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Research Article

**ASSESSMENT OF THE PERCEPTION AND SATISFACTION OF THE  
GENERAL PUBLIC OF THE NORTHERN BORDER REGION OF  
SAUDI ARABIA TOWARDS THE RESPONSIBILITIES AND  
SERVICES PROVIDED BY THE PHARMACISTS****Badriah Ghadeer Alshammari<sup>1</sup>, Mohd. Imran<sup>\*2</sup>, Abida<sup>2</sup>, Ishraga Eltayeb M. A-Elbasit<sup>3</sup>**<sup>1</sup>Faculty of Pharmacy, Northern Border University, Rafha - 91911, P.O. BOX 840, Kingdom of Saudi Arabia.<sup>2</sup>Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Northern Border University, Rafha - 91911, P.O. BOX 840, Kingdom of Saudi Arabia.<sup>3</sup>Department of Basic Health Sciences, Faculty of Pharmacy, Northern Border University, Rafha - 91911, P.O. BOX 840, Kingdom of Saudi Arabia.

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**Abstract:**

*The objective of this study was to assess the general public's perception and satisfaction on the roles, responsibilities and services provided by pharmacists in the Northern Border Region of Saudi Arabia. This cross-sectional study using a pretested and structured questionnaire was carried out from October 1, 2016 to January 31, 2017 among the general public (N = 600) of the Northern Border Region of the Kingdom of Saudi Arabia. The questionnaire was developed according to the scientific literature published worldwide. The questionnaire included questions related to the demographics of the participants, perception related questions and satisfaction related questions. A total of 600 participants were studied in this study. It was observed that the participants had a good level of perception regarding the roles and responsibilities of the pharmacists. The level of satisfaction with the services provided by the pharmacists was moderate to good. It was observed that about 34% of the population were not interested in discussing matters related to drugs with their pharmacist; about 50% of the participants consider a pharmacist a mere vendor / dispenser of drugs; and about 20% of the population did not provide the response with surety for questions related to perception and satisfaction. It has been concluded that the public of the Northern Border Region of Saudi Arabia has a good level of perception regarding the roles and responsibilities of the pharmacists. The level of satisfaction with the services provided by the pharmacists was moderate to good, and needs improvement. There is a need to organize pharmacy related seminars / workshops / awareness programs to improve the knowledge of the public of the studied region with respect to the perception of the pharmacy profession.*

**Keywords:** Perception, satisfaction, general public, Saudi Arabia, pharmacist.**Corresponding author:****Mohd. Imran,**

Department of Pharmaceutical Chemistry,  
Faculty of Pharmacy, Northern Border University,  
Rafha 91911, P.O. Box 840,  
Kingdom of Saudi Arabia.

E-mail: [imran\\_inderlok@yahoo.co.in](mailto:imran_inderlok@yahoo.co.in)

Mobile Number: +966599577945

QR code



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**INTRODUCTION:**

Pharmacy profession is considered as a reliable profession [1]. A pharmacist is an integral part of the health care team and is supposed to provide better pharmaceutical care to the patient [2-8]. A pharmacist plays a significant role in patient counseling by providing basic drug information to the patient in terms of appropriate use of a drug, route of drug administration, dosage, adverse effects, storage and drug interactions [9]. The essential component of the quality of health care services is patient satisfaction which is directly related to the skills and knowledge of the pharmacist [10, 11]. Patient's perception towards the pharmaceutical services is an important area of concern as it affects the patient's awareness and attitude toward the effectiveness and safety of drugs as well as the health care service. It has been realized that patients' perception and psychological acceptance of the medication provided is the first component of medical therapy [12]. Accordingly, many reports have been published relating to the patients' perception and satisfaction towards the services provided by pharmacists worldwide [13-33]. The results of these studies varied, wherein some demonstrating a good level of perception and satisfaction while others indicating a lot of areas for improvement (as expected by the consumers). These types of studies have helped the pharmacists, organizations and regulatory bodies in modifying the extent, range and quality of services provided depending on the customer's needs and views. They also opened up the areas for improvement in patient/customer and pharmacist relationship. To the best of our knowledge, there is no published report on the subject matter in the Northern Border Region of Saudi Arabia. Accordingly, this study was conducted with the objective to assess the general public's perception and satisfaction on the roles, responsibilities and services provided by pharmacists in Northern Border Region of Saudi Arabia with the expectation that this study will help in the advancement of the pharmacy services in the Northern Border Region of Saudi Arabia and the

outcome of this study will help to improve quality of pharmaceutical services at the Northern Border Region of Saudi Arabia.

**METHODS:**

This cross-sectional study using a pretested and structured questionnaire was carried out from October 1, 2016 to January 31, 2017 among the general public (N = 600) of the Northern Border Region of the Kingdom of Saudi Arabia. The questionnaire was developed according to the scientific literature and using the similar reports published worldwide. The questionnaire included questions related to the demographics of the participants, perception related questions and satisfaction related questions. The inclusion criteria were that participants should be a Saudi resident of the Northern Border Region of the Kingdom of Saudi Arabia. All participants should be at least 18 years and had to sign a written consent. To avoid double counting of participants, each participant was provided with a unique identification number. The identity of the participants was anonymized through the process of data analysis. The questionnaire was provided to each participant in English and/or Arabic language. The questionnaire was provided to the participants at the place of their choice. Informed consent was obtained from the participants after the study protocol was explained to them. The participants were assured of the anonymity and confidentiality of the information. This study was a cross-sectional epidemiological study using a pretested and structured questionnaire and did not involve any risk to the participants. The participants were just asked to fill the questionnaire about their awareness regarding the medication use during pregnancy. Accordingly, this study did not require a review board approval.

**RESULTS:**

A total of 600 participants were studied in this study. The demographic data of the studied population is provided in Table 1.

Table 1: Demographics of participants

Parameter	No. (%) (N = 600)
<b>Gender</b>	
Male	140 (23.33)
Female	460 (76.66)
<b>Age Group</b>	
18-30	412 (68.66)
31-45	147 (24.50)
Above 45	41 (6.83)
<b>Marital Status</b>	
Single	293 (48.83)
Married	307 (51.16)
<b>Educational status</b>	
Illiterate	12 (2.0)
Primary School	22 (3.66)
Preparatory	180 (30.0)
Secondary	135 (22.50)
Higher Education	251 (41.83)
<b>Employment</b>	
Employee	100 (16.66)
Self Employed	50 (8.33)
Not working	117 (19.50)
Student	288 (48.0)
Unspecified	45 (7.5)
<b>Number of visits to pharmacy in the last year</b>	
1	83 (13.83)
2-3	188 (31.33)
4-5	95 (15.83)
6-10	76 (12.66)
More than 10	158 (26.33)

According to the demographic data, 23.33% participants were male and 76.66% were female. Most of the participants were young people ranging from 18 years to 45 years. There was almost equal participation from married and unmarried participants. The data also revealed that 41.83% of the participants had higher education; 22.50% participants had secondary education; 30%

participants had preparatory education; 3.66% participants had primary school education; and only 2% of the participants were illiterate. The majority of the participants were students (48%); 16.66% were employees; 8.33% were self-employed; 19.50% were not working; and 7.5% participants did not specify their occupation. All of the participants visited a pharmacy at least once.

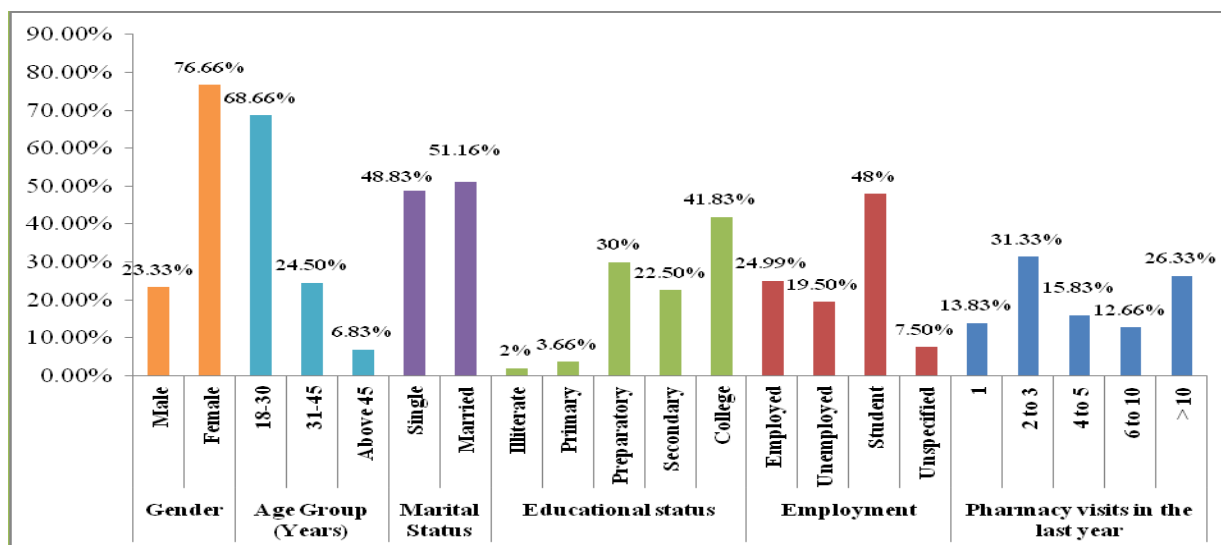


Fig 1: Demographics of participants

The response to perception related questions from the participants is provided in Table 2. The data revealed that more than 90% of the participants agree that pharmacists are an expert in matters related to drugs; more than 83% participants agree that the pharmacist is an expert in suggesting treatment for minor ailments; about 40% of the participants disagree that the pharmacist is a mere vendor/dispenser of drugs, and about 20% were not sure about it; about 68% of the participants agree that the pharmacist is an integral part of the health care system like physicians and nurses, while only about 9% participants disagree with it and about 22% were not sure about it; about 66% participants agree that the pharmacist could provide extended services like health screening services, bp monitoring, blood sugar monitoring mainly in the community pharmacies, while more than 9% disagree and 24% were not sure about it; about more than 74% participants agree that they would seek advice from the pharmacist (community pharmacist) if the condition is not serious enough to visit a physician, while about 6% disagree and

about 20% were not sure about it; about more than 80% participants agree that the pharmacist should check their prescriptions for accuracy in terms of drug name, dose, any problem in taking the medications together, etc. before dispensing the medication, while less than 3% disagree with it and about 17% were not sure about it; about more than 81% participants agree that the pharmacist should let them know how to use their medication and warn them of any possible side effects and how to prevent it, while about 3% disagree and about 15% were not sure about it; about more than 75% participants agree that the pharmacist should answer their drug related questions, while about 5% disagree and about 20% were not sure about it; about more than 72% agree that they trust the pharmacist for the information on the use of medicines, while about 5% disagree and about 22.16% were not sure about it; about more than 73% participants agree that the pharmacist should advise patients on general health issues other than about drugs, while about 7% disagree and about 19.16% were not sure about it

**Table 2: Response to perception related questions (N = 600)**

S. No.	Questions	Strongly Agree No. (%)	Agree No. (%)	Not sure No. (%)	Disagree No. (%)	Strongly disagree No. (%)
1	<b>I consider the pharmacists as an expert in matters related to drugs</b>	330 (55.0)	215 (35.83)	47 (7.83)	7 (1.16)	1 (0.16)
2	<b>The pharmacist is an expert in suggesting treatment for minor ailments</b>	236 (39.33)	265 (44.16)	80 (13.33)	13 (2.16)	6 (1.0)
3	<b>Pharmacists as a mere vendor/dispenser of drugs</b>	108 (18.0)	136 (22.66)	115 (19.16)	145 (24.16)	96 (16.0)
4	<b>Pharmacists as an integral part of the health care system like physicians and nurses</b>	203 (33.83)	206 (34.33)	136 (22.66)	53 (8.83)	2 (0.33)
5	<b>Pharmacists could provide extended services like health screening services; BP monitoring, Blood sugar monitoring mainly in the community pharmacies</b>	172 (28.66)	228 (38.0)	144 (24.0)	46 (7.66)	10 (1.66)
6	<b>I would seek advice from the pharmacist (community pharmacist) if the condition is not serious enough to visit a physician</b>	208 (34.66)	237 (39.5)	119 (19.83)	26 (4.33)	10 (1.6)
7	<b>The pharmacist should check my prescriptions for accuracy in terms of drug name, dose, any problem in taking the medications together, etc. before dispensing the medication</b>	314 (52.33)	169 (28.16)	102 (17.0)	14 (2.33)	1 (0.16)
8	<b>The Pharmacist should let me know how to use my medication and warn me of any possible side effects and how to prevent it</b>	298 (49.66)	192 (32.0)	90 (15.0)	20 (3.33)	0
9	<b>The pharmacist should answer my drug related questions</b>	249 (41.50)	203 (33.83)	120 (20.0)	27 (4.50)	1 (0.16)
10	<b>I trust the pharmacist for the information on the use of medicines</b>	166 (27.66)	269 (44.83)	133 (22.16)	29 (4.83)	3 (0.50)
11	<b>Pharmacists should advise patients on general health issues other than about drugs</b>	257 (42.83)	184 (30.66)	115 (19.16)	38 (6.33)	6 (1.0)

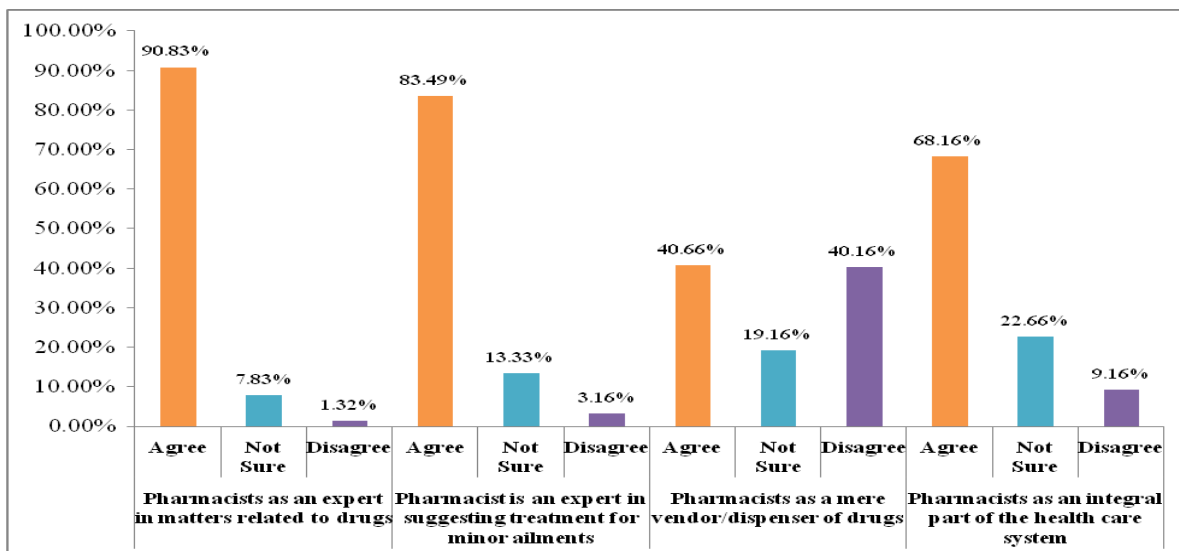


Fig 2: Response to perception related questions

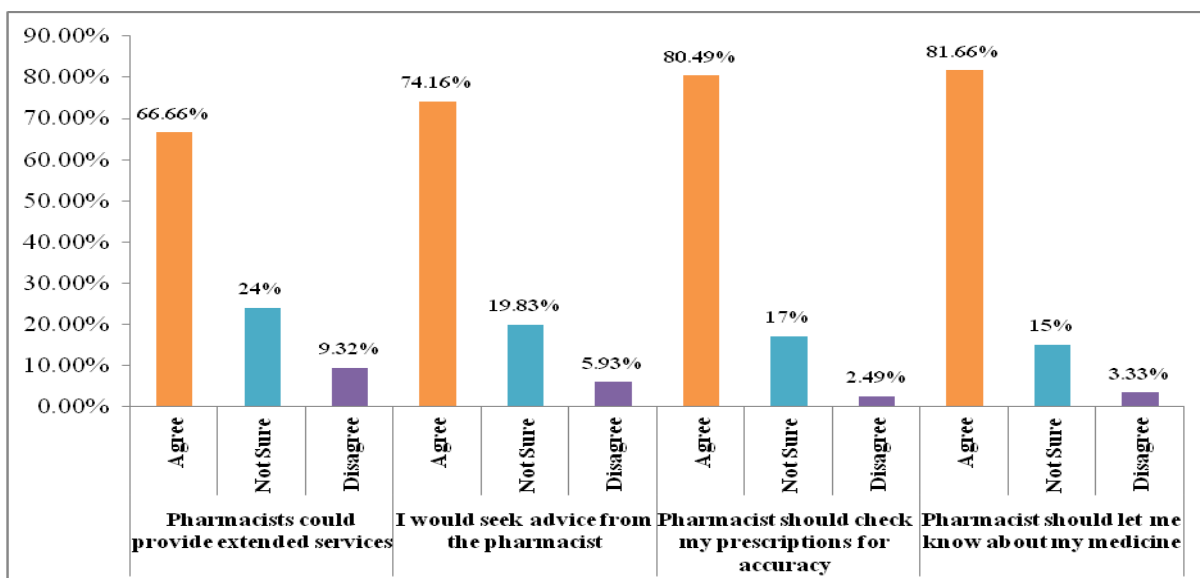


Fig 3: Response to perception related questions

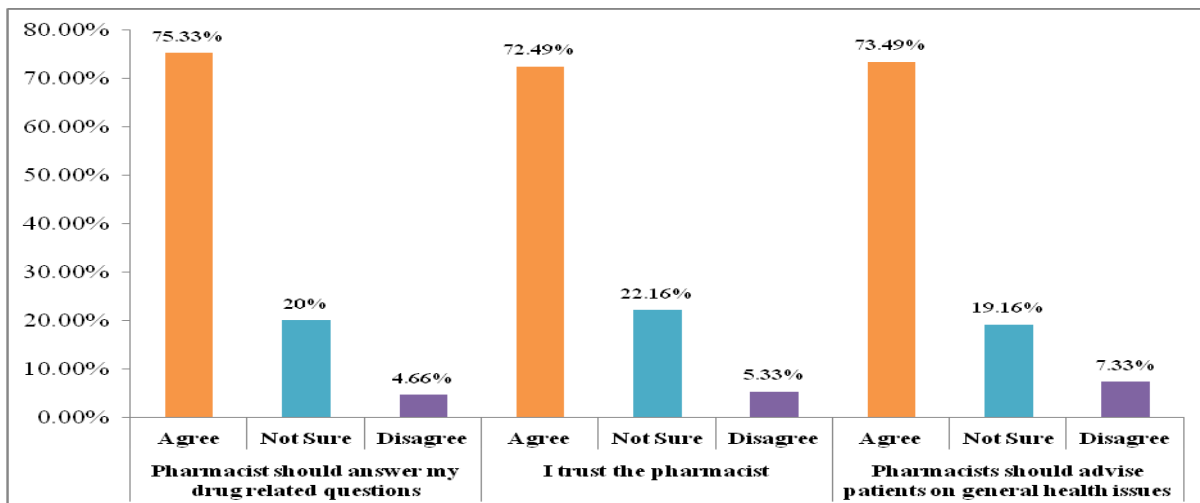


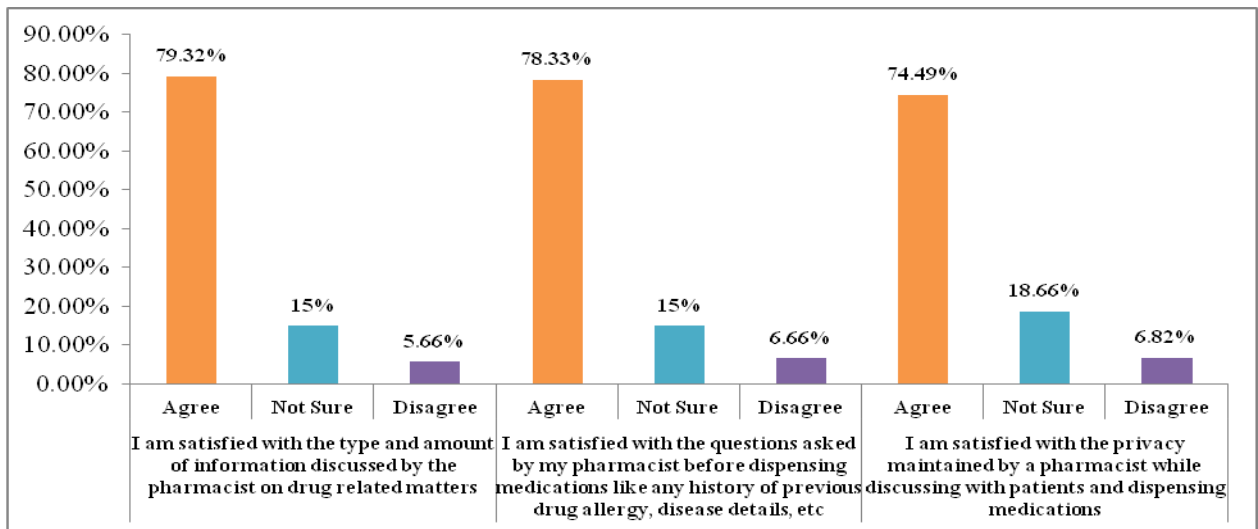
Fig 4: Response to perception related questions

The response to satisfaction related questions from the participants is provided in table 3. The data revealed that more than 79% participants were satisfied with the type and amount of information discussed by the pharmacist on drug related matters, while about 6% were not satisfied and about 15% were not sure about it; about more than 78% participants were satisfied with the questions asked by their pharmacist before dispensing medications like any history of previous drug allergy, disease details, etc., about 7% were not satisfied and about 15% were not sure about it; about more than 75% participants were satisfied with the privacy maintained by their pharmacist while discussing with patients and dispensing medications, while about 7% were not satisfied and about 18.66% were not sure about it; about more than 71% participants were satisfied with the level of knowledge that pharmacist demonstrated in drug related issues, while about 9% were not satisfied and about 19.50% were not sure about it; about more than 73% of the participants were satisfied

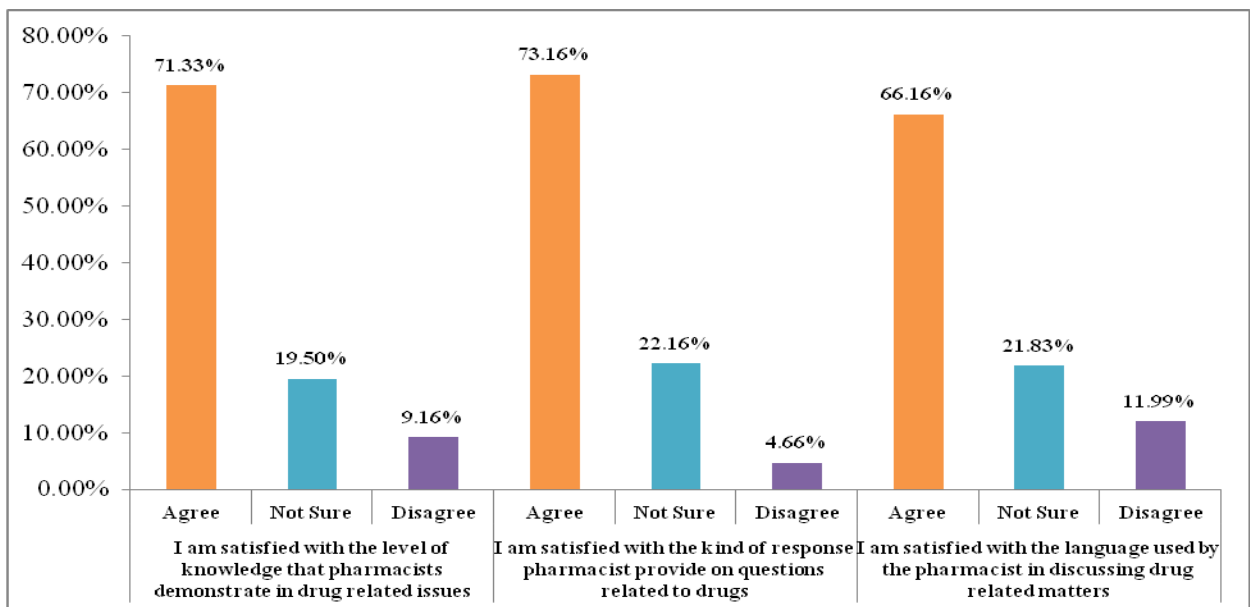
with the kind of response pharmacist provided for questions related to drugs, while about 4.5% were not satisfied and about 22.16% were not sure about it; about more than 66% participants were satisfied with the language used by the pharmacist in discussing drug related matters, while about 12% were not satisfied and about 21.83% were not sure about it; about more than 64% participants were satisfied with the amount of time spent by their pharmacist with each patient, while about 8% were not satisfied and about 27.66% were not sure about it; about more than 70% participants were satisfied with the relationship that the pharmacist tried to maintain with the patients, while about 6% were not satisfied and about 23.50% were not sure about it; about more than 77% participants were satisfied with the kind of information the pharmacist provided on disease and other health issues along with information on drugs, while about 6% were not satisfied and about 16.83% were not sure about it.

**Table 3: Response to satisfaction related questions (N = 600)**

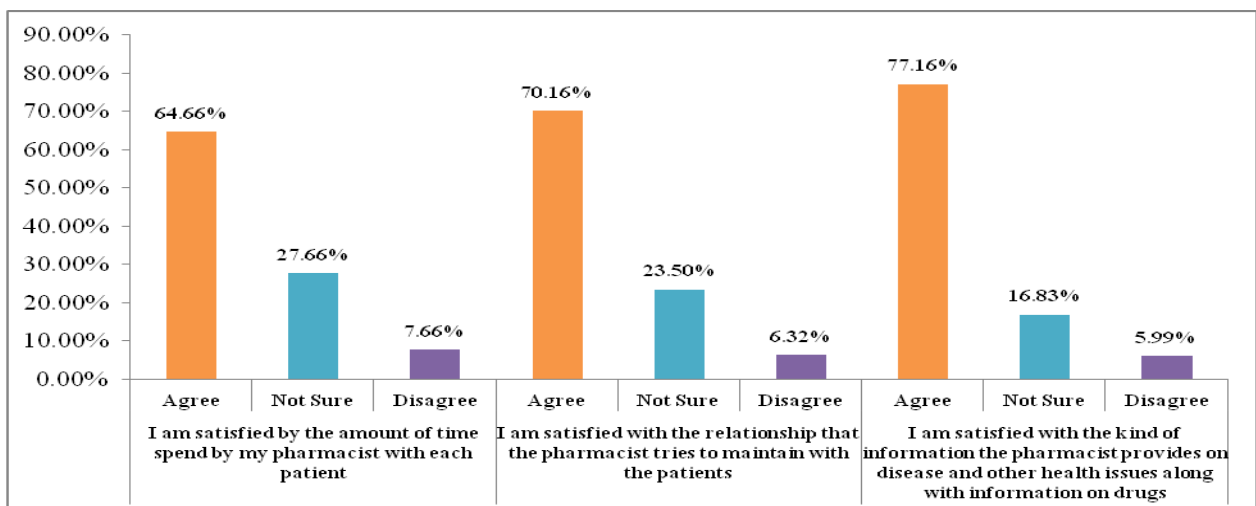
S.No.	Questions	Strongly Agree No. (%)	Agree No. (%)	Not sure No. (%)	Disagree No. (%)	Strongly disagree No. (%)
1	I am satisfied with the type and amount of information discussed by the pharmacist on drug related matters	226 (37.66)	250 (41.66)	90 (15.0)	31 (5.16)	3 (0.50)
2	I am satisfied with the questions asked by my pharmacist before dispensing medications like any history of previous drug allergy, disease details, etc.	237 (39.50)	233 (38.83)	90 (15.0)	31 (5.16)	9 (1.50)
3	I am satisfied with the privacy maintained by a pharmacist while discussing with patients and dispensing medications	220 (36.66)	227 (37.83)	112 (18.66)	37 (6.16)	4 (0.66)
4	I am satisfied with the level of knowledge that pharmacists demonstrate in drug related issues	156 (26.0)	272 (45.33)	117 (19.50)	48 (8.0)	7 (1.16)
5	I am satisfied with the kind of response pharmacist provide on questions related to drugs	156 (26.0)	283 (47.16)	133 (22.16)	23 (3.83)	5 (0.83)
6	I am satisfied with the language used by the pharmacist in discussing drug related matters	151 (25.16)	246 (41.0)	131 (21.83)	67 (11.16)	5 (0.83)
7	I am satisfied by the amount of time spend by my pharmacist with each patient	173 (28.83)	215 (35.83)	166 (27.66)	39 (6.50)	7 (1.16)
8	I am satisfied with the relationship that the pharmacist tries to maintain with the patients	162 (27.0)	259 (43.16)	141 (23.50)	34 (5.66)	4 (0.66)
9	I am satisfied with the kind of information the pharmacist provides on disease and other health issues along with information on drugs	250 (41.66)	213 (35.50)	101 (16.83)	35 (5.83)	1 (0.16)



**Fig 5: Response to satisfaction related questions**



**Fig 6: Response to satisfaction related questions**



**Fig 7: Response to satisfaction related questions**

## DISCUSSION:

A pharmacist is supposed to work closely with a patient to ensure the drug safety and efficacy. Determining consumer's perception of pharmacist provided services offers a perspective through which standards of care can be determined, enabling the pharmacist's role to be judged for overall quality and satisfaction. The present study was conducted among the general public of Northern Border Region of the Kingdom of Saudi Arabia to assess the perception and satisfaction regarding the roles and responsibilities of pharmacists in this region.

A total of 600 participants were studied in this study. Most of the participants were educated young females. It has been observed that the participants had a good level of perception regarding the roles and responsibilities of the pharmacists. Most of the participants agreed that the pharmacist is an expert in matters related to drugs, suggesting treatment for minor ailments, and is an integral part of the health care system. It is evident from the data that consumers are clear about the primary responsibilities of a pharmacist. The majority of the people expected that the pharmacist should let them know how to use medication and warn of any side effect and how to prevent it.

The level of satisfaction with the services provided by the pharmacists was moderate to good. It has been observed that about 34% of the population were not interested in discussing matters related to drugs with their pharmacist. It has also been observed that the pharmacist did not spend sufficient amount of time with the patient during dispensing of the drug. An interesting finding was that almost 50% of the participants consider a pharmacist a mere vendor / dispenser of drugs. However, the majority of the participants consider a pharmacist as an integral part of the healthcare team, which is an encouraging finding. It means that the work of a pharmacist in the Northern Border Region of the Kingdom is recognized by the population. It has also been observed that about 20% of the population did not provide the response with surety for questions related to perception and satisfaction. Accordingly, it is believed that conduction of some seminar / workshop / awareness program will improve the knowledge of the public of the studied region with respect to the perception of the pharmacy profession.

There were some limitation of this study. The results related to perception may be encouraging due to the fact that most of the participants were educated young females. This study is silent about the perception of the majority of the illiterate population and old age population of the Northern

Border Region of the Kingdom of Saudi Arabia. The perception and satisfaction of the public with regard to pharmacists in general was assessed without segregation as community pharmacists and hospital pharmacists. Hence an explicit understanding of the study parameters in relationship with the two main segments of pharmacists could not be achieved.

## CONCLUSION:

It has been concluded that the public of the northern border region of Saudi Arabia has a good level of perception regarding the roles and responsibilities of the pharmacists. The level of satisfaction with the services provided by the pharmacists was moderate to good, and needs improvement. There is also a need to organize pharmacy related seminars / workshops / awareness programs to improve the knowledge of the public of the studied region with respect to the perception of the pharmacy profession. Keeping in mind the limitation of the study, a study in a large population .e.g. in all age groups, all gender, and all type of educational background is recommended.

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