STUDY TO IDENTIFY THE LEVEL OF KNOWLEDGE, ACCEPTANCE, SATISFACTION, PERCEPTION OF USERS TOWARDS A MEDICINE ADHERENCE APP

Dissertation Submitted to

The IIHMR University, Jaipur

For the partial fulfilment for the award of the degree of
Master of Business Administration (MBA)

In

Pharmaceutical Management

By

Saloni Jain

Under the Supervision and Guidance of

Dr Sandeep Narula

2021

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DECLARATION BY STUDENT

I hereby declare that this dissertation title "STUDY TO IDENTIFY THE LEVEL OF KNOWLEDGE, ACCEPTANCE, SATISFACTION, PERCEPTION OF USERS TOWARDS A MEDICINE ADHERENCE APP" is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Name of Student: Saloni Jain Date: 23- Jun-21

Certificate

This is to certify that Saloni Jain in partial fulfillment of the requirements for the award of the degree of MBA (Pharmaceutical Management from the IIHMR University, Jaipur has successfully completed her/his internship at (name of the organization) during March 22, 2021 to June 19, 2021.

Place: **Head of the organisation: Amit Chaudhary**
Date: **Name of the organisation: Dawaadost Pharmaceutical**

CERTIFICATE

This is to certify that dissertation titled "**STUDY TO IDENTIFY THE LEVEL OF KNOWLEDGE, ACCEPTANCE, SATISFACTION, PERCEPTION OF USERS TOWARDS A MEDICINE ADHERENCE APP"** is a record of the research work undertaken by Saloni Jain in partial fulfillment of the requirements for the award of the degree of MBA (Pharmaceutical Management) from the IIHMR University, Jaipur under my guidance and supervision and his/her approach to the research study has been sincere, scientific, and analytical.

Faculty Guide	School Dean
IIHMR University, Jaipur	IIHMR University, Jaipur
Date	Date

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I take this opportunity with pride and enormous gratitude to thank those who have contributed to the successful completion of this endeavour.

First and foremost, let me thank the **ALMIGHTY GOD**, whose grace has been with me at each step of this project work.

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Finally I thank and acknowledge my parents and friends for their love, prayers and constant support for the successful completion of my Internship project work.

Saloni Jain Dr. Sandeep Narula

Introduction:

For a patient on medication, with a medication regimen prescribed by the doctor, Medication adherence is the extent to which a patient's behaviour coincides with the prescribed medication dosing regimen. (Cramer JA, 2008) (Vrijens B, 2012)In current healthcare system, with the increase in chronically ill patients, medication adherence has become a cause of concern. According to the first Longitudinal Ageing Study in India (LASI) released by the Union Ministry of Family and Health Welfare on January 6 2020, In India, two in every 3 citizens are suffer from a chronic illness (Perianayagam A, 2021).As the patients with chronic diseases are extremely common, Medication non-adherence has become very common and affects 40% to 50% of patients who are taking treatment for management of chronic conditions. (F, 2018)

It's very important to properly follow the medication regimen as prescribed by the doctor in order to get the desired health outcome. For chronically ill patients, it become very important to take their medicines on time to prevent worsening of their health condition. There are different reasons for non-adherence of medicine in a patient which include (Association) (5):-

1. People who may have experienced side effects of any drug or have heard about any such experience from their friends and relatives often develop fear from medicines.
2. Cost is a major reasons for non-adherence of medication. Because of high cost of medicines, people are not able to fulfil the medication requirements.
3. Often patients does not understand the need of a medicine , its associated side effects and the time a medicine takes to give the desired results leading to non-adherence of medication regimen.
4. A patients often gets confused when too many medicines are included in their medication regimen.
5. When a patient does not feel any change while starting and taking medicines for a while, patients stop taking their medicines. Also, in cases where the symptoms disappear after taking few doses of the medicine, patients stop taking the medicine without taking completed the medication regimen as prescribed by their physician.
6. Forgetfulness is the most common reason for non-adherence. Patients often forget to take their medicines as prescribed. Also, in many cases patients forget if they have taken medicine or not.
7. Mistrust in the doctors or any pharmaceutical company, may lead to discontinuation of any medicine and becomes a reason for non-adherence.

There are different ways to increase the medication adherence of a patient. One of them are the healthcare apps available on google play store and apple app store. Currently on App store and google play store around 97,000 health and fitness apps are available and about 1000 more app are created every month. Each year, the health and fitness apps are expected to increase by 25%. (Becker S, 2014) Some mobile technologies which use dosage reminders, incentives, education and games appears to be an encouraging strategy to improve medication adherence in the present senario. (Wiecek E, 2020) Despite the availability of potential medicine adherence apps, there are still less evidences about patient's knowledge, acceptance satisfaction and perception. This study aims to identify knowledge, acceptance, satisfaction and perception of patients regarding medication adherence apps.

Review of literature:

1. (Ali EE, 2019)The study "User acceptance of an app-based adherence intervention: Perspectives from patients taking oral anticancer medications" aimed to identify the factors that bring an impact on cancer patients to adopt interventions based on health apps for increasing oral anti-cancer medication adherence. The study evaluated the usability of an app-based system to enhance medication adherence. Data was collected from anti-cancer patients taking oral anti-cancer drugs, and audio of the responses were recorded. The results suggest that lack of medication adherence and the use of app instead of their current methods are the key reasons for the adoption of the mediation adherence app. Contrary to this, subscription charges, language barrier, and the perception of users for low competence of the health app were the main barriers.

2. (Fallah M, 2017)The study "A Medication Reminder Mobile App: Does It Work for Different Age Ranges" aimed at identifying the use of mobile app for medication reminder at different ages of users. The researchers first identified the users for the app. Half of the respondents were above 50 and the rest were below 50 years of age. Next, the application was tested to find the bugs. The application was evaluated by its efficacy and user-friendliness. The users used the application for 10 days and then they were asked to fill the questionnaire. The results suggest that the application was used well by all the users irrespective of their age.

3. (Peng W, 2016)The study "A qualitative study of user perceptions of mobile health apps" aimed at determining the design of the health app and the related content elements that facilitate the use of the app from user's perspective. Group discussions and personal interviews were conduction for the purpose of data collection.44 smartphone users with mixture of different economic status were included in the study. The study identified that users consider smart phone as a valuable information sources, can be used to track progress and raise awareness, concerns for security and privacy, scepticism over context sensing, necessity for efficiency and convenience, credibility and accuracy etc. The main reason for not continuing to use the health apps was the required time and efforts. Low app awareness and app literacy are the factors that lead to non-adoption of a health app. Goal setting and reminders were perceived to be some of the main behaviour changing factors.

4. (Wiecek E, 2020)The study "Impact of a Multicomponent Digital Therapeutic Mobile App on Medication Adherence in Patients with Chronic Conditions: Retrospective Analysis" aims to evaluate the impact of the medication adherence app over time on medication adherence in people with chronic illness. A retrospective study was performed to access the adherence rate. Participants were monitored for over 3 and 6 months. 243 patients were included for 3 months and 130 for 6 months. The analysis of the study reveals a positive trend in maintaining optimal medication adherence over time.

Research objective:

- To identify the level of acceptance of medication adherence app by the users.
- To identify the level of satisfaction of medication adherence app by the users.
- To identify the level of knowledge of medication adherence app by the users.
- To identify the association between Age of the respondent and their perception for medication adherence app.
- To identify the association between Gender of the user and their perception for medication adherence app.
- To identify the association between Education of the respondent and their perception for medication adherence app.
- To identify the favourable and unfavourable perception of consumers for medicine adherence app.
- To identify the average perception of customers with respect to Age of the respondents.

Methodology:

- **Research strategy**: Research strategy is a quantitative research strategy where data is collected through a questionnaire and analysed using statistical means.
- **Study design**: The study type is cross sectional study .
- **Research Instrument**: Well-structured Questionnaire(Google form)
- **Sampling Technique**: Convenient sampling
- **Population characteristics**: People with age above 15 of either sex will be respondents of the study.
- **Sample size**: 111 (tentative)
- **Ethical approval:** Privacy and confidentiality were maintained for the respondents. No identifier variable was used for revealing identity of the respondents. The data collected was analysed in groups rather than individual basis.
- **Data collection**: - Primary data will be received by the respondents during questionnaire and secondary data will be collected from published journals, literature and reference books. Besides this, statistical information will also be assessed in research study.
- **Study period**: 3 Months.
- **Starting date**: 22 Mar 2021
- **End date**: 22 June 2021
- **Data analysis**: - The data analysis in present study will be done by using simple statistical tools which will be used as per the requirement of the data. In this study, appropriate statistical tool is Excel and SPSS 22.
- **Inclusion and exclusion criteria**: - All respondents, male and female users (karma dost) are eligible to participate and are included in the study. Those who are mentally incompetent, unable to listen or speak are excluded from the study.

Findings

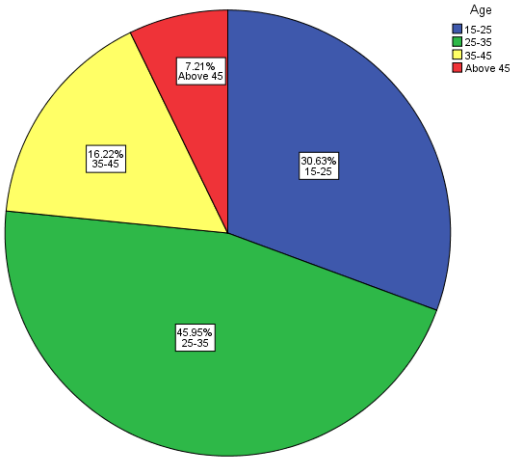
This involves detailed process of organizing, cleaning and transforming data which is collected from the sample population .The data collected for the purpose of analysing and reporting on the current behaviour is modelled according to various tests and analysis using SPSS and the values have thereof mentioned .The data has been presented in visual format as well which include tabular, graphical as well as pictorial representation.

Descriptive analysis

Analysis of graphs

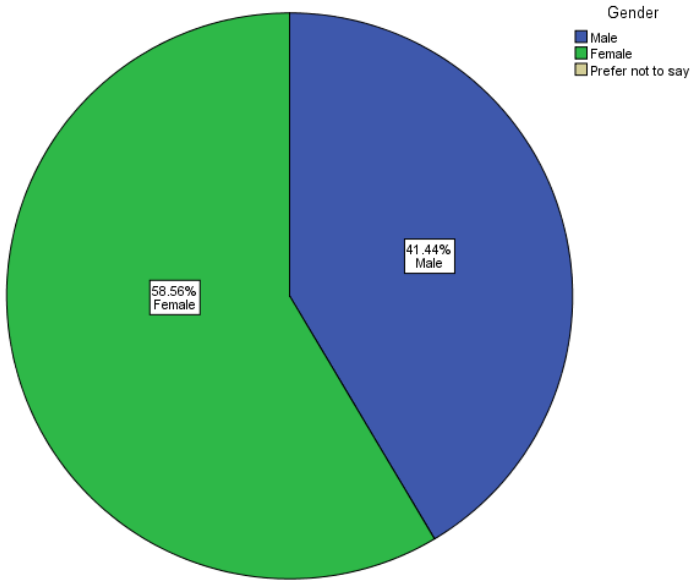
We will start analysing data on charts formed due to the responses collected using forms floated to the respondents

1. AGE



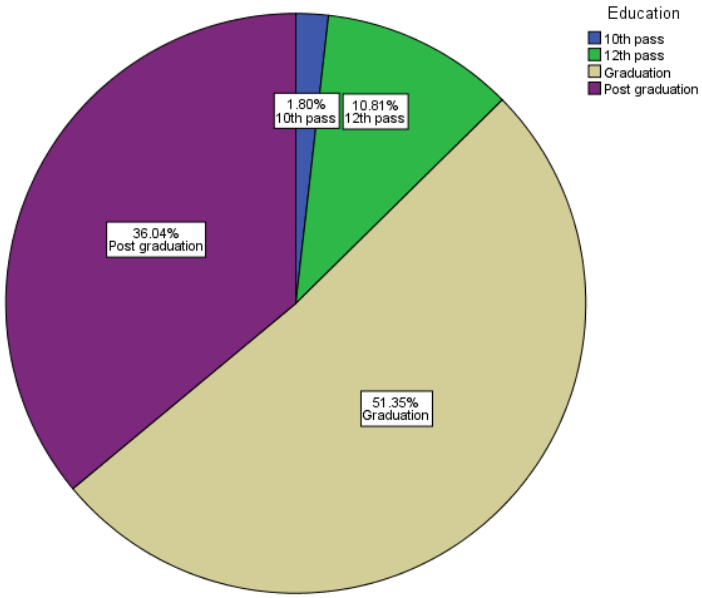
As we can observe , from the above pie chart that 30.63% lie in the age group 15-25 followed by 45.95% in age group 25-35, 16.22% in age group 35-45 and 7.21% in age group above 45.

2. GENDER



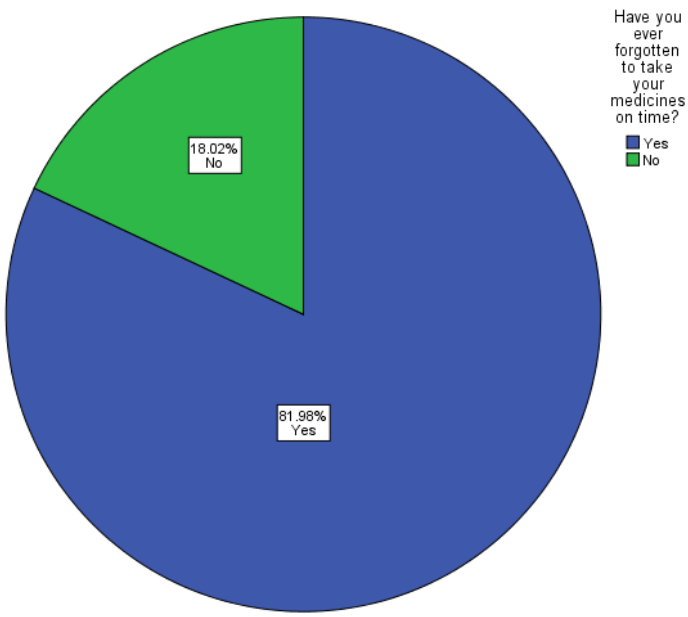
We can observe from the above pie chart that among the respondents 41.44% males and 58.56% are females.

3. EDUCATION



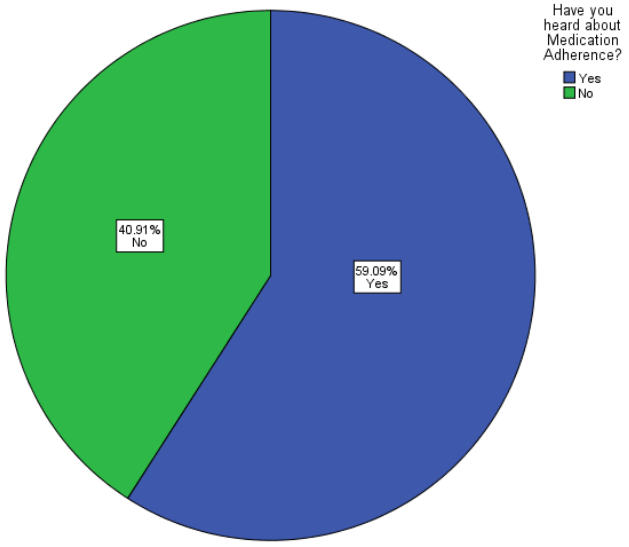
We can observe from the above pie chart that among the respondents 1.80% are 10^{th} pass, 10.81% are 12^{th} pass, 51.35% are postgraduate and 36.04% are postgraduate.

4. HAVE YOU EVER FORGOTTEN TO TAKE YOUR MEDICINES ON TIME?



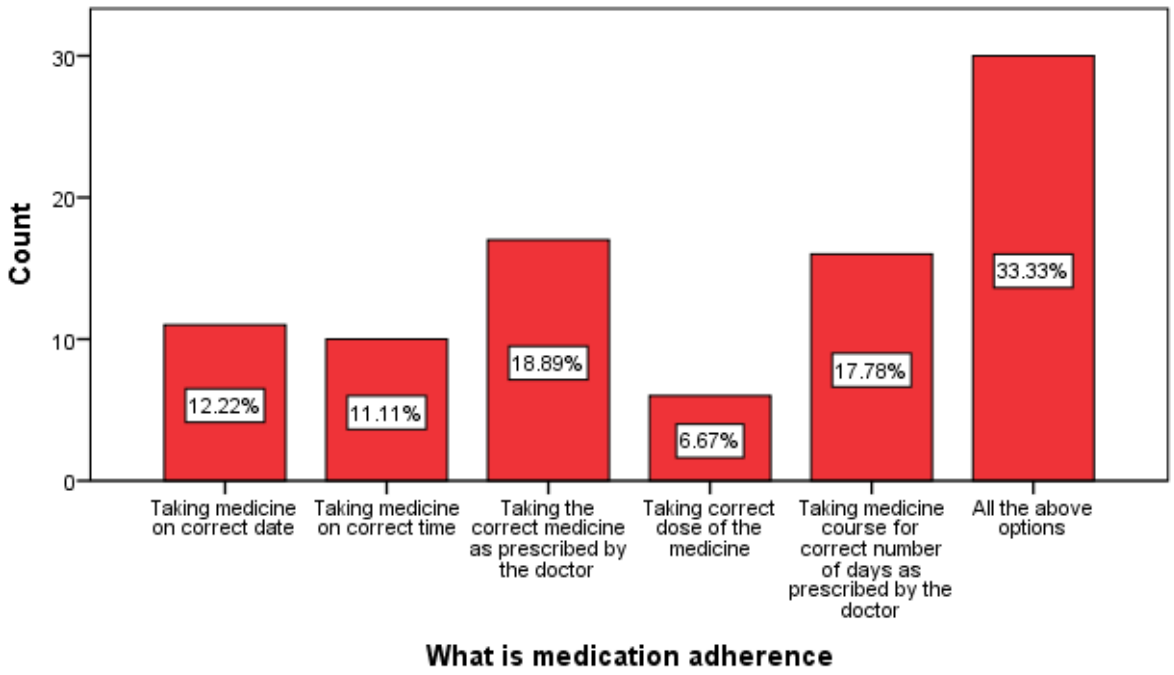
We can observe from the above pie chart that 81.98% respondents forget to take their medicines and 18.02% do not forget to take their medicines.

5. HAVE YOU HEARD ABOUT MEDICATION ADHERENCE?



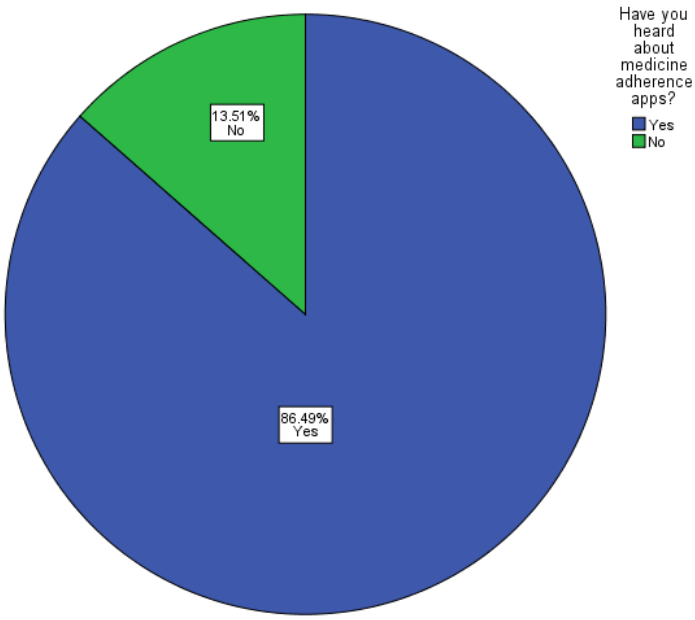
We can observe from the above pie chart that 59.09% respondents have heard about medication adherence and 40.91% respondents have not heard about medication adherence.

6. WHAT IS MEDICATION ADHERENCE?



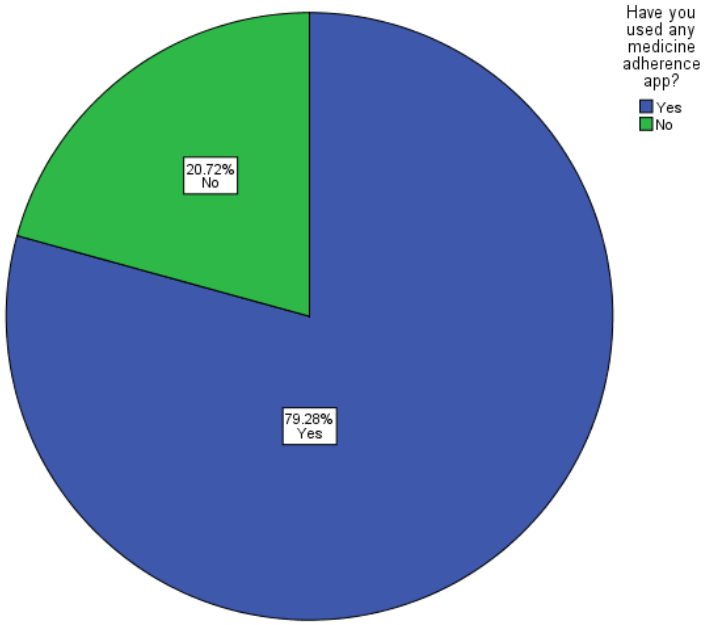
From the above bar chart we can infer that 12.22% respondents define medication adherence as “Taking medicine on correct date”, 11.11% respondents define medication adherence as “Taking medicine on correct time”, 18.89% respondents define medication adherence as “Taking the correct medicine as prescribed by the doctor”, 6.67% respondents define medication adherence as “Taking correct dose of the medicine”, 17.78% respondents define medication adherence as “Taking medicine course for correct number of days as prescribed by the doctor” and 33.33% respondents define medication adherence as “All the above options”

7. HAVE YOU HEARD ABOUT MEDICATION ADHRENCE APP?



We can observe from the above pie chart that 86.48% respondents have heard about medication adherence apps and 13.51% respondents have not heard about medication adherence app.

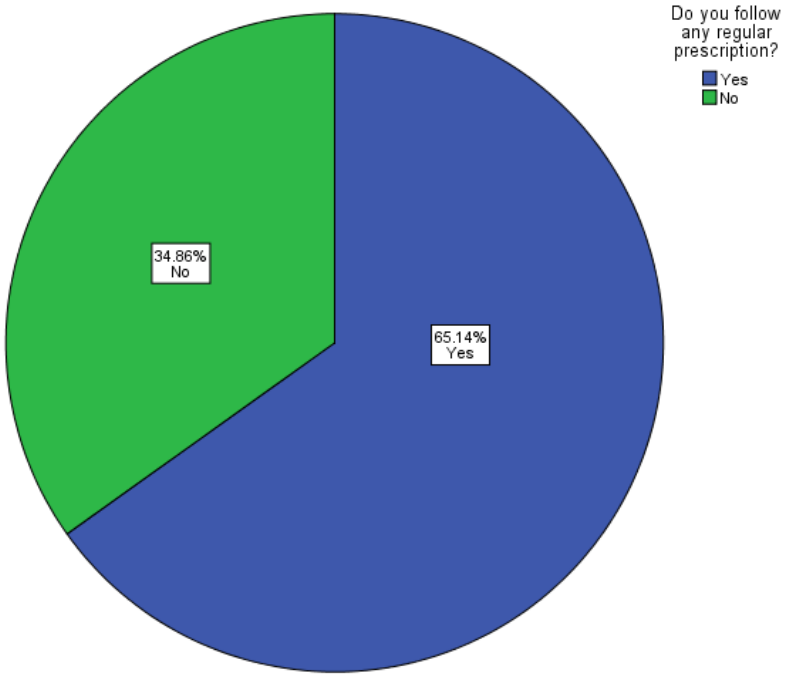
8. HAVE YOU USED ANY MEDICATION ADHERENCE APP?



We can observe from the above pie chart that 79.28% respondents have used medication adherence app while 20.72% respondents have not used medication adherence app.

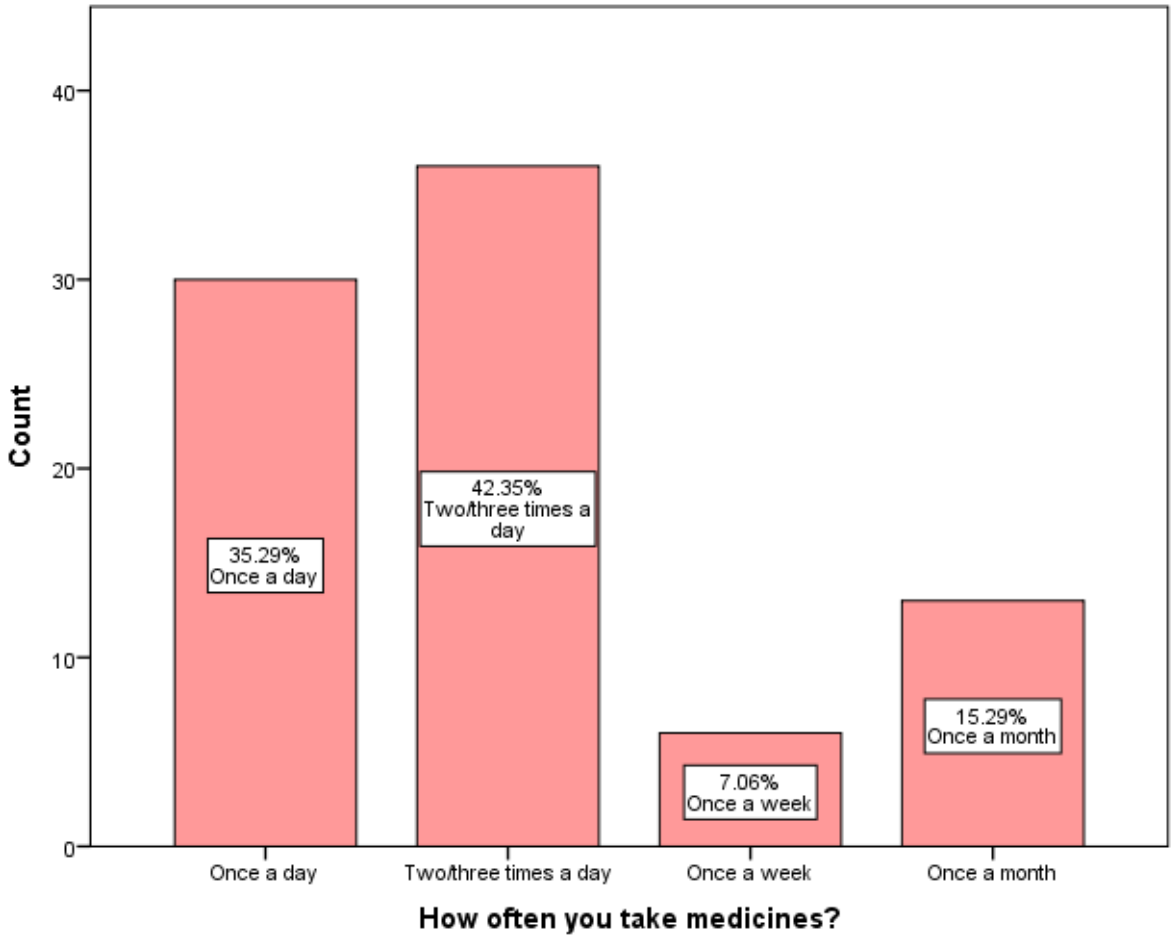
When asked to specify the name of the reminder app, responses were karma dost app, medisafe and Dosecast.

9. DO YOU FOLLOW ANY REGULAR PRESCRIPTION



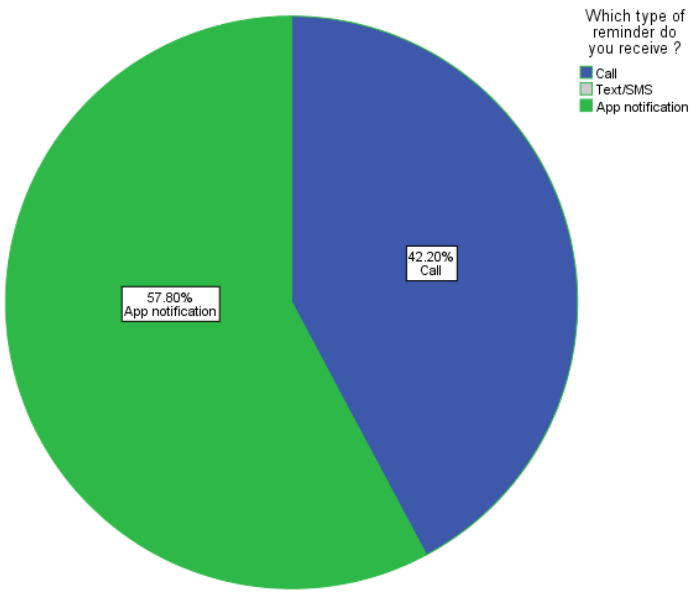
We can observe from the above pie chart that 65.14% respondents follow regular prescription while 34.86% respondents do not follow regular prescription.

10. HOW OFTEN YOU TAKE MEDICINES?



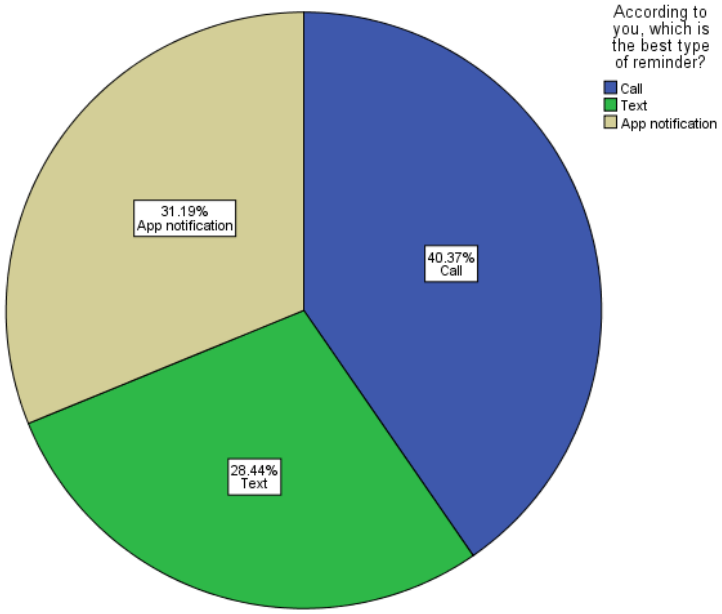
We can observe from the above bar chart that 35.29% respondents take medicines once a day, 42.35% respondents take medicines Two/three times a day, 7.06% respondents take medicines once a week and 15.29% respondents take medicines once a month.

11. WHICH TYPE OF MEDICINE REMINDER DO YOU RECEIVE?



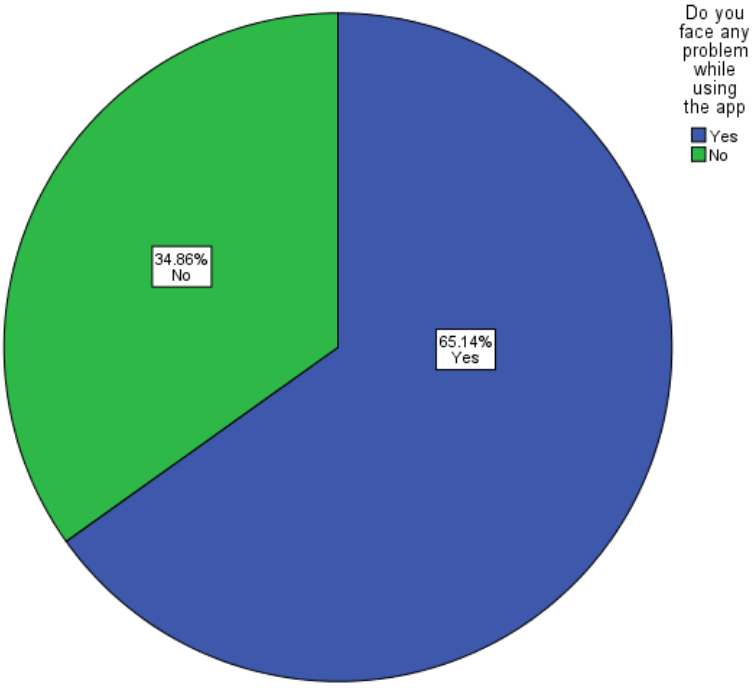
We can observe from the above pie chart that 57.80% respondents receive app notifications as reminder while 42.20% respondents receive Calls as reminder.

12. ACCORDING TO YOU, WHICH TYPE OF REMINDER IS THE BEST TYPE OF REMINDER?



We can observe from the above pie chart that 40.37% respondents believe Call is the best type of reminder, 31.19% respondents believe App Notification is the best type of reminder and 28.44% respondents believe Text is the best type of reminder.

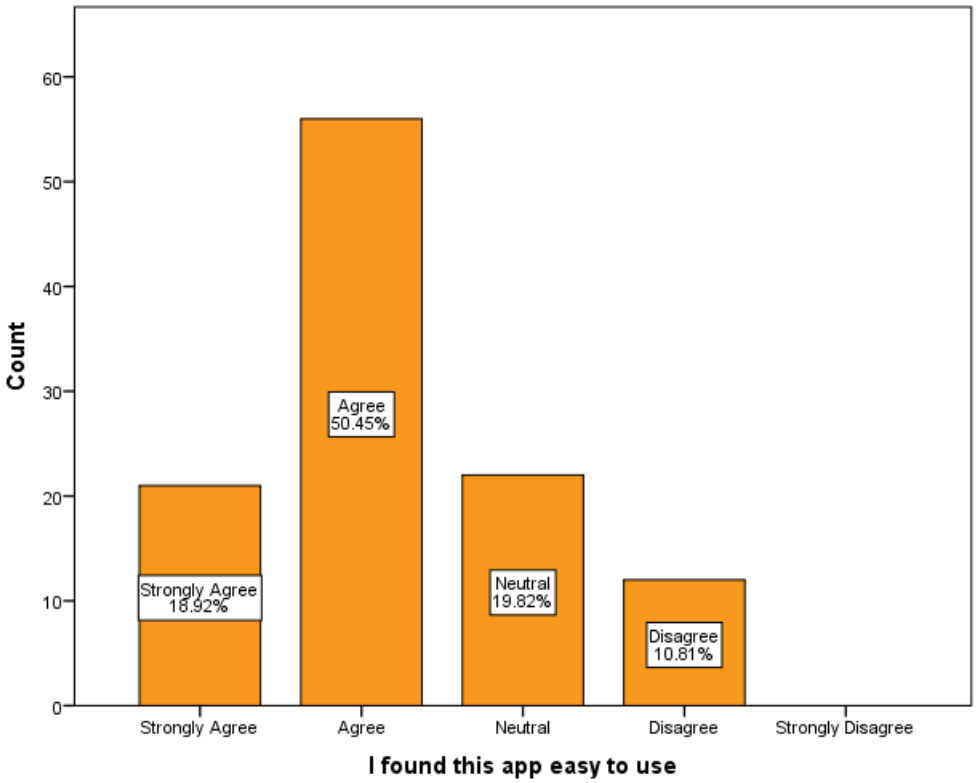
13. DO YOU FACE ANY PROBLEM WHILE USING THE APP?



We can observe from the above pie chart that 65.14% respondents face problem while using the app and 34.68% do not face problem while using the app.

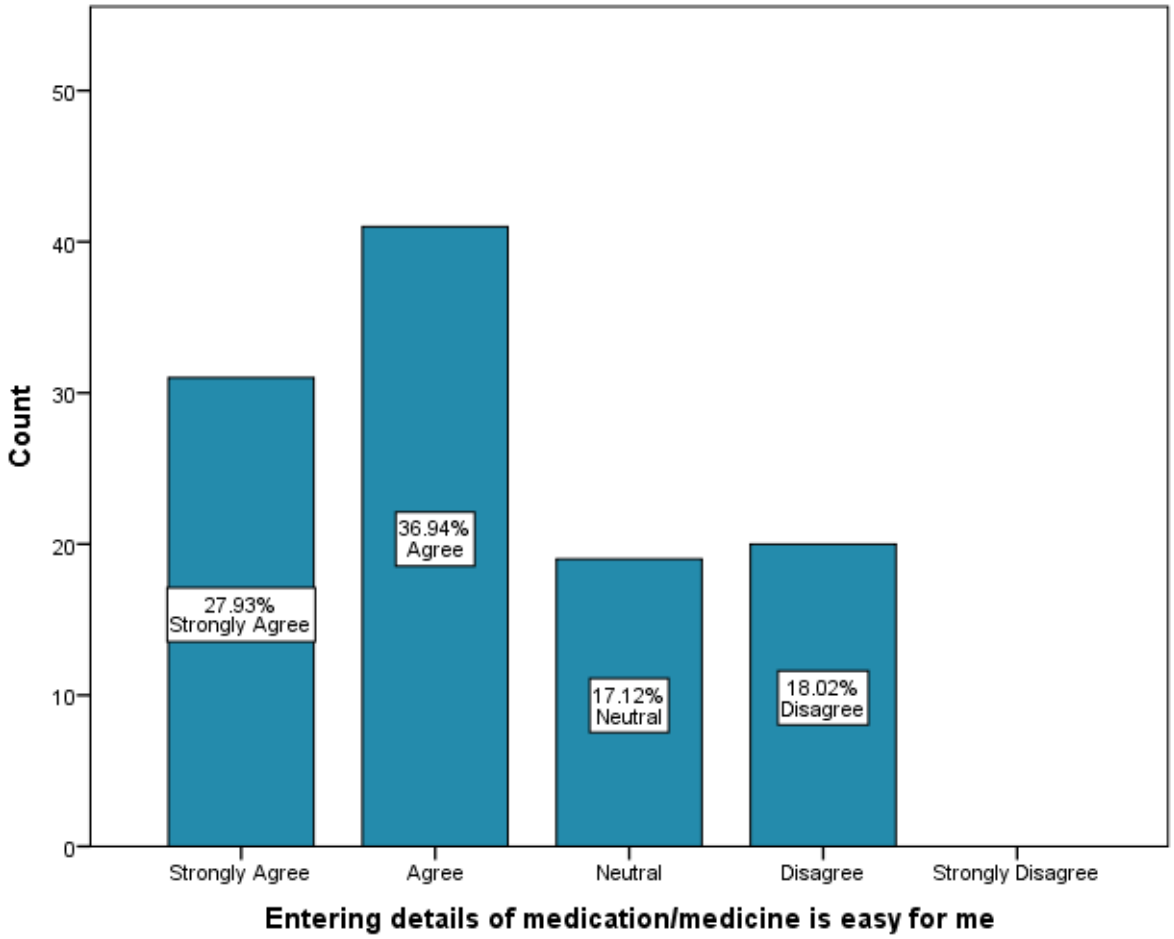
When asked to specify about the problems faced by the app, the responses were difficulty in entering medicines, time consuming, language barrier and time of receiving reminders can't be changed.

14. PLEASE EXPRESS YOUR AGREEMENT WITH THE STATEMENT BELOW REGARDING MEDICATION/MEDICINE ADHERENCE APPS [I found this app easy to use]



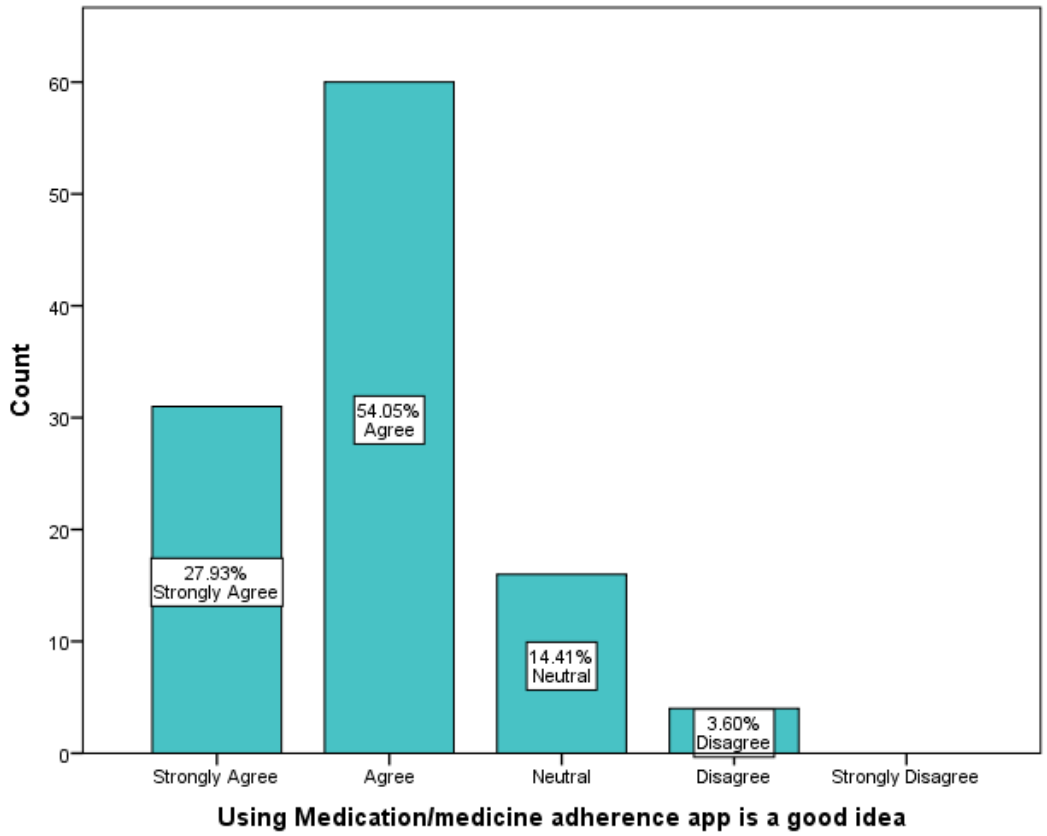
From the above bar chart we can infer that 18.92% strongly agree, 50.45% agree,19.82% are neutral and nearly 10.81% disagree on perception "**I found this app easy to use"**.

15. PLEASE EXPRESS YOUR AGREEMENT WITH THE STATEMENT BELOW REGARDING MEDICATION/MEDICINE ADHERENCE APPS[Entering details of medication/medicine is easy for me]



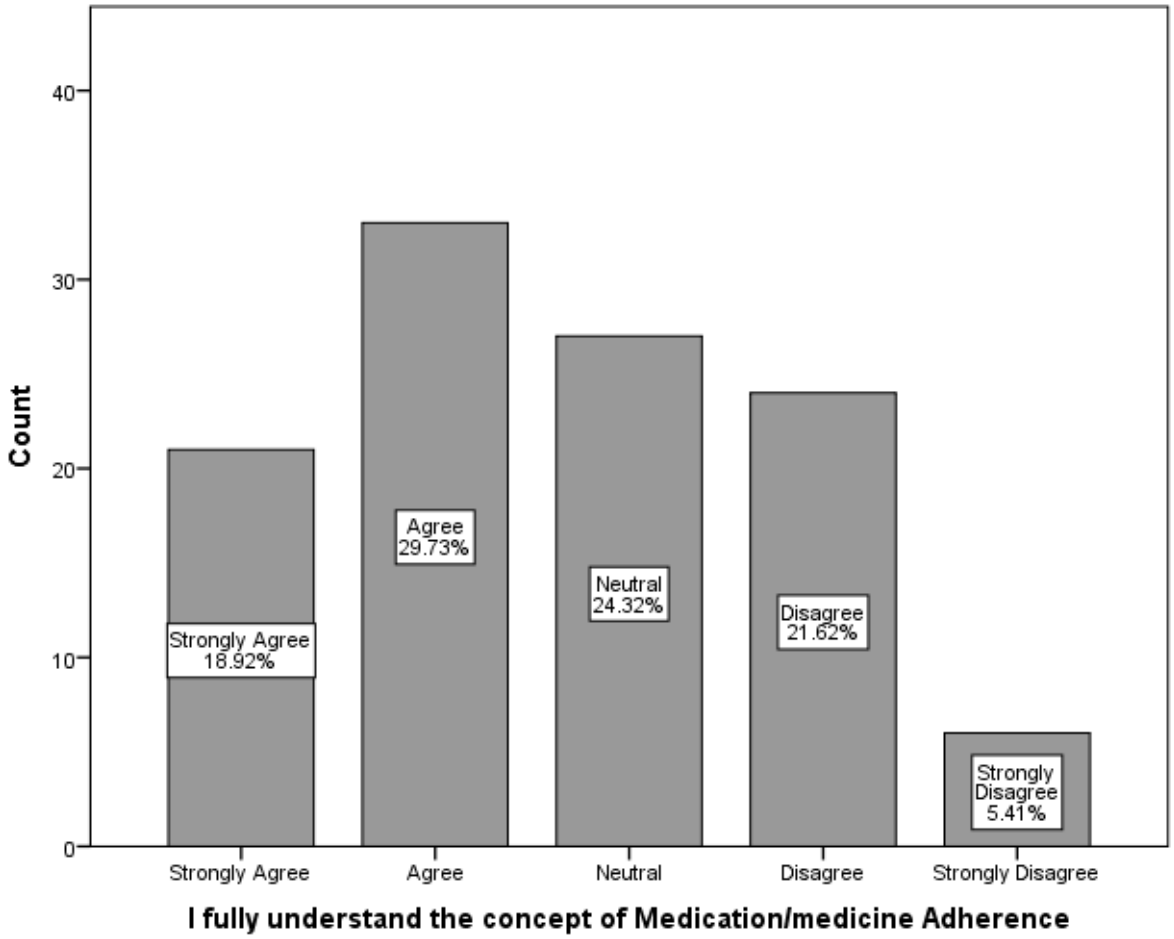
From the above bar chart we can infer that 27.39% strongly agree, 36.94% agree, 17.12% are neutral and nearly 18.02 % disagree on perception "**Entering details of medication/medicine is easy for me"**.

16. **PLEASE EXPRESS YOUR AGREEMENT WITH THE STATEMENT BELOW REGARDING MEDICATION/MEDICINE ADHERENCE APPS [Using Medication/medicine adherence app is a good idea]**



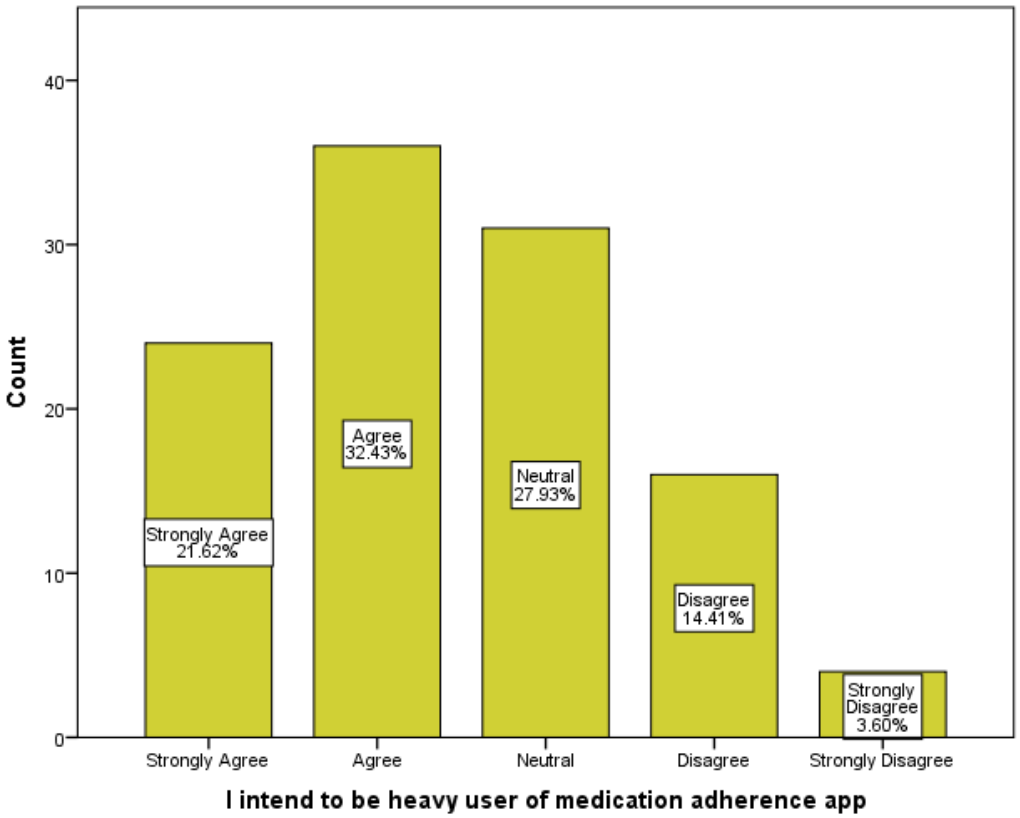
From the above bar chart we can infer that 27.93% strongly agree, 54.05% agree, 14.41% are neutral and nearly 3.60% disagree on perception "**Using Medication/medicine adherence app is a good idea"**.

17. **PLEASE EXPRESS YOUR AGREEMENT WITH THE STATEMENT BELOW REGARDING MEDICATION/MEDICINE ADHERENCE APPS[I fully understand the concept of Medication/medicine Adherence]**



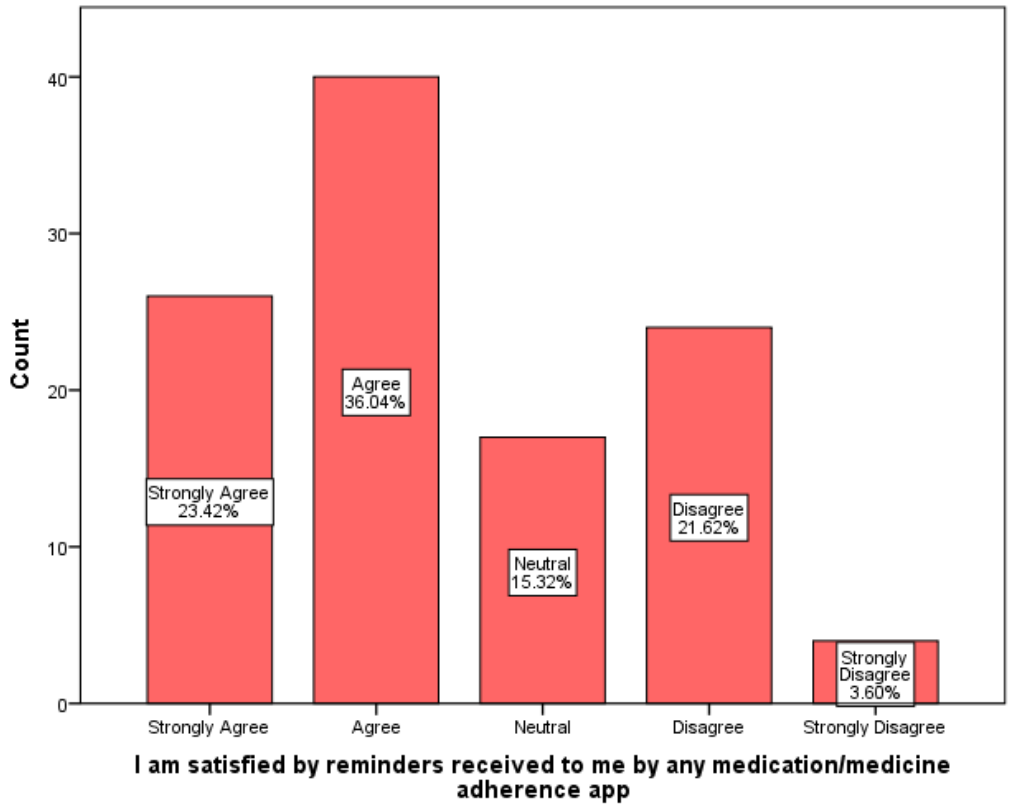
From the above bar chart we can infer that 18.92% strongly agree, 29.73% agree, 24.32% are neutral, 21.62% disagree and 5.41% strongly disagree on perception "**I fully understand the concept of Medication/medicine Adherence"**.

18. PLEASE EXPRESS YOUR AGREEMENT WITH THE STATEMENT BELOW REGARDING MEDICATION/MEDICINE ADHERENCE APPS[I intend to be heavy user of medication adherence app]



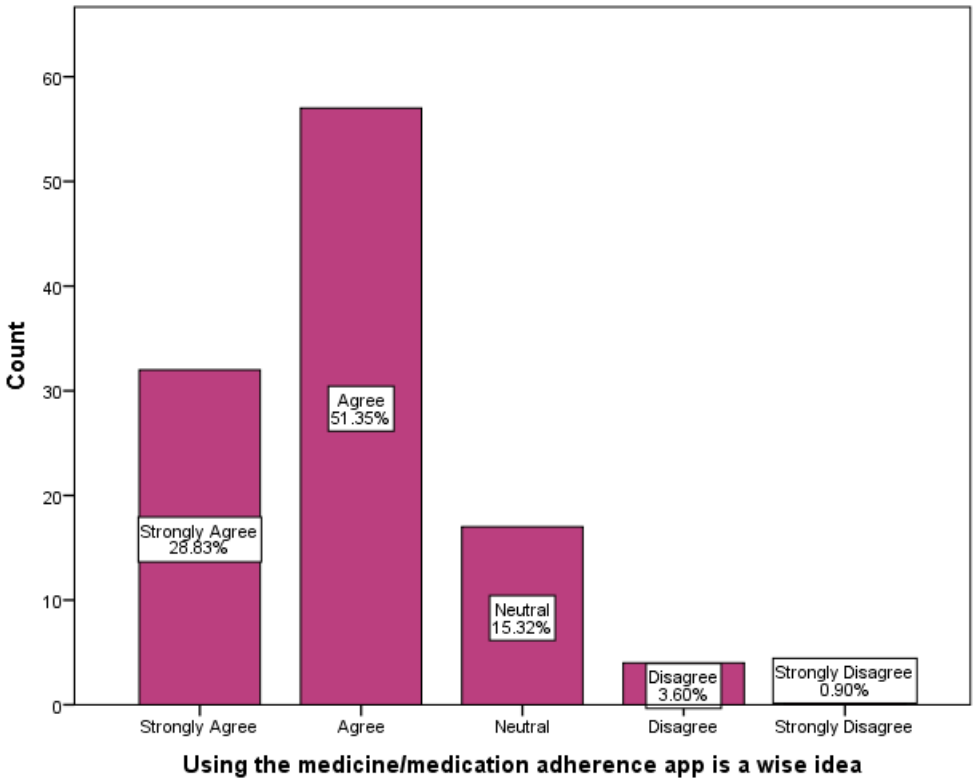
From the above bar chart we can infer that 21.62% strongly agree, 32.43% agree, 27.93% are neutral, 14.41% disagree and 3.60% strongly disagree on perception "**I intend to be heavy user of medication adherence app"**.

19. PLEASE EXPRESS YOUR AGREEMENT WITH THE STATEMENT BELOW REGARDING MEDICATION/MEDICINE ADHERENCE APPS[I am satisfied by reminders received to me by any medication/medicine adherence app]



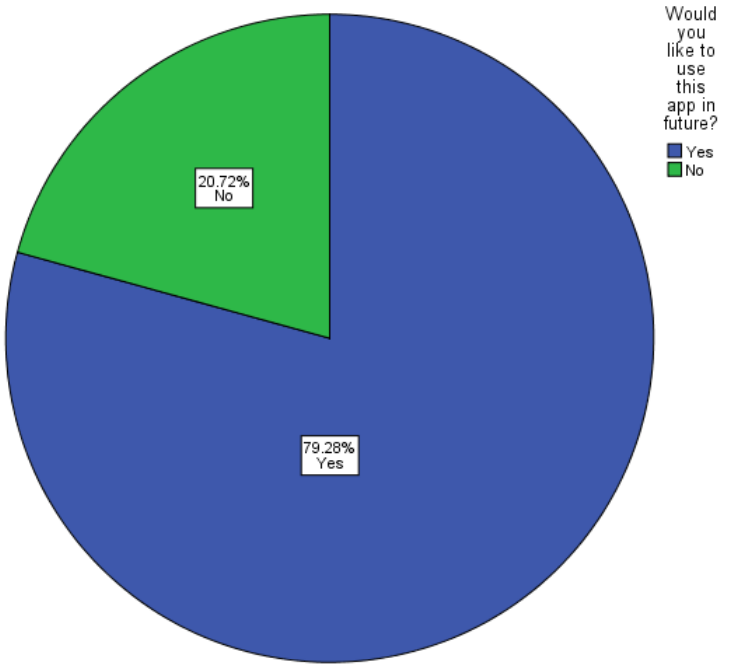
From the above bar chart we can infer that 23.42% strongly agree, 36.04% agree, 15.32% are neutral, 21.62% disagree and 3.60% strongly disagree on perception "**I am satisfied by reminders received to me by any medication/medicine adherence app"**.

20. PLEASE EXPRESS YOUR AGREEMENT WITH THE STATEMENT BELOW REGARDING MEDICATION/MEDICINE ADHERENCE APPS[Using the medicine/medication adherence app is a wise idea]



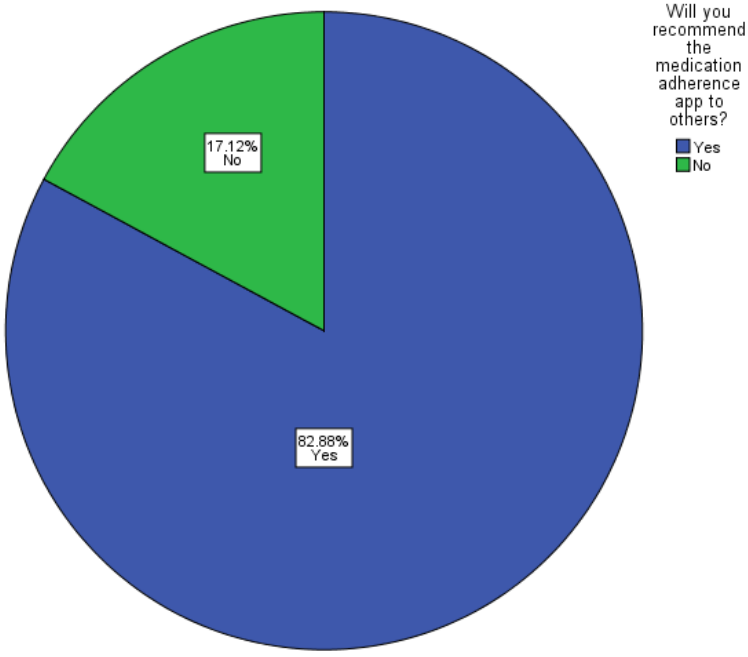
From the above bar chart we can infer that 28.83% strongly agree, 51.35% agree, 15.32% are neutral, 3.60% disagree and 0.90% strongly disagree on perception "**Using the medicine adherence app is a wise idea"**.

21. WOULD YOU LIKE TO USE THIS APP IN FUTURE?



We can observe from the above pie chart that 79.28% respondents WOULD LIKE TO USE THIS APP IN FUTURE while 20.72% respondents do not LIKE TO USE THIS APP IN FUTURE.

22. WILL YOU RECOMMEND THIS APP TO OTHERS?



We can observe from the above pie chart that 82.88% respondents will recommend medicine adherence app to others while 17.12% respondents will not recommend medicine adherence app to others.

Inferential analysis

Chi square

We have further analysed data using chi square t-test

$\alpha = 0.05$

Objective 1. To identify the association between age of the respondent and the perception "I found this app easy to use"

Hypothesis:

H0: There is no significant association between Age of the respondent and the perception "I found this app easy to use"

H1: There is significant association between Age of the respondent and the perception "I found this app easy to use"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	40.702[a]	9	.000
Likelihood Ratio	27.813	9	.001
Linear-by-Linear Association	6.765	1	.009
N of Valid Cases	111		

From the chi square test table, we observe that p = 0.00, which is less than alpha (.05), so null hypothesis is rejected and we conclude that there is a significant association between **Age of the respondent and the perception "I found this app easy to use"**.

Objective 2. To identify the association between Age of the respondent and the perception "Entering details is easy for me"

Hypothesis:

H0: There is no significant association between Age of the respondent and the perception "Entering details is easy for me"

H1: There is significant association between Age of the respondent and the perception "Entering details is easy for me"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.109[a]	9	.009
Likelihood Ratio	21.872	9	.009
Linear-by-Linear Association	11.600	1	.001
N of Valid Cases	111		

From the chi square test table, we observe that p = 0.09, which is less than alpha (.05), so null hypothesis is rejected and we conclude that there is a significant association between **Age of the respondent and the perception "Entering details is easy for me"**

Objective 3. To identify the association between Age of the respondent and the perception "I intend to be a heavy user of medication adherence app"

Hypothesis:

H0: There is no significant association between Age of the respondent and the perception "I intend to be a heavy user of medication adherence app"

H1: There is significant association between Age of the respondent and the perception "I intend to be a heavy user of medication adherence app"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.313[a]	12	.589
Likelihood Ratio	10.926	12	.535
Linear-by-Linear Association	1.951	1	.162
N of Valid Cases	111		

From the above table we observe that p = 0.58 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **Age of the respondent and the perception "I intend to be a heavy user of medication adherence app"**

Objective 4. To identify the association between Age of the respondent and the perception "I fully understand the concept of medication adherence"

Hypothesis:

H0: There is no significant association between Age of the respondent and the perception "I fully understand the concept of medication adherence"

H1: There is significant association between Age of the respondent and the perception "I fully understand the concept of medication adherence"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.766[a]	12	.094
Likelihood Ratio	19.463	12	.078
Linear-by-Linear Association	1.047	1	.306
N of Valid Cases	111		

From the above table we observe that p = 0.94 which is greater than alpha (.05) so we conclude that enough evidence is not identifies to suggest significant association between **Age of the respondent and the perception "I fully understand the concept of medication adherence"**

Objective 5. To identify the association between Age of the respondent and the perception "Using medicine adherence app is a wise idea"

Hypothesis:

H0: There is no significant association between Age of the respondent and the perception "Using medicine adherence app is a wise idea"

H1: There is significant association between Age of the respondent and the perception "Using medicine adherence app is a wise idea"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.849[a]	12	.542
Likelihood Ratio	10.604	12	.563
Linear-by-Linear Association	1.135	1	.287
N of Valid Cases	111		

From the above table we observe that p = 0.54 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **Age of the respondent and the perception "Using medicine adherence app is a wise idea"**

Objective 6. To identify the association between Age of the respondent and the perception "Using Medication/medicine adherence app is a good idea"

Hypothesis:

H0: There is no significant association between Age of the respondent and the perception "Using Medication/medicine adherence app is a good idea"

H1: There is significant association between Age of the respondent and the perception "Using Medication/medicine adherence app is a good idea"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.568[a]	9	.239
Likelihood Ratio	11.372	9	.251
Linear-by-Linear Association	.523	1	.469
N of Valid Cases	111		

From the above table we observe that p = 0.239 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **Age of the respondent and the perception "Using Medication/medicine adherence app is a good idea"**

Objective 7. To identify the association between Gender of the respondent and the perception "I found this app easy to use"

Hypothesis:

H0: There is no significant association between Gender of the respondent and the perception "I found this app easy to use"

H1: There is significant association between Gender of the respondent and the perception "I found this app easy to use"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.216[a]	3	.749
Likelihood Ratio	1.238	3	.744

Linear-by-Linear Association	.540	1	.462
N of Valid Cases	111		

We observe that p = 0.79 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **Gender of the respondent and the perception "I found this app easy to use"**

Objective 8. To identify the association between Gender of the respondent and the perception "Using medicine adherence app is a wise idea"

Hypothesis:

H0: There is no significant association between Gender of the respondent and the perception "Using medicine adherence app is a wise idea"

H1: There is significant association between Gender of the respondent and the perception "Using medicine adherence app is a wise idea"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.310[a]	4	.860
Likelihood Ratio	1.669	4	.796
Linear-by-Linear Association	.006	1	.936
N of Valid Cases	111		

We observe that p = 0.860 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association **between Gender of the respondent and the perception "Using medicine adherence app is a wise idea"**

Objective 9. To identify the association between Gender of the respondent and the perception "I intend to be a heavy user of medicine adherence app"

Hypothesis:

H0: There is no significant association between Gender of the respondent and the perception "I intend to be a heavy user of medicine adherence app"

H1: There is significant association between Gender of the respondent and the perception "I intend to be a heavy user of medicine adherence app"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.448[a]	4	.349
Likelihood Ratio	4.453	4	.348
Linear-by-Linear Association	3.188	1	.074
N of Valid Cases	111		

We observe that p = 0.349 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association **between Gender of the respondent and the perception "I intend to be a heavy user of medicine adherence app"**

Objective 10. To identify the association between Education of the respondent and the perception "I found this app easy to use"

Hypothesis:

H0: There is no significant association between Education of the respondent and the perception "I found this app easy to use"

H1: There is significant association between Education of the respondent and the perception "I found this app easy to use"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.427[a]	9	.399
Likelihood Ratio	13.584	9	.138
Linear-by-Linear Association	.496	1	.481

N of Valid Cases	111		

We observe that p = 0.39 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **Education of the respondent and the perception "I found this app easy to use"**

Objective 11. To identify the association between Education of the respondent and the perception "I am satisfied with the reminders received to me by any medication/medicine adherence app"

Hypothesis:

H0: There is no significant association between Education of the respondent and the perception "I am satisfied with the reminders received to me by any medication/medicine adherence app"

H1: There is significant association between Education of the respondent and the perception "I am satisfied with the reminders received to me by any medication/medicine adherence app"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.142[a]	12	.010
Likelihood Ratio	20.644	12	.056
Linear-by-Linear Association	2.605	1	.107
N of Valid Cases	111		

From the chi square test table, we observe that p = 0.01, which is less than alpha (.05), so null hypothesis is rejected and we conclude that there is a significant association between

Education of the respondent and the perception "I am satisfied with the reminders received to me by any medication/medicine adherence app"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.601[a]	12	.478
Likelihood Ratio	12.574	12	.401
Linear-by-Linear Association	.063	1	.802
N of Valid Cases	111		

We observe that p = 0.478 which is greater than alpha (.05) so we conclude that not enough evidence is identified to suggest significant association between **Education of the respondent and the perception "I intend to be a heavy user medication/medicine adherence app"**

Objective 13. To identify the association between Education of the respondent and the perception "I fully understand the concept of medication adherence"

Hypothesis:

H0: There is no significant association between Education of the respondent and the perception "I fully understand the concept of medication adherence"

H1: There is significant association between Education of the respondent and the perception "I fully understand the concept of medication adherence"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.365[a]	12	.278
Likelihood Ratio	15.115	12	.235
Linear-by-Linear Association	.087	1	.767
N of Valid Cases	111		

We observe that p = 0.278 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **Education of the respondent and the perception "I fully understand the concept of medication adherence"**

Objective 14. To identify the association between "Do you follow any regular prescription?" and the perception "I intend to be heavy user of medication adherence app"

Hypothesis:

H0: There is no significant association between "Do you follow any regular prescription?" and the perception "I intend to be heavy user of medication adherence app"

H1: There is significant association between "Do you follow any regular prescription?" and the perception "I intend to be heavy user of medication adherence app"

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.747[a]	4	.045
Likelihood Ratio	10.837	4	.028
Linear-by-Linear Association	7.351	1	.007
N of Valid Cases	109		

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.789[a]	4	.147
Likelihood Ratio	6.213	4	.184
Linear-by-Linear Association	3.958	1	.047
N of Valid Cases	111		

We observe that p = 0.147 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **"Have you ever forgotten**

to take your medicines on time?" and the perception "I intend to be heavy user of medication adherence app"

One sample t-test

Now we have further analysed data using one sample t-test by comparing the mean of a single sample to a predetermined value (μ=3) and determing if the sample mean is significantly greater or less than that predetermined value.

α =0.05

Objective: To identify the favourable and unfavourable perception of consumers for medicine adherence app.

Objective 1: To identify the favourable and unfavourable perception of respondents for "I found this app easy to use"

Hypothesis:

H_0:The consumers have neutral perception for "I found this app easy to use"

H_1:The consumers do not have neutral perception for "I found this app easy to use".

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
I found this app easy to use	111	2.23	.881	.084

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
I found this app easy to use	-9.266	110	.000	-.775	-.94	-.61

From the above tables, we observe that p=0.000, which is less than alpha(0.05). So null hypothesis is rejected. Therefore, significant perception of the respondents for **"I found this app easy to use"** at 5% significance level is identified.

Further we check favourable and unfavourable perception of consumer for this variable.

From the statistical table we found that mean=2.23 which is less than 3. So we conclude that consumers have positive perception for **"I found this app easy to use"**.

Objective 2: To identify the favourable and unfavourable perception of respondents for "Entering details of medication/medicine is easy for me"

Hypothesis:

H_0:The consumers have neutral perception for "Entering details of medication/medicine is easy for me"

H_1:The consumers do not have neutral perception for "Entering details of medication/medicine is easy for me".

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Entering details of medication/medicine is easy for me	111	2.25	1.057	.100

One-Sample Test

	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Entering details of medication/medicine is easy for me	-7.452	110	.000	-.748	-.95	-.55

From the above tables, we observe that p=0.000, which is less than alpha (0.05). So null hypothesis is rejected. Therefore, significant perception of the respondents for **"Entering details of medication/medicine is easy for me"** at 5% significance level is identified.

Further we check favourable and unfavourable perception of consumer for this variable.
From the statistical table we found that mean=2.25 which is less than 3. So we conclude that consumers have positive perception for **"Entering details of medication/medicine is easy for me"**.

Objective 3: To identify the favourable and unfavourable perception of respondents for "Using Medication/medicine adherence app is a good idea"

Hypothesis:

H_0:The consumers have neutral perception for "Using Medication/medicine adherence app is a good idea"

H_1:The consumers do not have neutral perception for "Using Medication/medicine adherence app is a good idea".

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Using Medication/medicine adherence app is a good idea	111	1.94	.754	.072

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Using Medication/medicine adherence app is a good idea	-14.852	110	.000	-1.063	-1.20	-.92

From the above tables, we observe that p=0.000, which is less than alpha (0.05). So null hypothesis is rejected. Therefore, significant perception of the respondents for **"Using Medication/medicine adherence app is a good idea"** at 5% significance level is identified.

Further we check favourable and unfavourable perception of consumer for this variable.
From the statistical table we found that mean=1.94 which is less than 3. So we conclude that consumers have positive perception for **"Using Medication/medicine adherence app is a good idea"**.

Objective 4: To identify the favourable and unfavourable perception of respondents for "I fully understand the concept of Medication/medicine Adherence"

Hypothesis:

H_0:The consumers have neutral perception for "I fully understand the concept of Medication/medicine Adherence"

H_1:The consumers do not have neutral perception for "I fully understand the concept of Medication/medicine Adherence".

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
I fully understand the concept of Medication/medicine Adherence	111	2.65	1.173	.111

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
I fully understand the concept of Medication/medicine Adherence	-3.156	110	.002	-.351	-.57	-.13

From the above tables, we observe that p=0.002, which is less than alpha (0.05). So null hypothesis is rejected. Therefore, significant perception of the respondents for **"I fully understand the concept of Medication/medicine Adherence"** at 5% significance level is identified.

Further we check favourable and unfavourable perception of consumer for this variable.
From the statistical table we found that mean=2.65 which is less than 3. So we conclude that consumers have positive perception for **"I fully understand the concept of Medication/medicine Adherence"**.

Objective 5: To identify the favourable and unfavourable perception of respondents for "I intend to be heavy user of medication adherence app"

Hypothesis:

H_0:The consumers have neutral perception for "I intend to be heavy user of medication adherence app"

H_1:The consumers do not have neutral perception for "I intend to be heavy user of medication adherence app".

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
I intend to be heavy user of medication adherence app	111	2.46	1.094	.104

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
I intend to be heavy user of medication adherence app	-5.207	110	.000	-.541	-.75	-.33

From the above tables, we observe that p=0.000, which is less than alpha (0.05). So null hypothesis is rejected. Therefore, significant perception of the respondents for **"I intend to be heavy user of medication adherence app"** at 5% significance level is identified.

Further we check favourable and unfavourable perception of consumer for this variable.
From the statistical table we found that mean=2.46 which is less than 3. So we conclude that consumers have positive perception for **"I intend to be heavy user of medication adherence app"**.

Objective 6: To identify the favourable and unfavourable perception of respondents for "I am satisfied by reminders received to me by any medication/medicine adherence app"

Hypothesis:

H_0:The consumers have neutral perception for "I am satisfied by reminders received to me by any medication/medicine adherence app"

H_1:The consumers do not have neutral perception for "I am satisfied by reminders received to me by any medication/medicine adherence app"

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean

I am satisfied by reminders received to me by any medication/medicine adherence app	111	2.46	1.174	.111

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
I am satisfied by reminders received to me by any medication/medicine adherence app	-4.852	110	.000	-.541	-.76	-.32

From the above tables, we observe that p=0.000, which is less than alpha (0.05). So null hypothesis rejected. Therefore, significant perception of the respondents for **"I am satisfied by reminders received to me by any medication/medicine adherence app"** at 5% significance level is identified.

Further we check favourable and unfavourable perception of consumer for this variable.
From the statistical table we found that mean=2.46 which is less than 3. So we conclude that consumers have positive perception for **"I am satisfied by reminders received to me by any medication/medicine adherence app"**.

Objective 7: To identify the favourable and unfavourable perception of respondents for "Using the medicine/medication adherence app is a wise idea"

H_0:The consumers have neutral perception for "Using the medicine/medication adherence app is a wise idea"

H_1:The consumers do not have neutral perception for "Using the medicine/medication adherence app is a wise idea"

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean

Using the medicine/medication adherence app is a wise idea	111	1.96	.819	.078

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Using the medicine/medication adherence app is a wise idea	-13.321	110	.000	-1.036	-1.19	-.88

From the above tables, we observe that p=0.000, which is less than alpha (0.05). So reject null hypothesis is rejected. Therefore, significant perception of the respondents for **"Using the medicine/medication adherence app is a wise idea"** at 5% significance level is identified.

Further we check favourable and unfavourable perception of consumer for this variable.
From the statistical table we found that mean=1.96 which is less than 3. So we conclude that consumers have positive perception for **"Using the medicine/medication adherence app is a wise idea"**.

One way ANOVA test

Now we analyse the data using one way ANOVA test.

Here we use age as one variable and perception of respondents for medicine adherence as the other variable to perform ANOVA test.

α=0.05

Objective 1: To identify the average perception of respondents for "I found this app easy to use" with respect to Age of the respondents.

Hypothesis

H_0: No significant difference is there in average perception of respondents for "I found this app easy to use" with respect to Age of the respondents.

H_0: $\mu_{15\text{-}25} = \mu_{25\text{-}35} = \mu_{35\text{-}45} = \mu_{45 \text{ above}}$

H_1: There is significant difference in average perception of respondents for "I found this app easy to use" with respect to Age of the respondents.

H_1: $\mu_{15\text{-}25} \neq \mu_{25\text{-}35} \neq \mu_{35\text{-}45} \neq \mu_{45 \text{ above}}$

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	17.099	3	5.700	8.933	.000
Within Groups	68.270	107	.638		
Total	85.369	110			

From the above table we observe that p=0.000 which is less than alpha (0.05) .So null hypothesis is rejected. Therefore significant **difference in average perception of respondents for "I found this app easy to use" with respect to Age of the respondents** is identified**.**

Multiple Comparisons

Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
15-25	25-35	.078	.177	.971	-.38	.54
	35-45	.121	.233	.954	-.49	.73
	Above	-1.449*	.314	.000	-2.27	-.63
25-35	15-25	-.078	.177	.971	-.54	.38
	35-45	.042	.219	.997	-.53	.61
	Above	-1.527*	.304	.000	-2.32	-.73
35-45	15-25	-.121	.233	.954	-.73	.49
	25-35	-.042	.219	.997	-.61	.53
	Above	-1.569*	.339	.000	-2.46	-.68
Above	15-25	1.449*	.314	.000	.63	2.27
	25-35	1.527*	.304	.000	.73	2.32
	35-45	1.569*	.339	.000	.68	2.46

The Tukey post hoc test revealed that

- average perception of respondents with age group 15-25 is statistically significantly lower than average perception of customers with age group Above 45 (p=0.000).

- average perception of respondents with age group 25-35 is statistically significantly lower than average perception of customers with age group Above 45 (p=0.000).
- average perception of respondents with age group 35-45 is statistically significantly lower than average perception of customers with age group Above 45 (p=0.000).
- average perception of respondents with age group Above 45 is statistically significantly lower than average perception of customers with age group 15-25(p=0.000), 25-35(p=0.000) and 35-45(p=0.000)

Objective 2: To identify the average perception of respondents for "Entering details of medicine is easy for me" with respect to Age of the respondents.

Hypothesis

H_0: No significant difference is there in average perception of respondents for "Entering details of medicine is easy for me" with respect to Age of the respondents.

H_0: $\mu_{15\text{-}25} = \mu_{25\text{-}35} = \mu_{35\text{-}45} = \mu_{45 \text{ above}}$

H_1: There is significant difference in average perception of respondents for "Entering details of medicine is easy for me" with respect to Age of the respondents.

H_1: $\mu_{15\text{-}25} \neq \mu_{25\text{-}35} \neq \mu_{35\text{-}45} \neq \mu_{45 \text{ above}}$

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.823	3	4.608	4.519	.005
Within Groups	109.114	107	1.020		
Total	122.937	110			

From the above table we observe that p=0.005 which is less than alpha(0.05) .So null hypothesis is rejected. Therefore **significant difference in average perception of respondents for "Entering details of medicine is easy for me" with respect to Age of the respondents** is identified**.**

Multiple Comparisons

Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
15-25	25-35	-.216	.224	.770	-.80	.37
	35-45	-.781*	.294	.045	-1.55	-.01
	Above	-1.184*	.397	.018	-2.22	-.15

25-35	15-25	.216	.224	.770	-.37	.80
	35-45	-.565	.277	.179	-1.29	.16
	Above	-.968	.384	.062	-1.97	.03
35-45	15-25	.781*	.294	.045	.01	1.55
	25-35	.565	.277	.179	-.16	1.29
	Above	-.403	.429	.784	-1.52	.72
Above	15-25	1.184*	.397	.018	.15	2.22
	25-35	.968	.384	.062	-.03	1.97
	35-45	.403	.429	.784	-.72	1.52

The Tukey post hoc test revealed that

- Average perception of respondents with age group 15-25 is statistically significantly lower than average perception of customers with age group 35-45 (p=0.045) and Above 45 (p=0.018).
- average perception of respondents with age group 35-45 is statistically significantly lower than average perception of customers with age group 15-25(p=0.045).
- average perception of respondents with age group Above 45 is statistically significantly lower than average perception of customers with age group 15-25(p=0.018).

Result and conclusion

- To identify the level of knowledge of medication adherence app by the users.

Among all the respondents 81.98% respondents often forget to take their medicines and 59.09% respondents have heard about medication adherence. 12.22% respondents define medication adherence as “Taking medicine on correct date”, 11.11% respondents define medication adherence as “Taking medicine on correct time”, 18.89% respondents define medication adherence as “Taking the correct medicine as prescribed by the doctor”, 6.67% respondents define medication adherence as “Taking correct dose of the medicine”, 17.78% respondents define medication adherence as “Taking medicine course for correct number of days as prescribed by the doctor” and 33.33% respondents define medication adherence as “All the

above options". 18.92% strongly agree, 29.73% agree, 24.32% are neutral, 21.62% disagree and 5.41% strongly disagree on perception "**I fully understand the concept of Medication/medicine Adherence"**.

From the results we can conclude that, more than half of the total population have heard about medicine adherence and 33% respondents have a very clear idea about what is medicine adherence. We analysed that the respondents have positive perception for "**I fully understand the concept of Medication/medicine Adherence"**. From this we can conclude that more than half of the respondents understand the concept of medicine adherence.

- To identify the level of satisfaction for a medication adherence app by the users.

23.42% strongly agree, 36.04% agree, 15.32% are neutral, 21.62% disagree and 3.60% strongly disagree on perception "**I am satisfied by reminders received to me by any medication/medicine adherence app"**.65.14% respondents face problem while using the app and 34.68% do not face problem while using the app.18.92% strongly agree, 50.45% agree,19.82% are neutral and nearly 10.81% disagree on perception "**I found this app easy to use"**.27.39% strongly agree, 36.94% agree, 17.12% are neutral and nearly 18.02 % disagree on perception "**Entering details of medication/medicine is easy for me"**.
79.28% respondents WOULD LIKE TO USE THIS APP IN FUTURE.

From the results we can conclude that although 65% respondents faced problem while using the app, more than half of the respondents are satisfied by the reminders received by a medicine adherence app, more than half of the respondents found this app easy to use and for more than half of the respondents, entering medicine details is easy for them. And as the respondents have positive perception about the medicine adherence app, 79% respondents are satisfied by the app and would like to use the app in future. To sum up we can say that, level of satisfaction for a medication adherence app is high among the users.

- To identify the level of acceptance of medication adherence app by the users.

21.62% of respondents strongly agree, 32.43% of respondents agree, 27.93% of respondents are neutral, 14.41% disagree and 3.60% strongly disagree on perception "**I intend to be heavy user of medication adherence app"**. 23.42% strongly agree, 36.04% agree, 15.32% are neutral, 21.62% disagree and 3.60% strongly disagree on perception "**I am satisfied by reminders received to me by any medication/medicine adherence app"**.79.28% respondents WOULD LIKE TO USE THIS APP IN FUTURE. 82.88% respondents will recommend medicine adherence app to others. There is a significant association **between "Do**

you follow any regular prescription?" and the perception "I intend to be heavy user of medication adherence app"

From the results we can conclude that more than half of the respondents **intend to be heavy user of medication adherence app and** more than half of the respondents are satisfied by the reminders received to them through medicine adherence app.79% of respondents are satisfied by the app and would like to use this app in future while 82% respondents would recommend this app to others. From this we can conclude that level of acceptance for a medication adherence app is high among the users. We also analysed that there is association **between "Do you follow any regular prescription?" and the perception "I intend to be heavy user of medication adherence app". From this we can conclude that people who follow regular prescription are expected to be heavy users for a medicine adherence app.**

- **To identify the favourable and unfavourable perception of consumers for medicine adherence app.**

Average perception is 2.23 which is less than 3, So we conclude that consumers have positive perception for **"I found this app easy to use"**. Average perception is 2.25 which is less than 3, So we conclude that consumers have positive perception for **"Entering details of medication/medicine is easy for me"**. Average perception is 1.94 which is less than 3. So we conclude that consumers have positive perception for **"Using Medication/medicine adherence app is a good idea"**. Average perception is 2.65 which is less than 3. So we conclude that consumers have positive perception for **"I fully understand the concept of Medication/medicine Adherence"**. Average perception is 2.46 which is less than 3. So we conclude that consumers have positive perception for **"I intend to be heavy user of medication adherence app"**. Average perception is 2.46 which is less than 3. So we conclude that consumers have positive perception for **"I am satisfied by reminders received to me by any medication/medicine adherence app"**. Average perception is 1.96 which is less than 3. So we conclude that consumers have positive perception for **"Using the medicine/medication adherence app is a wise idea"**.

To conclude we can say that, more than 50% of the respondents have positive perception for ease of use of a medicine adherence app, entering details is easy for them, medicine adherence app is a good idea, understanding the concept of medicine adherence app, **intend to be heavy user of medication adherence app, satisfaction by reminders received to users by any medication/medicine adherence app and Using the medicine/medication adherence app is a wise idea.**

- **To identify the association between Age of the respondent and their perception for medication adherence app.**

After performing chi square test we found that, for perception **"I found this app easy to use"** p = 0.00, which is less than alpha (.05), null hypothesis is rejected and there is significant

association between **Age of the respondent and the perception "I found this app easy to use"** is identified. For perception **"Entering details is easy for me"** p = 0.09, which is less than alpha (.05), the null hypothesis is rejected and there is a significant association between **Age of the respondent and the perception "Entering details is easy for me".** For perception **"I intend to be a heavy user of medication adherence app"** p = 0.58 which is greater than alpha (.05) so we conclude that there is not enough evidence to suggest significant association between **Age of the respondent and the perception "I intend to be a heavy user of medication adherence app".** For perception "**I fully understand the concept of medication adherence**" p = 0.94 which is greater than alpha (.05) so we conclude that there is not enough evidence to suggest significant association between **Age of the respondent and the perception "I fully understand the concept of medication adherence"**. For perception **"Using medicine adherence app is a wise idea"** p = 0.54 which is greater than alpha (.05) so we conclude not enough evidence is identified to suggest significant association between **Age of the respondent and the perception "Using medicine adherence app is a wise idea".** For perception **"Using Medication/medicine adherence app is a good idea",** p = 0.239 which is greater than alpha (.05) so we conclude that there is not enough evidence to suggest significant association between **Age of the respondent and the perception "Using Medication/medicine adherence app is a good idea**"

From the results we can conclude that there is a significant association between the age of the user and the perception of ease of use of the app and entering details in the app. No significant association is identified between the age of the user and the perception of continuous use of the app, medicine adherence app being a wise idea and medicine adherence app being a good idea.

- **To identify the association between respondent's gender and their perception for medication adherence app.**

After performing chi square test we found that, for perception **"I found this app easy to use"** p = 0.79 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **Gender of the respondent and the perception "I found this app easy to use".** For perception "**Using medicine adherence app is a wise idea**" p = 0.860 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **Gender of the respondent and the perception "Using medicine adherence app is a wise idea".** For perception "**I intend to be**

a heavy user of medicine adherence app" p = 0.349 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **Gender of the respondent and the perception "I intend to be a heavy user of medicine adherence app"**

From the results we can conclude that there is no association between the gender of the user and the perception of ease of use, continuous use of the app and medicine adherence app being a wise idea.

- **To identify the association between Education of the respondent and their perception for medication adherence app.**

After performing chi square test we found that, for perception **"I found this app easy to use"** p = 0.39 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **Education of the respondent and the perception "I found this app easy to use".** For **perception "I am satisfied with the reminders received to me by any medication/medicine adherence app"** p = 0.01, which is less than alpha (.05), so null hypothesis is rejected and we conclude that there is a significant association between **Education of the respondent and the perception "I am satisfied with the reminders received to me by any medication/medicine adherence app".** For **perception "I intend to be a heavy user medication/medicine adherence app"** p = 0.478 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **Education of the respondent and the perception "I intend to be a heavy user medication/medicine adherence app".** For **perception "I fully understand the concept of medication adherence"** p = 0.278 which is greater than alpha (.05) so we conclude that enough evidence is not identified to suggest significant association between **Education of the respondent and the perception "I fully understand the concept of medication adherence".**

From the results we can conclude that there is an association between the Education of the user and the perception of satisfaction from the reminders received. There is no association between the education of the user and the perception of ease of use of the app, continuous use of the app and understanding the concept of medicine adherence.

Recommendations:

Future research can aim to identify the effect of medication adherence apps on a chronically ill patient. Furthermore, a study can be conducted to identify whether a medication adherence app can help sustain medication adherence rate above 80% for a period of 6-12 months. (Cramer JA, 2008)

Medication adherence apps should not only send reminders, they can educate the people regarding medication adherence and the ill effects of non-adherence. The apps shall also take customer feedback from time to time and improve its services to increase the acceptance and satisfaction level. Increase in acceptance and satisfaction level of a user with respect to a medication adherence app, can lead to increase in rate of medication adherence and the overall health of a person.

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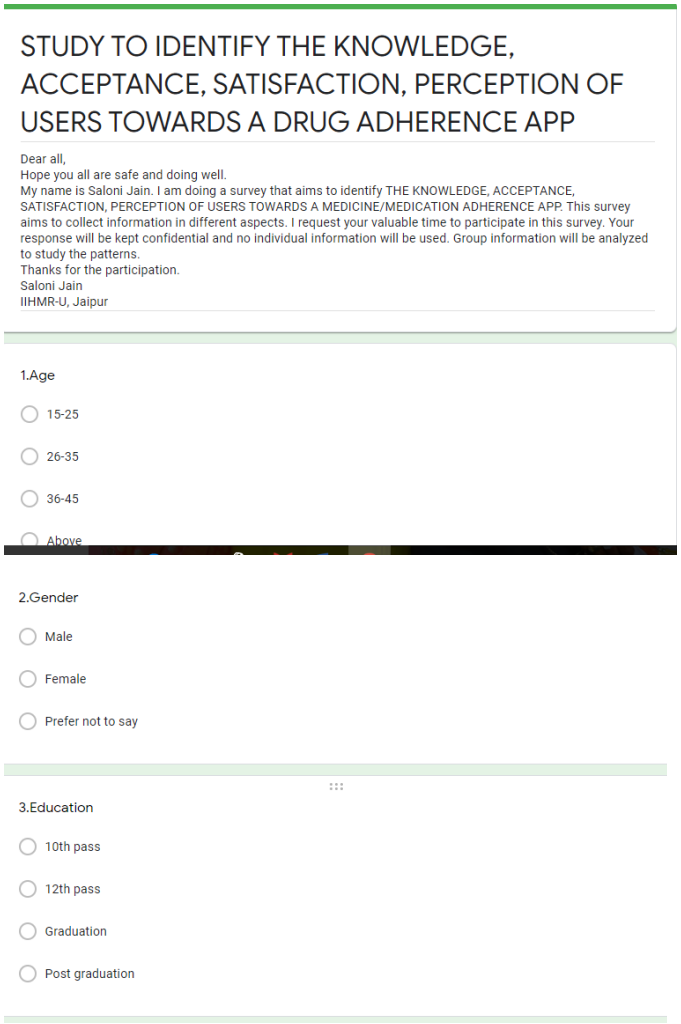
Annexure



STUDY TO IDENTIFY THE KNOWLEDGE, ACCEPTANCE, SATISFACTION, PERCEPTION OF USERS TOWARDS A DRUG ADHERENCE APP

Dear all,
Hope you all are safe and doing well.
My name is Saloni Jain. I am doing a survey that aims to identify THE KNOWLEDGE, ACCEPTANCE, SATISFACTION, PERCEPTION OF USERS TOWARDS A MEDICINE/MEDICATION ADHERENCE APP. This survey aims to collect information in different aspects. I request your valuable time to participate in this survey. Your response will be kept confidential and no individual information will be used. Group information will be analyzed to study the patterns.
Thanks for the participation.
Saloni Jain
IIHMR-U, Jaipur

1.Age

- 15-25
- 26-35
- 36-45
- Above

2.Gender

- Male
- Female
- Prefer not to say

3.Education

- 10th pass
- 12th pass
- Graduation
- Post graduation

4. Have you ever forgotten to take your medicines on time?

- ◯ Yes
- ◯ No

5.Have you heard about Medication Adherence?

- ◯ Yes
- ◯ No

6.What is medication adherence

- ◯ Taking medicine on correct date
- ◯ Taking medicine on correct time
- ◯ Taking the correct medicine as prescribed by the doctor
- ◯ Taking correct dose of the medicine

7.Have you heard about medicine adherence apps?

- ◯ Yes
- ◯ No

8.Have you used any medicine adherence app?

- ◯ Yes
- ◯ No

If Yes, Please specify

Short answer text

9.Do you follow any regular prescription?

- ◯ Yes
- ◯ No

10.How often you take medicines?

- ◯ Once a day
- ◯ Two/three times a day
- ◯ Once a week
- ◯ Once a month

11.Which type of reminder do you receive ?

- Call
- Text/SMS
- App notification

12. According to you, which is the best type of reminder?

- Call
- Text
- App notification

13.Do you face any problem while using the app

- Yes
- No

If Yes, please specify.

Long answer text

14.Please express your agreement with the statement below regarding Medication/medicine adherence apps

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagr...
I found this app...					
Entering details...					
Using Medicati...					
I fully understa...					
I intend to be h...					
I am satisfied b...					
Using the medi...					

15.Would you like to use this app in future?

- Yes
- No

16.Will you recommend the medication adherence app to others?

- Yes
- No