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STUDIES ON THE ASSESSMENT OF USE OF COMPUTERS IN PHARMACY PRACTICE IN KHAMMAM TOWN

K RAVEENDRA BABU[1*], T BHAVANI[2], MD AZHARUDDIN[3], HEMANTH KUMAR[4], AND M CHINNA ESWARAIAH[5]

1: Associate Professor, Department of Pharmacy practice, Anurag Pharmacy College, Ananthagiri (V&M), Suryapet (Dt.), T.S-508206.

2: Associate Professor, Sana Pharmacy College, Koadad, Suryapet (Dt.), T.S-508206.

3: Assistant Professor, Anurag Pharmacy College, Ananthagiri (V&M), Suryapet (Dt.), T.S-508206

4: Assistant Professor, Anurag Pharmacy College, Ananthagiri (V&M), Suryapet (Dt.), T.S-508206

5: Principal, Anurag Pharmacy College, Ananthagiri (V&M), Suryapet (Dt.), T.S-508206

***Corresponding Author: Mr. Setu Visavadia: E Mail: ravipharma36@gmail.com**

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INTRODUCTION

Computers are widely used in pharmacy and healthcare settings. Computers are used in many industrialized nations for computer-assisted learning at pharmacy colleges, drug design, clinical research centres, identification of crude drugs, drug storage and business, and hospital pharmacy practice. Still, then ideal conditions **[1]**.

According to a research done in Ibadan, Nigeria, just 42.6% of first-year nursing and clinical students knew how to operate a computer. In Lagos, Nigeria, medical students participated in a comparable study showed while over half of them were aware of Medline on CD-ROM, only 24% had actually used it **[2]**.

A Malaysian research indicated that 94.3% of the population had used a computer at home or at university, which stands in stark contrast to these figures. Of that group, 67% had accessed the Internet, 78% had used email, and 55% had sufficient word processing skills.

By applying well-designed technological advancements, a health workforce with information technology proficiency can enhance patient care and service delivery. The study was to evaluate the use and accessibility of computers in different Delta State pharmacies as the attitudes of pharmacists regarding computer use in the workplace. A Malaysian research indicated that 94.3% of the population had used a computer, either at home or at school, which stands in stark contrast to these statistics **[3-5]**.

METHODS

Setting

The study was carried out in Khammam, an ethnically and tribally diverse region.

Design

Pharmacists employed in Khammam town, both community and hospital, participated in the cross-sectional survey.

Study place

Study population included are all licensed community pharmacists as well as pharmacists employed by hospitals. Because the study's main focus was on pharmacy health care delivery, pharmacists employed in academic and administrative settings were not included.

Methods of Sampling and Sample Size

There were 222 predicted pharmacists in all, comprising 50 hospital pharmacists and 172 community pharmacists. The state's pharmacists were all polled.

Data collection

220 hospital and community pharmacists who signed informed consent form given a pretested questionnaire. There were four sections on the questionnaire.

Section A: covered the respondent's social and demographic information.

Section B: addressed the respondents' computer proficiency.

Section C: examined pharmacists' attitudes toward the use of computers in pharmacy practice

Section D dealt with obstacles to computer use in pharmacy practice.

Data Analysis

The gathered data were put into the Statistical Social Sciences software after being entered into Microsoft Excel and double-checked for accuracy. In order to investigate the association between the demographic factors and computer use in the pharmacy, the Chi-square test was utilized to describe categorical data as frequencies and percentages. P-values below 0.05 were regarded as significant **[6-7]**.

RESULTS

Socio demographic characters of respondents

Out of the 222 questionnaires that were sent to hospital and community pharmacists, 200 were ultimately collected, yielding a 90.9% response rate.

Table1

Details	Value	Percentage
Male	145	72.5
Female	55	27.5
Age		
Less than 30	40	20
31- 40	72	36
41- 50	75	37.5
Greater than 51	12	0.062
Number of years at present place of working		
≤5 years	60	30
5-10 years	77	38.5
≥10 years	64	32
Additional qualification		
P.G	6	27.8
Ph.D	1	5.6
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Of the respondents, 75 (37.5%) belonged to the age range of 41 to 50 years old, and 77 (38.5%) had worked 5 to ten years **Table 1**.

Resource Availability

126 (63%) pharmacies lacked internet access, whereas 172 (66.0%) had a computer or computers in their establishment. 121 (60.5%) had a computer-linked point of sale (P.O.S.) despite 102 (51%) claiming to have computer-literate staff. Sales and stock management

accounted for the majority of computer use in pharmacies (18%, as seen in **Table 2**). A total of 145 (72.5%) individuals had received computer usage instruction. For 109 (54.5%) people, this training was informal **[8-9]**. Of those surveyed, 180 (95%) expressed a desire for additional computer training. 158 (78.0%) pharmacists and 182 (91.0%) pharmacists self-reported as being fluent in Microsoft Word and email, respectively. 38.5% of people ranked their computer usage abilities as excellent or good **Table 2**.

Table 2: Resource Availability

Item	values	Frequency	(%)
Does your pharmacy have a computer?	Yes	132	66
	No	68	34
In such case, how many PCs?	1-3	72	90
	4-6	8	10
Does your pharmacy have a computer-linked point of sale (POS) system?	Yes	120	60.5
	No	80	40
Is there internet access available at your pharmacy?	Yes	74	37
	No	126	63
How in operation using a computer?	1-5yrs	48	65
	6-10yrs	16	21.7
	10-15yrs	8	10
	Others	1	1.41
Do your employees know how to use computers?	Yes	102	55.5
	No	98	49
How do you make use of the computers?			
Sales/Stock Management		18	9
Medicine Dispensing		8	4
Patient Information Database		6	3
Medi Professionals		6	3
Update on Drug Information		8	4
Balance of Payments		8	4
Private Objectives		7	7.5
In my pharmacy, I don't use computers.		132	67.0

Barriers to Use of Computers and Possible Solutions

The primary barrier to using a computer was a lack of training (31.5%), which was followed by a lack of a consistent power source (27%), the pharmacy's location (17%), and the expensive maintenance costs (13.5%). Lack of finance (3%) and space restriction (8%).

Pharmacists under the age of forty-one (31.5%) have access to and use computers than those over the age of fifty-one (45.5%) acknowledged using computers in their practices.

Additional qualification and computer use in pharmacy practice had a positive and statistically significant link. X2=2.289, P=0.002, df=1. This may imply that the ability to pay for the use and upkeep of a computer in the pharmacy increases with the experience and standing of the pharmacist. Computer use

was strongly accepted with extra qualifications. This may suggest that more training could improve pharmacists' use of computers.

In their daily work, just 44% of pharmacists actively utilized computers. Studies conducted in Ethiopia and Ibadan, Nigeria, revealed a similarly low level of computer usage. In contrast, 89.4% of pharmacists in Brazil felt competent enough to conduct internet searches

Using PubMed and other bibliographic databases, and 92.4% of them had access to internet-linked computers at work. These findings come from a cross-sectional study conducted in two counties in England, where the majority of pharmacists use computers both at work and at home. This study's findings about the low use of computers in pharmacy practice may be that many underdeveloped nations lack a consistent power source

For therapeutic purposes, computers were nearly always employed by the pharmacy. If pharmacists are to have the essential impact on patient care, one major barrier that needs to be overcome is the widespread use of computers for stock and sales management.

The majority of respondents said they would be in favor of learning new skills through courses and internet use. A similar mentality was discovered among Canadian pharmacists. In order to improve the effectiveness of their practices, the majority of pharmacists desired to advance their computer skills, especially in the areas of Internet research and medical databases.

50.1% of pharmacists on average said they could easily utilize one or more computer programs. The respondents' self-reported level of word processing and email proficiency was high. Further investigation revealed that pharmacists were also better in word processing and emailing. Since a lack of basic computer and software knowledge among healthcare professionals is a major factor in the e-health system's failure, pharmacists should increase their computer literacy.

The primary barriers to computer use in pharmacy practice, according to the majority of respondents, are power shortages and poor training. This was to be expected, since the primary problem facing Nigeria is a shortage of electricity.

This study is subject to several limitations. Due to the self-reported nature of computer skill, bias might exist. The survey not includes pharmacists employed by academic training facilities or in administrative positions.

Table 3: Association between demographic variables and use of computer in the Pharmacy

Item	Availability / Use computer in pharmacy Yes N(%) n=132	X^2	df	P Value
Male	72	1.802	6	0.294
Female	5			
22-30years n=42	32			
31-40years n=69	38	24.274	3	0.352
41-50years n=78	54			
>51years n=11	5			
Marital Status				
Single n=47	34			
Married n=149	94	13.537	2	0.717
Divorced n=4	4			
Number of years in present place Of employment				
<5years n=55	38			
5-10years n=82	44	1.632	2	0.411
>10years n=63	50			

Table 4: Attitude of pharmacist towards computer use

Item	Agreed completely	Agreed	Disagree	Agreed completely	% Positive	n=200 Mean (S.D)
Work is facilitated, expedited, and enhanced by computers.	28 (14)	154 (77.0)	5 (2.5)	13 (6.5)	91	2.06(0.78)
Computer utilization has become essential to medicine.	124 (62)	71 (35.5)	4 (2)	01 (0.5)	97.5	1.92(0.93)
Every pharmacist needs to understand able to operate a computer.	110 (55.0)	73 (36.5)	8 (4)	9 (4.0)	92	1.69(0.86)
Average					(93.0)	1.92(0.65)

CONCLUSION

This study revealed the absence of computers found in and utilization in pharmacies. The computer skills of pharmacists were slightly above average. The majority of pharmacists believed they ought to enhance their computer skills. To boost practice effectiveness, it was assessed that the skills most in the of improvement were browsing the Internet and using medical information databases. The majority of individuals agreed that working on computers was beneficial. Two of the largest barriers to computer use in pharmacies were staff members with advanced training and a lack of power supply.

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