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Knowledge and awareness regarding adverse drug effect in Dhaka, Bangladesh

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Abstract

The Human body has been suffering from various diseases since the human civilization was formed. Treatment and prevention have been designed for impunity. Drug and medicine has been playing a significant role against diseases as well as virus, bacteria, fungus and toxic substance. But despite of the advantages, drugs are providing side effects to the human body due to its overdose and safe uses. A door-to-door survey was conducted among the people to obtain their knowledge and awareness about drug adverse effects. Several questions are used to collect the data. People replied their responses about awareness and knowledge regarding adverse drug effects. The data reveals the percentage as a result.

Keywords: Side effect, survey, awareness, data, ADRs

Introduction

In the world, adverse drug reaction is one of the main reason for illness and death. Many people are suffering from adverse drug effects in Dhaka, Bangladesh. So, those sufferings are creating financial and health issue accordingly. The World Health Organization (WHO) illustrated that adverse drug reactions (ADRs) are perilous for humans. Excessive intake of diclofenac sodium can be the best example. A vast majority of pharmacists and doctors are not aware of drug side effects. Many pharmacist and physician don't know how they can record. So, they are looking for best training period.

When the drug administration approves a drug in market, the authentic profile about adverse effects are not maintained due to the proper clinical trial and examination and public responses. Clinical trials for new drugs need a lot of people of different ages and a concise period. Many drugs for example: morphine, are removed from the market due to their sedative properties and adverse effects. However, according to The World Health Organization (WHO), medicine take knows well about drug benefit and harmful impact.

Materials and Methods

Location

General civilian in Dhaka, Bangladesh

Population

Local inhabitants in Dhaka, Bangladesh

Study Model

A survey was applied in Dhaka, Bangladeshi. Data were collected from 1st January 2023 to 11th August 2023. The Data collection process required around 222 days. Data were gathered via some questionnaires. The Survey questionnaires were about awareness and opinion. The form was shown to the participants and permission was taken from them before collecting data. The questionnaires were uploaded as a Google form and shared via various social media.

Age limitation

From 20 to 65 years old people participated in this study.

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Process of data accumulation

By sharing the Google form link, the data was collected and analyzed.

Result

The survey took 31 weeks. A total of 100 responses were

collected. Among 100 responses, 60% were male and 40% were female. Among the people, students were 12%, service holders were 17%, business people were 22%, housewives and jobless were 26% and 11%. Others people were recorded as 12% too. The age range has started from 22 years to 65 year's adult group.

Age group

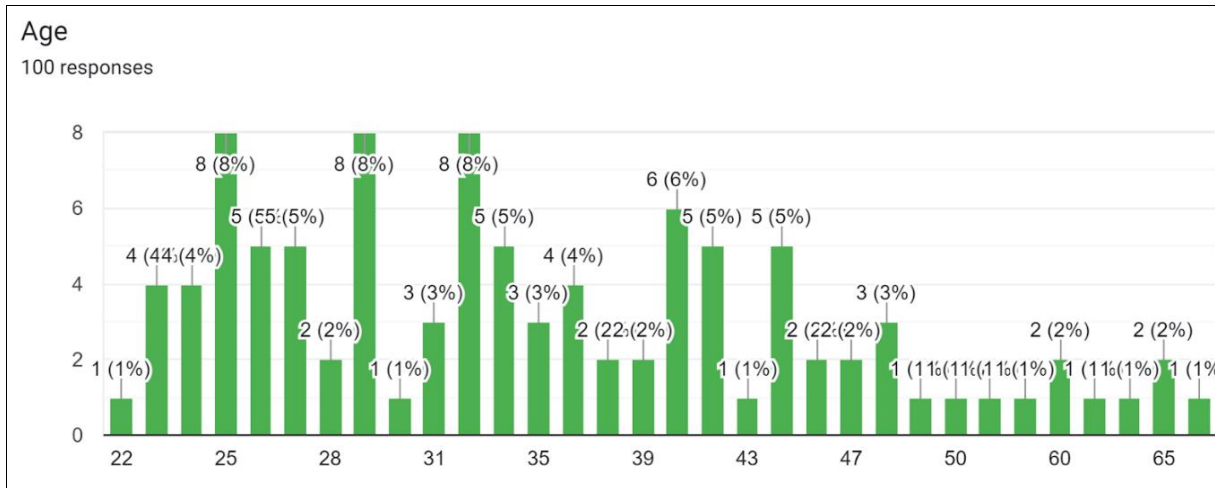


Fig 1: Age group

Gender range

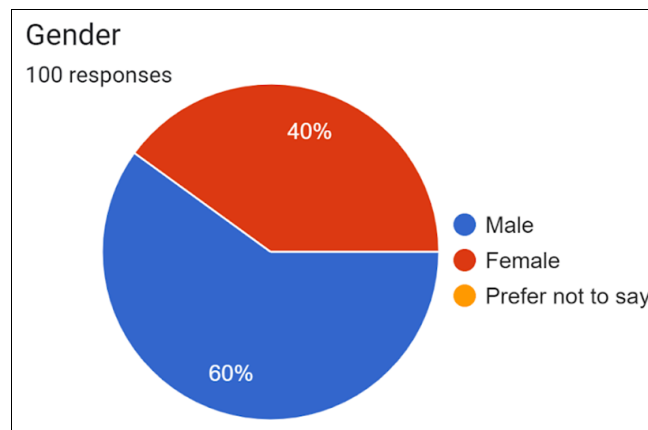


Fig 2: Gender

Occupation

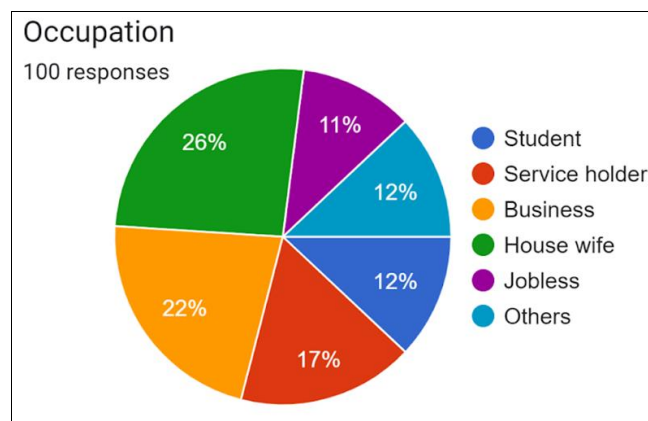


Fig 3: Occupation

A total of 17 questions were asked to the participants. They are given below:

1. Do you have any consciousness about Adverse drug reaction in human body?

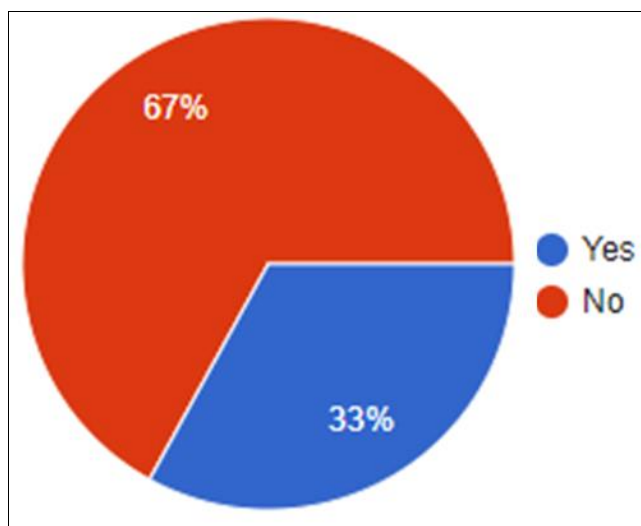


Fig 4: Do you have any consciousness about adverse drug reaction in human body?

2. Do you know the difference between Side Effects and Adverse effects?

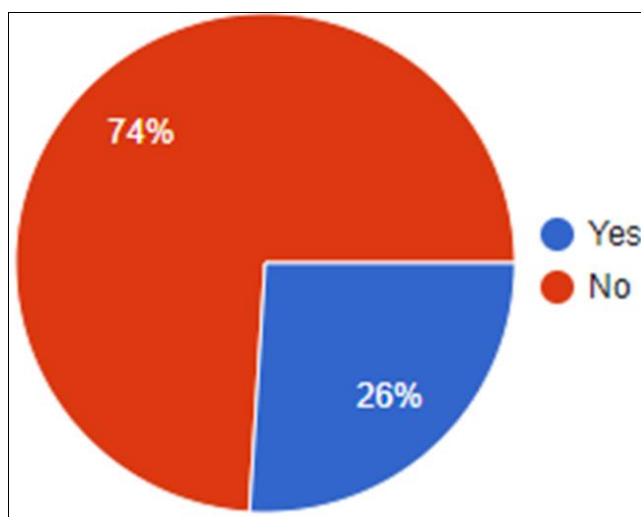


Fig 5: Do you know the difference between side effects and adverse effects?

3. Do you support that all drugs in the market are risk free?

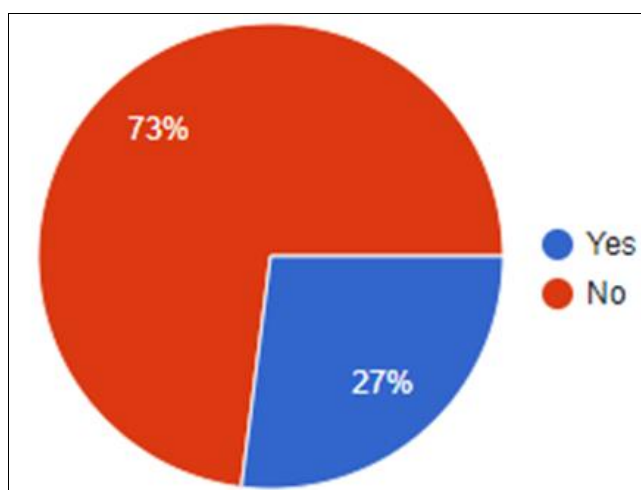


Fig 6: Do you support that all drugs in the market are risk free?

4. Do you consider the reason for Adverse reaction due to the drug-drug interaction and drug-food reaction?

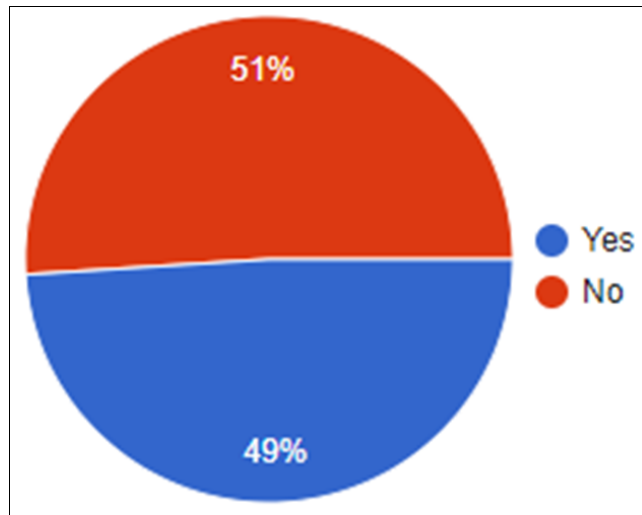


Fig 7: Do you consider the reason for adverse reaction due to the drug-drug interaction and drug-food reaction?

6. Do you have any update information about banned medicine?

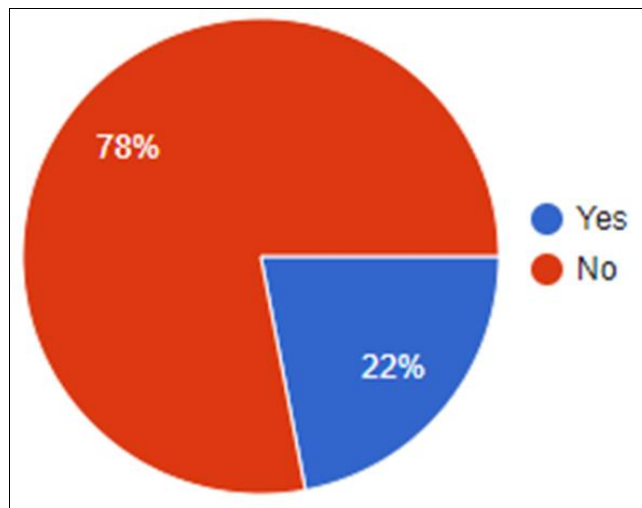


Fig 8: Do you have any update information about banned medicine?

7. Do you support buying and taking medicine without any prescription?

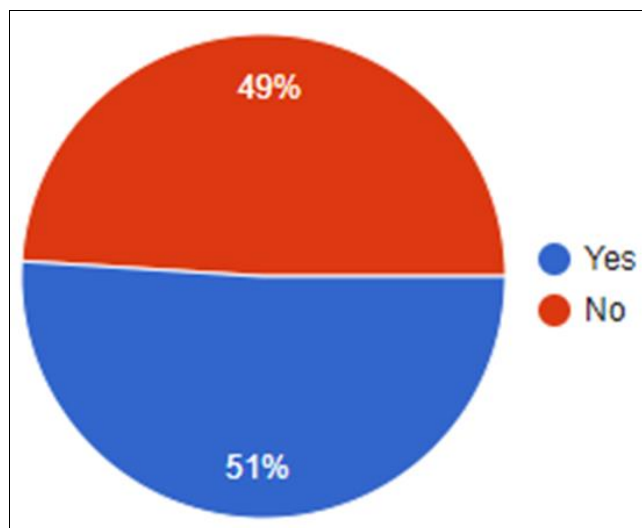


Fig 9: Do you support for buying and taking medicine without any prescription?

8. Does your doctor confirm the allergic criteria before prescribing a drug or prescription?

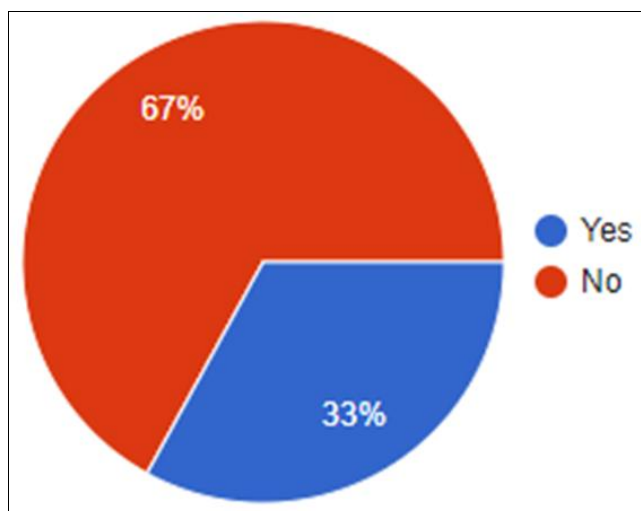


Fig 10: Does your doctor confirm the allergic criteria history before prescribing a drug or prescription

9. Does the physician confirm the ADRs history before prescribing?

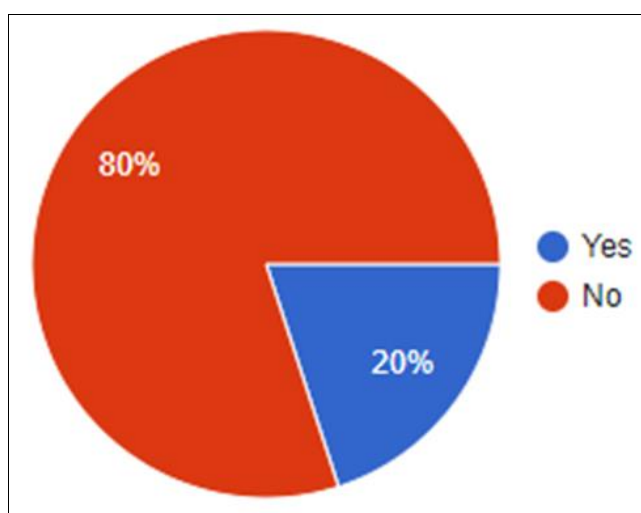


Fig 11: Does the physician confirm the ADRs history before prescribing?

10. Do people think they need to ask the physician about the side effects and adverse effects of drugs?

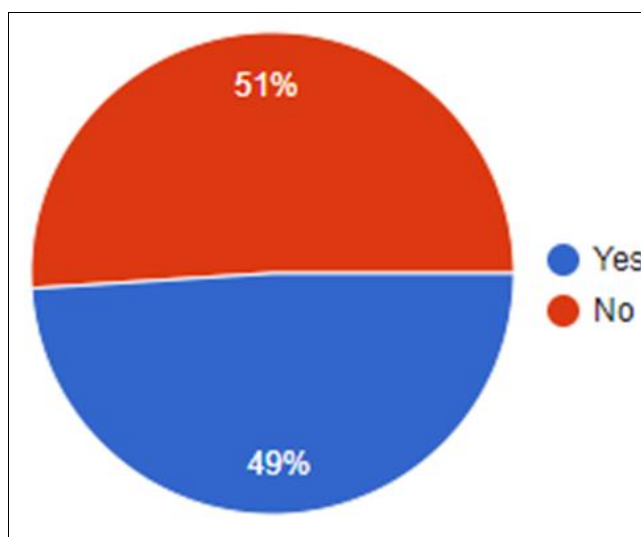


Fig 12: Do people think they need to ask their physician about the side effects and adverse effects of drugs

11. Do you think the doctor needs to ask about your current medicine before the diagnosis?

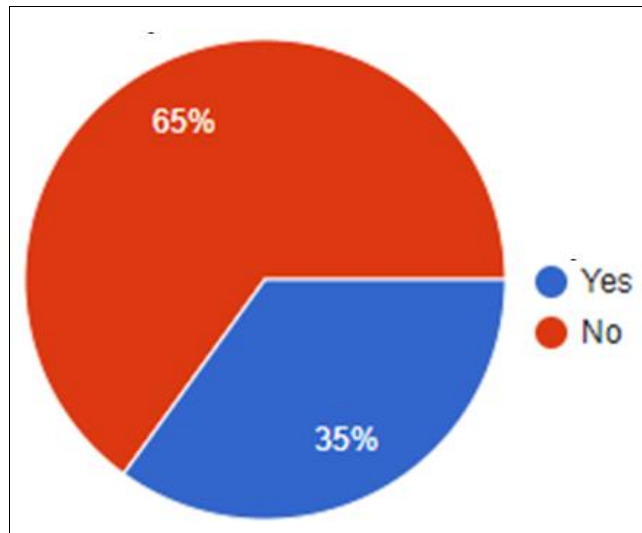


Fig 13: Do you think the doctor needs to ask about your current medicine before the diagnosis

12. Do you think that ADRs can happened if anyone stops taking medicine suddenly?

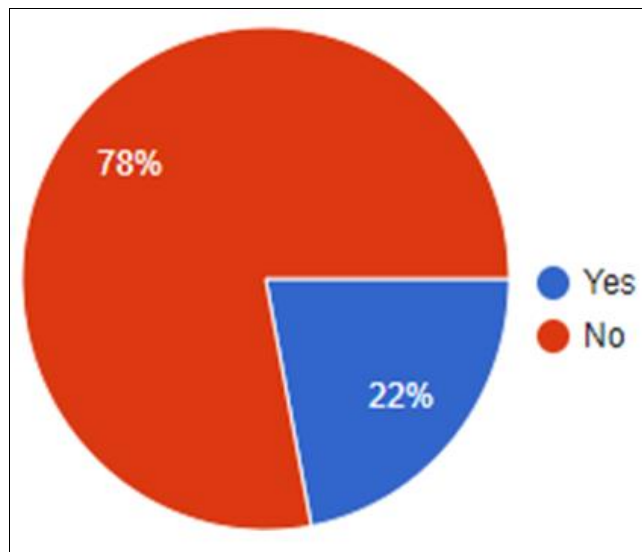


Fig 14: Do you think that ADRs happen if anyone stops taking medicine suddenly?

13. Are you notified about medicine that is not safe while consuming other drugs?

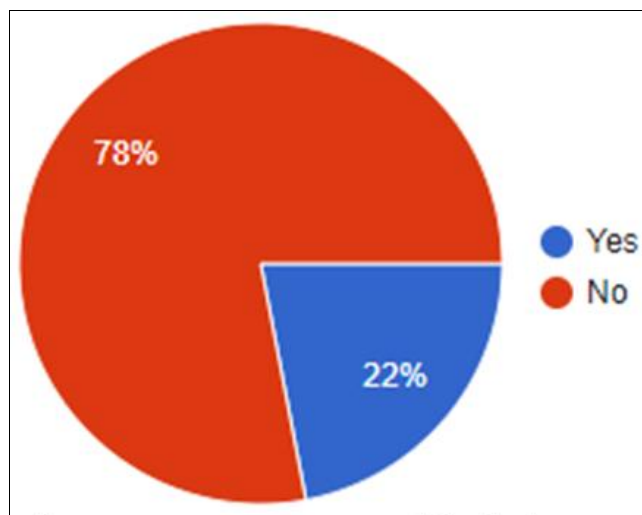


Fig 15: Are you notified about medicine that is not safe while consuming other drugs?

14. Have you ever been informed by your doctor to change your life style?

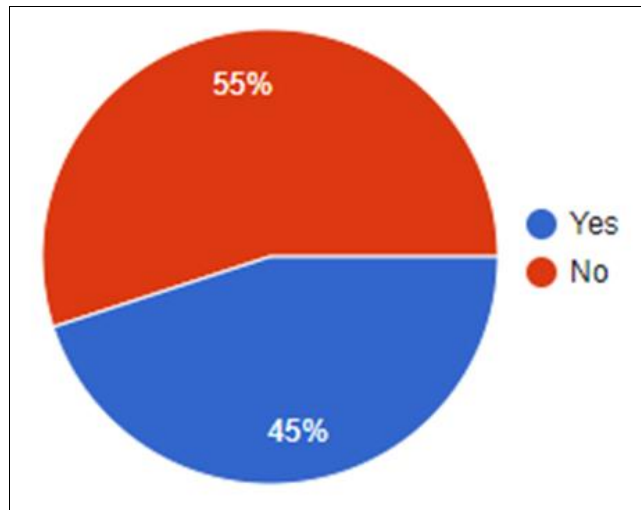


Fig 16: Have you ever been informed by your doctor to change your life style?

15. Do people ask the doctor/pharmacist to know about side effects, precautions and storage criteria?

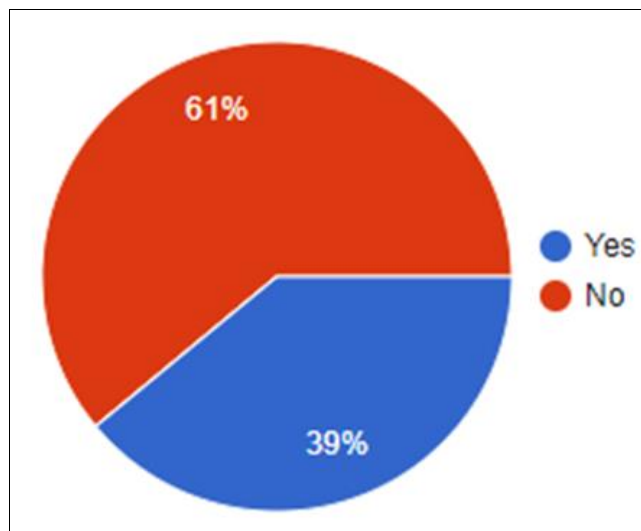


Fig 17: Do people ask the doctor/pharmacist to know about side effects, precautions and storage criteria?

16. Do you think a patient needs to read the insert?

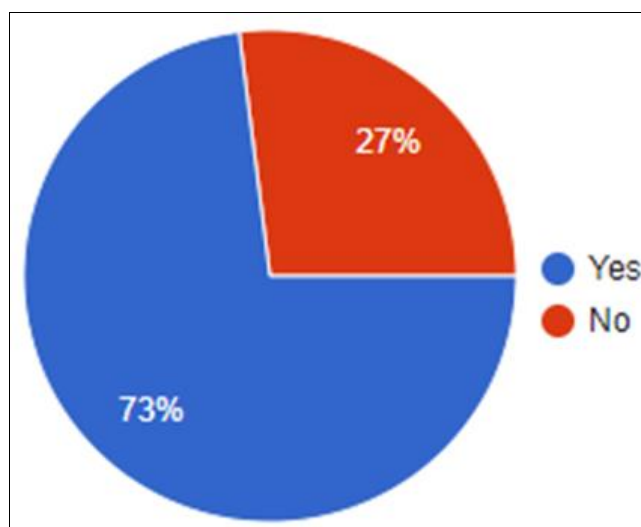
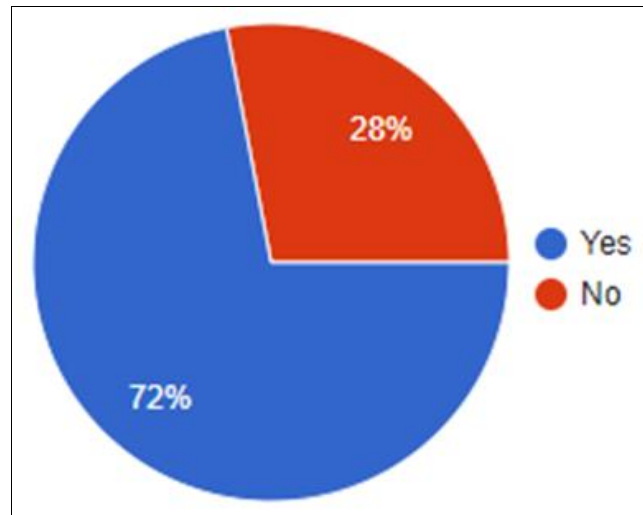


Fig 18: Do you think a patient needs to read the insert?

17. Does side effect or safety precaution-related information help us to realize the benefits?**Fig 19:** Does side effects or safety precaution-related information help us to realize the benefits?**Discussion**

The principal reason for this study to increase the knowledge and awareness regarding the adverse effects of drug who has been living in Dhaka, Bangladesh. The outcome of this project has unveiled the information that, some significant inhabitants are not aware of drug side effect and their knowledge is not adequate for the protection from adverse drug effects.

The findings of this study reveal that a significant portion of the population is not aware of ADRs. Three-quarters of the total participants doesn't know about the difference between side effects and adverse effects. 27% of people are thought that drugs are in market are safe in condition. Half of the participants voted for believing that ADRs can occur due to the interaction between drugs or foods molecules. But, about four-fifths of people are not aware of banned drugs in the market. Along with this, 51% of people believe that it is not safe to buy or consume drugs without physician advice or relevant prescription from the market. 67% of physicians are never confirmed the allergic history of the patient which is very alarming. 49% of participants believe that we need to ask our physician or pharmacist about the side effects and adverse effects.

A major population (65%) never asked by doctors about their existing or present medicine before prescribing. 78% of people have no consciousness about the risk factor of ADRs when they stop consuming medicine suddenly. Besides, participants never got information about other drugs or supplements that should not be taken while consuming certain medicine. However, 55% voted for "NO" because they never informed by their doctors to change their life style for good health. Indeed, they (61%) never asked their physician/pharmacist about the precautions, direction of use, and storage condition.

In the end, 73% of participants came together in the point of view that they should read the insert properly. On other hand, 72% think that it will be helpful.

Conclusion

After the completion of this study, the findings revealed that most of the people in Dhaka city are not properly informed by healthcare professionals and other relevant sources. People have limited knowledge of adverse drug effects or

side effects raised by medicine due to unsafe use. But it can be improving by taking essential steps such as educating people and society gradually. This study was conducted on a limited population who has been residing in this densely populated city named Dhaka. Therefore, any person or institution can gather improved information in the future. ADRs can be eliminated by increasing knowledgeable information and the role should be played by the doctors or pharmacist. Besides, the reporting or survey on ADRs should be done numerously in the future too.

Acknowledgment

Acknowledgment and appreciation go to all participants of this study.

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