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An Ambulance Service evaluation of Quality Control Measures based on patients' perception in Qatar

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ABSTRACT

Background: The lack of healthcare quality management poses significant legal and financial implications^{1,2}. A proactive approach to systems improvement seems warranted and reasonable. It is not clear if current quality control measures are perceived by patients. The study aims to understand if any correlation exists in this respect in the context of patients using the Hamad Medical Corporation Ambulance Service in Qatar.

Methods: A survey was distributed to adult patients transported by the Ambulance Service's emergency division to the Hamad General Hospital's See and Treat unit in Doha (n = 255). The patients had to be free from serious injury/illness, fully conscious, and with re-collection of the service received. The original SERVQUAL model³ consisting of 5 dimensions (Reliability/Assurance/Tangibility/Empathy/Responsiveness) was modified and a 6th dimension (Quality Control) was added. The Spearman's rank correlation was used to test the strength between quality control (QC) and service quality responses.

Results: The mean age was 33.46 years (\pm 9.62). Patients' continent of origin distribution is presented in Table 1. The QC dimension was correlated with that of the SERVQUAL dimensions presented in Table 2. Most of the SERVQUAL dimensions had strong correlations with QC. Interestingly, there was a weak correlation between Assurance/QC and a moderate correlation between Tangibility/QC. The results seem to be driven by providing service within promised timeframes, access to care, and patients' perception of ambulance staff's willingness to help.

Conclusion: An awareness of the variables with strong correlations is indicative of the significant impact QC measures have and the associated perception of importance held by patients. This study sheds light on the importance of evaluating quality processes and limiting internal costs. The number of patients by continent of origin did not enable valid statistical tests based on that variable. The Ambulance Service's QC measures appear to maintain favorable patients' perceptions of services received.

Keywords: Quality Control, Service Quality, Ambulance Service, Quality Management, Patient perception

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Table 1. Participating patients' continent of origin.

Patients' continent of origin	(n=255)
Asia	67%
Africa	28%
Australia	2%
Europe	2%
North America	1%
South America	1%
Antarctica	0%

Table 2. Correlation between SERVQUAL and Quality Control.

Dimension	Mean (Patients' perception)	Spearman's rank correlation with QC
Reliability		0.658
Ambulance staff met their promised time frames for response	4,10	
Ambulance staff were sympathetic and reassuring	4,18	
Ambulance staff are reliable	4,09	
Ambulance staff provided their service within promised time frames	4,20	
Ambulance staff kept accurate records	3,93	
Assurance		0.315
Ambulance staff were trustworthy	4,25	
I felt safe when transacting with ambulance staff	4,23	
Ambulance staff were polite	4,32	
Ambulance staff get adequate support from HMC to do their job well	4,06	
Tangibility		0.575
Ambulance equipment is modern	4,09	
The ambulance was visually appealing	4,22	
Ambulance staff were neat	4,31	
Hamad Ambulance Service is easily recognizable	4,26	
Empathy		0.742
Did you receive individualized attention?	4,15	
I can expect to receive individualized attention	4,06	
Ambulance staff understood my needs	4,12	
Ambulance staff were concerned about my health	4,24	
They operate 24 hours per day	4,30	
Responsiveness		0.761
I knew exactly when procedures were being performed	4,31	
Ambulance staff provided prompt service	4,29	
Ambulance staff were willing to help	4,32	
Ambulance staff were not too busy to respond to my requests	4,21	
Quality Control (QC)		
Ambulance staff 's service is always improving	4,11	
Ambulance staff are able to meet the community's requirements	4,26	
Ambulance staff deliver an excellent service because they are competent in what they do	4,29	

(Likert scale: 1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree)

Ethical approval: This study was approved by the Hamad Medical Corporation Medical Research Center (Ref:171799/17)

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