

Patient Expectations for Emergency Department Visits: Survey in Urban Emergency

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Abstract:-

Background: visits to Emergency Department (ED) are not uncommon in these times. With quality as a primary focus in Emergency Medicine, a detailed understanding of patient expectations is necessary to provide patient-centered care and increase patient satisfaction. In this study, we primarily examined patients' expectations regarding their arrival, the triaging process, while waiting for services, and while receiving services from staff.

Methods: This study is an observational study focusing on visitors to the Ministry of Health hospitals (R1- Riyadh Cluster 1) in the southwest of Riyadh City. The inclusion criteria included all those who i) are Saudi citizens, ii) are eighteen years and older, iii) are receiving treatment in the Ministry of Health hospitals in the southwestern region of Riyadh. Data were collected by interviewing and completing a questionnaire, data were clarified, coded and entered using SPSS, version 25.

Results: The study revealed that most of the participants 84.6% (430) expected someone to be at the front desk upon arrival at Emergency Department and 76% (386) expected welcoming and friendly staff while 63.5% (323) expected no language barriers. Although 75.3% (383) expect either a trolley, stretcher or wheelchair to take

them from their car to the ED building, just over half of participants 52.3% (269) do not expect valet parking.

The study also shows that almost two-thirds 63.5% (323) of the participants were not aware of triage and how it is done.

The majority of the participants expected the presence of a waiting room 89%(453). Majority of the participants expected the presence of a television 42%(216), followed by educational pamphlets 41%(210), Wi-Fi 29%(148), books 28%(144). When participants were asked about the availability of food and beverages at ED, 37%(324) expected water, 23%(203) expected coffee. The majority of participants expected privacy between males and females 83% (423), similarly the majority of participants expected separation between male and female beds regardless of health 75% (381). Half of the participants 53% (268) expected that patients who arrive first should be seen first. When participants were asked if they expected to be diagnosed in the ED, 72% (367) expected to be diagnosed.

Conclusion: In summary, we found that most of our participants had high expectations of Emergency Department (ED) and inadequate knowledge of the triage

system used in ED. It was also found that most of our participants expected the presence of separate waiting areas while waiting in the ED. During the service, most of our participants expected effective communication with staff. Exploring and managing their expectations can help increase patient satisfaction by raising public awareness of the principles of ED systems, modifying basic communication skills and providing basic facilities in the ED waiting room.

I. INTRODUCTION

Visits to the emergency room (ED) are not uncommon these days. People who have never been to the ED can be considered a minority (1). Over the last decade, the population of Saudi Arabia has increased (2), leading to an expansion of hospitals, including emergency departments, as demand for hospital beds has increased throughout the kingdom (3). Despite this, there are still not enough beds in the ED, leading to overcrowding and longer waiting times (1). For example, on May 3, 2019, King Saud Medical City ED admitted more than 200 patients in the emergency department (4). Since quality is considered a primary focus in Emergency Medicine and in order to provide patient-centered care, a detailed understanding of patient expectations must first be explored. (5). Patient-centered care has become an important goal in the development and improvement of health care quality in various countries such as the United States and United Kingdom (6,7).

Therefore, understanding the details of patient expectations to facilitate a patient-centered care plan is an essential step in managing patient expectations prior to visiting ED and readdressing inappropriate expectations and educating them in this regard (5). Patient expectations and patient satisfaction do not have the same definition, while expectations are formed prior to the visit ED and satisfaction is determined by perceptions during and after the encounter, it is a function of fulfilled and unfulfilled expectations; however, it can be influenced by various factors.(8,9,10) Managing the expectations of patients presenting to ED can become a challenging task for healthcare professionals due to the high level of stress in a place where actions are time sensitive (11). The literature suggests that the accuracy of patient expectations has not yet been met by healthcare professionals (6). Effective communication during ED visits involving the patient in discussing his or her illness in understandable lay language can lead to shared understanding between health care professionals and patients, which can result in increased patient satisfaction (6). Examples of unreasonable expectations include being seen by the physician within an hour, or definitive diagnosis and treatment during the visit, or quick results from laboratory or imaging results, which usually require more time (6,12). Other reasonable expectations include being more involved in the process regarding their clinical status in Emergency Department. A study conducted in King Abdul-Aziz Medical City Riyadh found that 75% of the respondents wanted to know if there could be any delays while waiting in ED, while 73% expressed a desire to know the cause of the delay. In addition, more than half (61%) of the participants expressed an interest in learning how the ED works (13). Our primary

objective in this study is to investigate patients' expectations before visiting ED in the first cluster in the city of Riyadh, Saudi Arabia in order to modify, readdress, and educate patients' unreasonable expectations and improve the system of emergency departments to increase the quality of medical care provided to patients in these hospitals.

II. METHODOLOGY

A. Study Design:

This study is an observational, descriptive, cross-sectional study of patients' expectations of emergency department services in R1 Riyadh, Saudi Arabia.

Institutional Review Board approval was obtained under number H1RI-22-Oct19-01 Prior to the commencement of the study.

B. Study area and population:

The study was conducted in the southwestern region of Riyadh, Saudi Arabia. It was conducted among individuals with Saudi nationality, eighteen years and older, attending the hospitals of the first health cluster in Riyadh "R1" which include 4 hospitals. King Saud Medical City, Al-Iman General Hospital, King Salman Hospital and Al-Imam Abdulrahman Alfaisal hospital. The study done in the first 3 hospitals. In this study, the following individuals were excluded: Individuals older than 65 years, non-consenting participants, patients currently being treated in an emergency room, and disabled patients (either with mental or physical disability).

C. Sample size and techniques:

Data were collected from 508 participants receiving care face to face interview.

D. Data collection instrument and methods:

Data were collected by interviewing and completing a questionnaire. The questionnaire used for the survey contained four sections. The first section captures expectations upon arrival at ED, the second section captures general knowledge about triage and expectations about the triage area, the third section captures expectations during the waiting period, and the fourth section captures expectations about services during the stay in the emergency department. The validity and reliability of the questionnaire was tested before distribution.

E. Data Analysis:

Data were clarified, coded, and entered using SPSS, version 2.5. The data were analyzed and the results were presented in tables and graphs as percentages.

F. Ethical Considerations:

Verbal permission was obtained before participants took part in this research. Anonymity and confidentiality were maintained.

III. RESULTS

A total of 508 individuals met the inclusion criteria and were therefore included in our study. The gender distribution (Fig. 1) of respondents was 55% (280) male and 45% (228) were female participants.

• Gender Distribution (figure 1)

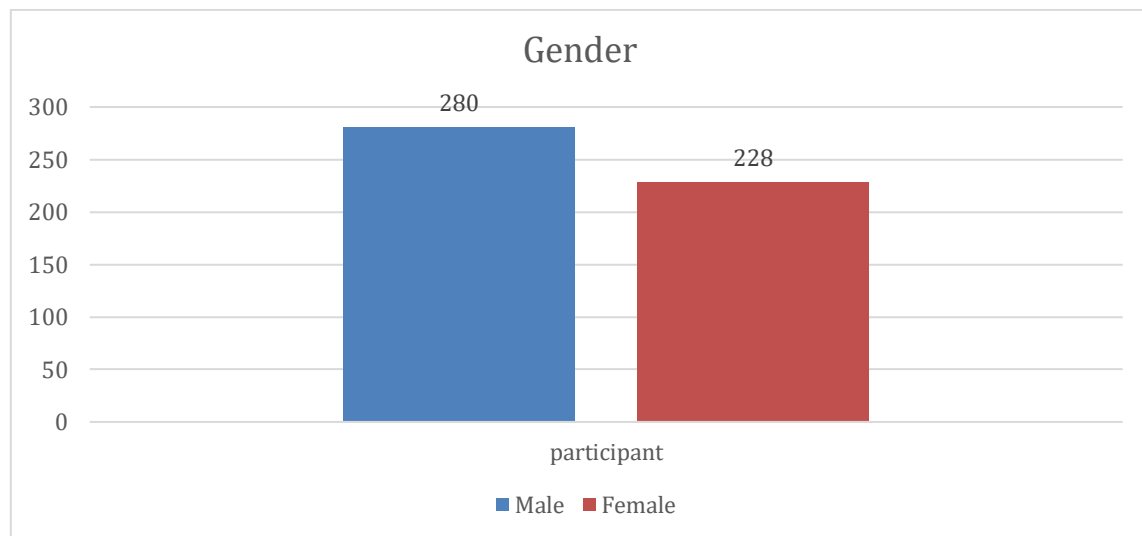


Fig. 1: On arrival

Survey results of patients expectations of the ED, such as expecting someone to be present in the ED to receive the patient, was 85%. While 75% expected transportation from car to building with wheelchair, bed and trollies. The

remaining expectations, e.g., 53% did not expect valet service, 76% expected courteous, friendly staff within the first ten minutes, and 64% did not expect a language barrier. The results are shown in Table 1.

Patient Expectation	Number (%)
Presence of someone to receive patient in Emergency department	
Yes	430 (85%)
No	78 (15%)
Transferred from the car to the building in wheelchair, bed and trollies	
Yes	383 (75%)
No	125 (25%)
Receive a parking service	
Yes	239 (47%)
No	269 (53%)
Expect to have a welcoming, friendly staff in first ten minutes	
Yes	386 (76%)
No	122 (24%)
Presence of a language barrier	
Yes	185 (36%)
No	323 (64%)

• Patients Expectations in the emergency Department

For triage, 60% of participants were familiar with the term triage and knew its meaning; however, two-thirds of the total participants did not know the different triage levels, and 45% of participants reported not knowing the difference between "urgent" and "emergent" triage. Expectations of the time taken to determine the triage

level varied (Table 2). About half of participants believe that critical cases, emergent cases, and urgent cases need to be seen immediately (58%, 41%, and 41%, respectively), suggesting a lack of differentiation in case categories (Table 3). Slightly more than the majority (52%) were unfamiliar with the concept of "re-triage". Nearly three-quarters of participants expected extreme

age to be considered and given a higher priority than others. The results show that the estimated time to see a doctor does not match reality in terms of estimated waiting time in relation to a cut without rebleeding and multiple episodes of vomiting, which were assumed to be

seen in 15 minutes (40% and 38% respectively). While for severe chest pain and chronic constipation, the estimated time was consistent with reality and CTAS (Table 2).

Table (2): Patients' expectations of the time taken to determine the triage level:

• Patients Expectations towards Triage Level

	Immediately	5 minutes	10 minutes	15 minutes	20 minutes	>20 minutes
Expectation of triage level determination	98 (19%)	92 (18%)	95 (19%)	89 (18%)	37 (7%)	97 (19%)

Table 2: patients' expectations towards the time taken until triage level determination:

• Patients expectations towards Estimating time to be seen

	Immediately	5 minutes	10 minutes	15 minutes	20 minutes	>20 minutes
Critical case	292 (58%)	90 (18%)	58 (11%)	20 (4%)	12 (2%)	36 (7%)
Emergency case	206 (41%)	113 (22%)	93 (18%)	35 (7%)	20 (4%)	41 (8%)
Urgent case	209 (41%)	90 (18%)	60 (12%)	52 (10%)	37 (7%)	60 (12%)

Table 3: Expectations of patients towards the time until seen by a physician according to the case

• Patients expectations Estimating Time for special Cases

Condition Time till seen	Immediately	15 minutes	30 minutes	1 hour	> 1 hour
Cut wound, no current bleeding	105 (21%)	202 (40%)	88 (17%)	62 (12%)	51 (10%)
Severe chest pain	319 (63%)	100 (19%)	60 (12%)	10 (2%)	19 (4%)
Vomiting, multiple episodes	157 (31%)	192 (38%)	74 (14%)	35 (7%)	50 (10%)
Chronic constipation	74 (14%)	124 (24%)	105 (21%)	75 (15%)	130 (26%)

Table 2: Results of patients' expectations of certain conditions and the estimated waiting time until seen by a physician

While waiting:

Figure 2. illustrates the expectations among the participants when they were asked whether they expected a waiting room in ED or not, majority of them expected a waiting room 89% (453) and 11% (55) did not expect the presence of a waiting room.

Waiting area expectation figure

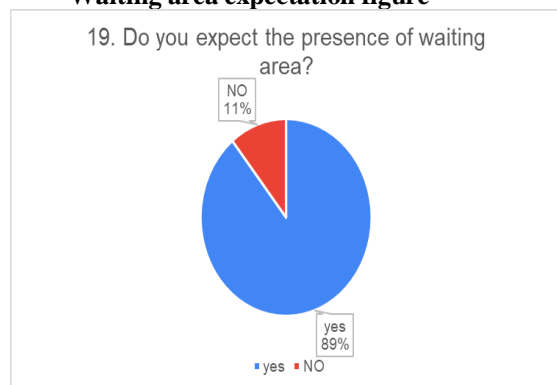


Fig. 2

Facility expectation figure

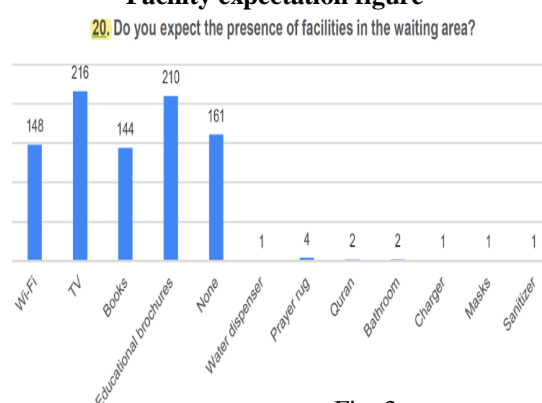


Fig. 3

Figure 3. it shows that majority of the participants expected the presence of television (216), followed by educational brochures (210), Wi-Fi (148), books (144) and 161 of the participants did not expect anything in the Emergency Department. However, when participants were asked about the availability of food and beverages in the ED, 37% (324) expected water, 23% (203) expected coffee, the rest of the results are shown in (Figure 4).

availability of food and beverages (figure 4)

Privacy expectation (figure 5)

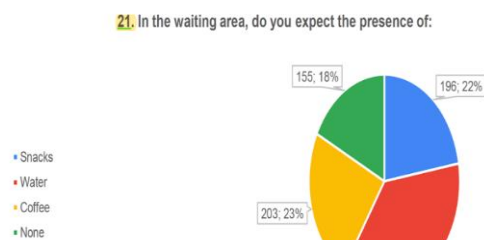


Fig. 4

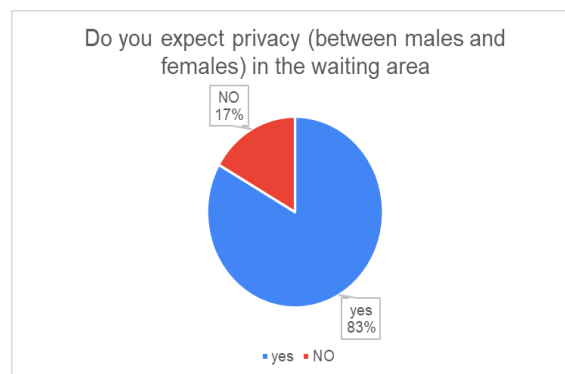


Fig. 5

• Priority expectation (figure 6)

23. Do you expect to be seen before those who came after you?

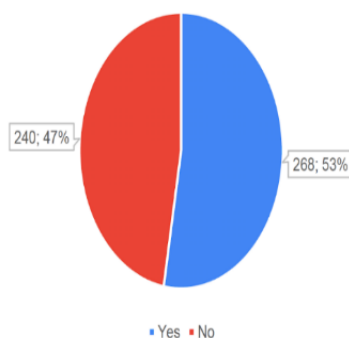


Fig. 6

• expect the health worker (doctor, nurse) in charge of you to introduce themselves (figure 7)

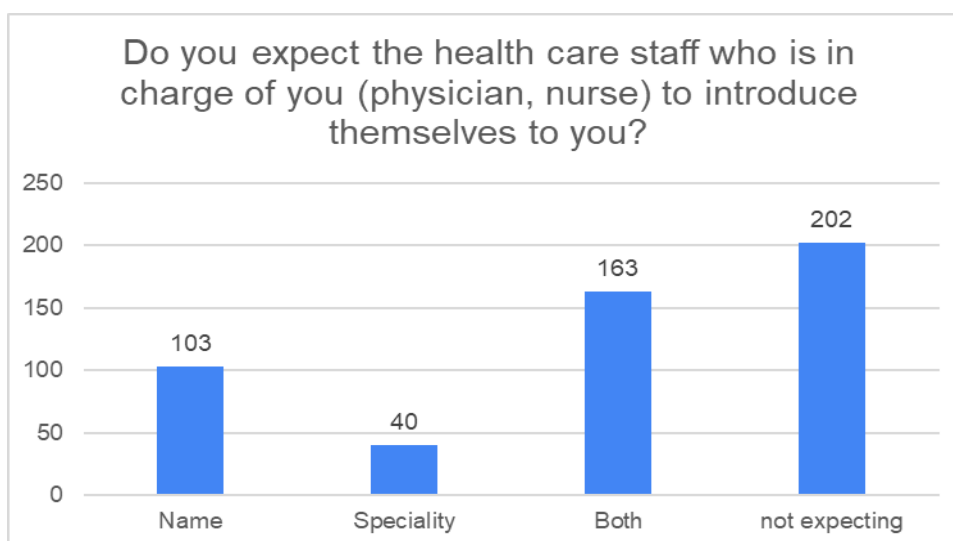


Fig. 7

More than half of our respondents 56% (285) felt that social status and personal circumstances should not change the duration of care, while 44% (223) of respondents felt that it would speed up the duration of care (Figure 8).

• **social status and personal circumstances expectation (figure 8)**

25. Do you expect that once you reveal some social/personal reasons it can affect the time of service?

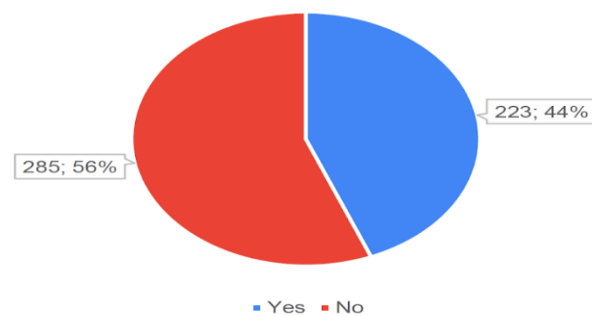


Fig. 8

During the service. When the participants were asked about the clinical impression of the emergency physician after history and physical examination, clarification and explanation, the survey results showed that 62% (313) expected clinical impression and differential diagnosis, 51% (260) expected clarification at a level where they do not have to ask questions, and 62% (316) expected a full explanation of their condition/illness, the rest of the results are shown in (Figure 9, 10,11).

Expectation of possible diagnosis figure 9

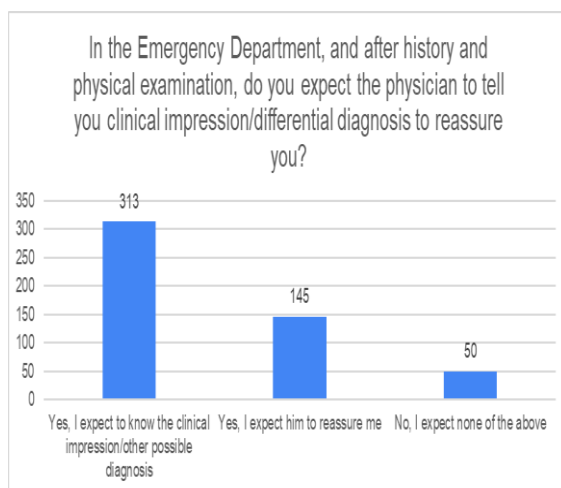


Fig. 9

expectation of clarify process for the patients figure 10



Fig. 10

• **expectation of the time of explanation for the patients (figure 11)**

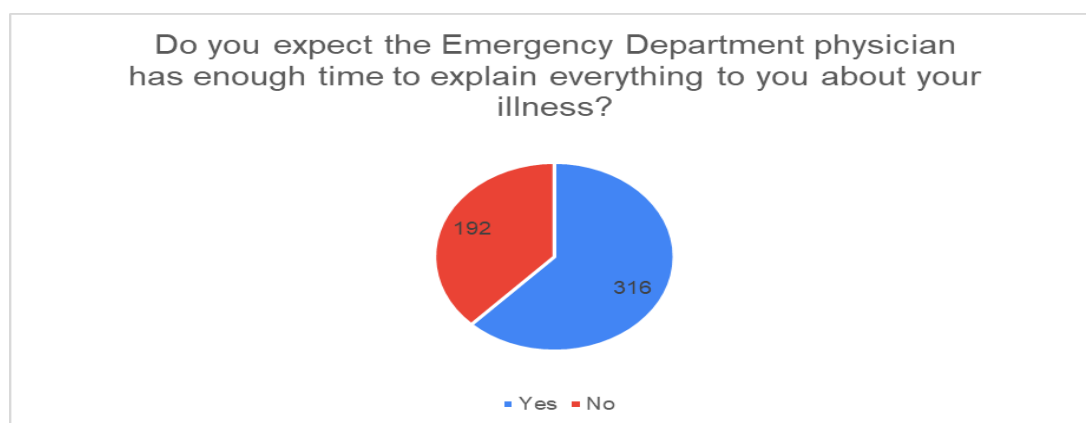


Fig. 11

When respondents were asked if they expected to be diagnosed in the ED, 72% (367) expected to be diagnosed, while 28% (141) did not expect to be diagnosed in the ED.

When respondents were asked if they expected MRI and ultrasound to be available in the emergency department 24 hours, 57% (290) expected MRI to be available and 69% (352) expected ultrasound to be available 24 hours in the emergency department.

The vast majority of the participants expected the premises in the emergency room to be clean 84% (425), moreover 85% (433) of the participants expected the tools,

bed sheets and curtains available in the emergency room to be clean.

More than half of the participants did not believe that the emergency room is free from infection 59% (302), while 41% (206) expected it to be free from infection.

Among respondents who answered the question "Do you expect the route from Emergency Department to all other destinations to be clearly displayed? (e.g., pharmacy, imaging)?" 72% (364) expected the route to all other destinations to be clearly illustrated and 28% (144) did not expect clear directions (Fig. 12).

• **Expectation of the route from ED to other destinations to be clearly displayed . (figure 12).**

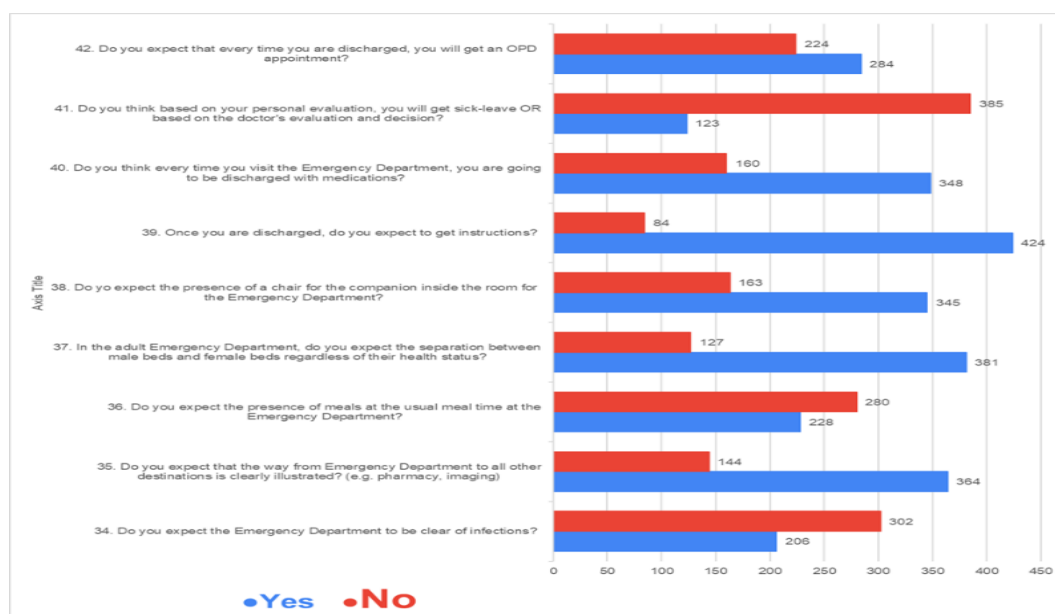


Fig. 12

More than half of participants expected meals to be available at usual meal times 55% (280) and 45% (228) did

not expect to be offered a meal at usual meal times (Figure 13).

• Patients expectation of providing meals in the ED figure 13

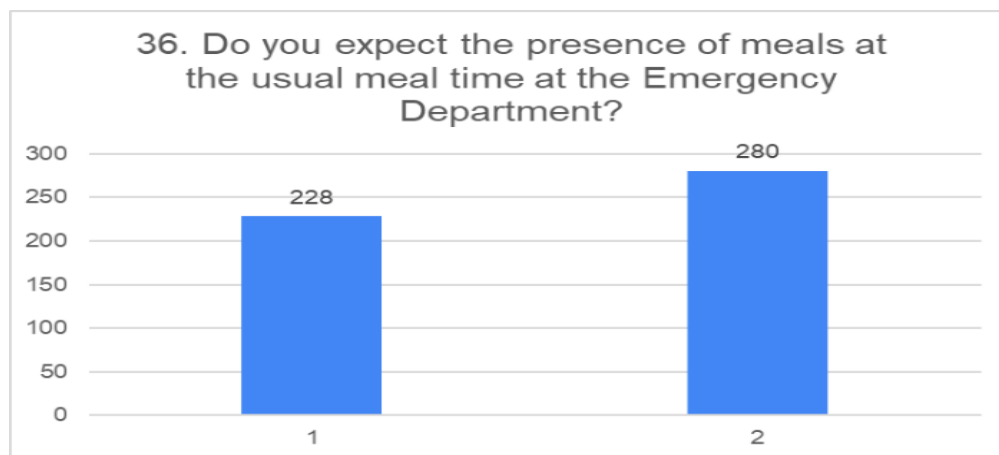


Fig. 13

The majority of participants expected segregation between male and female beds regardless of health status

75% (381), however only 25% (127) did not expect segregation in beds between males and females (Figure 14).

• Patients expectation of separation bed in the ED figure 14

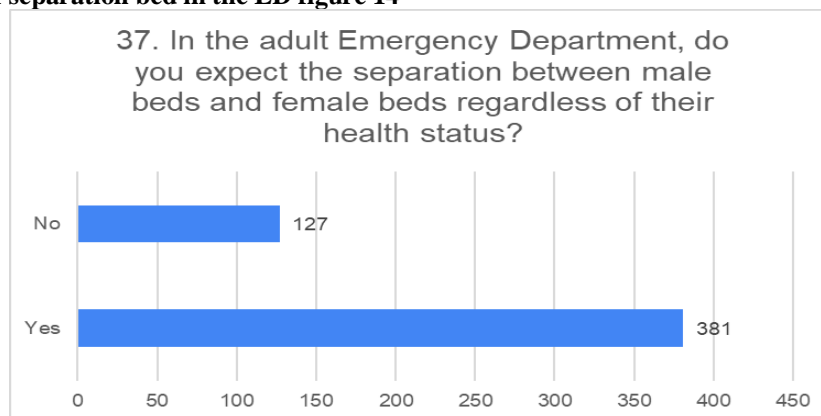


Fig. 14

When respondents were asked if they expected the presence of a chair for the companion within the room at Emergency Department, 68% (345) expected the presence of

a chair, but 32% (163) did not expect a chair for the companion (Figure 15).

• Patients expectation of chair for the companion in the ED (figure 15)

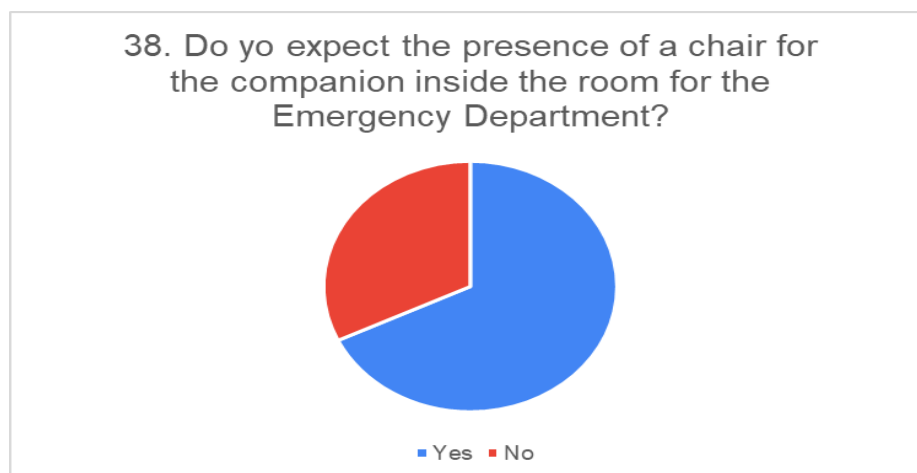


Fig. 15

When discharged from ED, about 83% expected to receive instructions at discharge, while about 17% responded negatively (Figure 16).

While the majority (69%) of respondents expected to be discharged with medication at each visit to the emergency department, the minority (31%) negatively expected (Figure 16).

76% of the participants expected to get sick leave based on the assessment and decision of the doctors, while about 24% expected to get sick leave based on their personal assessment (Figure 16).

This study showed that about 56% of the participants expected to get an OPD appointment after their visit to the emergency room, while about 44% responded negatively (Figure 16).

• Patients expectation during Discharged (figure 16)

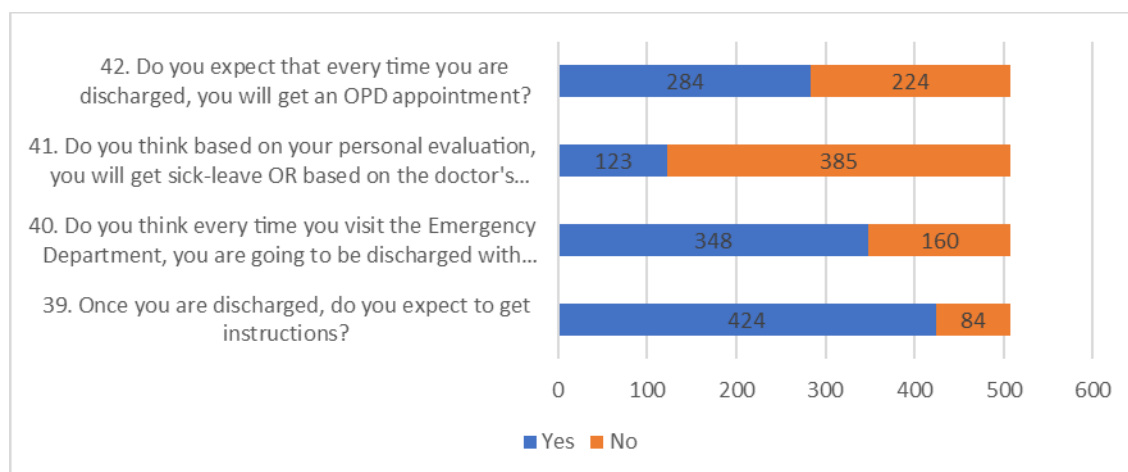


Fig. 16

After being discharged from the ER with an outpatient appointment, about 40% of participants expected to be seen within one month, followed by 39% of those who expected to be seen within one week, 18% within six months, 2% within one year, and about 1% more than one year (Figure 17).

In terms of uptake, about 75% of participants did not expect to be seen based on their personal assessment. This contrasts with about 25% of participants who expected an intake based on their personal assessment (Figure 18).

• Patients expectation of follow up appointment (figure 17)

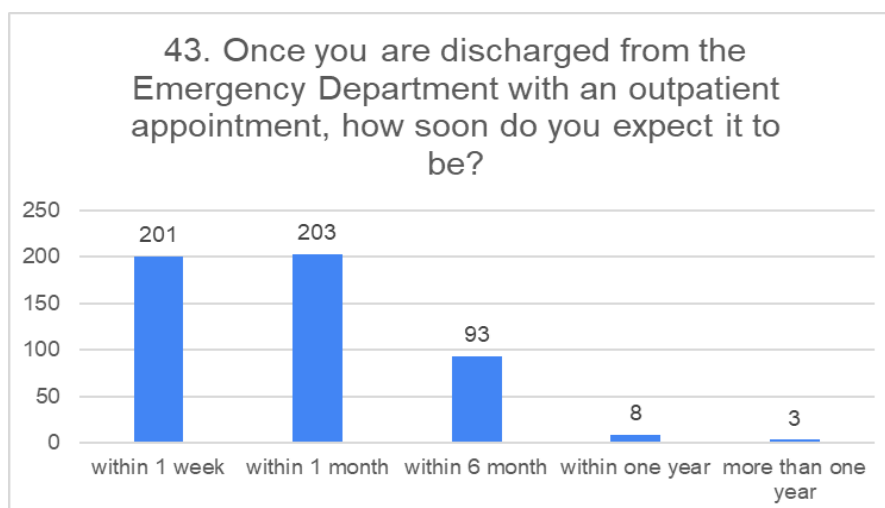


Fig. 17

• Patients expectation to be seen upon admission for further evaluation (figure 18)

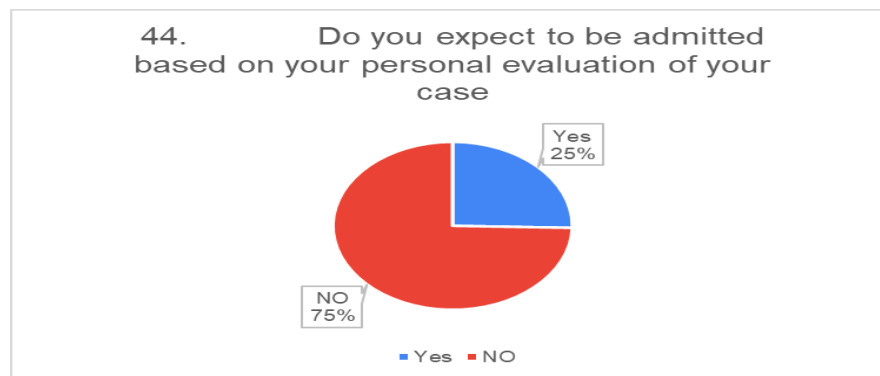


Fig. 18

About 32% of respondents expected to be operated on immediately if surgery was needed, followed by 28% of those who expected to be operated on within twenty-four hours, 24% within 6 hours, and 16% in more than one day (Figure 19).

When asked about expectations regarding the availability of a bed after admission, 46% of participants expected to have a bed within four hours of admission, followed by 20% within twenty-four hours, 16% within six hours, 10% within eight hours, and 8% within twelve hours (Figure 20).

• Patients expectation of the need for Operation figure 19

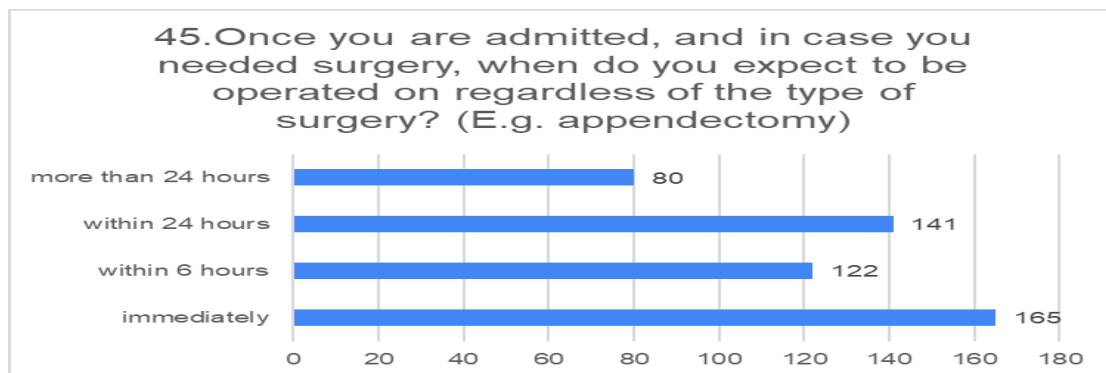


Fig. 9

• Patients expectation of availability of transfer to the ward figure 20

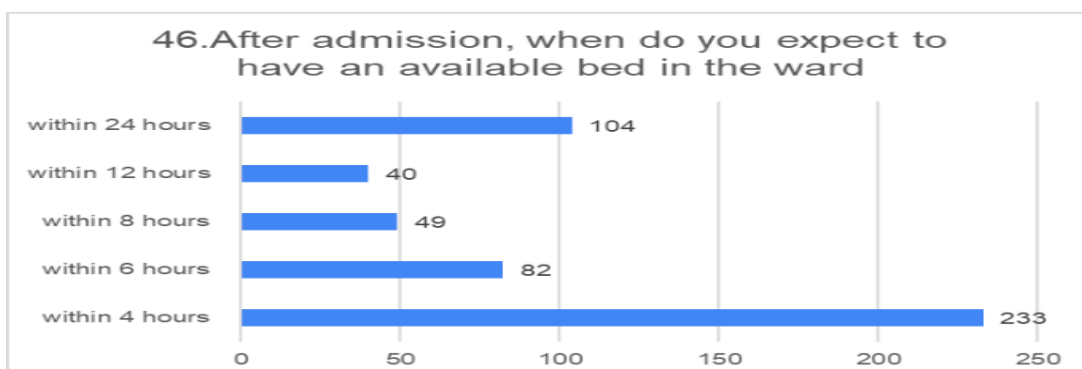


Fig. 20

Regarding expectations of admission to the ICU when needed, most participants, about 74%, expected to get a bed within four hours, 9% within twenty-four hours, 8% within six hours, 5% within eight hours, and 4% within twelve hours (Figure 21).

In this study, the majority of participants, about 89%, expected to be admitted to an emergency department in any hospital when presented with a life-threatening condition, while only about 11% responded negatively (Figure 22).

• Patients expectation of ICU beds availability admission during the admission figure 21

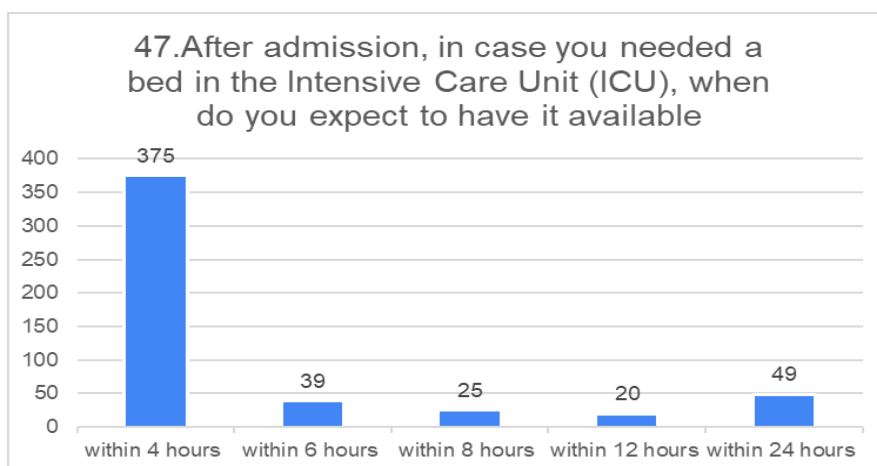


Fig. 21

• Patients expectation of accepting life threatening cases in the ED (figure 22)

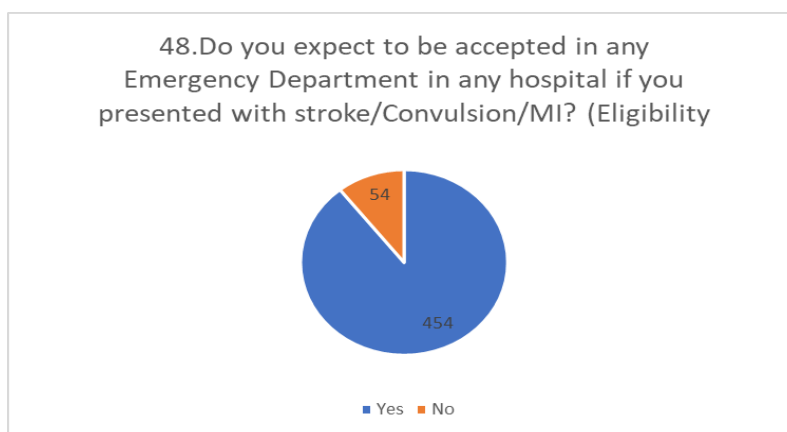


Fig. 22

IV. DISCUSSION

We documented patients' expectations when they visit Emergency Department. Understanding patients' expectations provides us with the keys to improving the quality of care they receive and thus improving their satisfaction. We surveyed five hundred and eight patients and the results can be used to focus on areas for improvement. The study can be generalized to other facilities in the country as the study population includes various hospitals in R1.

Arrival The care provided by the emergency department team should always take into account the patient's expectations and the level of satisfaction with the service with the highest standards (14). In our results, we found that patients' expectations of the emergency department, such as being met by the staff, were 85%, while 75% expected to be transported from the car to the building, by wheelchair, bed, or trolley. When patients reach the emergency department, they should feel that they are being welcomed by someone, as the presence of someone welcoming them is considered positive and beneficial (15). It is also suggested that emergency rooms should implement this practice. (5) This will have an impact on the health and speedy recovery of the

patient (15). Nevertheless, it provides emotional and psychological support to the patient. The absence of someone to accompany the patient in an emergency situation can lead to severe suffering for the patient (16). Since transportation services such as wheelchairs, beds, and trollies are a very important aspect of patient care without regard to the political, economic, social, or military situation, the purpose of emergency medical transportation services is to save lives (18). This will help to safely transport unstable patients with severe respiratory and cardiovascular failure to the emergency room (19). Regarding the expectation of the valet service, 53% of the participants had no expectation of this service. A study conducted in Saudi Arabia in 2014 reported that 15.5% of their participants were satisfied with the parking facilities at their hospital. Although the results suggested that a very small percentage of patients were satisfied with the parking facilities (21). Only when the experience was either very good or very poor did the parking experience appear to influence patient satisfaction. Parking problems, time spent queuing for a bed, finding the right shift were frequently cited as frustrating and negative patient experiences (22).

In addition, our findings revealed that 76% expected to be met by polite, friendly staff within the first ten minutes and 64% did not expect to have a language barrier (ED). Patients were found to perceive the built environment of the hospital as welcoming, and patients identified the need for personal space, a welcoming and homely atmosphere, a supportive environment, good physical layout, access to outdoor areas and the provision of recreational and leisure facilities (23). Physician behavior has an optimistic and constructive moderating influence on the relationship between health care facilities and patient satisfaction. The findings suggest that providing the safest and fastest treatment to physicians and hospital staff is critical to patient satisfaction. In addition, physician behavior has a moderating effect between health care facilities and patient satisfaction (24).

Waiting While waiting is an unavoidable experience and long waiting times are associated with a negative impact on patient experience at ED, understanding and managing patient expectations improves patient satisfaction (25). To improve ED visit and wait experience, we sought to explore and understand our participants' expectations to increase satisfaction rates. We explored what patients expected to find in the emergency department waiting room and what they expected to find while receiving medical services at ED. In this study, we asked our participants about their expectations of the waiting room and the amenities within it. We found that 89% of our study participants expected the presence of a waiting room in which to be seated before receiving medical services. The most commonly expected facilities in the waiting room ED were a television, educational pamphlets, followed by the presence of Wi-Fi. 216, 210 and 148 respectively. When participants were asked about paid or free refreshments or drinks in the ED, 37% expected to find water, 23% expected to find coffee, 22% expected to find snacks and 18% expected to find nothing to eat or drink.

These results suggest that most of our participants had some kind of expectations where they expected a high standard ED waiting room where waiting could be a less distressing experience. A study conducted in King Abdul-Aziz Medical City Emergency Riyadh found that 81% of participants expected educational pamphlets about common diseases in our society such as hypertension and Diabetes Mellitus. These steps can help reduce the perception of time, which can lead to a better ED experience and increase patient satisfaction (24). Another study (Papa L, et al) found that showing educational videos during ED visits was associated with increased patient satisfaction (26).

Because privacy is of critical importance in our society, we asked our participants about their preference for privacy in the waiting rooms and beds at ED. We found that almost the majority (83%) expected a segregated seating area and (75%) expected male and female beds to be segregated in the ED, regardless of their health status, which may be due to cultural and religious reasons in our society where this may lead to a high rate of dissatisfaction after leaving the ED. Triage The Canadian triage system is used in the hospitals that participated in our study, with 5 triage levels, 1 being the most severe, which includes cases that require resuscitation, and 5 being non-urgent (27). When participants were asked

about the priority of who should be seen first in the ED, almost half of them expected that the first arrival in the ED would allow them to see the health care provider first, and not based on the critical or urgent status of the case. Another disappointing finding in this study is that 44% of our participants believed that disclosure of social status and personal circumstances would give them a priority to be seen first by the physician.

There are notable findings in our study that indicate the lack of understanding regarding the ED triage systems used in the selected hospitals in our study. We encourage local emergency departments and authorities to educate and sensitize the public about the priority and triage systems implemented in emergency departments in Saudi Arabia. Attitude Communication between patients and health care staff is important, it can play a key role in patient satisfaction, therefore, when participants were asked about expectations regarding health care staff introductions, 20% expected to know at least the name of the staff, 8% expected to know their specialty, and 32% expected to know both the name and specialty of the health care staff, while most of our participants expected to know nothing about their health care staff. In terms of communication between ED and patients, we found that 62% expected to know the clinical impression and any other differential diagnoses, followed by 28% who expected reassurance from their healthcare worker regarding their illness. In terms of clarification and full explanation, 51% expected everything to be clarified to the extent that they did not need to ask further questions and 62% expected a full explanation. A study (Thompson, et al.) found that one of the top five factors affecting patient satisfaction was the information they were given, highlighting the importance of communication (9). Services Participants was asked about their expectations regarding a diagnosis. The majority of our participants had some sort of expectation of receiving a diagnosis at ED, which correlates with another study that found that the main reason for many participants to seek treatment at ED was to receive a diagnosis for their illness. (28). While some radiologic imaging such as Magnetic Resonance Imaging (MRI) machines are not always available in some emergency departments, the majority (57%) of our participants expected an MRI and (69%) an ultrasound machine to be available 24 hours a day at ED (29).

Cleanliness of admission, where hospitals have a reputation of cleanliness and standard cleaning procedures are routinely performed in most EDs, majority of our study participants believed that the facilities of ED are clean and that the tools, bed sheets and curtains available in the ED are clean (84%) and (85%) respectively. When the participants were asked if the emergency rooms are free from infections, only (41%) believed that the facilities of ED are sterile. This is an alarming finding as studies (Stephen Y et al., Lona Mody et al.) have found that cleaning practices are inadequate and the frequency of hand hygiene is low, which can lead to various microbial organisms on the surfaces of the ED. Another study found several multidrug-resistant microorganisms on the hands of visitors who had recently been to hospitals, which may lead to the acquisition of healthcare-associated pathogens (30, 31, 32). Food and Beverage When participants were asked about the facilities

and services provided in the ED, our results show that more than half (55%) of our participants did not expect the presence of main meals at usual times such as breakfast, lunch, and dinner, and the majority (68%) expected a chair for the attendant to sit in with the patient. studies have suggested that the presence of meals is a common reason for the homeless population visiting ED due to their low socioeconomic status and inability to purchase hot meals (33).

• On discharge.

Most participants (83%) expected to receive instructions at discharge, which is consistent with a study that found that almost (84%) of patients reported receiving verbal instructions (34). About (69%) of the respondents expected to be discharged with medication at each visit to the emergency department. This is in line with a study conducted in Australia (2019) which (73%) of respondents expected to be discharged with medication (34).

In our study, patients showed confidence in physicians' assessment and decision making regarding sick leave prescription and admission. About (76%) of the participants expected to be prescribed sick leave based on physicians' assessment, while (75%) of the participants did not expect to be admitted based on their personal assessment.

This study showed that more than half of the participants expected to get an outpatient appointment after their visit to the emergency department. After being discharged with an outpatient appointment, approximately (40%) of participants expected to be seen within one month, followed by (39%) of those who expected to be seen within one week and (18%) within six months. This variation could be explained by the expectations of the participants and the perception of the acute nature of the cases. Public education about the discrepancy between patients' expectations and the health system's capabilities could improve patient satisfaction (35). In this study, it was evident that almost (32%) of the subjects expected to be operated on immediately if surgery was needed, followed by (28%) of those who expected to be operated on within twenty-four hours. When asked about expectations regarding availability of a bed after admission, almost half of the participants expected to get a bed within four hours of admission. It was shown that half of the patients admitted to the hospital expected to get a bed within two hours, but only 5% achieve this. The same study highlighted that patients have high expectations of immediate accessibility and short waiting times, which are rarely met (34).

Regarding expectations for admission to the ICU when needed, most participants (74%) expected to get a bed within 4 hours. This is consistent with a study conducted in hospitals in Australia and New Zealand in 2019. In terms of time spent on Emergency Department prior to ICU admission, the reported median length of stay on ED varied from 2.5 to 5.1 hours (36). In this study, the majority of participants (89%) expected to be admitted to any emergency department in any hospital when they presented with a life-threatening condition, this was also in line with our expectations

V. CONCLUSION

In conclusion, we found that most of our participants had high expectations of the Emergency Department (ED) and unsatisfactory knowledge of the triage system used in the ED. It was also found that most of our participants expected the presence of separate waiting areas while waiting in ED. During the service, most of our participants expected effective communication with staff, such as introducing themselves, clarifying patients' questions, and reassuring them about their illness. Exploring and managing their expectations can help increase patient satisfaction by correcting and increasing the public's awareness of the principles of ED systems, and basic communication skills such as introducing yourself to health care staff, reassuring patients about their illness, and providing basic amenities in the ED waiting room can help make waiting less stressful.

Limitations In this study, we used a convenient sample of visitors in several hospitals in the southwestern part of Riyadh. During the data collection COVID -19 a pandemic occurred which affected the number of our participants as there was a lockdown in Saudi Arabia which stopped our data collection process.

• **Future area of interest:** This study is a good way to analyze the services provided in the era of infectious disease pandemic and we would suggest that this study can also be replicated in various other centers in the future after the pandemic is over.

REFERENCES

- [1.] Pines JM, Hilton JA, Weber EJ, Allemande AJ, Al Shabina H, Anderson PD, et al. International perspectives on emergency department crowding. *Accad Emerg Med*. 2011;18(12):1358–70.
- [2.] https://www.stats.gov.sa/sites/default/files/population_by_age_groups_and_gender_en.pdf
- [3.] <https://www.moh.gov.sa/en/Ministry/Statistics/book/Documents/1433.pdf>
- [4.] Emergency department statistic unit, King Saud medical city, Riyadh Saudi Arabia
- [5.] Patient expectations of emergency department care: phase II--a cross-sectional survey.†*CJEM*. 2006 May;8(3):148-57 doi:10.1017/s1481803500012872
- [6.] Watt, D., Wertzler, W., & Brannan, G. (2005). Patient expectations of emergency department care: phase I – a focus group study. *CJEM*, 7(01), 12–16. doi:10.1017/s1481803500012872
- [7.] <https://www.england.nhs.uk/ourwork/patient-participation/>
- [8.] Trout A, Magnusson AR, Hedges JR. Patient satisfaction investigations and the emergency department: What does the literature say? *Acad Emerg Med* 2000; 7:695-709.
- [9.] Thompson DA, Yarnold PR, Williams DR, Adams SL. Effects of actual waiting time, perceived waiting time, information delivery, and expressive quality on patient satisfaction in the emergency department. *Ann Emerg Med* 1996; 28:657-65.

- [10.] Thompson DA, Yarnold PR. Relating patient satisfaction to waiting time perceptions and expectations: the disconfirmation paradigm. *Acad Emerg Med* 1995; 2:1057-62
- [11.] Patient expectations and the paradigm shift of care in emergency medicine., *J Emerg Trauma Shock*. 2011 Apr; 4(2):163-7. doi: 10.4103/0974-2700.82199.
- [12.] Seibert T, Veazey K, Leccese P, Druck J. What do patients want? Survey of patient desires for education in an Urban University Hospital. *West J Emerg Med*. 2014; 15:764-9.
- [13.] Alhabdan, N., Alhusain, F., Alharbi, A. et al. Exploring emergency department visits: factors influencing individuals' decisions, knowledge of triage systems and waiting times, and experiences during visits to a tertiary hospital in Saudi Arabia. *Int J Emerg Med* 12, 35 (2019).
- [14.] Qidwai W, Ali SS, Baqir M, Ayub S. Patient expectations from an emergency medical service. *J Ayub Med Coll Abbottabad*. 2005;17(3):3-6.
- [15.] Barreto M da S, Garcia-Vivar C, Matsuda LM, Angelo M, Oliveira MLF de, Marcon SS. Presence of the family during emergency care: Patient and family living. *Texto contexto enferm*. 2019;28.
- [16.] Soleimanpour H, Tabrizi JS, Jafari Rouhi A, Golzari SE, Mahmoodpoor A, Mehdizadeh Esfanjani R, et al. Psychological effects on patient's relatives regarding their presence during resuscitation. *J Cardiovasc Thorac Res*. 2017;9(2):113-7.
- [17.] Mekitarian FFP, Angelo M. Family's presence in the pediatric emergency room: opinion of health professional. *Rev Paul Pediatr*. 2015;33(4):460-6
- [18.] Gogu M-C. Developing emergency medical transportation services for a turbulent future. *Glob J Sociol Curr Issu*. 2018;8(1):13-21.
- [19.] Sethi D, Subramanian S. When place and time matter: How to conduct safe inter-hospital transfer of patients. *Saudi J Anaesth*. 2014;8(1):104-13.
- [20.] Blakeman TC, Branson RD. Inter- and intra-hospital transport of the critically ill. *Respir Care*. 2013;58(6):1008-23.
- [21.] Abdalelah Saifuddin Saaty1 and Dr. Zaid Ahmad Ansari. Patient's Satisfaction from the Infrastructure Facilities of the Government Hospitals in Saudi Arabia. *MAGNT Research Report*. 2014 Jan;2 (6)(1444-8939):531-9.
- [22.] Mason A. Hospital Car Parking: The Impact of Access Costs. Centre for Health Economics, University of York, UK: Anne Mason; 2010.
- [23.] Douglas CH, Douglas MR. Patient-friendly hospital environments: exploring the patients' perspective. *Health Expect*. 2004;7(1):61-73.
- [24.] Manzoor F, Wei L, Hussain A, Asif M, Shah SIA. Patient satisfaction with health care services; An application of physician's behavior as a moderator. *Int J Environ Res Public Health*. 2019;16(18):3318
- [25.] Bleustein C, Rothschild DB, Valen A, Valatis E, Schweitzer L, Jones R. Wait times, patient satisfaction scores, and the perception of care. *Am J Manag Care*. 2014;20(5):393-400.
- [26.] Papa L, Seaberg DC, Rees E, Ferguson K, Stair R, Goldfeder B, et al. Does a waiting room video about what to expect during an emergency department visit improve patient satisfaction? *CJEM*. 2008; 10:347-54.
- [27.] Beveridge R, Clarke B, Janes L, Savage N, Thompson J, Dodd G: Canadian emergency department triage and acuity scale: implementation guidelines. *Canadian Journal of Emergency Medicine*. 1999, 1 (suppl 3): S1-24.
- [28.] Gerolamo AM, et al. Ann Emerg. Patient-Identified Needs Related to Seeking a Diagnosis in the Emergency Department. 2018 Sep;72(3):282-288. doi:10.1016/j.annemergmed.2018.02.021
- [29.] Ginde AA, Foianini A, Renner DM, Valley M, Camargo CA, Jr. Availability and quality of computed tomography and magnetic resonance imaging equipment in U.S. emergency departments. *Acad Emerg Med*. 2008;15(8):780-783.
- [30.] Stephen Y. Liang, Madison Riethman, Josephine Fox *Emerg Med Clin North Am*. infection Prevention for the Emergency Department: Out of Reach or Standard of Care. 2018 Nov; 36(4): 873-887. Published online 2018 Sep 6. doi: 10.1016/j.emc.2018.06.013
- [31.] Lona Mody, Laraine L Washer, Keith S Kaye, Kristen Gibson, Sanjay Saint, Katherine Reyes, Marco Cassone, Julia Mantey, Jie Cao, Sarah Altamimi, Mary Perri, Hugo Sax, Vineet Chopra, Marcus Zervos, Multidrug-resistant Organisms in Hospitals: What Is on Patient Hands and in Their Rooms? *Clinical Infectious Diseases*, Volume 69, Issue 11, 1 December 2019, Pages 1837-1844, (hand contamination)
- [32.] Angela M Gerolamo 1, Annemarie Jutel 2, Danielle Kovalsky 3, Alexandra Gentsch 3, Amanda M B Doty 3, Kristin L Rising 4 *American Journal of Infection Control*, Volume 47, Issue 7, July 2019, Pages 854. <https://doi.org/10.1016/j.ajic.2018.08.028>
- [33.] Rodriguez RM, Fortman J, Chee C, Ng V, Poon D. Food, shelter and safety needs motivating homeless persons' visits to an urban emergency department. *Ann Emerg Med*. 2009 May;53(5):598-602. doi: 10.1016/j.annemergmed.2008.07.046. Epub 2008 Oct 5. PMID: 18838193.
- [34.] Leahanna Stevens , Margaret Fry , Michael Browne , Arthit Barnes .Fast track patients' satisfaction, compliance and confidence with emergency department discharge planning
- [35.] Timothy Cooke , Denise Watt, William Wertzler, Hude Quan. Patient expectations of emergency department care: phase II--a cross-sectional survey
- [36.] Shane Nanayakkara , Heike Weiss , Michael Bailey , Allison van Lint , Peter Cameron , David Pilcher .Admission time to hospital: a varying standard for a critical definition for admissions to an intensive care unit from the emergency department