"A Study on Perception and Attitude towards Mobile Health and Fitness Apps among Youngsters."

By: Ajin John
4th Semester
PGDM,
ST.XAVIER'S College
Bangalore

CHAPTER I

INTRODUCTION

INTRODUCTION

Physical fitness is a condition of health and well-being and more precisely, the competency to perform aspects of sports, occupation and daily activities. It is primarily acquired through right nutrition, averagevigorous physical exercise and sufficient rest. In India, a large number of people are not able to choose their lifestyles on their own but those who can do so are promoted by these fitness apps on their Smartphone. The concern over the health of many people of India is rising due to the sedentary jobs. The physical inactivity at their work places out-turns in obesity, cardiovascular diseases and high blood pressure. Considering these dangers to health, fitness apps have become a requirement for many people.

A fitness app is a mobile application that can be downloaded on any mobile device and used in any place to get fit. By measuring the heart rates, calorie level, during exercise and daily activities, fitness apps track the fitness levels of its users. They even monitor the dieting and sleeping patterns. These apps also help users to set fitness goals, track caloric intake, and gather workout ideas and to share progress on social media to facilitate healthy behaviors change. Fitness apps are quite significant for people who are conscious about their health and want to improve in it. These apps work as a motivational factor when its users get to know that they are progressing in their health. They extend different features like result tracking, inspiration not to stop, education on the topic. It is like a personal coach in a pocket affordable for everybody. Fitsness apps direct the users and provide new ideas for your workout regime.

The study is intended to analyses the level of awareness among youngsters regarding the mobile health and fitness apps and their perception towards these apps. It also aims to explore the potential motivating factors that trigger the adoption of diet/fitness apps, mainly among young population who heavily use smart phone devices. This study examines how factors related to body image and fitness concern influence youngsters to adopt diet/fitness apps focusing on young population's desires for better body images.

SIGNIFICANCE

In India, there has been a dramatic growth in health and fitness app industry. A study to understand health and fitness trends among Indians conducted by Velocity MR, a leading market research and analysis company, announced the results. The study found that over 80% of people have begun to track their fitness regime through various modes. Health and fitness apps are being highly followed up by those who are eagerly seek a healthy lifestyle. These apps are quite economic for health seeking individuals due to their unaffordability of memberships in health and fitness centers.

Fitness apps also serve as a influential factor in motivating them towards a healthier and fit lifestyle and crafting them more health conscious. The significant role of these mobile applications is to keep the users informed about their health. A significant increase in the obese population related diseases such as diabetes and hypertension, changing lifestyles, increasing disposable income and increasing awareness regarding health and nutrition primarily drive the market growth.

The ownership of smartphones by a lot of Indian users has given a hike in its explosion since these apps give them with a substitute of health coaching at their doorstep. Similarly, the hectic lifestyles of people have compelled them to use fitness apps to remain fit and healthy. Moreover, the most motivating factor that serves as the contributing factor in the rise of its use involves the celebrities as fashion icons and their healthy lifestyles.

OBJECTIVES

The study is intended to achieve the following objectives:

1. To study the attitude of youngsters towards mobile health and fitness apps
2. To analyze the factors influencing the youngsters to use mobile health and fitness apps
3. To identify the problems faced by the users of mobile health and fitness app

METHODOLOGY

Collection of Data

1. Primary as well secondary data are used for data collected. Primary data is collected with the help of sample survey by using structured questionnaire.
2. Secondary data is collected from books, journals and also referring various websites.

1.7 LIMITATIONS

1. The number of respondents of the survey was limited to 60, which is not so wide. Therefore, researchers in the future are suggested to include a greater number of respondents to generate more reliable and efficient result.

2. The majority of users in the area where the survey was conducted are limited to youngsters of age group 15-25 with special reference to some significant and small regions in Kerala as our study was in reference to Bangalore City only. Therefore, the future researchers could broaden the places here the survey is conducted and collect data from different people living in different areas with various attitudes.

CHAPTER II

REVIEW OF LITERATURE

1. Erica Deenihan (2019) published a paper called 'The Effects of a Mobile Fitness Application on Weight Management and Physical Activity Amongst University Students'. The objective of the study was to examine the effect of a mobile health application, My Fitness Pal, on physical activity, calorie and weight management amongst the university students. The project was successful with improvement in exercise self-efficacy scores among the participants. But it was not successful in bringing changes in BMI or physical activity and calorie expenditure.

2. Melissa Rossi (2017) conducted a study on 'An Exploration of Diet and Fitness App Use Among College Students' which investigated perceptions of diet and fitness apps through identifying factors which influenced the continued use of m-health apps. The result of the study stated that goal setting, record ability, notifications and feedback were the reasons for continued usage among the students. The barriers include forgetfulness, lack of access to healthy food and gym, technical barriers such as lack of data, storage and Wi-Fi.

3. Jaechee Cho et al. (2014) published a study called 'Determinants of Adoption of Smartphone Health Apps Among College Students' which identified the effects of contingent factors that influenced the students in adopting m-health apps. The result reflected that the usefulness of health apps was strongly associated with health consciousness and subjective norms. Also, the main strength is their distribution of quality medical information customized for their users. The developed hypothesis was tested by quantitative primary data collected.

4. Darlene Kinney (2017) published paper, 'College Student's Use and Perception of Wearable Fitness Trackers and Mobile Health Apps' states that WFTs has an impact on level of self-confidence and a potential tool in motivating to engage in physical activities and also gives reasons for non-use and discontinuation of use of WFTs. The study accessed the factors and also determined the relationship with demographic & health information provided by the students through primary data collection.

5. Gayan Padmasekara (2014) published research, 'Fitness App, A Valid Alternative To The Gym; A Pilot Study', concludes that fitness apps are as effective as gym cycling group classes considering the calorie expenditure per unit of time. In this study, primary data were collected by critically analyzing different fitness apps. The result proves that smartphone technology has the potential to be utilized as a tool for public to control growing obesity epidemic.

6. Jaehee Cho et. al (2015) published a study, 'Effects Of Body Image On College Students' Attitude Towards Diet/Fitness Apps On Smartphones' which examined the effects of four factors relating to body image on college students' perception of the usefulness of diet/fitness apps. To test the proposed hypothesis, they made use of both primary and secondary method of data collection. The findings suggest the developers of these apps to use adaptive marketing strategies to attract individuals who lack confidence in their appearance.

7. Benjamin T Crookston et al. (2017) conducted a study on 'How Do Apps Work? Analysis Of Physical Activity App Users Perception Of Behavior Change Mechanism' which provides an idea on how the m-health apps impact behavior. The methodology includes primary data collection which was a cross sectional survey of users of health-related physical activity apps for 6 months. The study proved that the apps have a favorable impact on the users' perception, attitude and belief by motivating them to be healthy and physically active.

8. David Smahel et al. (2017) published a study, 'Functions Of M-Health Applications: A User's Perspective' is the first detailed study describing new association between the functions of app and specific individual characteristics of users, the demand for thinness, excessive exercise and weight status. For the purpose of the study primary data was collected through an online survey and secondary data from visitors of nutrition, weight and exercise related websites.

9. Elizabeth V. Eikey (2018), through her research 'The Use Of General Health Apps Among Users With Specific Conditions: Why College Women With Disordered Eating Adopt Food Diary Apps' concludes that these apps provides insight into motivation and suggests that clinicians and healthcare providers can play an important role in discussions around potential dangers of health apps. This study was conducted using three data collection methods: survey, think aloud exercises and semi-structured interviews

10. Anabela Goncalves da silva (2018) in her research, 'A Review Of Features, Behaviour Changes, Techniques And Quality Of The Most Popular Mobile Apps ToMeasure Physical Activity' suggest that popular health apps are of moderating quality which can be improved by involving health professionals in their development and also by considering the respective recommendations for physical activity suggested by WHO for different target groups. The primary data collection was done by evaluating 51 applications independently and was analyzed by means and standard deviation or frequencies and percentage.

CHAPTER IV

ANALYSIS AND
INTERPRETATION OF DATA

The aim of this chapter is to present the sample profile of the responds and to know the attitude of youngsters towards mobile health and fitness apps. This gives you a clear idea regarding what are the factors that influence the users to use these apps and what are the problems faced by them.

Table 4.1 Showing Ages of Respondents

Particulars	No. of Respondents	Percentage
15-25	35	58.3
25-40	19	31.7
Above 40	6	10.0
Total	60	100.0

Source: Survey Data

Figure 4.1 Showing Ages of Respondents
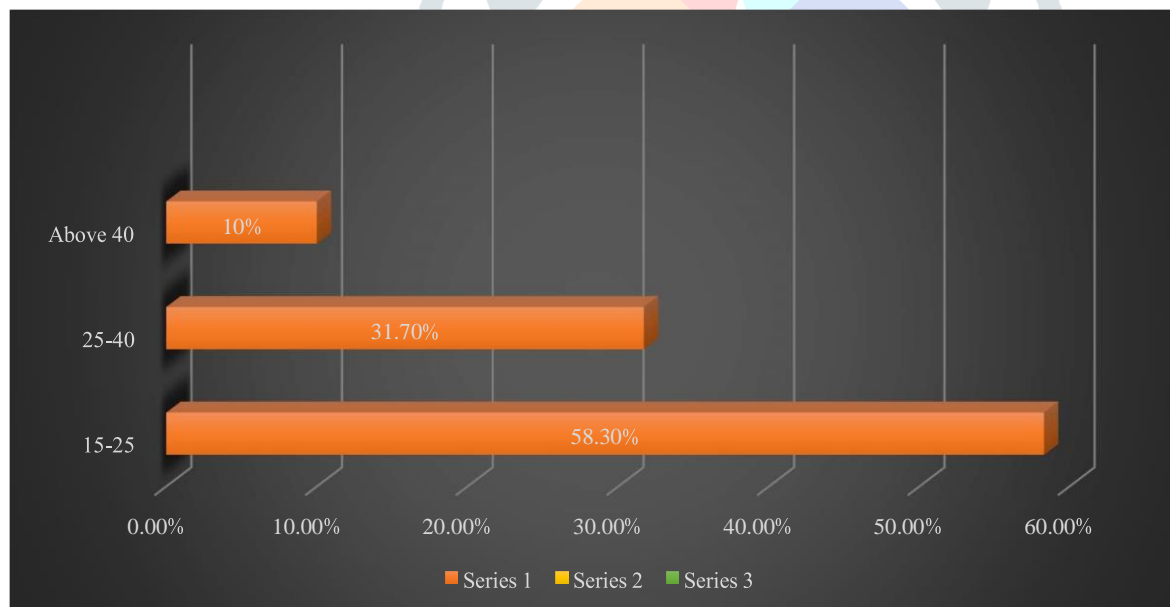
Source: Survey Data

Interpretation:

From the above table and figure, 58.3 percent belongs to the age group of 15-25, 31.7 percent belongs to the age pattern of 25-40 and 10 percent of the respondents is above 40. Thus, the majority of the respondents are of youngsters who come under the age group of 15-25 and least number of respondents is of age above 40.

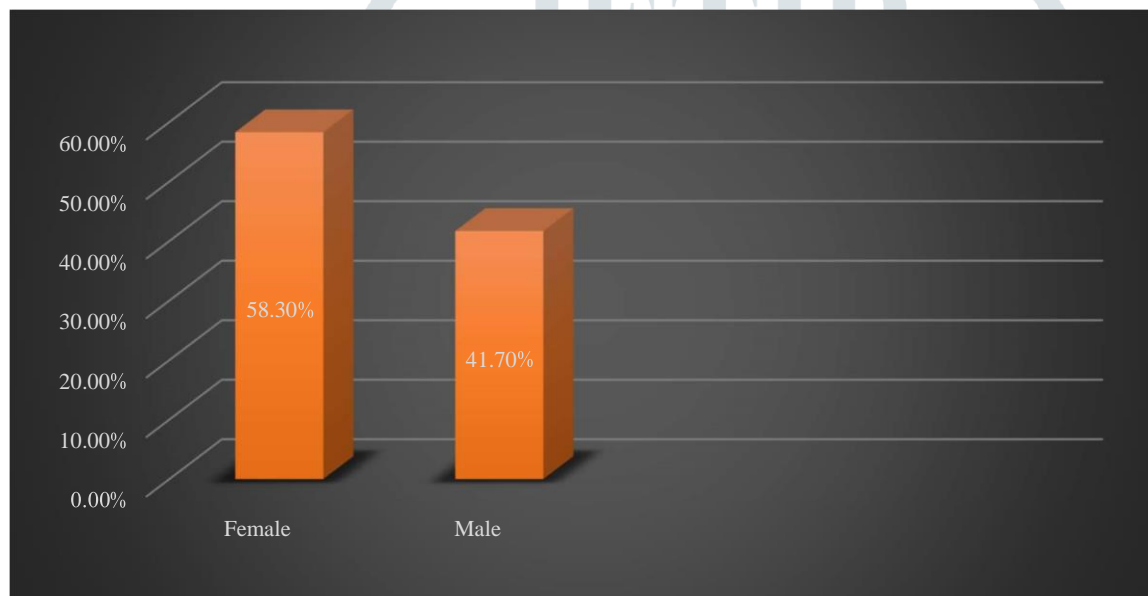Table 4.2 Showing Gender of Respondents

Source: Survey Data

Figure 4.2

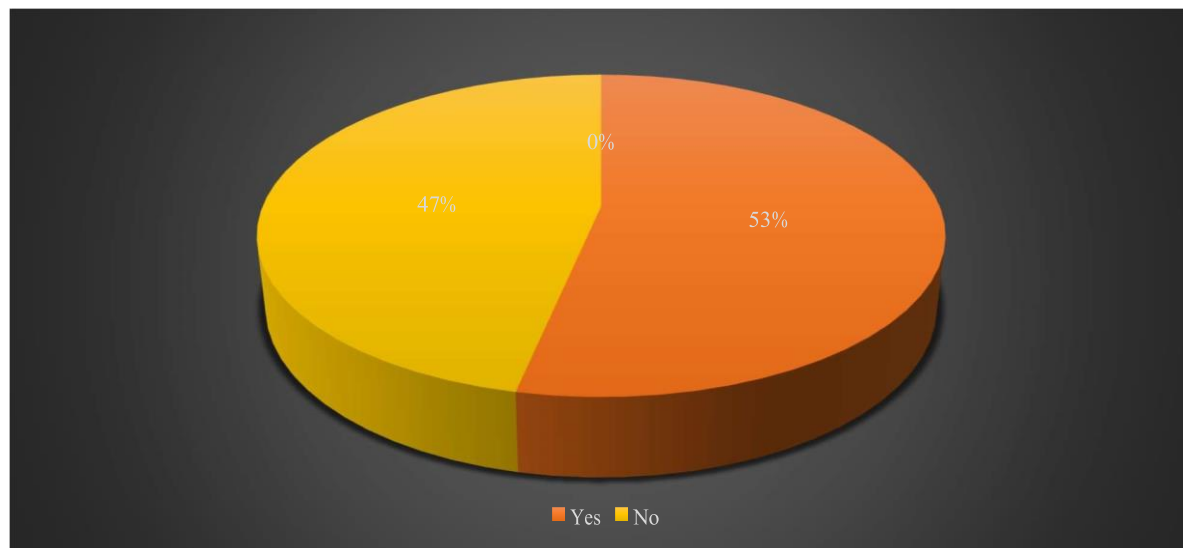Showing Genders of Respondents

Source: Survey Data

Interpretation:

From the above table and figure of the total 60 respondents, 58.3 percent are female and 41.7 percent are male.
Thus, majority of the respondents are female.

Table 4.3 Showing Usage of Respondents Source: Survey Data

Figure 4.3 Showing Usages Regularity of Respondents
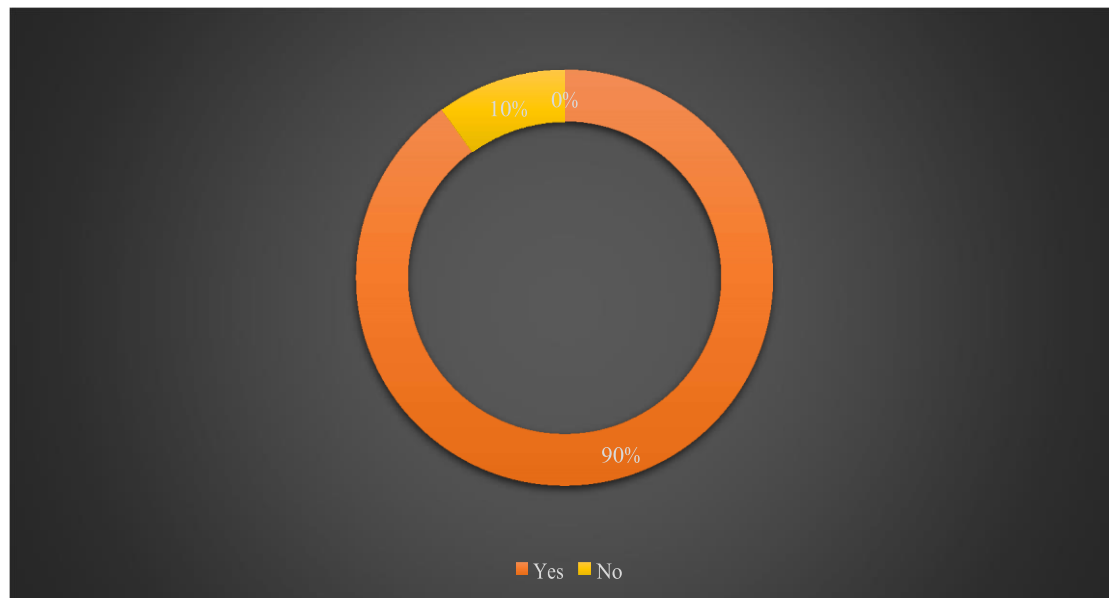

Source: Survey Data

Interpretation:

From the above table and figure, 53 percent are regular exercisers and 47 percent are not regular exercisers.
Thus, the majority of the respondents are of regular exercisers.

Table 4.4 Showing Awareness among Respondents

Particulars	No. of Respondents	Percentage
Yes	54	90.0
No	6	10.0
Total	60	100.0

Source: Survey Data

Figure 4.4 Showing Awareness among Respondents
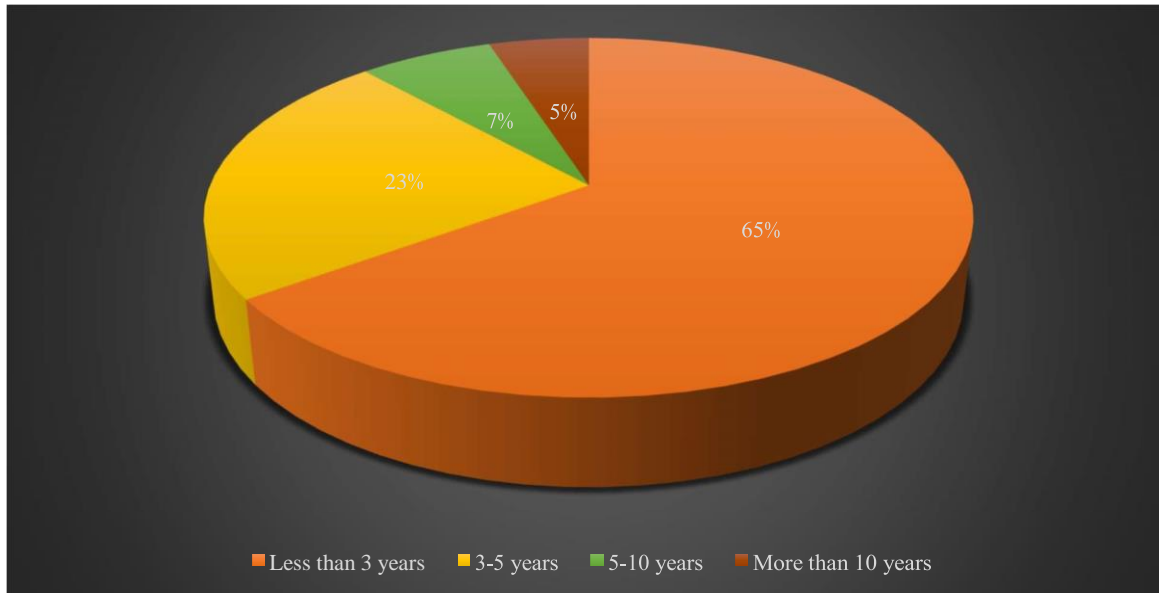

Source: Survey Data

Interpretation:

From the above table and figure, 90 percent were aware of the availability of the mobile health and fitness apps and 10 percent were unaware. Thus, majority of the respondents were aware about these apps.

Table 4.7 Showing Period of Usage by Respondents

Particulars	Frequency	Percentage
less than 3 years	39	65.0
3 to 5 years	14	23.3
5 to 10 years	4	6.7
more than 10 years	3	5.0
Total	60	100.0

Source: Survey Data

Figure 4.7 Showing Period of Usage by Respondents

Less than 3 years   3-5 years   5-10 years   More than 10 years
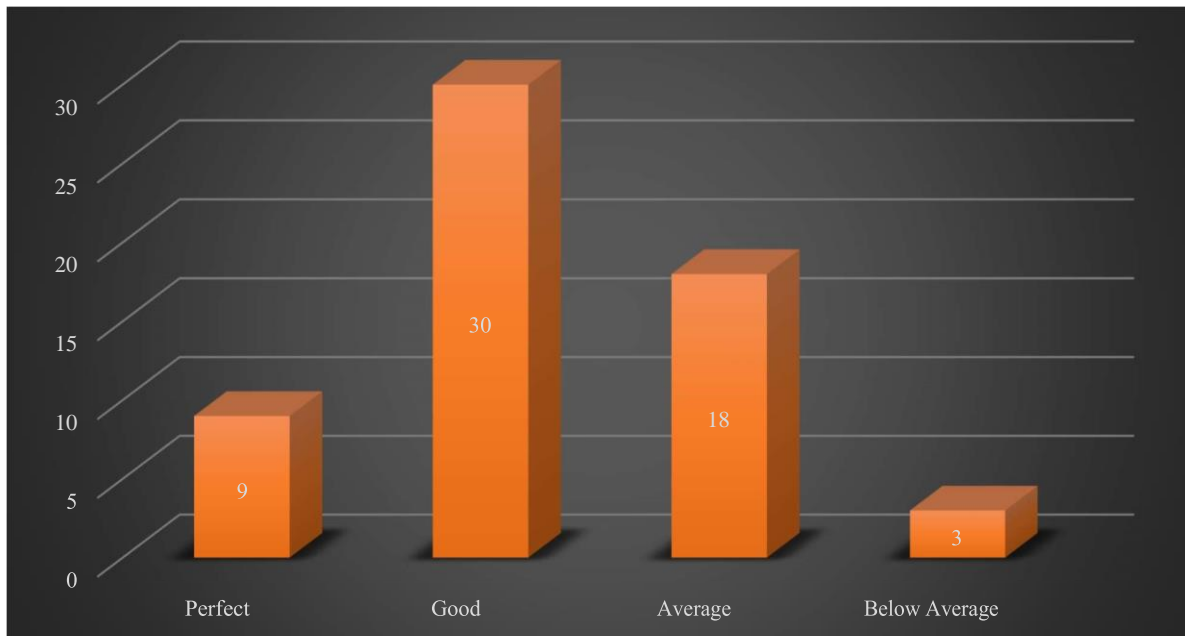
Source: Survey Data

Interpretation:

From the above table and figure, 65 percent used fitness apps for less than 3 years, 23.3 Percent for 3-5 years, 6.7 percent for 5-10 years and 5 percent for more than 10 years. Thus, majority of the respondents use these apps for less than 3 years.

Table 4.8 Showing Fitness Level of Respondents

Particulars	Frequency	Percentage
Perfect	9	15.0
Good	30	50.0
Average	18	30.0
Below Average	3	5.0
Total	60	100.0

Source: Survey Data

Figure 4.8 Showing Fitness Levels of Respondents

Source: Survey Data

Interpretation:

From the above table and figure, 15 percent described their current level of fitness as perfect, 50 as good, 30 percent as average and 15 percent as below average. Thus, majority of the respondents described their current level of fitness as good.

Figure 4.10 Showing Apps are Comparatively Economic
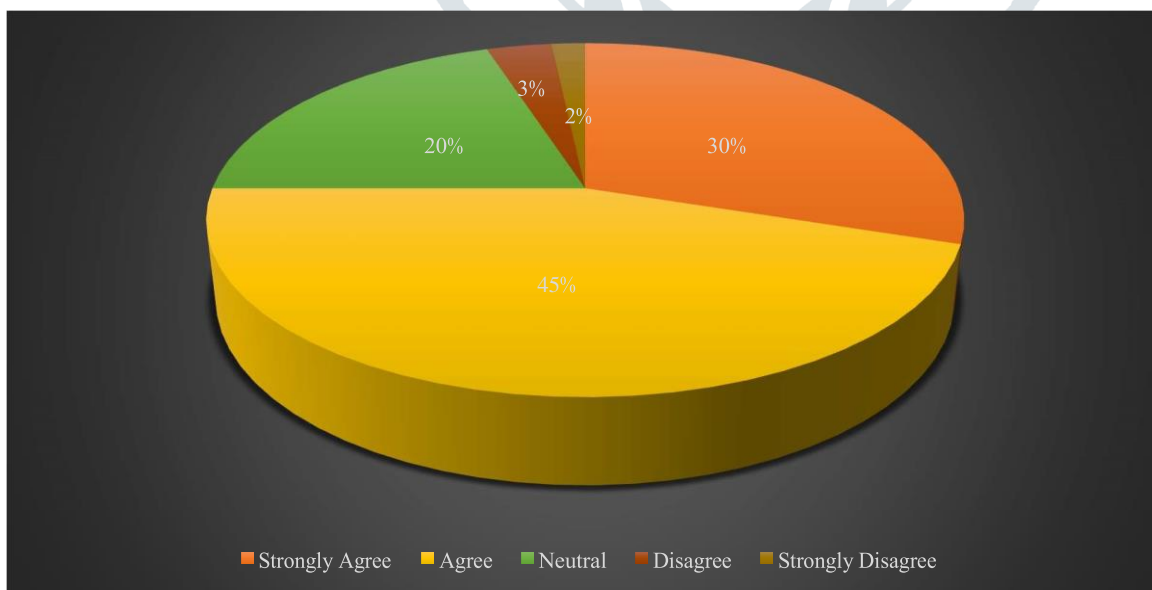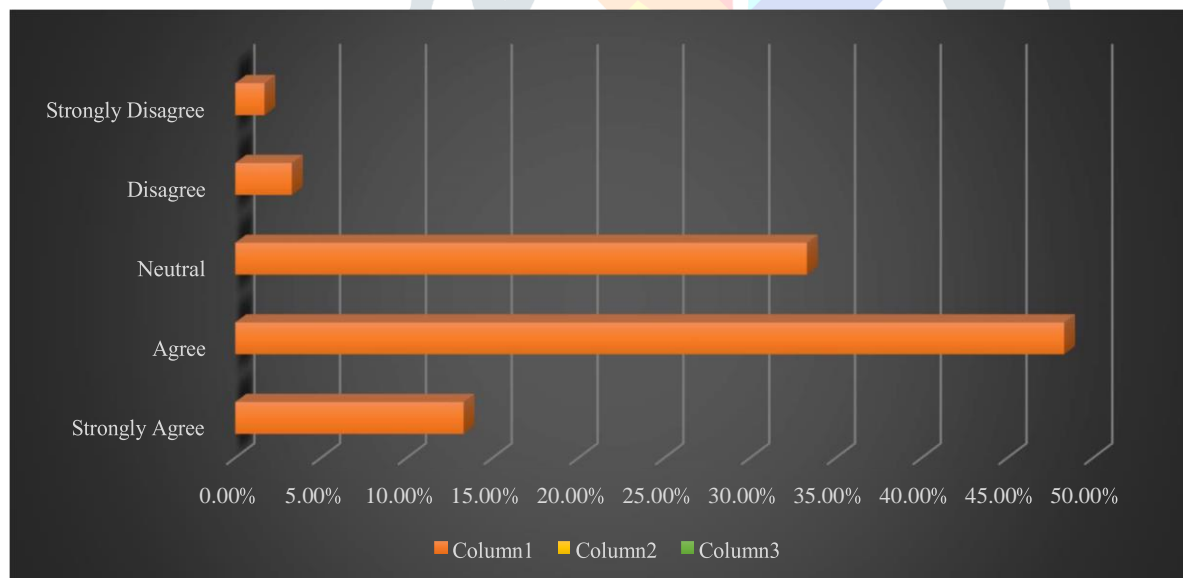

Source: Survey Data

Interpretation:

From the above table and figure, 31.7 percent of youngsters strongly agree that these apps are comparatively economic, 45 percent agree, 20 percent of neural stand, 3.3 percent disagree. Thus, the majority agree that these apps are comparatively economic.

Table 4.11 Showing Lifestyle Compulsions to Use Apps

Particulars	Frequency	Percent
Strongly agree	8	13.3
Agree	29	48.3
Neutral	20	33.3
Disagree	2	3.3
Strongly disagree	1	1.7
Total	60	100.0

Source: Survey Data

Figure 4.11 Showing Lifestyle Compulsions to Use Apps

Source: Survey Data

Interpretation:

From the above table and figure, 13.3 percent strongly agree that their hectic lifestyles compelled them to use theses apps. 48.3 percent agree 33.3 percent of neural stand, 3.3 percent disagree and 1.7 percent strongly disagrees. Thus, the majority agree.

Table 4.15 Showing Easiness

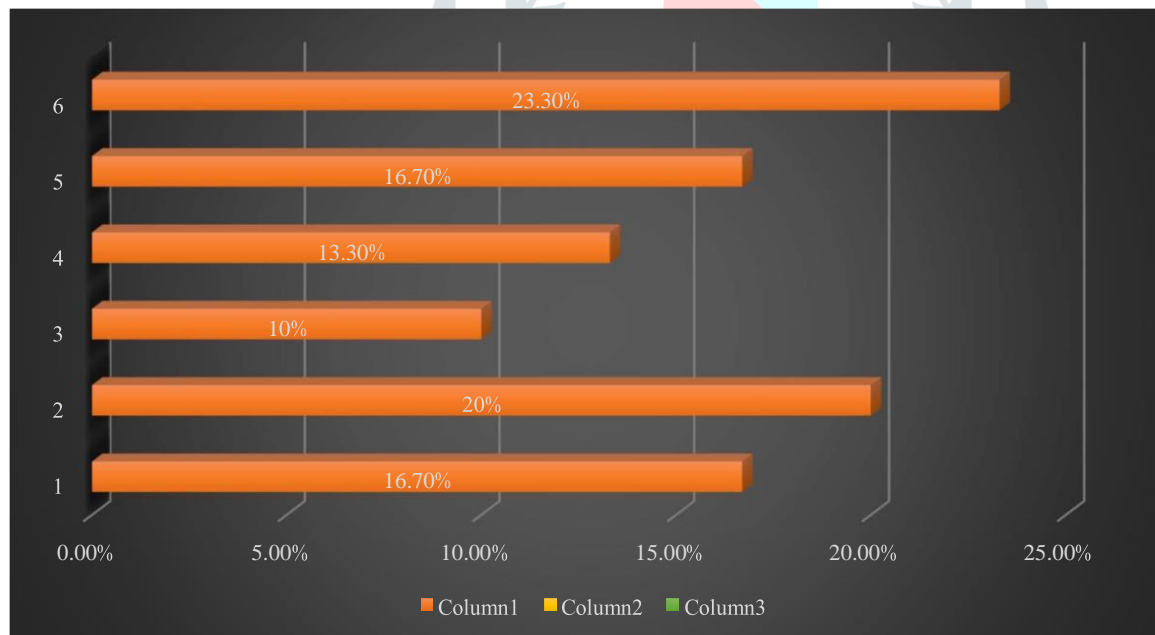| 1	10	16.7
2	12	20.0
3	6	10.0
4	8	13.3
5	10	16.7
6	14	23.3
Total	60	100.0
Rank	Frequency	Percentage

Source:

Survey

Data

Figure

4.15

Showing Easiness
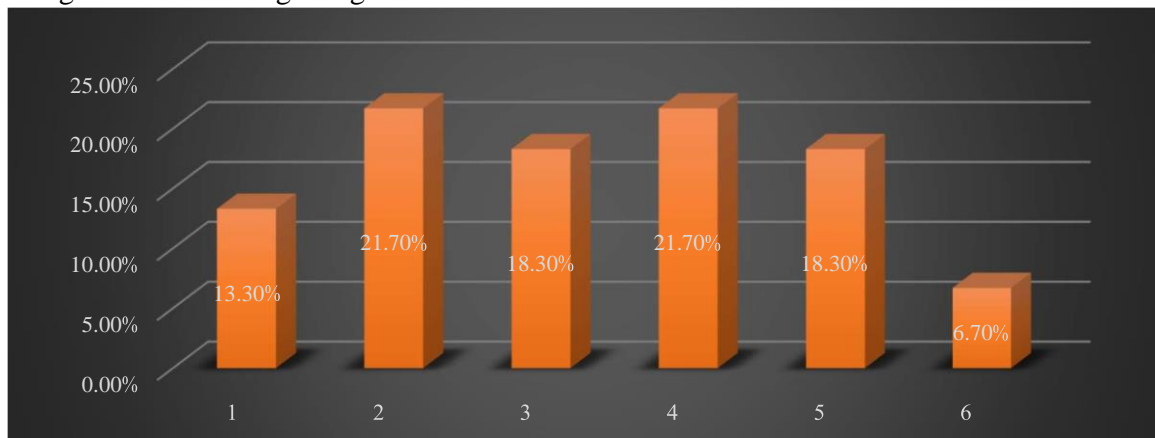

Source: Survey Data

Interpretation:

From the above table and figure, it is clear that majority of the respondent has given 1st rank for the statement "to check information related to allergies and other disease". The 2nd rank was given for the statement "good for releasing stress." The 3rd rank for the statements "uses perceive ease/ less effort using these apps" and "I look up reviews from existing users". The 4th rank was given to the statement "assists my weight loss goal and to tune my body". The 5th rank was given to the statement "helps track my nutrients and calorie intake".

Showing Weight Losses

Rank	Frequency	Percent
1	8	13.3
2	13	21.7
3	11	18.3
4	13	21.7
5	11	18.3
6	4	6.7
Total	60	100.0

Source: Survey Data

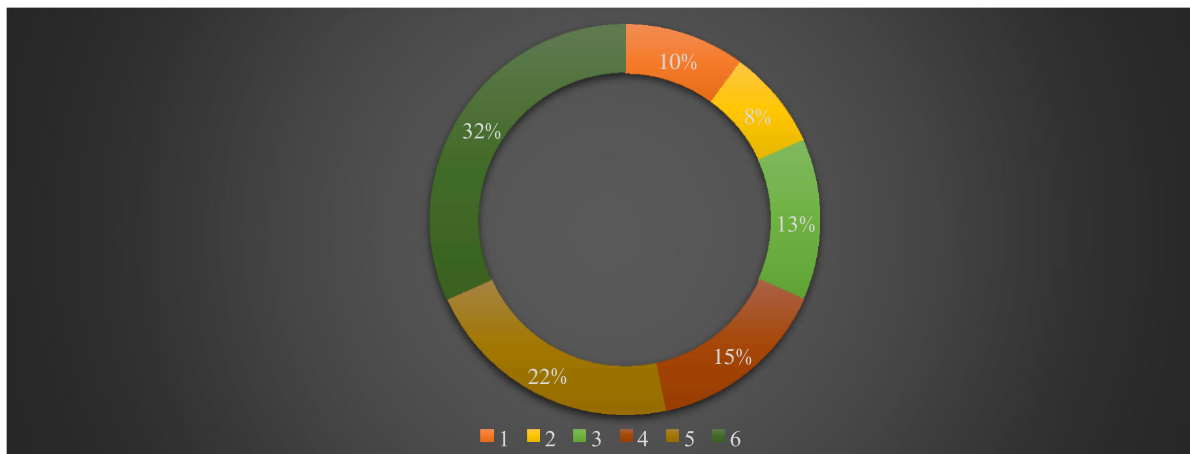Figure 4.18 Showing Weight Losses

Source: Survey Data

Interpretation:

From the above table and figure, it is clear that majority of the respondent has given 1st rank for the statement "to check information related to allergies and other disease". The 2nd rank was given for the statement "good for releasing stress." The3rd rank for the statements "uses perceive ease/ less effort using these apps" and "I look up reviews from existing users". The 4th rank was given to the statement "assists my weight loss goal and to tune my body". The 5th rank was given to the statement "helps track my nutrients and calorie intake".

Showing Medical Information

Source: Survey Data

Figure 4.20 Showing Medical Information
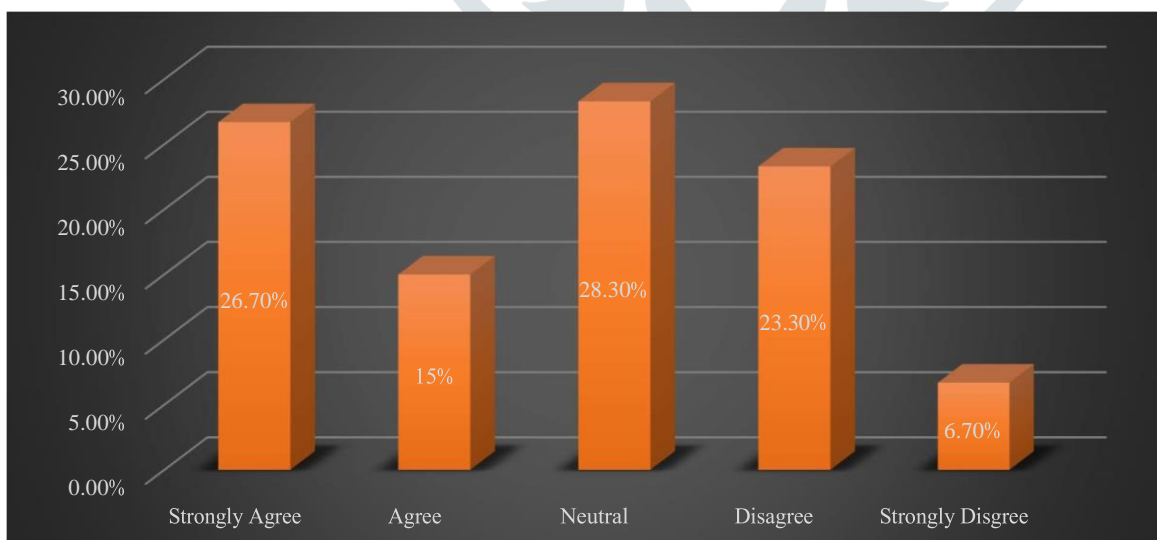

Source: Survey Data

Interpretation:

From the above table and figure, it is clear that majority of the respondent has given 1st rank for the statement "to check information related to allergies and other disease". The 2nd rank was given for the statement "good for releasing stress." The3rd rank for the statements "uses perceive ease/ less effort using these apps" and "I look up reviews from existing users". The 4th rank was given to the statement "assists my weight loss goal and to tune my body". The 5th rank was given to the statement "helps track my nutrients and calorie intake".

Showing Reminder Pressure
Source: Survey Data

Figure 4.26 Showing Reminder Pressure

Source: Survey Data Interpretation:

It is clear from the above table and figure that the 26.7 percent strongly agree with the statement "I am stressed by the reminders of these apps", 15 percent agree with the statement, 28.3 percent stand neutral, 23.3 disagree and 6.7 strongly disagree. Thus, majority of the respondents stand neutral.

CHAPTER V

FINDINGS, SUGGESTIONS

AND CONCLUSION

FINDINGS

1. The majority of the respondents are within the age group of 15-25, that is, 58.3% and 10% of the respondents are of age above 40

2. Among the 60 respondents, 58.3% are female and 41.7% are male.

3. 53% of the respondents are regular exercisers and whereas 47% are not regular exercisers.

4. Majority of the respondents, that is, 90% were aware about the availability of the mobile health and fitness apps and 10% were unaware.

5. 53.3% uses fitness apps for the exercise whereas 3.3% uses vascular risk assessment apps and smoking cessation app.

6. 65% uses fitness apps for less than 3 years and 5% uses fitness apps for more than 10 years.

7. The majority of the respondents describe their current level of fitness as good, that is, 50% and 15% describes as average.

8. Majority of the respondents, that is, 45% agrees with the statement that 'these apps are economic' whereas 3% disagree with the statement.

9. Majority of the respondents agree that their hectic lifestyles compelled them to use these apps, that is, 48.3% and 1.7% strongly disagree.

10. Majority of the respondents agree that these apps are convenient 26.7% and 15% strongly disagree

11. Most of the respondents 33.3% stand neutral with the statement 'I find it time consuming' and 3.3% strongly disagree.

12. Most of the respondents 30% agree with the statement 'I cannot stay motivated' and 10% strongly agree with the statement.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The study has the following limitations:

1. The number of respondents of the survey was limited to 60, which is not so wide. Therefore, researchers in the future are suggested to include a greater number of respondents to generate more reliable and efficient result.

2. The majority of users in the area where the survey was conducted are limited to youngsters of age group 15-25 with special reference to some significant and small regions in Kerala as our study was in reference to Idukki district only. Therefore, the future researchers could broaden the places here the survey is conducted and collect data from different people living in different areas with various attitudes.

SUGGESTIONS

Based on the findings of the study the followings suggestions are made:

1. There are youngsters who are still unaware about the benefits of health apps, especially those who belong to the age category of 30-40. Serious efforts must be taken so that they are all fully aware about these apps.
2. Majority of the users states that they couldn't stay motivated which later led them to stop using such apps and they are also largely stressed by frequent reminders and pop-up advertisements. App developers must give attention to these problems faced by the users.
3. They should also employee more sophisticated systems that would assist users in their food choice instead of counting calories.
4. Technical matters ranging from automations to GPS connectivity and battery usage should be taken into consideration.
5.

CONCLUSION

Fitness app has gained popularity in this decade. Growing concern for health were the major driving factor that led to this growing trend. A fitness app is an application that can be downloaded on any mobile devices and used anywhere to get fit. More health apps are emerging by replacing the conventional methods. Health apps are more convenient and less time consuming. Our study was regarding the perception and attitude of youngsters towards online health apps. The study founded that most of our respondents are youngsters of age group 15-25. It was evident that hectic lifestyles and personalized services motivated the youngsters to use these apps. Repeatedly popping up advertisements and reminders demotivate the youngsters to use this apps, similarly most of the youngsters were unaware about the benefits of these apps.

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