Assessment of Perceptions of Patients' Satisfaction with E-Prescribing (Wasfaty) in Makkah Al-Mukarramah at Saudi Arabia 2022

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Abstract

Background: This study was conducted to assess of perceptions of Patients' Satisfaction with e-prescribing service implemented by the Ministry of Health in primary healthcare centres in Makkah Al-Mukarramah at Saudi Arabia 2022. In the health care context, a "near miss" is a drug presciption error that happened but did not affect the patient. These errors are captured and corrected before reaching the patient fortuitously or purposefully by designed system controls, handwritten prescriptions, the predominant mode of drug prescribing in the Eastern world, are often associated with preventable medication errors including near misses/close calls. Conversely, the electronic prescribing system reduces such errors considerably, and also results in improved patient satisfaction, decreased morbidity and mortality, the simplest definition of an e-prescribing system is a system that enables electronic transmissions of prescriptions to pharmacies from the provider's office, and this definition was reiterated in 2022. E-prescribing was intended to improve patient safety through elimination of the time gap between provider office and pharmacy, reduction of medication errors, improvements in quality of care and higher patient satisfaction, as well as reductions in illegible prescriptions, dissatisfaction, the majority of providers believe e-prescribing provides for improved patient safety.

Aim of the study: To assessment of perceptions of patients' Satisfaction with e-prescribing service implemented by the Ministry of Health in primary healthcare centres in Makkah Al-Mukarramah at Saudi Arabia 2022.

Methods: across-sectional study was conducted at Makkah primary healthcare centers among patient's attending at Primary Health Care a questionnaire filled out by the patient's through an interview with the patient was utilized for data collection.

Results: there were 400 participants, majority age was(34.0%) in (30-39) years, majority of them were males (63.0%) while female(37.0%) , nnationality most of participants Saudi were(88.0also regarding the residence most of participants Urban were(71.0%).

Conclusion. The current study was conducted to assess the digitalization of medication prescriptions and the shifting of the receipt of medications from pharmacies located within primary healthcare centres to community pharmacies and assess the perceptions of Patients' Satisfaction with E-Prescribing, although some problems were reported regarding the application of e-prescriptions in the first of the application, family physicians and patients' were found to be satisfied with the application of e-prescriptions.

Keywords: Assessment, Perceptions, Patients', Satisfaction, E-Prescribing, Makkah

Introduction

E-prescribing is defined as "the direct computer-to-computer transmission of electronic prescriptions (e-prescriptions) from the prescriber office to community pharmacies" [1]. The e-prescriptions are initiated by physicians and sent electronically to community pharmacies where patients can obtain their medications and other healthcare products free of charge. The initiative connects primary healthcare centres and hospitals to selected community pharmacies in various locations to allow easy access to the nearest pharmacy in the neighborhood [2]. In today's world, digitalization and automation are ubiquitous and different countries have different strategies for implementing information technology in health care. In Saudi Arabia , these plans include the assessment of Perceptions of Patients' Satisfaction with E-Prescribing (Wasfaty) [3] . In the light of these changes, we studied the Assessment of Perceptions of Patients' Satisfaction with E-Prescribing (Wasfaty) . Health information technology includes a variety of technologies that enable the management and transfer of information for patients, service providers, insurers, payment institutions and all other groups related to health and healthcare.[4] The utilization of information technologies in healthcare services can make potential contributions to enhancing service quality, safety, efficiency and reducing costs both for patients and service providers.[5] Although such contributions have been reported, technology usage by physicians and hospitals is still at a low level.[6] have been older people, or people with more complex medical needs, expressed a clear desire to keep receiving a paper version of the prescription. Younger people foresaw practical advantages, and expressed a willingness to buy prescription-only medicines online. [7] Knowledge about the planned changes was, however, limited. Privacy and autonomy issues were expressed by a large fraction of people. The problem of what happens when a third person wants to pick up medicines for a patient, a frequent occurrence, was often mentioned.[8] We conclude that, at present, patients have inadequate Satisfaction about the planned changes. In light of these considerations and the recent technical problems encountered by the system, we feel that an updated risk/benefit analysis of the planned policy is urgently needed.[9] In Saudi Arabia, the E-Prescribing (Wasfaty) Program, includes initiatives for increasing the utilization of information technologies in the provision of health services, aims to "put into practice the e-transformation project in the field of health[10] "

The services also aim to improve health spending efficiency and reduce medication waste, enhance medication availability, improve patient medication counseling and help prevent medication errors.[11]

Electronic prescription (e-prescription) is one of the important steps taken to use information systems in the field of health in terms of facilitating communication between institutions in prescription processes, increasing patient safety and satisfaction.[12] Technology has the advantage of increasing people's work performance and people can be stronger with technology than they are alone. Thus human errors can decrease.[13] In addition; information technology plays a key role in providing better and safer care, and transformation of health services.[14] That is why information technologies are highly important in generating e-prescriptions, which can be described as a document produced by authorized personnel electronically, containing written information and instructions regarding a patient's medication and its usage. [15]

Review of Literatures

Alotaibi et al. (2021) found in the study about patients' Satisfaction with E-Prescribing in Saudi Arabia moderate satisfaction levels were also reported for the Electronic prescription in terms of the facilities and accessibility, with a mean of (3.3/5). Similar findings were reported in a local study where patients had the same satisfaction levels regarding the counseling area and its privacy, but higher satisfaction levels were reported with waiting time (4.3/5) and waiting area (4.3/5) [16]. This could be because the study included only pharmacies that provide Wasfaty services which are free of charge to all nationals, so the demand on these pharmacies is likely to be higher, resulting in slower services.

Wrzosek et al. (2021) found in study Communication between physicians and pharmacists was also seen to have room for improvement. This issue has been previously identified, particularly communication regarding suspected medication errors [17]. Communication might also be a problem because community pharmacies have different operation hours than primary healthcare centres, making it difficult to communicate with prescribers [18].Establishing a medication therapy management program in community pharmacies might overcome these communication barriers between prescribers and pharmacists, where pharmacists have the authority to adjust treatment plans [19].

Study that analyzed provides some evidence of a reduction in errors and adverse drug events missed systems (ADEs) by the use of e-prescribing without medication decision support MDS. This improvement in patient safety is due to reductions in illegible prescriptions as well as prescriptions with incomplete information.[1] some of the improvement may be due to the structured entry that e-prescribing requires. There is limited evidence that e-prescribing with medication decision-making improves patient safety.[20] Additionally, there is some evidence that 2 types of medication decision support, drug-disease and drug-dosing, improve patient safety when used with e-prescribing.[21] The limited literature on e-prescribing with MDS and patient safety may reflect the fact that e-prescribing is just a piece of the larger cycle of ambulatory administration of medications.[22]

Almaghaslah et al. (2019) report that transition to e-prescribing services has helped to engage the private sector in providing pharmaceutical services to the public through

community pharmacies . Hence, it overcomes the issue of insufficient numbers of pharmacy personnel in primary healthcare centres [23]. As was previously reported, pharmacies in primary health care centres sometimes lack pharmacy personnel might be run by allied healthcare professional [24].

Other studies, family physicians' opinions on e-prescription were evaluated. The most frequently stated contribution of the e-prescription application was speeding up prescription writing and saving time. The most common complaints were system-induced problems and internet problems. [25] Despite some problems with e-prescription practice, it was found that a significant portion of family physicians were satisfied with e-prescription. When analyzing the studies conducted in other countries on e-prescriptions, it was seen that the level of satisfaction with e-prescriptions is quite high. In the studies by Tan et al in Singapore and Jariwala et al in America, it was determined that 87% of physicians and 83% of e-prescribers were satisfied with the application of e-prescriptions, respectively. In studies conducted in Sweden,[26] Austria, and England, it was found that a significant proportion of physicians think that the application of e-prescriptions is beneficial. Moreover, in a study by Gider et al with 248 physicians in Turkey, 62% of the physicians supported the application of e-prescriptions [27]

Rationale

E-prescribing systems enable electronic transmissions of prescriptions to pharmacies from the provider's office. The promise of e-prescribing in regard to patient safety is reduction in the time gap between point of care and point of service, reduction in medication errors, and improved quality of care. This study will give a brief overview of e-prescribing systems, for purposes of this study, the term ''patient safety'' will be used . Although there is some evidence that e-prescribing alone and e-prescribing with medication decision support can reduce medication errors, there is also evidence that e-prescribing can be a source of medication errors. The need for more study is particularly relevant and timely, as the Centers for Medicare and Medicaid Services is strongly incentivizing providers to use e-prescribing with medication decision support. Despite concerns about efficiency

Aim of the study: To assessment of perceptions of patients' Satisfaction with e-prescribing service implemented by the Ministry of Health in primary healthcare centres in Makkah Al-Mukarramah at Saudi Arabia 2022.

Materials and Methods
Study Design.
This cross-sectional study was conducted at Makkah Al-Mokarramah, chosen through simple random sampling using random number generator.
Study setting:
Data were initially collected by two family medicine residents who interviewed patients at the end their visits and invited them to complete and submit the questionnaire electronically. Recruiting more participants was achieved by distributing the questionnaire through social media applications, including WhatsApp and Instagram community groups Makkah Al-Mokarramah at Saudi Arabia.at limited time in May to July 2022..

Sample Size

The sample size was estimated to be (400) using Raosoft calculator, following the criteria of 95% confidence level and 5% margin error, covering about 400 participant.

Data Collection Tools and Techniques

The structured questionnaire was adapted from previous studies with similar aims . The questionnaire consisted of four domains: one section eliciting demographic and background information and three sections evaluating patients opinions towards the community pharmacy , pharmacy personnel, and e-prescription-related features using the five-point Likert scale. The data collection tool was initially prepared in the English language, then translated into the Arabic language. Translation validity was assured by retranslating the Arabic version of the survey into English (back translation). The study investigators, who were bilingual speakers of both languages, conducted the back translation. Face and content validity were carried out by a group of experts in the fields of clinical pharmacy.

The online data collection tool was designed using Google forms. The reason for choosing Google forms was that the authors have successfully used it before in a country level data collection among a Saudi population . Hence, they were familiar with its features. A previous study confirmed that Google docs serve as an easy access, free of charge, and convenient platforms for questionnaire administration to clinical population. It also maintains the quality, security, and fidelity of the data .

Inclusion Criteria

Patients who were eligible for free government healthcare services in Saudi Arabia,
18 years or older, having previously used Wasfaty services..

Exclusion Criteria .

Patients utilizing private healthcare services in Saudi Arabia, younger than 18 years, and patients who have never utilized the Wasfaty system. A filter question was used to exempt people who had no experience with the e-service.

Data Entry and Analysis .

The collected data were downloaded, entered, and analysed using the Statistical Package for Social Sciences (SPSS) version 24.0 for Mac. Demographic and background information were described in terms of frequencies and e-prescription-related features used a Likert scale ranging from 1 (Not at all satisfied) to 5 (very satisfied). The distribution of the scale was presented in percentages, as well as mean and SD. A mean value of 3 was considered skewed towards high satisfaction, while a mean value of <3 is considered skewed towards low satisfaction.

Pilot Study/Pretesting.

The data collection tool was piloted with five participants, who were representative of the study population, to ensure the clarity of language and the questionnaire structure. The findings of the pilot study were not included in the final results. The questionnaire was

reviewed and modified based on the feedback received in the pilot. The final questionnaire was distributed in Arabic.

Ethical Consideration .

Permission from the Makkah joint program of family medicine and Directorate of Health Affairs of the Holy Capital Primary Health Care were obtained. All information were kept confidential and results will be submitted to the department as feedback.
Budget : Self-funded.

Results
Table (1) Distribution of the Baseline demographic data of the Participated in the Study sample of E-Prescribing model (n=400)

	N	%
Age		
18-29	88	22
30- 39	136	34
40- 49	100	25
More than 50	76	19
Gender		
Female	148	37
Male	252	63
Nationality		
Saudi	352	88
Non-Saudi	48	12
Residence		
Rural	116	29
Urban	284	71
Education		
High school and below	124	31
University education and above	276	69
Reason for visit		
Acute condition	164	41
Chronic condition	236	59

Table 1 shows there were 400 participants, and the majority age was(34.0%) in (30-39) years, while the age(40-49)were(25.0%) but the age 18-29 yare were (22.0%), the majority of them were males (63.0%) while female(37.0%) , regarding the Nationality most of participants Saudi were(88.0%) followed by Non-Saudi were(12.0%) , also regarding the residence most of participants Urban were(71.0%) but the Rural were (29.0%) , also

regarding the Level of education most of participants University education and above were(69.0%) while High school and below were (31.0%) , regarding the reason for visit most of participants Chronic condition were(59.0%), while Acute condition were(41.0%),

Table(2). Distribution of patient satisfaction factors affecting patients experience with e-prescription service (Wasfaty) ranging from 1 (not at all satisfied) to 4 (very satisfied).

Items			Satisfaction					% of satisfaction	Chi-square	
			Not very satisfied	Not satisfied	Somewhat satisfied	satisfied	very satisfied		X^2	P-value
1	Reducing prescription writing errors and the errors of providing incorrect medicine or dosage	N	28	8	48	88	228	84	386.000	<0.001*
		%	7	2	12	22	57			
2	Simplifying patient's process to obtain medicine	N	20	96	44	72	168	73.6	162.000	<0.001*
		%	5	24	11	18	42			
3	Facilitating patient's process to obtain medicine and increasing patient satisfaction	N	12	80	76	80	152	74	122.800	<0.001*
		%	3	20	19	20	38			
4	Increasing patient satisfaction	N	8	24	56	136	176	82.4	265.600	<0.001*
		%	2	6	14	34	44			
5	Reducing patient waiting time?	N	96	56	92	80	76	59.2	12.400	0.015*
		%	24	14	23	20	19			
6	Creating the perception of more contemporary, technological, and higher-quality service to the patient satisfaction	N	32	12	36	80	240	84.2	430.800	<0.001*
		%	8	3	9	20	60			
7	Approachability and friendliness of pharmacists and support staff	N	4	28	32	52	284	89.2	664.800	<0.001*
		%	1	7	8	13	71			

	with patient satisfaction									
8	Speeding up prescription writing and saving time	N	16	60	120	108	96	70.4	89.200	<0.001*
		%	4	15	30	27	24			

Table (2) show that questionnaire items patient satisfaction factors affecting patients experience with e-prescription service (Wasfaty) ranging from 1 (not at all satisfied) to 4 (very satisfied). Regarding the reducing prescription writing errors and the errors of providing incorrect medicine or dosage the majority of participant very satisfied were (57.0%) followed by satisfied were (22.0%) and a significant relation were P-value=0.001 X^2 386.000, and % Of satisfaction were (84.0%), regarding the Simplifying patient's process to obtain medicine the majority of participant very satisfied were (42.0%) followed by not satisfied were (24.0%) while satisfied were (18.0%) and a significant relation were P-value=0.001 X^2 162.000, and % Of satisfaction were (73.6%), regarding the facilitating patient's process to obtain medicine and increasing patient satisfaction the majority of participant very satisfied were (38.0%) followed by satisfied and not satisfied respectively were (20.0%) and a significant relation were P-value=0.001 X^2 122.800, and % Of satisfaction were (74.0%), regarding the increasing patient satisfaction the majority of participant very satisfied were (44.0%) followed by satisfied were (34.0%) and a significant relation were P-value=0.001 X^2 165.600, and % Of satisfaction were (82.4%), regarding the reducing patient waiting time the majority of participant Not very satisfied were (24.0%) followed by somewhat satisfied were (23.0%) and a significant relation were P-value=0.001 X^2 12.400, and % Of satisfaction were (59.2%), regarding the Creating the perception of more contemporary, technological, and higher-quality service to the patient satisfaction the majority of participant very satisfied were (60.0%) followed by satisfied were (20.0%) and a significant relation were P-value=0.001 X^2 430.800, and % Of satisfaction were (84.2%), regarding the creating the perception of more contemporary, technological, and higher-quality service to the patient satisfaction the majority of participant very satisfied were (71.0%) followed by satisfied were (13.0%) and a significant relation were P-value=0.001 X^2 664.800, and % Of satisfaction were (89.2%), regarding the speeding up prescription writing and saving time the majority of participant Somewhat satisfied were (30.0%) followed by satisfied were (27.0%) and a significant relation were P-value=0.001 X^2 89.200, and % Of satisfaction were (70.4%).

Table(2). Complete distribution of patient satisfaction factors affecting patients experience with e-prescription service (Wasfaty) ranging from 1 (not at all satisfied) to 4 (very satisfied).

Items			Satisfaction					% of satisfaction	Chi-square	
			Not very satisfied	Not satisfied	Somewhat satisfied	satisfied	very satisfied		X^2	P-value
9	Removing handwriting and simplifying prescription writing increasing patient satisfaction	N	8	28	44	40	280	87.8	634.800	<0.001*
		%	2	7	11	10	70			
10	Being patient able to see former medicines and information related and simplifying following-up the patient	N	8	24	20	32	316	91.2	874.000	<0.001*
		%	2	6	5	8	79			
11	Simplifying generation of prescription or removing by anther prescription and allowing adding explanation to prescription increasing patient satisfaction	N	24	72	48	112	144	74	116.800	<0.001*
		%	6	18	12	28	36			
12	Being able to see the medicine, dosage, equivalents, and prices on the system and providing convenience to patient in determining the medicine to be prescribed	N	64	60	192	48	36	56.6	202.000	<0.001*
		%	16	15	48	12	9			
13	Enabling prescription writing even in external environments (mobile services) where internet access is provided had Positive Effects	N	56	24	116	72	132	70	97.200	<0.001*
		%	14	6	29	18	33			
14	Simplifying patient's process to obtain medicine	N	12	12	80	140	156	80.8	232.800	<0.001*
		%	3	3	20	35	39			
15	Eliminating situations such as loss or tearing of prescription	N	12	20	32	40	296	89.4	734.800	<0.001*
		%	3	5	8	10	74			
16	E-prescriptions being safe and no alterations to be made on prescription	N	0	8	32	40	320	93.6	650.880	<0.001*
		%	0	2	8	10	80			

Regarding the Removing handwriting and simplifying prescription writing increasing patient satisfaction the majority of participant very satisfied were (70.0%) followed by Somewhat satisfied were (11.0%) and a significant relation were P-value=0.001 X^2 634.800, and % Of satisfaction were (87.8%), regarding the being patient able to see former medicines and information related and simplifying following-up the patient the majority of participant very satisfied were (79.0%) followed by satisfied were (8.0%) and a significant relation were P-value=0.001 X^2 874.000, and % Of satisfaction were (91.2%), regarding the Simplifying generation of prescription or removing by anther prescription and allowing adding explanation to prescription increasing patient satisfaction the majority of participant very satisfied were (36.0%) followed by satisfied were (28.0%) and a significant relation were P-value=0.001 X^2 116.800, and % Of satisfaction were (74.0%), regarding the being able to see the medicine, dosage, equivalents, and prices on the system and providing convenience to patient in determining the medicine to be prescribed the majority of participant Somewhat satisfied were (48.0%) followed by satisfied were (12.0%) and a significant relation were P-value=0.001 X^2 202.000 and % Of satisfaction were (56.6%), regarding the enabling prescription writing even in external environments (mobile services) where internet access is provided had Positive effects the majority of participant very satisfied were (33.0%) followed by somewhat satisfied were (29.0%) and a significant relation were   P-value=0.001 X^2 97.200, and % Of satisfaction were (70.0%), regarding the Simplifying patient's process to obtain medicine the majority of participant very satisfied were (39.0%) followed by satisfied were (35.0%) and a significant relation were   P-value=0.001 X^2 232.800, and % Of satisfaction were (80.0%), regarding the eliminating situations such as loss or tearing of prescription the majority of participant very satisfied were (74.0%) followed by satisfied were (10.0%) and a significant relation were P-value=0.001 X^2 734.800, and % Of satisfaction were (89.4%), regarding the eliminating situations such as loss or tearing of prescription the majority of participant very satisfied were (80.0%) followed by satisfied were (10.0%) and a significant relation were   P-value=0.001 X^2 650.800, and % Of satisfaction were (93.3%),
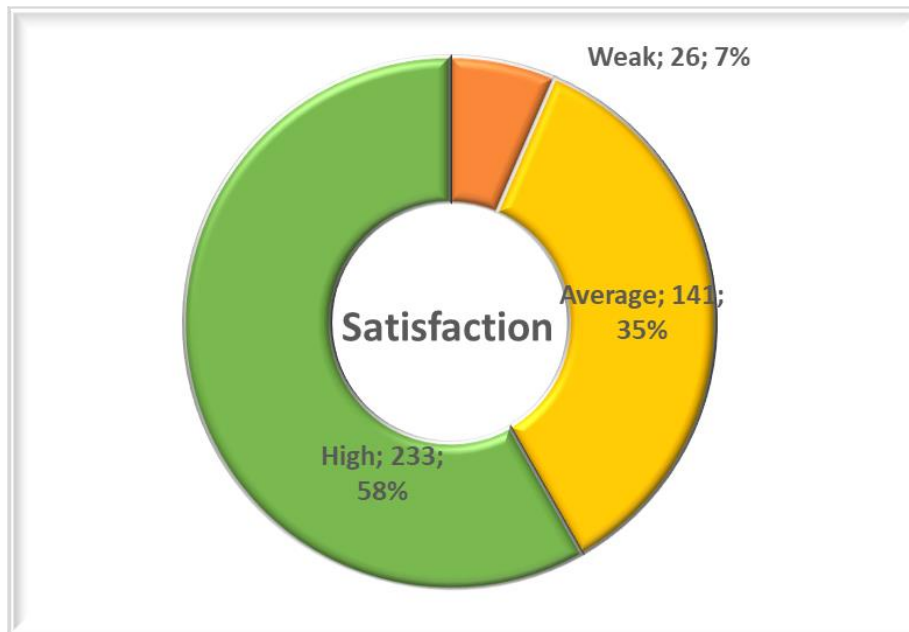
Table (3) Description of the Satisfaction Score patient satisfaction factors affecting patients experience with e-prescription service (Wasfaty)

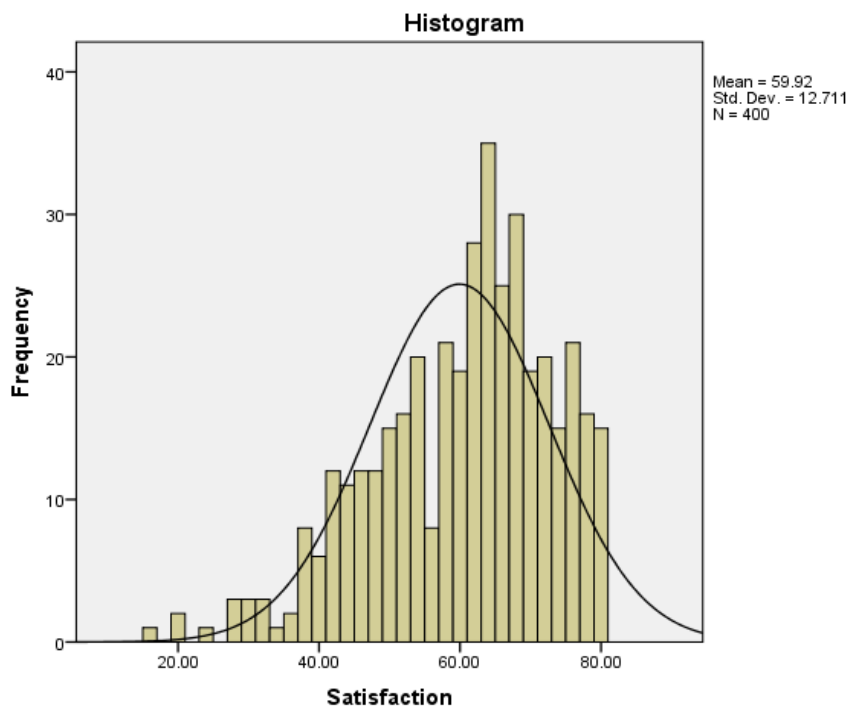| Satisfaction			Score	
	N	**%**	**Range**	**Mean±SD**
Weak	26	6.5		
Average	141	35.3	16-80	59.92±12.711
High	233	58.3		
Total	400	100.0		
X^2	161.345			
P-value	<0.001*			

Table (3) show regarding the Satisfaction Score patient satisfaction factors affecting patients experience with e-prescription service (Wasfaty) most of the participant high

satisfaction were constitutes (58.3%) followed by average satisfaction were constitutes (35.3%) but weak were (6.5%) while a significant relation (P-value =0.001)and X^2 (161.345) . While Range were (16-80) but the Mean± SD (59.92±12.711)

Figure (1) Description of the Satisfaction Score patient satisfaction affecting patients experience with e-prescription service (Wasfaty)

Figure (2) Description of the Satisfaction Score patient satisfaction affecting patients experience with e-prescription service (Wasfaty)

Table 4: Description of Socio-demographic factors associated with Satisfaction% among patient satisfaction affecting patients experience with e-prescription service (Wasfaty)

		Satisfaction%						Chi-square	
		Weak		Average		High			
		N	%	N	%	N	%	X^2	P-value
Age	18-29	0	0.0%	22	15.6%	66	28.3%	123.411	<0.001*
	30- 39	0	0.0%	39	27.7%	97	41.6%		
	40- 49	0	0.0%	49	34.8%	51	21.9%		
	More than 50	26	100.0%	31	22.0%	19	8.2%		
Gender	Female	0	0.0%	8	5.7%	140	60.1%	152.258	<0.001*
	Male	26	100.0%	133	94.3%	93	39.9%		
Nationality	Saudi	26	100.0%	141	100.0%	185	79.4%	56.523	<0.001*
	Non-Saudi	0	0.0%	0	0.0%	48	20.6%		
Residence	Rural	0	0.0%	30	21.3%	86	36.9%	28.910	<0.001*
	Urban	26	100.0%	111	78.7%	147	63.1%		
Education	High school and below	0	0.0%	0	0.0%	124	53.2%	173.240	<0.001*
	University education and above	26	100.0%	141	100.0%	109	46.8%		

Table 4 show Socio-demographic factors associated with Satisfaction% among patient satisfaction affecting patients experience with e-prescription service (Wasfaty) regarding the age a significant relation while P=value 0.001 and X^2 123.411 increase in age 30-39 were (41.6) in high compared to the age 40-49 were (34.8%) in average while more than 50 year Satisfaction% weak were (100.0%), regarding the gender a significant relation while P=value 0.001 and X^2 152.258 increase in female were (60.1%) in high compared to the male were (39.9%) in high while weak (100.0%) in male, regarding the nationality a significant relation while P=value 0.001 and X^2 56.523 increase in Saudi in average were (100.0%) compared to the Non-Saudi were (20.6%) while Saudi in high were (79.4%) , regarding the residence a significant relation while P=value 0.001 and X^2 28.910 increase in weak in urban were

(100.0%) compared average in the urban were (78.7%) while high in rural were (36.1%) , regarding the education a significant relation while P=value 0.001 and X^2 173.240 increase in University education and above in weak and average were (100.0%) compared to the High school and below in high were (53.2%) while university education and above were (46.8%)

Discussion

This research was conducted to assess patient satisfaction with the e-prescribing system that connects Ministry of Health hospitals and primary healthcare centres to community pharmacies in Makkah Al-Mukarramah at Saudi Arabia 2022, The findings of the study indicated the baseline demographic data of the Participated in the Study sample of E-Prescribing model there were 400 participants, and the majority age was(34.0%) in (30-39) years, while the age(40-49)were(25.0%) but the age 18-29 yare were (22.0%), the majority of them were males (63.0%) while female(37.0%) , regarding the Nationality most of participants Saudi were(88.0%) followed by Non-Saudi were(12.0%) , also regarding the residence most of participants Urban were(71.0%) but the Rural were (29.0%) , also regarding the Level of education most of participants University education and above were(69.0%) while High school and below were (31.0%) , regarding the reason for visit most of participants Chronic condition were(59.0%), while Acute condition were(41.0%) (See table 1)

Regarding patient satisfaction factors affecting patients experience with e-prescription service (Wasfaty)that questionnaire items patient satisfaction factors affecting patients experience with e-prescription service (Wasfaty) ranging from 1 (not at all satisfied) to 4 (very satisfied). Regarding the reducing prescription writing errors and the errors of providing incorrect medicine or dosage the majority of participant very satisfied were (57.0%) were P-value=0.001 X2 386.000, and % Of satisfaction were (84.0%), the Simplifying patient's process to obtain medicine the majority of participant very satisfied were (42.0%) were P-value=0.001 X2 162.000, and % Of satisfaction were (73.6%), regarding the facilitating patient's process to obtain medicine and increasing patient satisfaction the majority of participant very satisfied were (38.0%) were P-value=0.001 X2 122.800, and % Of satisfaction were (74.0%), regarding the increasing patient satisfaction the majority of participant very satisfied were (44.0%) a significant relation were P-value=0.001 X2 165.600, and % Of satisfaction were (82.4%), regarding the reducing patient waiting time the majority of participant Not very satisfied were (24.0%) a significant relation were P-value=0.001 X2 12.400, and % Of satisfaction were (59.2%), regarding the Creating the perception of more contemporary, technological, and higher-quality service to the patient satisfaction the majority of participant very satisfied were (60.0%) a significant relation were P-value=0.001 X2 430.800, and % Of satisfaction were (84.2%), regarding the creating the perception of more contemporary, technological, and higher-quality service to the patient satisfaction the majority of participant very satisfied were (71.0%) a significant relation were P-value=0.001 X2 664.800, and % Of satisfaction were (89.2%), regarding the speeding up prescription writing and saving time the majority of participant Somewhat satisfied were (30.0%) a significant relation were P-value=0.001 X2 89.200, and % Of satisfaction were (70.4%) (See table 2). Similar findings were reported in a local study where patients had the same satisfaction levels regarding the counseling area and its privacy, but higher satisfaction

levels were reported with waiting time (4.3/5) and waiting area (4.3/5) [28]. This could be because the study included only pharmacies that provide Wasfaty services which are free of charge to all nationals, so the demand on these pharmacies is likely to be higher, resulting in slower services.

Regarding the Satisfaction Score patient satisfaction factors affecting patients experience with e-prescription service the Satisfaction Score patient satisfaction factors affecting patients experience with e-prescription service (Wasfaty) most of the participant high satisfaction were constitutes (58.3%) followed by average satisfaction were constitutes (35.3%) but weak were (6.5%) while a significant relation (P-value =0.001)and X2 (161.345) . While Range were (16-80) but the Mean± SD (59.92±12.711) (See table 3 and figure 1.2)

Regarding the Socio-demographic factors associated with Satisfaction% among patient satisfaction affecting patients experience with e-prescription service the age a significant relation while P=value 0.001 and X2 123.411 increase in age 30-39 were (41.6) in high compared to the age 40-49 were (34.8%) in average while more than 50 year Satisfaction% weak were (100.0%), regarding the gender a significant relation while P=value 0.001 and X2 152.258 increase in female were (60.1%) in high compared to the male were (39.9%) in high while weak (100.0%) in male, regarding the nationality a significant relation while P=value 0.001 and X2 56.523 increase in Saudi in average were (100.0%) compared to the Non-Saudi were (20.6%) while Saudi in high were (79.4%) , regarding the residence a significant relation while P=value 0.001 and X2 28.910 increase in weak in urban were (100.0%) compared average in the urban were (78.7%) while high in rural were (36.1%) , regarding the education a significant relation while P=value 0.001 and X2 173.240 increase in University education and above in weak and average were (100.0%) compared to the High school and below in high were (53.2%) while university education and above were (46.8%)
We also realized during informal discussions about this study, that a substantial number of health care workers themselves were ill-informed, and we plan to document this in future research. We cannot ignore the benefits of automation and digitalization, but blind techno-optimism [29] should not be at the expense of personal privacy or public health.

Conclusions

Perceptions of patients, or people needs, clearly expressed the desire to continue receiving a paper version of their prescriptions. Other Perceptions of Patients, in contrast, envisaged advantages in paperless e-prescriptions, and expressed an interest in obtaining their prescription-only medicines online. Knowledge about these planned and implemented changes was, however, very limited, Privacy and autonomy issues were expressed frequently, and so were problems surrounding a third person picking up medicines from the pharmacy. We conclude that, at present, patients have inadequate knowledge and understanding about the planned changes. In light of these considerations and the recent technical problems encountered by the system, we feel that an updated risk/benefit analysis of the planned policy is urgently needed. Additional analyses of system risk and rewards, from the patient perspective, may be warranted. also perceptions of Patients' Satisfaction with E-Prescribing (Wasfaty)

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