

Report Analysis: A Study on Activity Pattern of University Student during COVID-19 Pandemic in Bangladesh

Group 1

1815015 Mehedi Hasan
1815022 Tanvir Hasan
1815025 Nur E Faeza Ankhi
1815029 Khalid-Bin-Shofiq
1815030 Katha Saha



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CHAPTER 1: INTRODUCTION

1.1 Background of the Study

1.2 Objectives

- To identify the general activities of the university students of Bangladesh during the non-lock down period due to enforced closer of universities
- To identify the activities performed the university students of Bangladesh during the enforced lockdown due to COVID-19
- To find out the relationships between activities and socio-economic condition

1.3 Rationale of the Study

1.5 Organization of the Report

1.4 Scope and Limitation

- Only public university undergrad students
- Only activity pattern
- Biased
- No physical survey
- No comparison with pre-pandemic situation
- Few wrong responses

CHAPTER 2: LITERATURE REVIEW

2.1

Scenario of Covid-19:

- Syndrome by (SARS-CoV-2; formerly called 2019-nCoV)
- Announced as a global pandemic on 11 March, 2020 by WHO (Cennimo, 2021).
- Symptoms are fever, cough, shortness of breath (WHO, 2020a).
- 194,987,079 cases till July 26, 2021 of what 1,179,827 cases from Bangladesh (Worldometer, 2021).
- Implementing health protocols: social distancing, hand washing, lockdown procedures and so on (Ferdous et al., 2020).
- Population with double burden of diseases are at high risk of corona (Islam et al., 2020)

2.2

Concept and Operational Definitions Related to the Study:

- **Non-Lockdown Period:** Since late-march of 2020 till now (Abdullah, 2020).

- **Lockdown Period:**

27 th March, 2020 to 30 th May, 2020 (Islam et al., 2020).
5 April, 2021 to 23 May, 2021 (The Times of India, 2021a).
Later above one extended till 6 June, 2021 (The Times of India, 2021b).
July 1, 2021 and continued to one week (Business Standard, 2021).

- **University Students:** 49 public universities (undergrad students) in Bangladesh (UGC, n.d.)

Continue.....

CHAPTER 2: LITERATURE REVIEW

Continue.....

- **Online Activity:** Using social media (Facebook, YouTube or others), online entertainment, online gaming, online work, online classes
- **Indoor Activity:** Sleeping, helping family members in household chores, spending time with family, study, recreation (watching TV or playing indoor game), physical exercise etc.
- **Outdoor Activity:** Times spending outside the residence, travelling long distance, visiting to friends/ neighbors/ relatives

2.2

Study Related to Student Activity and COVID-19:

Literatures	Authors and Year
What is COVID-19?	Cennimo, D. J. (2021)
Key Messages and Actions for COVID-19 Prevention and Control in Schools?	WHO, (2020a)
COVID-19 and Bangladesh: Challenges and How to Address Them	Anwar, S., Nasrullah, M., and Hosen, M. J. (2020)
Tackling the COVID-19 pandemic: The Bangladesh perspective	Islam, M. T., Talukder, A. KK., Siddiqui, M. N., and Islam, T. (2020)
The impact of COVID-19 pandemic on mental health & wellbeing among home-quarantined Bangladeshi students: A cross-sectional pilot study	Khan, A. H., Sultanaa, M. S., Hossaina, S., Hasan, M. T., Ahmed, H. U., and Sikdera, M. T. (2020)
Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19)	WHO. (2020b)

CHAPTER 2: LITERATURE REVIEW

Continue.....

Literatures	Authors and Year
GIS-Based Spatial Modeling to Identify Factors Affecting COVID-19 Incidence Rates in Bangladesh	Rahman, M. H., Zafri, N. M., Ashik, F. R., and Waliullah, M. (2020).
Bangladesh extends university closure till May 29	Dhaka Tribune. (2021)
COVID-19 CORONAVIRUS PANDEMIC	Worldometer. (2021)
Knowledge, attitude, and practice regarding COVID-19 outbreak in Bangladesh: An online based cross-sectional study	Ferdous, M. Z., Islam, M. S., Sikder, M. T., Mosaddek, A. S. M., Valdivia, J. A. Z., and Goza, D. (2020)
COVID-19: Bangladesh extends lockdown until May 30	Kamruzzaman, M. (2020)
Bangladesh decides to keep all educational institutions closed till Dec 19	Abdullah, M. (2020)
Impacts of nationwide lockdown due to COVID-19 outbreak on air quality in Bangladesh: a spatiotemporal analysis	Islam, M. S., Tusher, T. R., Roy, S., and Rahman, M. (2020)
Bangladesh extends lockdown till May 2	The Times of India. (2021a)
Bangladesh extends lockdown, tightens restrictions	The Times of India. (2021b)
Bangladesh to impose nationwide lockdown from July 1 instead of June 28	Business Standard. (2021)
List of Public Universities.	UGC. (n.d.)
Physical Activity and Sedentary Lifestyle in University Students: Changes during Confinement Due to the COVID-19 Pandemic	Blanco, C. R., Almagro, J. R., Zafra, M. D. O., Fernández, M. L. P., Laguna, M. D. C. O., and Martínez, A. H. (2020)
Objectively-Assessed Physical Activity, Sedentary Behavior, Smartphone Use, and Sleep Patterns during-COVID-19 Quarantine in Young Adults from Spain	Sañudo, B., Fennell, C., and Oliver, A. J. S. (2020),

And more.....

CHAPTER 3: METHODOLOGY

3.1 Self Review

3.2 Population Fixation

Only undergraduate students of public universities in Bangladesh ✕

3.3 Preparation of Co-ordination Schema

3.4 Preparation of Sample deign

Stratified and simple random sampling

Sample size = 410

Confidence Level = 95%

Confidence interval = 4.84

Source: sample size calculator ✕

3.5 Preparation of Questionnaire for Pretesting

3.6 Conducting Pretest

3.7 Preparation of Final Questionnaire

3.8 Conducting Final Survey

3.8.1 Data Collection

3.8.2 Database Preparation and Data Compilation

3.8.3 Data Analysis and Interpretation

3.9 Final Report Preparation

Flow diagram: Methodology of the study

CHAPTER 3: METHODOLOGY

3.8 Conducting Final Survey

Preparation and Calculation:

The arithmetic mean = $\sum fx/N$

Here, f = frequency

x = Mid points

N = total number of observation
= $\sum f$

Percentage of any activity

Confidence Level = 95%

Confidence interval = 4.84

Source: sample size calculator

Sankey diagram and mosaic graphs are prepared by some statistical software and R Programming.

- Collecting categorical data
- Processing in excel
- Replacing in R Studio
- Finally generated through coding

CHAPTER 4: STUDENT PROFILE ANALYSIS

Socio-economic condition:

Table1: Gender analysis (online survey, 2021)

Class of	Frequency
Male	233
Female	177
Grand Total	410

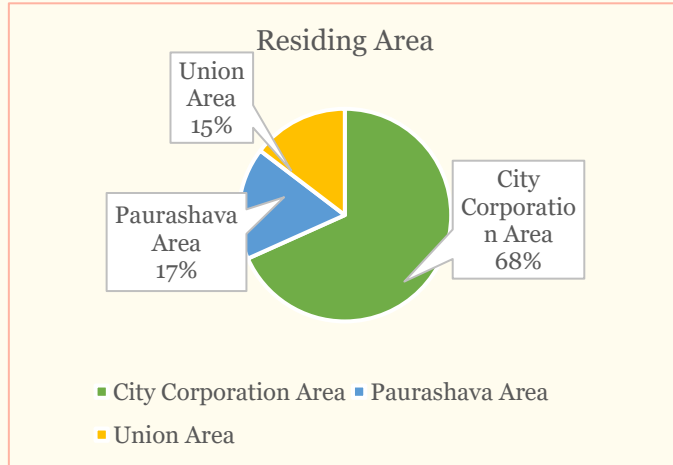


Figure1: Residing area of the students (online survey, 2021)

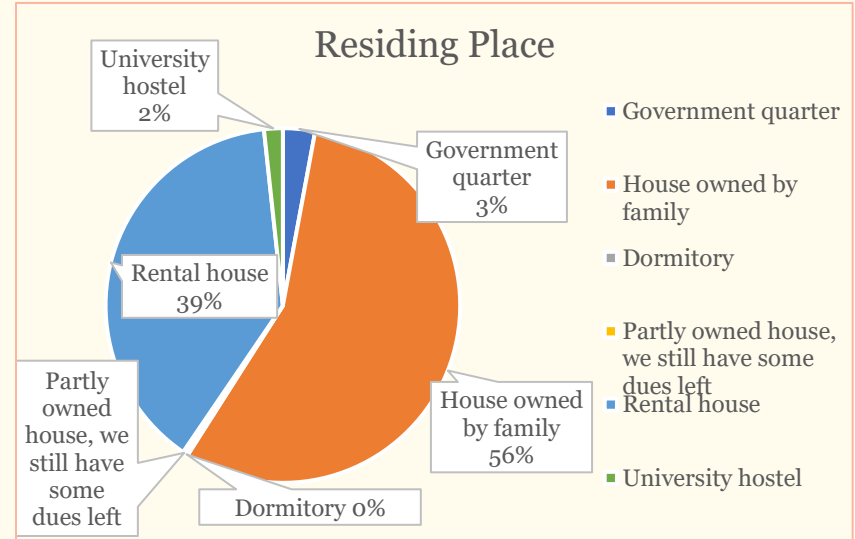


Figure2: Residing place of the students (online survey, 2021)

CHAPTER 4: STUDENT PROFILE ANALYSIS

Socio-economic condition:

Table2: Monthly Household Income, Gender and Living Area (online survey, 2021)

Income (BDT)	Gender		Living Area			Total
	Female	Male	City Corporation	Paurashava	Union	
<10,000	14	16	12	8	10	30
10,001 to 20,000	15	33	21	10	17	48
20,001 to 30,000	37	53	56	19	15	90
30,001 to 50,000	52	58	83	16	11	110
50,001 to 100,000	46	54	79	14	7	100
>100,000	13	19	29	3		32
Total	177	233	280	70	60	410

CHAPTER 4: STUDENT PROFILE ANALYSIS

COVID-19 Situation:

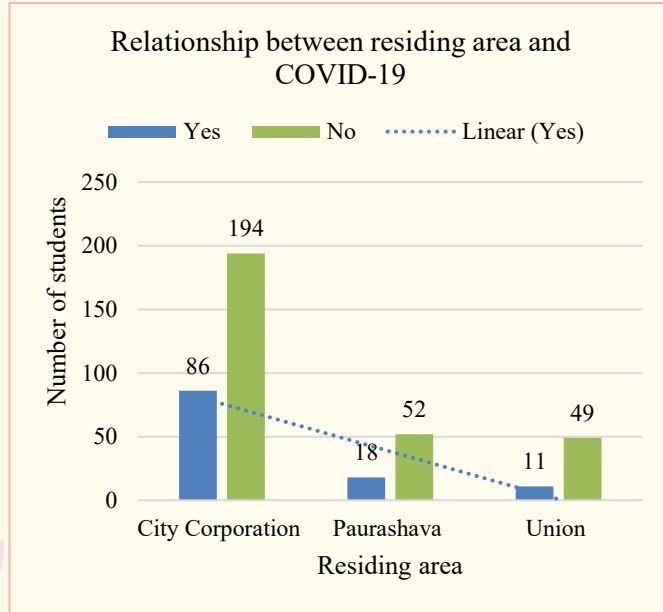


Figure3: Trends of COVID-19 with residing area (online survey, 2021)

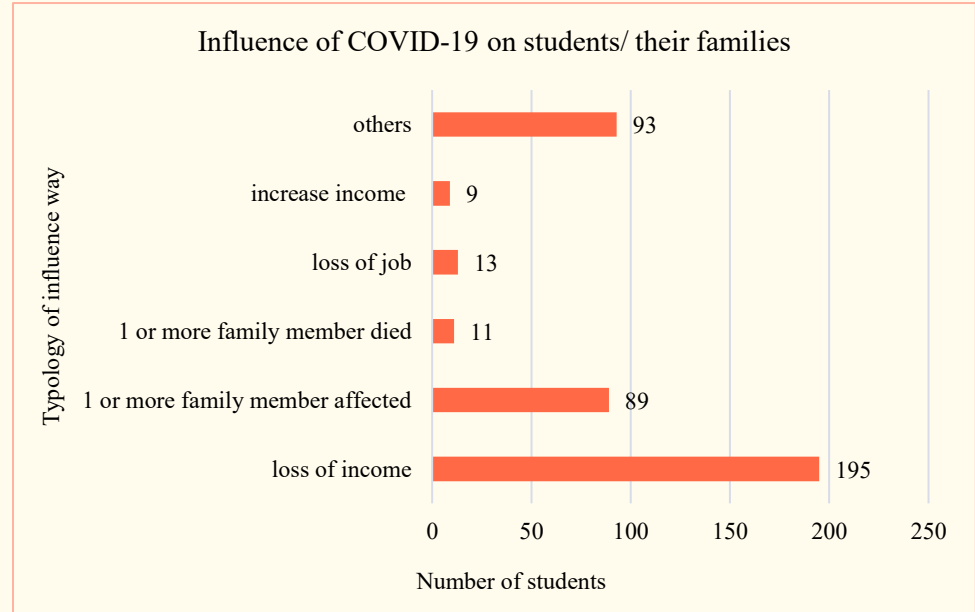


Figure4: Influencing typology by COVID-19 of students and their family (online survey, 2021)

CHAPTER 4: STUDENT PROFILE ANALYSIS

Information about students' online class:

Table3: Holding online classes at lockdown and at any period; holding online exam (online survey, 2021)

Online class at lockdown		Online Class at any period		Holding Online examination	
N/A	18	N/A	0	N/A	0
No	92	No	2	No	172
Yes	300	Yes	408	Yes	238
Grand Total	410	Grand Total	410	Grand Total	410

Number of Students vs Spending hours behind online class (hours/week)

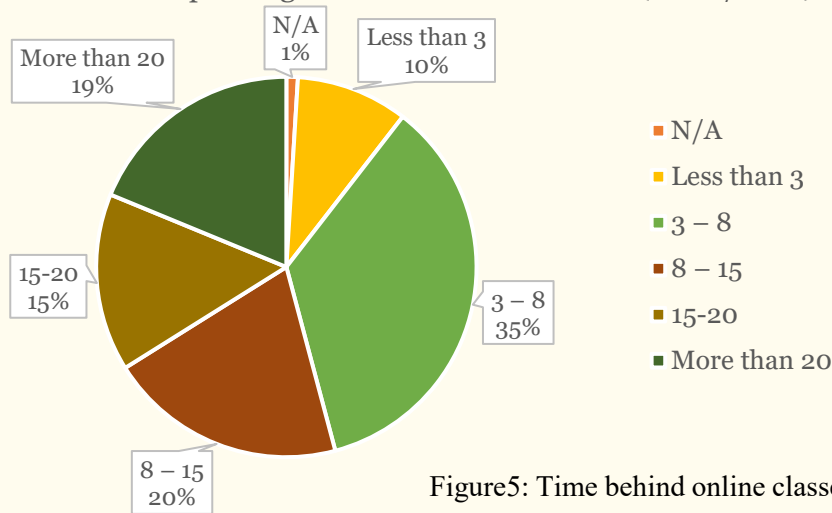


Figure5: Time behind online classes (online survey, 2021)



CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Spending time behind study other than class:

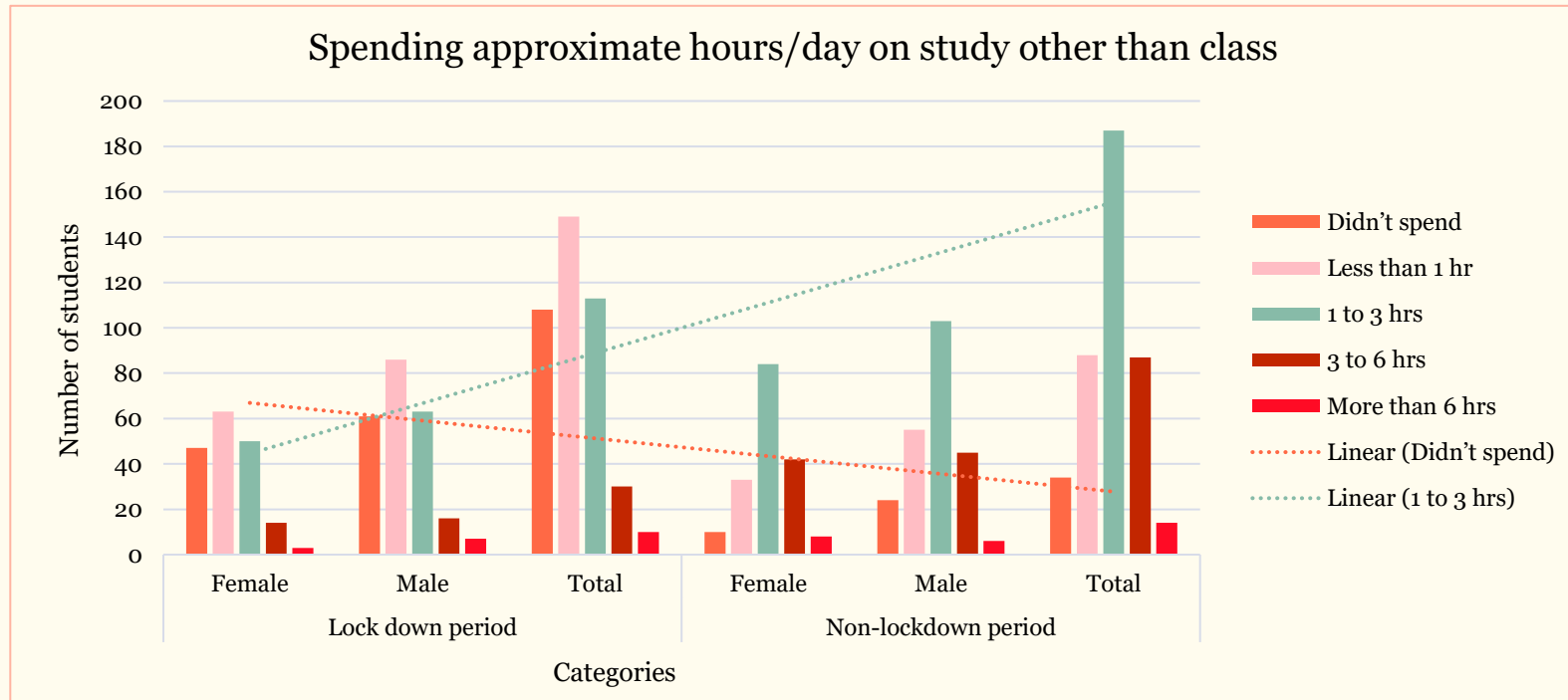


Figure1: Spending time behind study other than class (online survey, 2021)

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Spending approximate time behind sleeping:

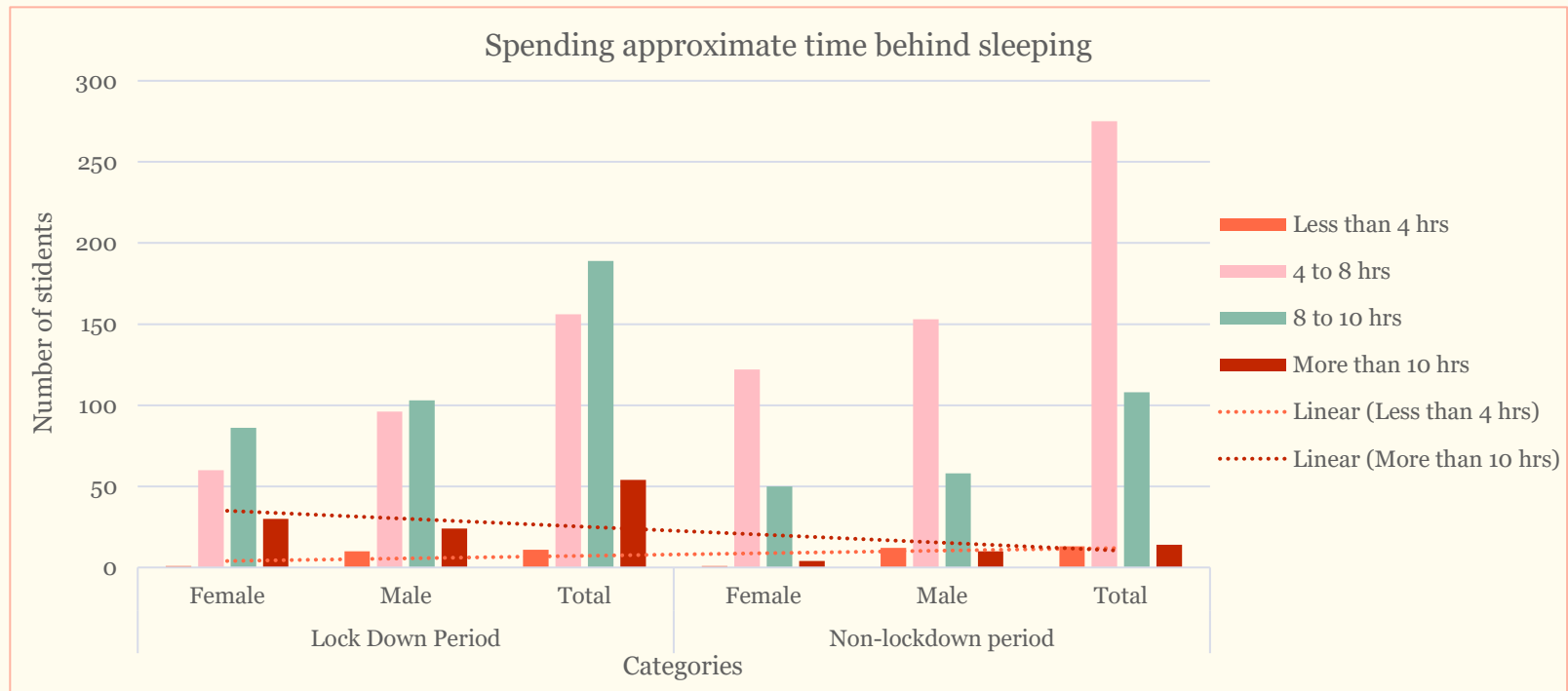


Figure2: Spending time behind sleeping (online survey, 2021)

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Spending approximate time behind helping family members in household works:

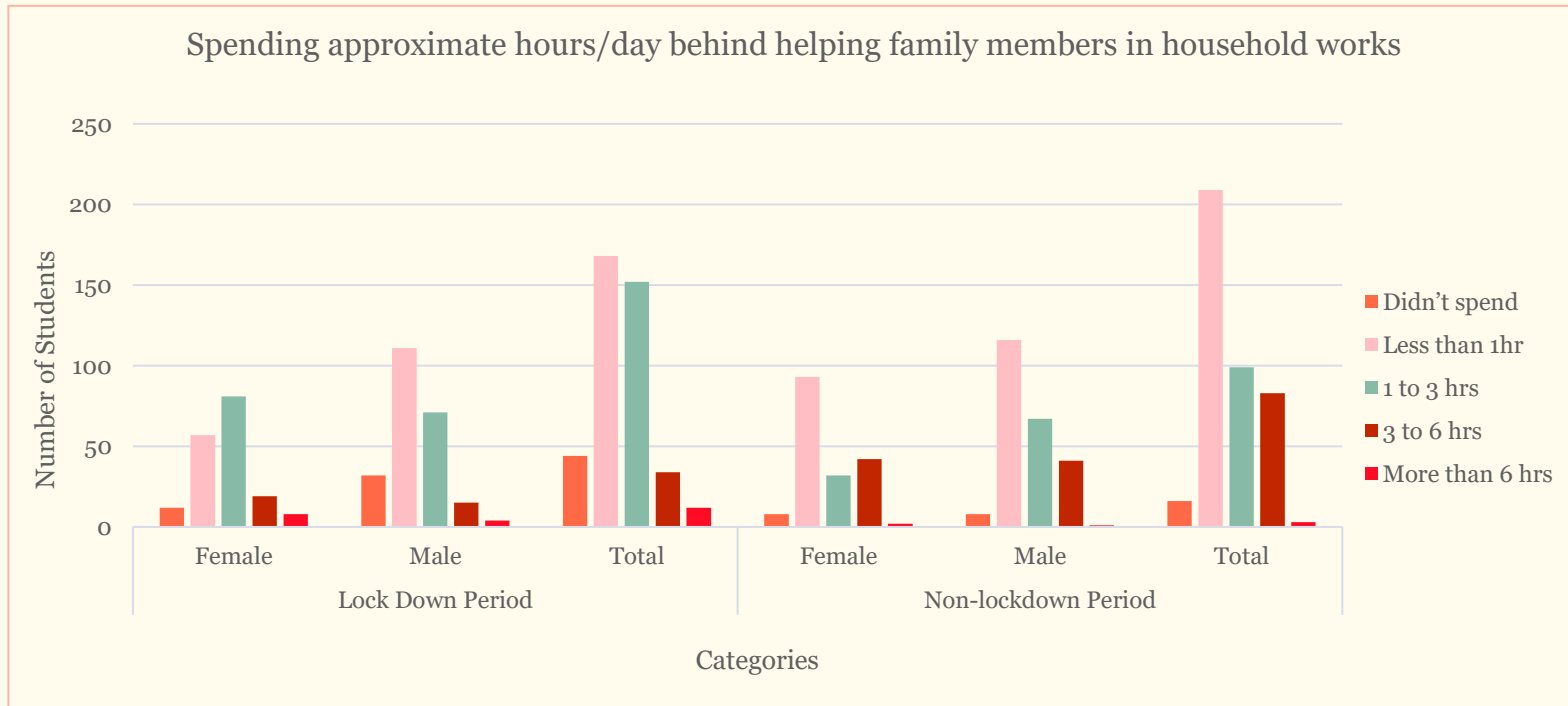


Figure3: Spending time behind helping family (online survey, 2021)

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Spending approximate time/day with family:

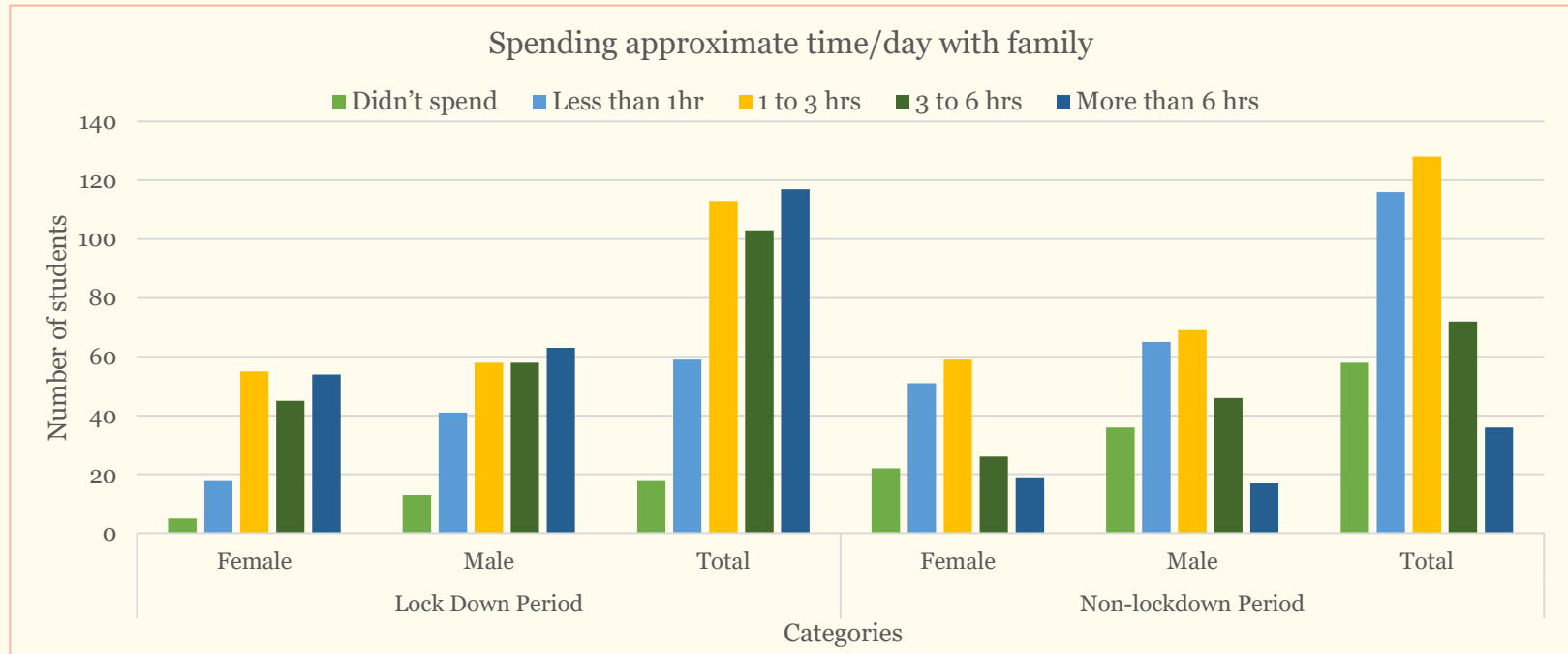


Figure4: Spending time with family (online survey, 2021)

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Spending approximate time behind studying:

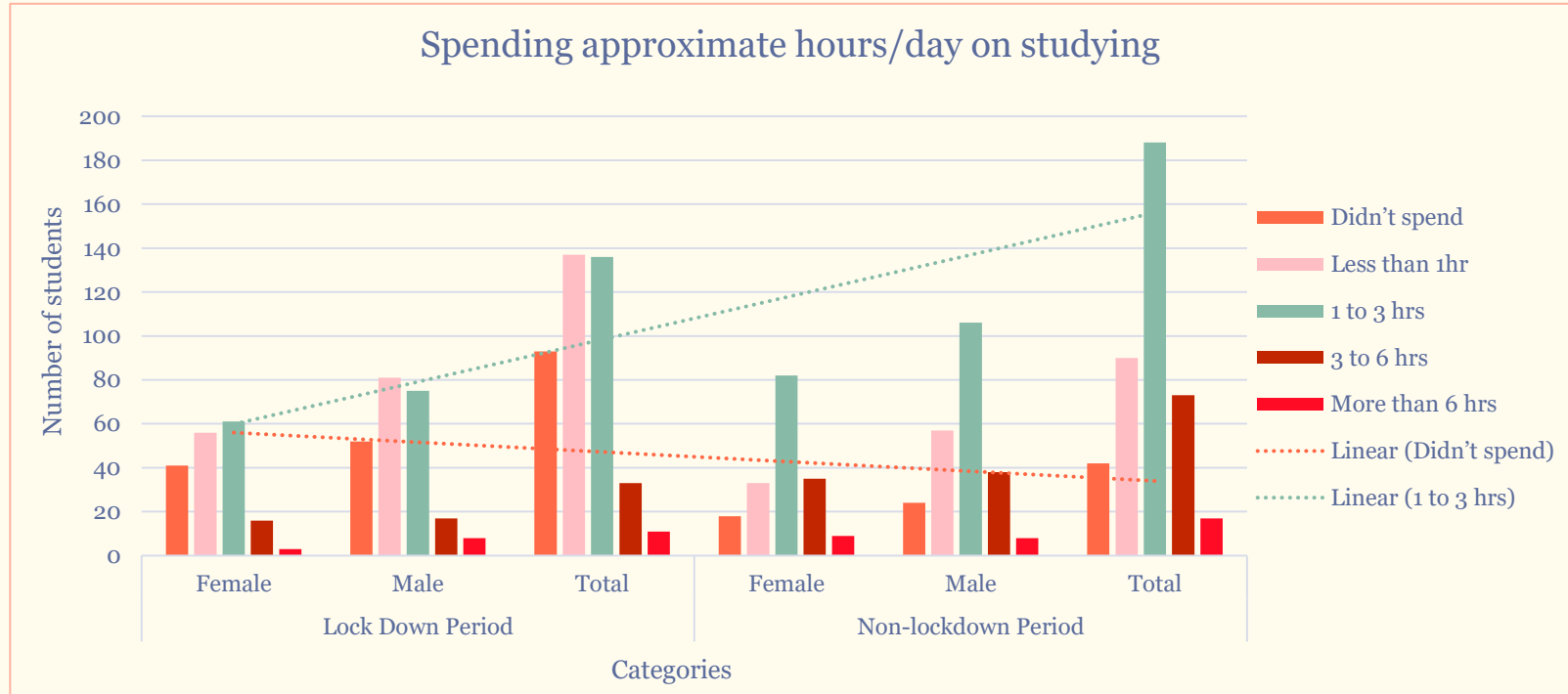


Figure 5: Spending time on studying (online survey, 2021)

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Spending approximate time for recreation (watching TV, indoor game):

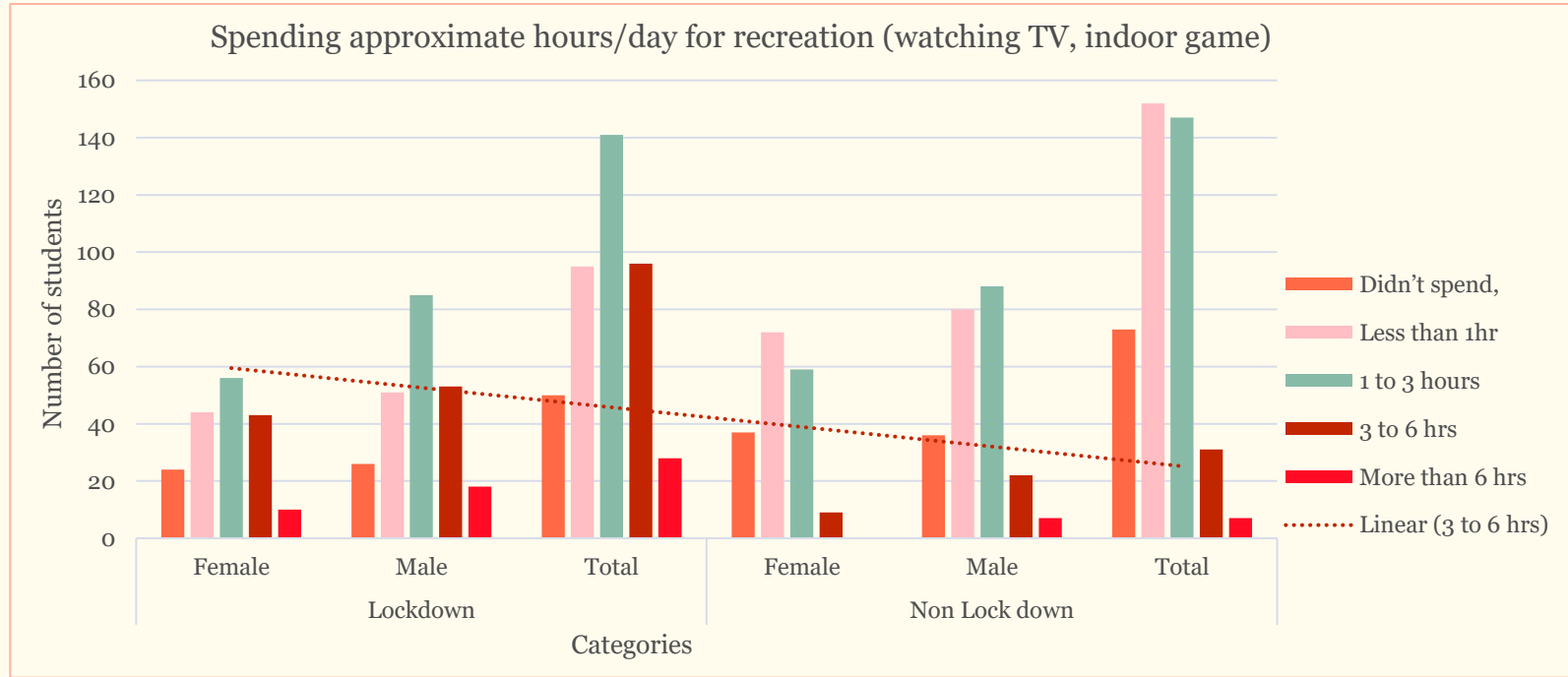


Figure 6: Spending time for recreation (online survey, 2021)

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Spending approximately time in physical exercise:

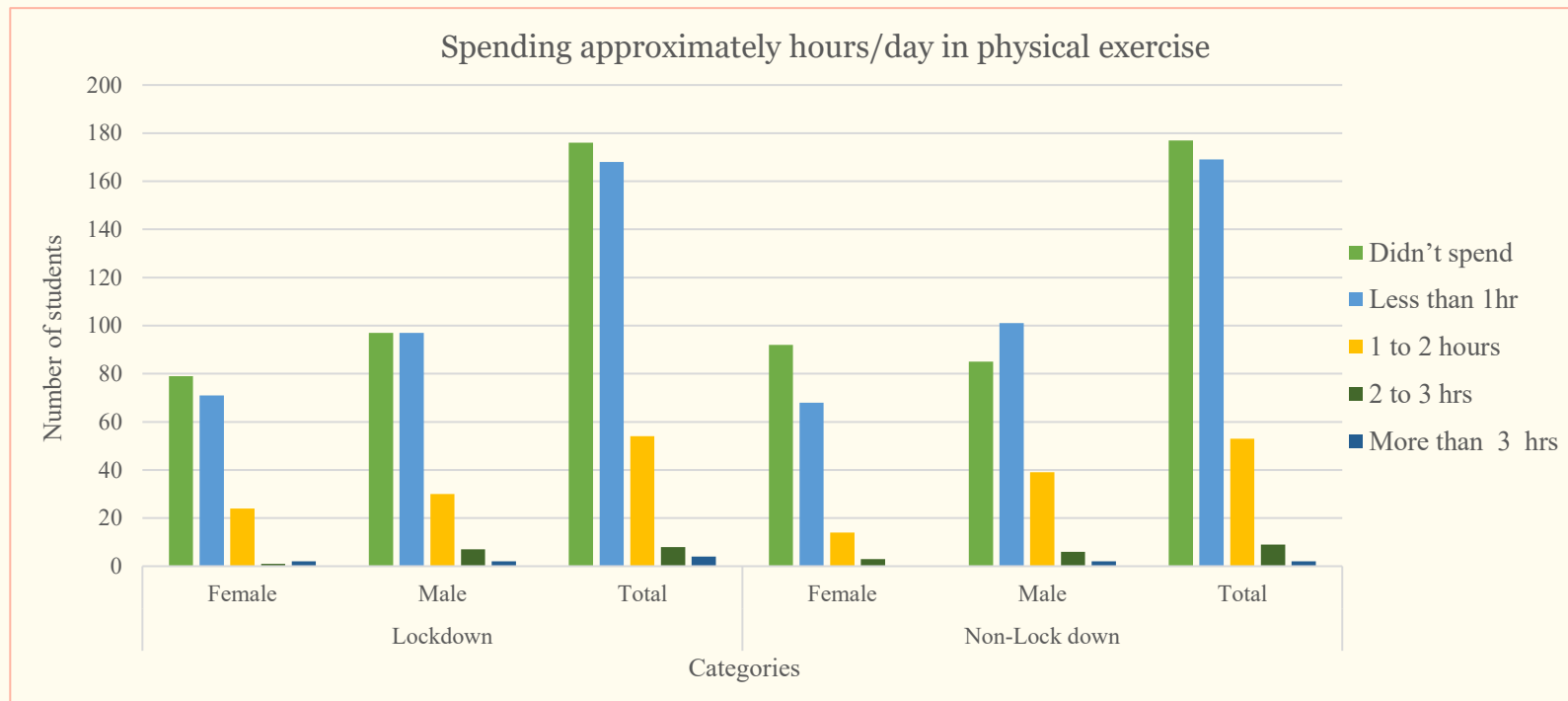


Figure 7: Spending time in physical exercise (online survey, 2021)

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Engaging in part time job:

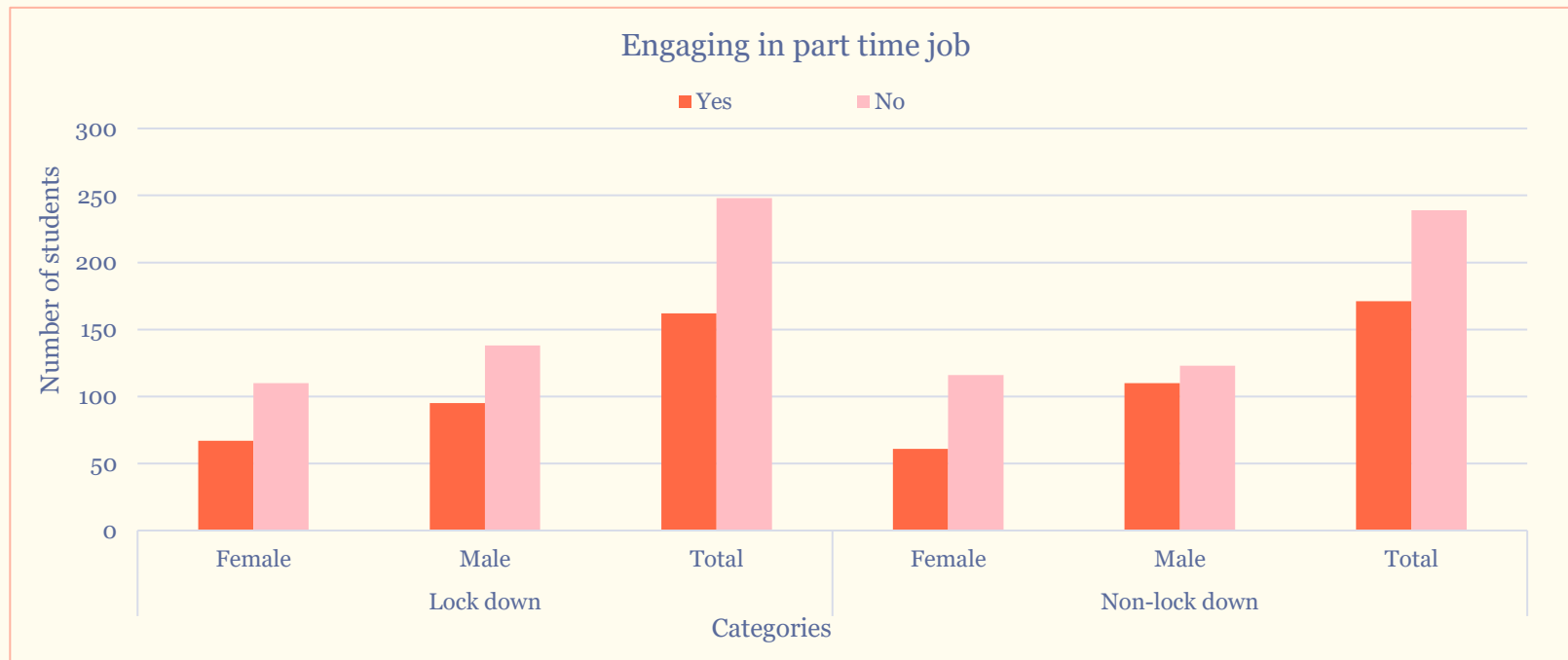


Figure 13: Engaging in part-time job (online survey, 2021)

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Spending approximate time at outside the residence:

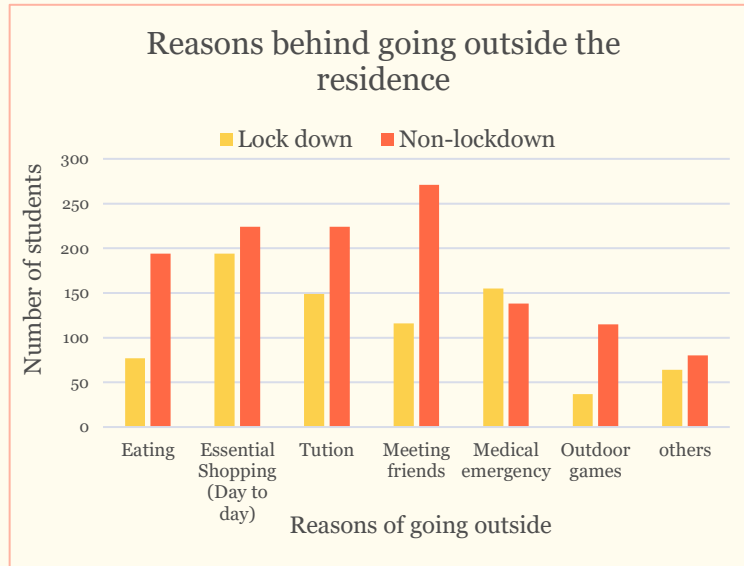
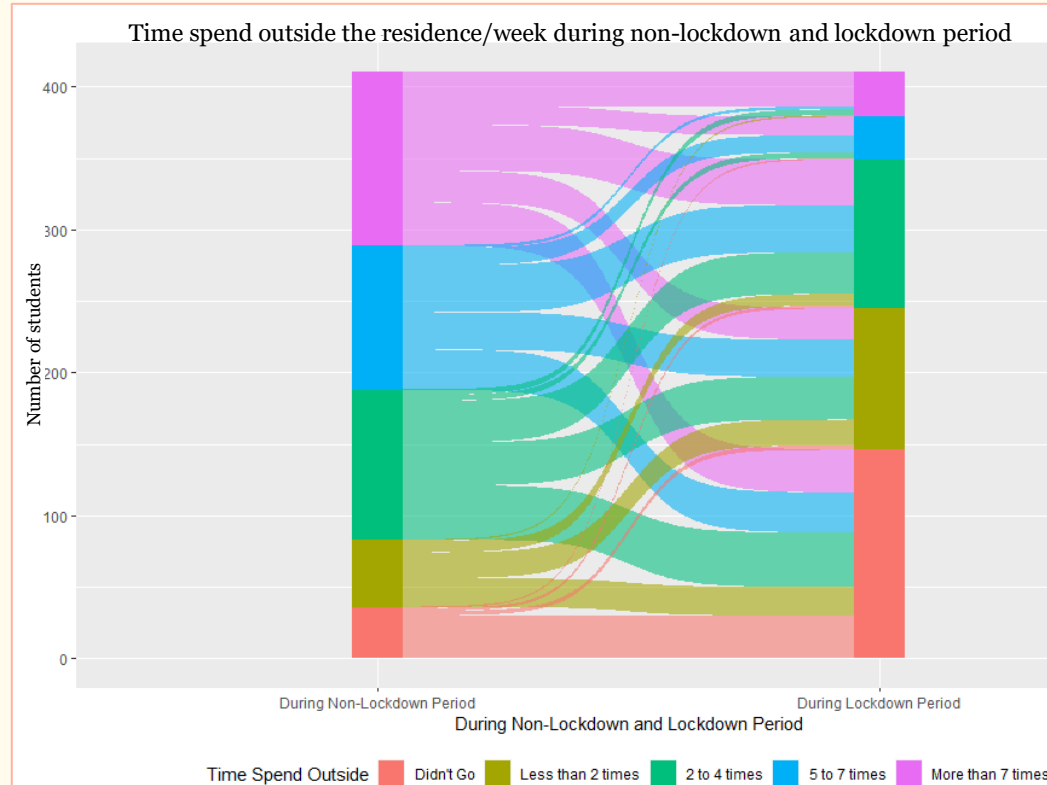


Figure: Causes behind going outside (online survey, 2021)

Figure14: Frequency of going outside (online survey, 2021)

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Travelling frequency of long distance (during the whole 2 periods individually):

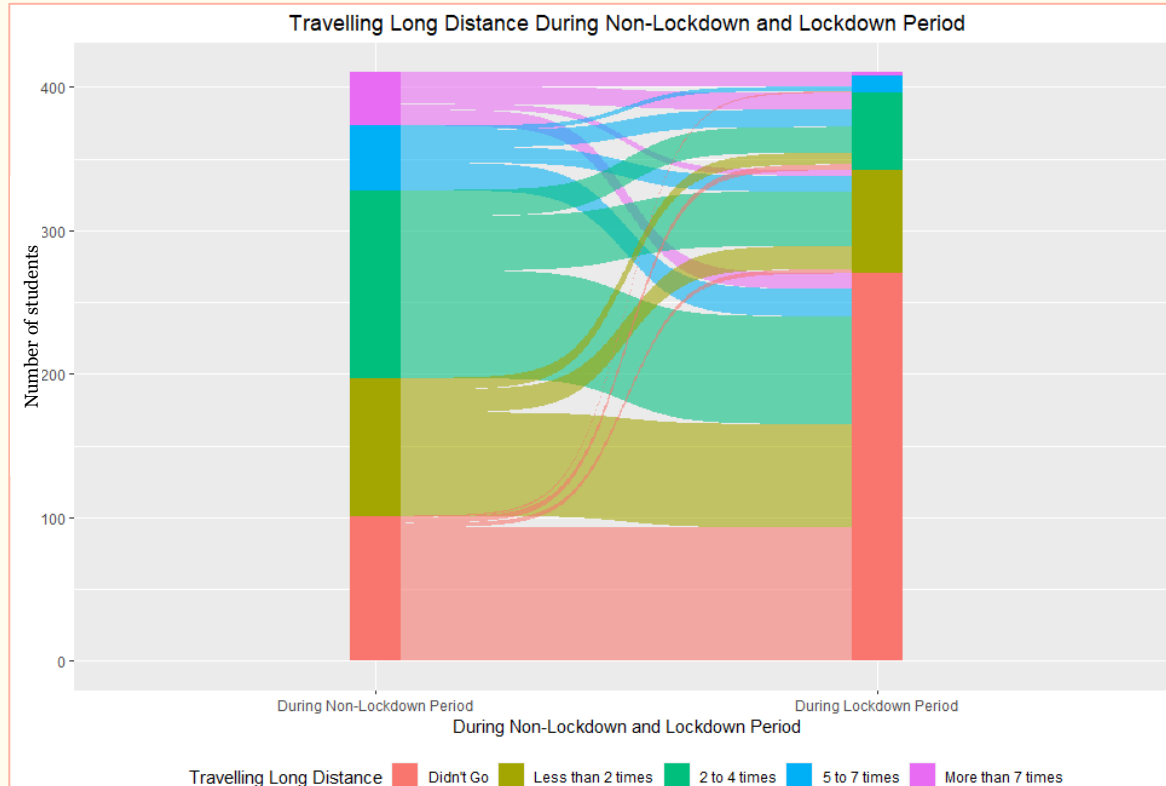


Figure 15: Travelling long distance (online survey, 2021)

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Frequency of visiting relatives/neighbors/friends:

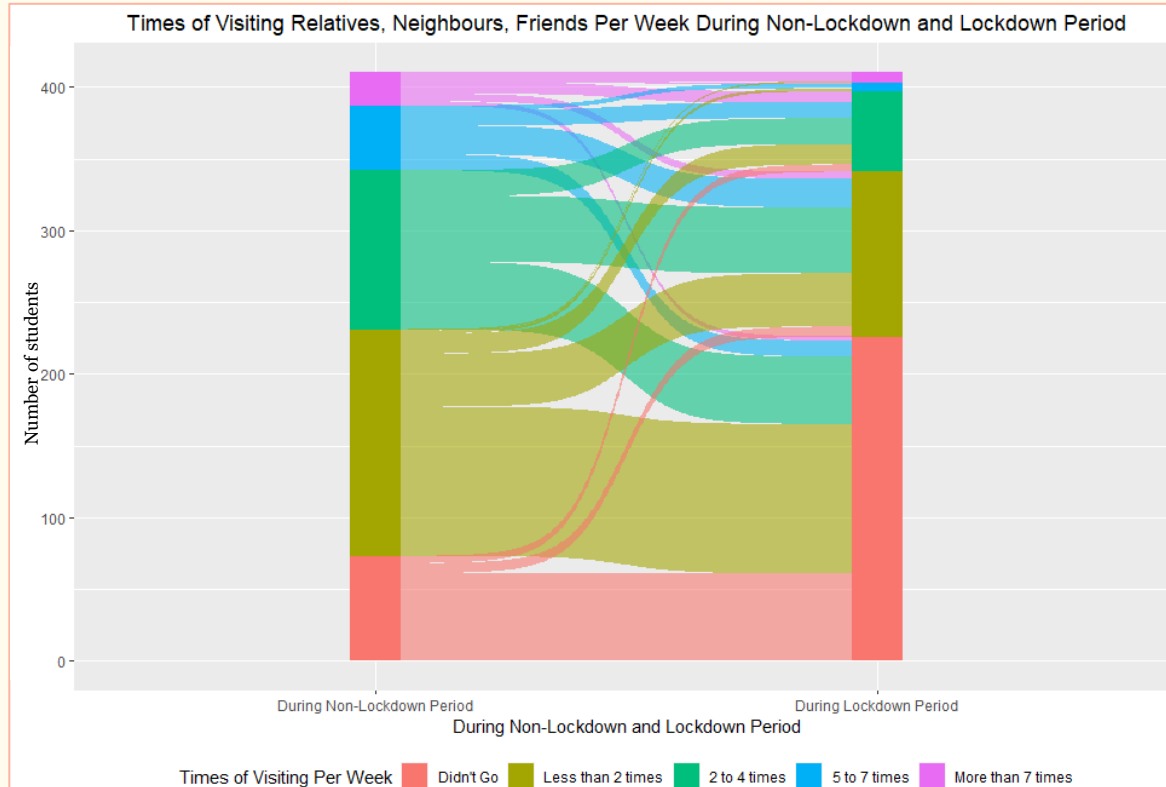


Figure 16: Frequency of visiting relatives/neighbors/friends (online survey, 2021)

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Spending approximate time on other online activities:

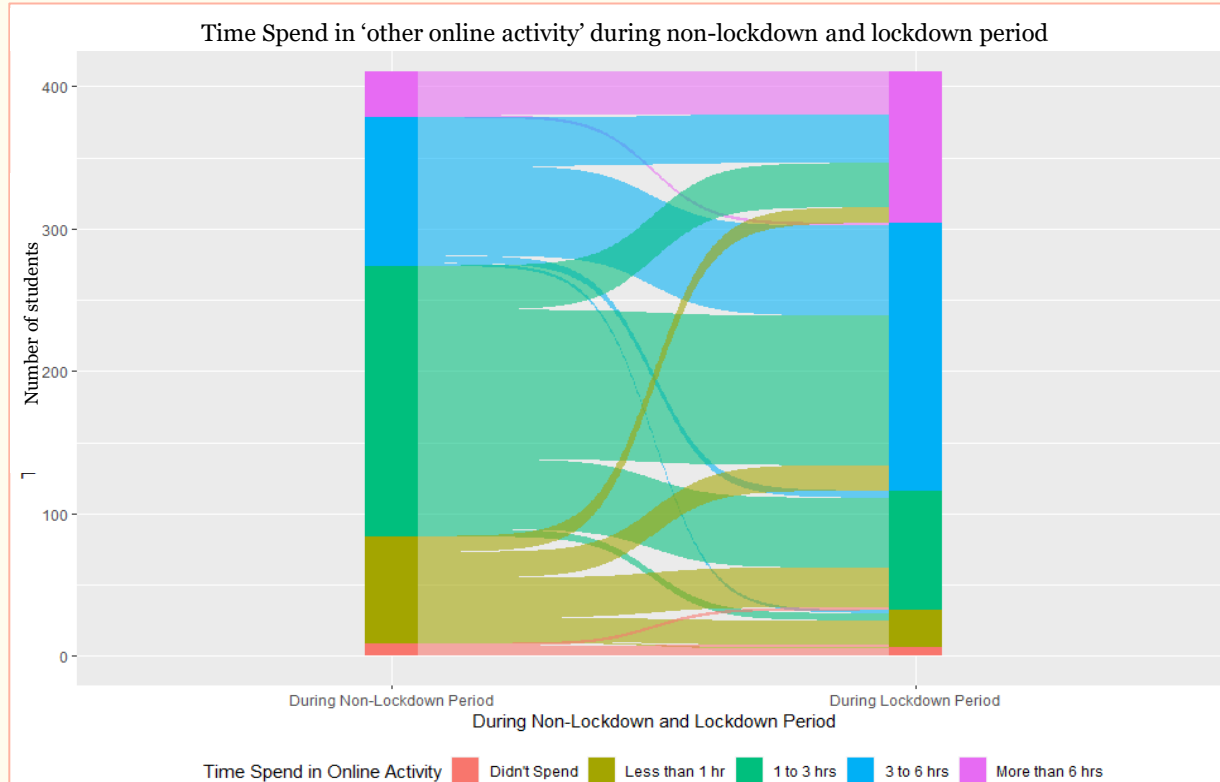


Figure 17: Spending time behind other online activities (online survey, 2021)

CHAPTER 5, 6, 7: LOCKDOWN, NON-LOCKDOWN ANALYSIS AND COMPARISON OF BOTH PERIODS

Spending approximate time on online work:

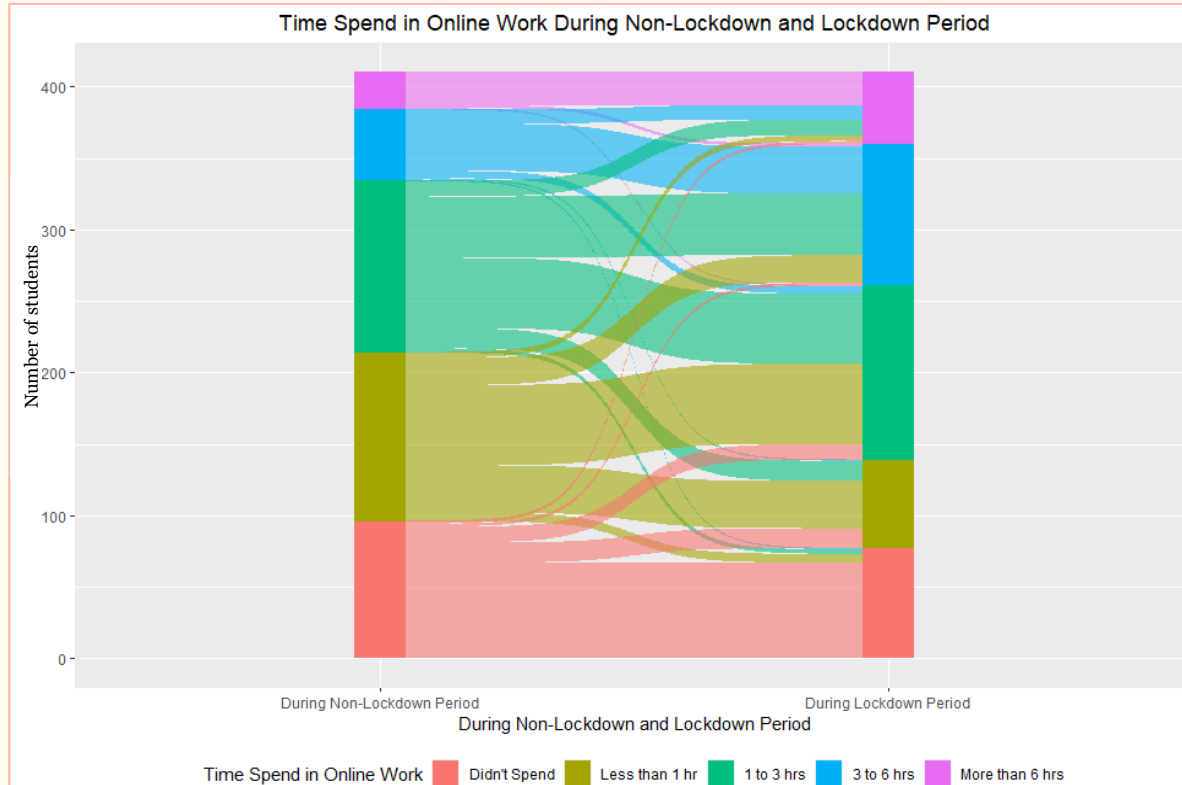


Figure 18: Spending time behind online work (online survey, 2021)



CHAPTER 8: ACTIVITY PATTERN AND SOCIO-ECONOMIC RELATIONSHIP DURING BOTH PERIODS

CHAPTER 8: ACTIVITY PATTERN AND SOCIO-ECONOMIC RELATIONSHIP DURING BOTH PERIODS

A relation between online activity and their residential area:

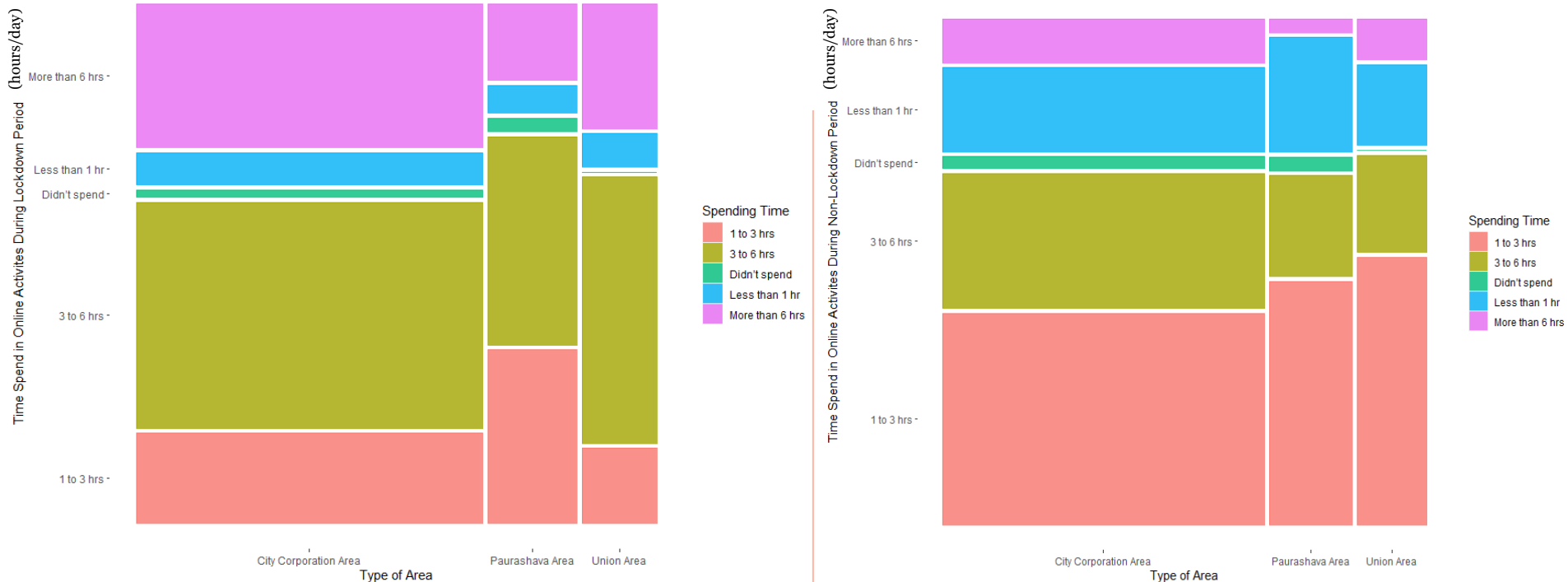


Figure 19: Lockdown and non-lockdown period's online activity and their residential area (online survey, 2021)

CHAPTER 8: ACTIVITY PATTERN AND SOCIO-ECONOMIC RELATIONSHIP DURING BOTH PERIODS

Relationship between household income and part time job considering gender:

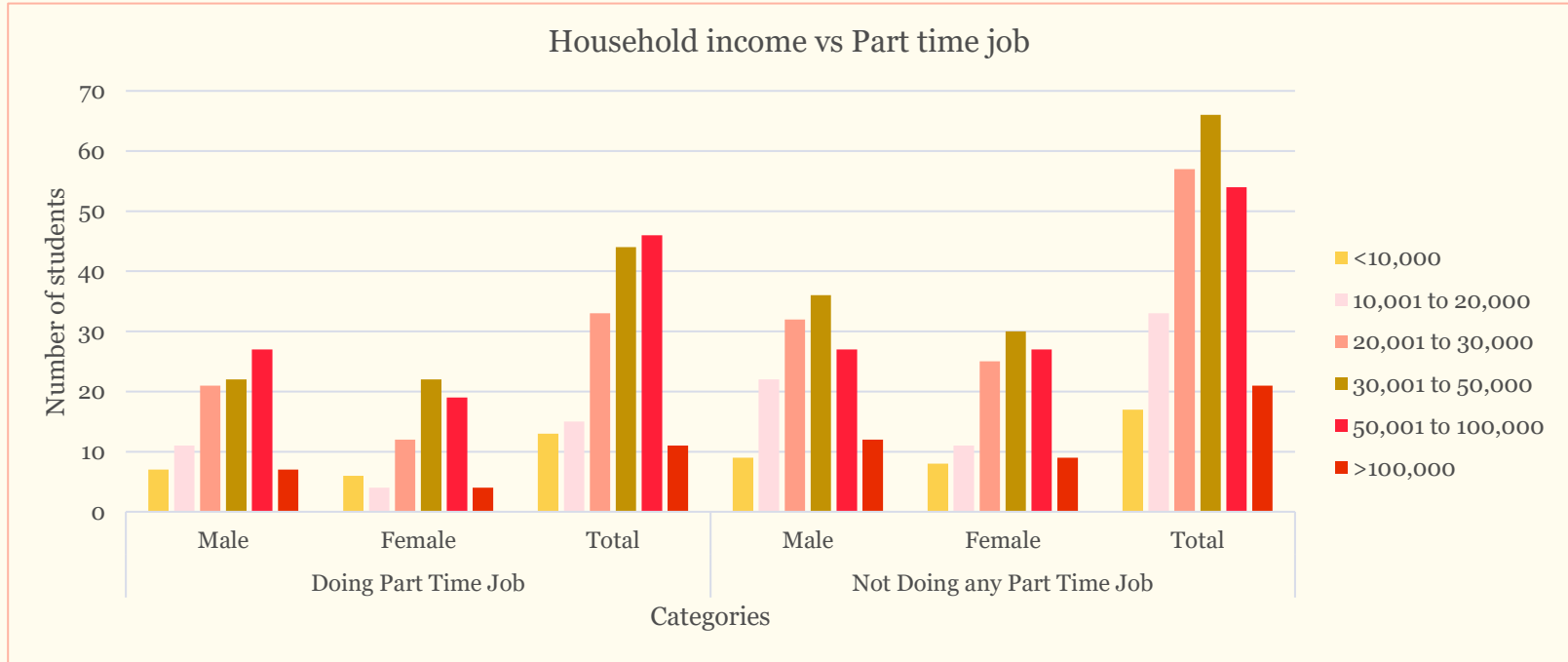


Figure 20: Relationship between household income and part time job considering gender (online survey, 2021)

CHAPTER 8: ACTIVITY PATTERN AND SOCIO-ECONOMIC RELATIONSHIP DURING BOTH PERIODS

Relationship between earning members of their family and their part time job activity:

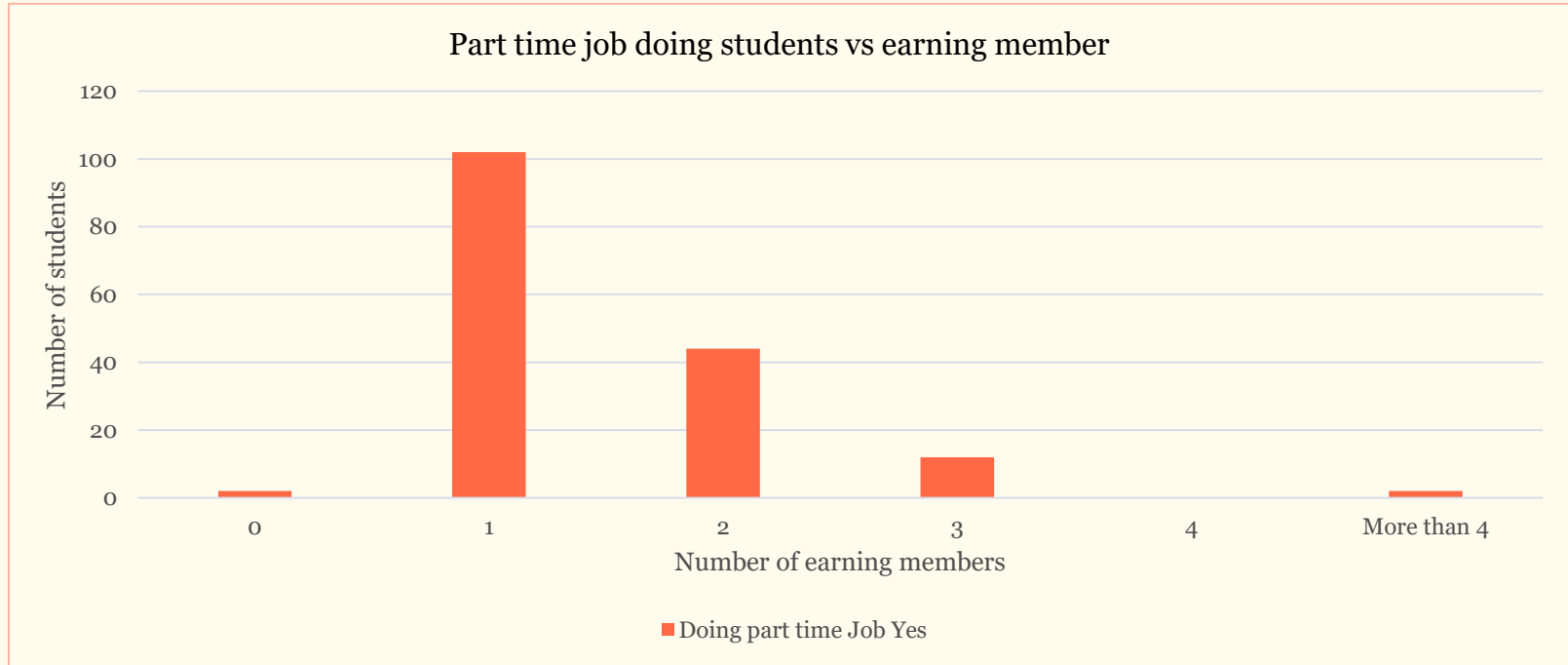


Figure 21: Relationship between earning members of their family and their part time job activity(online survey, 2021)

CHAPTER 8: ACTIVITY PATTERN AND SOCIO-ECONOMIC RELATIONSHIP DURING BOTH PERIODS

Relationship between number of family members and students' part time job activity:

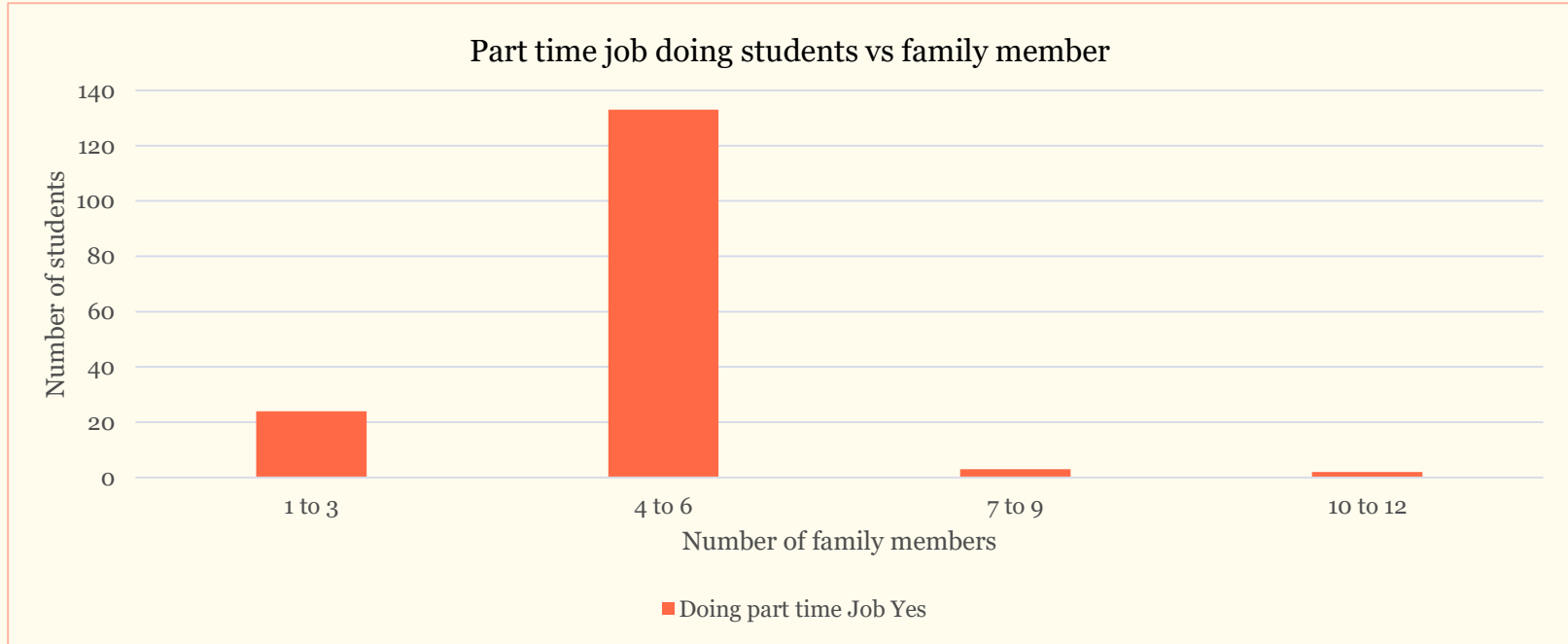


Figure 22: Relationship between number of family members and students' part time job activity(online survey, 2021)



CHAPTER 9: CONCLUSION AND RECOMMENDATION

CHAPTER 9: CONCLUSION AND RECOMMENDATION

Activity covering average hours in a day during non-lockdown period (male and female):

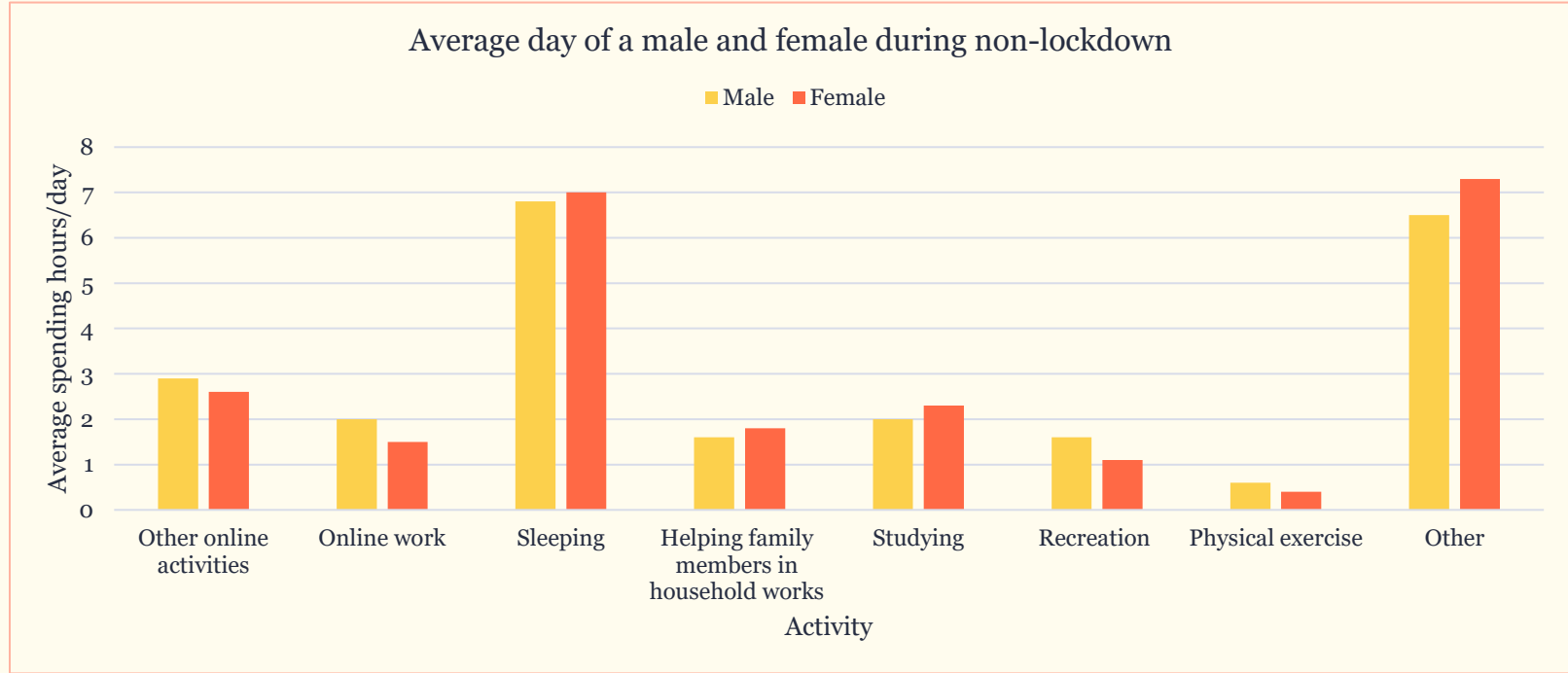


Figure 23: Average day of a male and female during non-lockdown (online survey, 2021)

CHAPTER 9: CONCLUSION AND RECOMMENDATION

Activity covering average hours in a day during lockdown period (male and female):

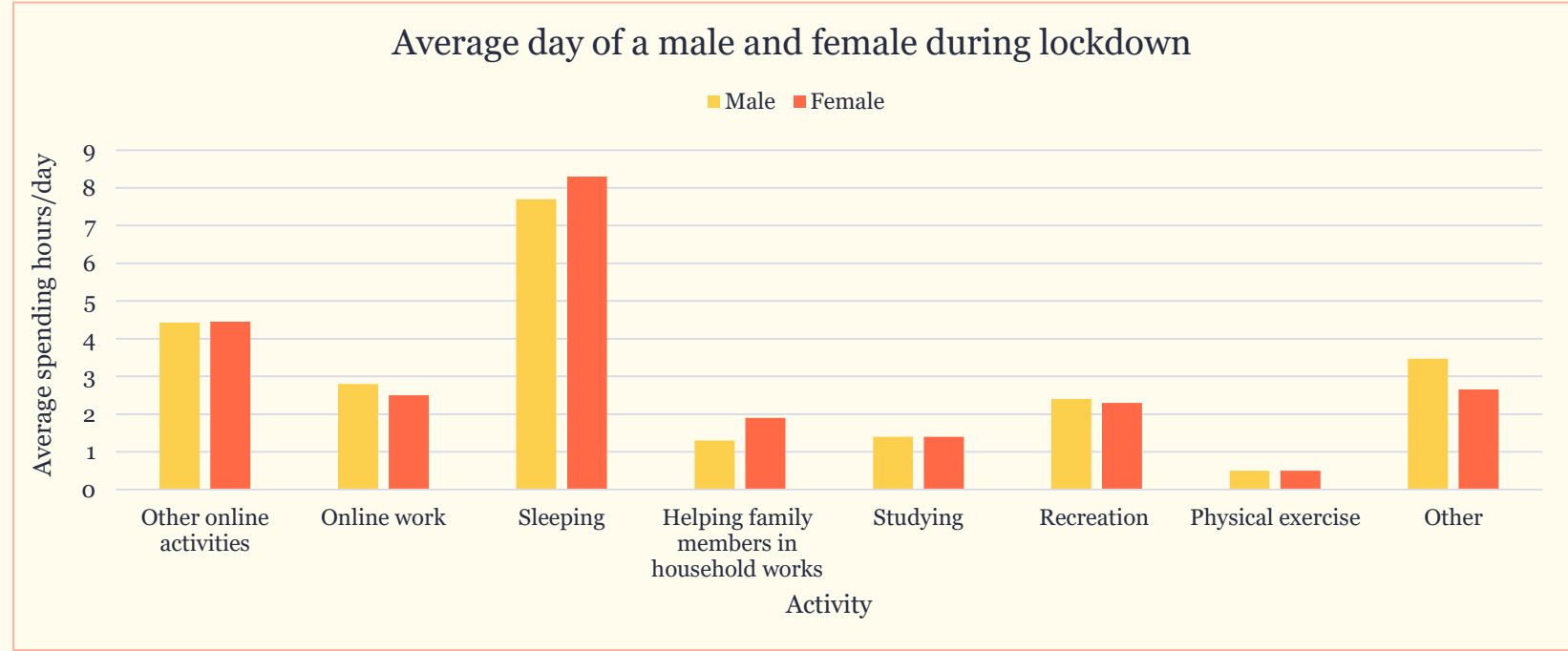


Figure 24: Average day of a male and female during lockdown (online survey, 2021)

CHAPTER 9: CONCLUSION AND RECOMMENDATION

Activity covering average hours of a student in a day during both periods (in total):

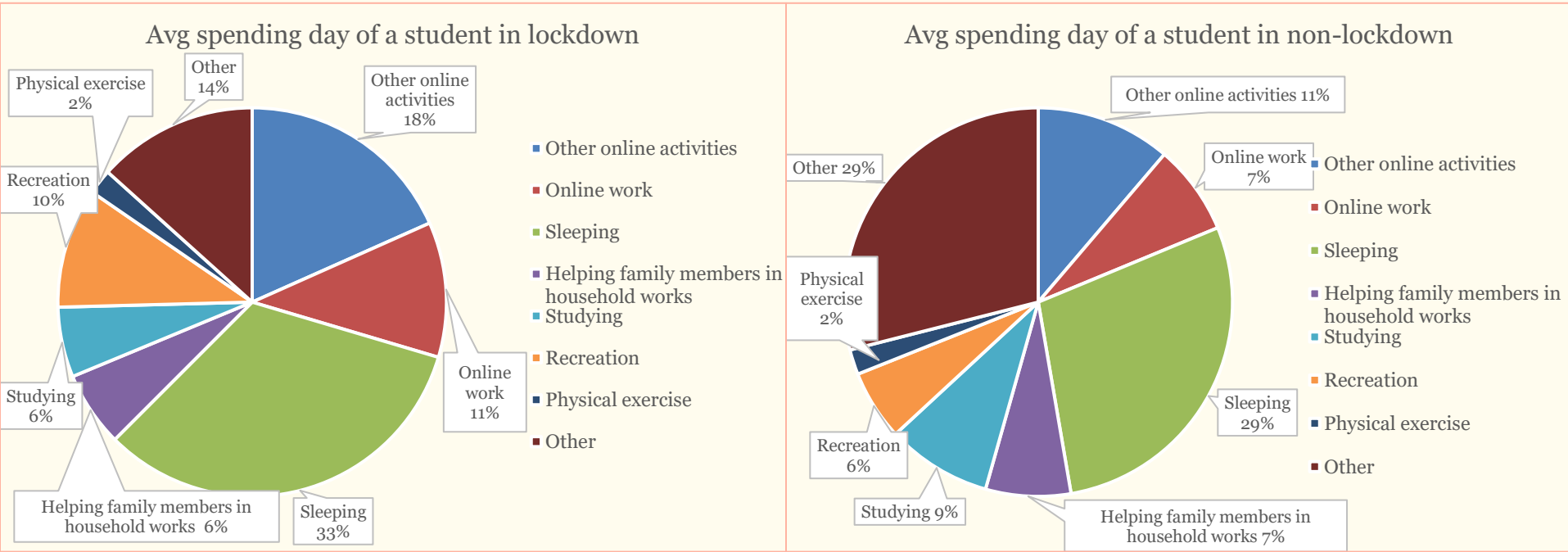


Figure 25: figure of an average day of a respondent during lockdown and non-lockdown periods (online survey, 2021)

CHAPTER 9: CONCLUSION AND RECOMMENDATION

Recommendation:

Activity	Findings	Recommendations
Sleeping	About 3% sleep less than 4 hours in a day	To maintain a sound sleep
Physical exercise	Only 0.5% do this activity	To do at least 30min/day
Going outside during lock down	56.58% went at least once in a week	Without emergency cases, if anyone goes outside during lockdown; they should be punished
Other online activity	Spent 3.6 hours/day on an average	Recommended to use less time behind social media, chatting or other
Travelling Long distance during lockdown	34.14% of them went at least once during that period	Unnecessary long distance travelling during lockdown should be banned
Online class	99.5% of them are used to online classes	This practice can be continued even in future while conducting physical classes if necessity arises. Submitting assignments can be continued as such process so that things can be kept in an organized way.
Online work	76-81% of them have been used to online work	Work from home can be conducted in future too if possible as it is economically beneficial and saves time.

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THANK YOU

