caucasian	548 (77.6)		

Probability curves for WAPS by PPET



Mediation Analysis

Direct effect model					
Constant	9.32	< 0.001			
PEwP	-0.15	0.07			
PPET	0.65	<0.001ª			
Indirect effect model					
Variable	Effect	95% BootCI			
PEwP	0.49	0.37, 0.63 ^b			

Proportions of PEwP, PPET and WAPS categories				
	n (%)			
PEwP categories				
oor PEwP	110 (15.6)			
air PEwP	88 (12.5)			
lood PEwP	508 (72.0)			
PPET categories				
oor PPET	243 (34.4)			
air PPET	256 (36.3)			
lood PPET	207 (29.3)			
WAPS categories				
oor WAPS	247 (35.0)			
air WAPS	250 (35.4)			
Good WAPS	209 (29.6)			

Ordinal Regression between the Variables					
		OR	p-value		
Ordinal regression between PEwP and WAPS					
Threshold	Poor WAPS Fair WAPS		0.25		
	Fair WAPS Good WAPS		< 0.001		
PEwP categories	Good PEwP	1.78	0.003ª		
	Fair PEwP	1.03	0.92		
	Poor PEwP (ref)				
Ordinal regression between PPET and WAPS					
Threshold	Poor WAPS Fair WAPS		< 0.001		
	Fair WAPS Good WAPS		< 0.001		
PPET categories	Good PPET	23.88	<0.001 ^a		
	Fair PPET	3.77	<0.001a		
	Poor PPET (ref)				
Ordinal regression between PEwP and PPET					
Threshold	Poor PPET Fair PPET		< 0.001		
	Fair PPET Good PPET		0.002		
PEwP categories	Good PEwP	4.38	<0.001ª		
	Fair PEwP	1.50	0.14		
	Poor PEwP (ref)				

CONCLUSION

- Patients experience and perceptions were good predictors for improving willingness to accept pharmacy services.
- Patient perceptions of pharmacist competence provide a full mediating effect on the relationship between patient experience and willingness to accept pharmacy services.
- Pharmacists must endeavor to improve patient experience to enhance their perceptions of pharmacists' competence and promote willingness to utilize pharmacy services.