

Increase usage of Screen-Time among various age groups during Covid-19

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Abstract— The impacts of the Covid-19 pandemic have been catastrophic and global. In our daily social life, its consequences are incorporated to such a degree that they can't be ignored. The rising use of digital screens in all age groups have been leading to numerous effects on human health. As a result of physical distancing interventions, a constant reduction in physical or open-air activities resulted in increased screening time in children as well. The present study focuses on the different levels of screen time, which are adapted by different age groups, especially students. The current shift in normality led to a dramatic change in daily routines, people find themselves working from home and avoiding outdoor activities. Therefore, the main aim of this paper is to provide a quick analysis on the changes in screen time habits and to try including options to help minimize screen time and facilitate outdoor exercises that can encourage in sustaining a healthier lifestyle through this span of confinement.

Keywords— *Screen time, Digital Media, Pandemic, Corona Virus, Health, Physical Activity*

1. LITERATURE REVIEW

Long before we commonly believe, scholars started researching the area. After many health effects were observed because of heavy screen use, the Screen Time problem attracted considerable interest.

One of the papers alluded to is by UNICEF [2], which also reflects on the rising screen time of students. Where the screens have given the group involved with a lot of support, the issue of preserving the equilibrium often rises. The article criticized the concept of reducing screen time to improve physical fitness, but it supported the idea of exercising indoors. The research revolved around the kids, and their increasing age that can be influenced by the intense screen use.

Another source is a paper written in 2020 [3] that discusses the same problem as well. Prior to this pandemic, the investigator presented access to numerous screen usage figures. The research focuses on the topic of the worthless use of screens by children and their addiction to them. The paper's talk is just this growing focus on screens. The study also lists some recommendations that could be beneficial in minimizing usage.

A current study [4] based on the growing use of screens and their effects on the eyes during pandemics. The primary focus of the analysis was the use of the computer, the working experience with it and the time spent outdoors.

Observations showed that during the pandemic, all these variables combined boosted the Myopia graph easily. During this time, raising consciousness to minimize the effect of myopia on children and adolescents is growing. Many key side effects of heavy use of gadgets were pointed out in the report. Among the numbers, the most popular were Optical Eye pressure and dry eye disease. Outdoor sports have proven to be a perfect way to minimize the use of screens. The study's ultimate crux was to retain a healthy visual atmosphere for everyone, particularly children.

The value of physical outdoor activity during this period of confinement is illustrated in a survey conducted for Canadians [5]. The study found that mental health conditions such as anxiety, stress, depression were also strongly reported, apart from physical health. The value of exercise for improved mental and physical well-being was demonstrated by the Canadian viewpoint survey. Statistics revealed that excellent mental health was recorded for those who performed indoor/outdoor exercise. The advice of the WHO to keep a positive lifestyle during this rough patch has appeared to be a means of coping. The research was probabilistic in nature, reflecting the general population.

All the paper referred to centered on a particular age demographic or based on the health effects of intense screen use. Our paper addresses the expected growth in screen usage during this pandemic and some significant factors that increase screen use across various age ranges.

The key phrases explained often aid in grasping the nature of the work. Oxford Learners Dictionary Online describes Screen time as "time spent on any type of screen and display type such as PCs, Cellphones etc. Digital Media can be any sort of media that uses electronic medium for transmission. The phrase Pandemic as described by the Merriam-Webster Online is "an outbreak of a disease over a wide geographical area". World Health Organization has explained Corona Virus as an infectious disease ranging from chronic cold to many other diseases. Health is a state of being in positive well-being and free from any illness and disease [1]. The term Physical Activity typically refers to the bodily movements performed by the skeletal muscles which enhances energy consumptions.

2. BACKGROUND

Since this pandemic break out in 2019, more than 130 Countries around the Globe have implemented restriction to prevent the spread of Co-vid19. Almost 90% of the undergraduate body has been literally cut off from their institution [2]. Virtual Medium has become a must to socialize and fulfil the academic needs. Where we praise these advancements in technology that make it easier for us to connect socially and work from home, the increasing interaction with screen is something to think about. Screen use has been on the rise for all ages long before anybody learned about Corona Virus and Researchers began studying in this field earlier than we generally think. But during this period of pandemic, fewer academic responsibilities and less access to extracurricular activities provided the youth with a natural solution of extra screen entertainment. The 2019 screen time statistics revealed that, on average, a person spends around 4 hours on a weekday with their phones. Weekend stats is a totally different argument from that. A little because of the prevailing situation, but in general screen use has also been blamed for physical inactivity.

3. AIM AND SIGNIFICANCE

People of all ages spend an average of around 6-7 hours of their day with screens before this epidemic [3]. Actually, it's about doubled now. During the global epidemic, this count has risen to an astounding 19 hours per day on screens since the lockdown. Around 30% of respondents stated they are online "more or less continuously". The purpose of this analysis is to monitor this unexpected and sharp rise that caused alarm to many. While this extra digital time has its own value, be it scholarly or official purposes, social interaction, or entertainment means. Secondly it also voices some ideas that can help to control the crisis.

The key thing that motivated us to conduct this research was to know the views of various age groups about this new standard routine of our lives.

Many scholars have been drawn to this area since the confinement was enacted. Many of the research centered on children and the health problems related to the heavy use of screens. This study identifies the rise in screen use and its effects on our daily lives based on age groups keeping in mind

the context of Karachi.

4. METHODOLOGY

The qualitative framework was selected to achieve the purpose of the study. This descriptive cross-section evaluation was carried-out by collecting data from 50 participants of various age groups. Data collection was conducted using self-designed questionnaire and some casual conversations to track the screen viewing habits of the selected age groups.

The selected participants were adolescents and above, to obtain authentic responses and new insights from their perspectives, but the students were our key respondents in the category. It was an online survey and the questionnaire proved to be an excellent method that enabled us to carry out our study. The questionnaire included 26 multiple-choice questions, couple of which enabled study respondents to submit a proposal to limit the problem and whether they noticed any changes in their health because of their irregular screen use.

The proforma was designed to collect details such as age ranges, their socio-economic status, along with the particulars of the duration and intent of interactive media used by them, the entertainment means that they mostly use during this period of social isolation and how they believe this raises their overall everyday screen use. We also questioned their views if they choose to work from their respective workplaces or this current shift, and if this has increased the use of digital devices. Responses have really helped us to consider the essence and viewpoints of the subject, considering various age ranges. We have had some informal discussions with friends and family to help us get some useful feedbacks and recommendations. During this study, the confidentiality of the participants was considered.

5. DATA ANALYSIS

This portion of the paper deals with the study of the data we obtained through observations, survey questionnaires and conversations. The data gathered enabled us to understand the essence and purpose of the selected age groups.

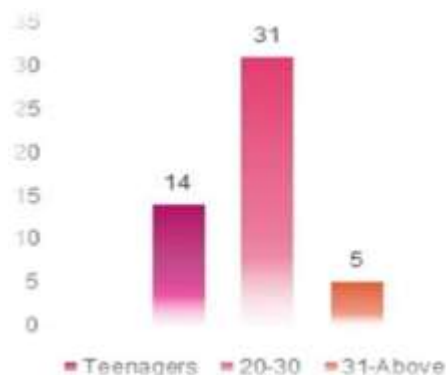


Fig.1: Focused Age Groups

Observations pointed that those with a sharp increase in their screen use were teens mostly students and office employees. This exposed both negative and positive aspects of the new progress. When technology helps to socialize and overcome the loss by working from homes in this period of crisis, this also dramatically increased the screen use of the group listed. The trend presents a significant challenge to the health of the student population by spending about 8 hours on screens.

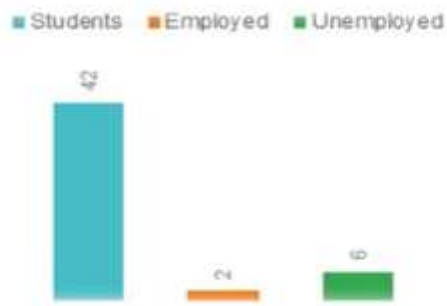


Fig.2: Socio-Economic status of respondents

The graph in Figure 3 shows the views of individuals upon asking whether they think that the pandemic played a role in rising the average daily screen time. Respondents claimed in interviews that this self-isolation had a significant effect on their mental and physical health as well. The term Quarantine Myopia is now a part of eye-care studies. Research has shown that social media and other such entertainment means provided distractions, so an increase in digital time is registered.

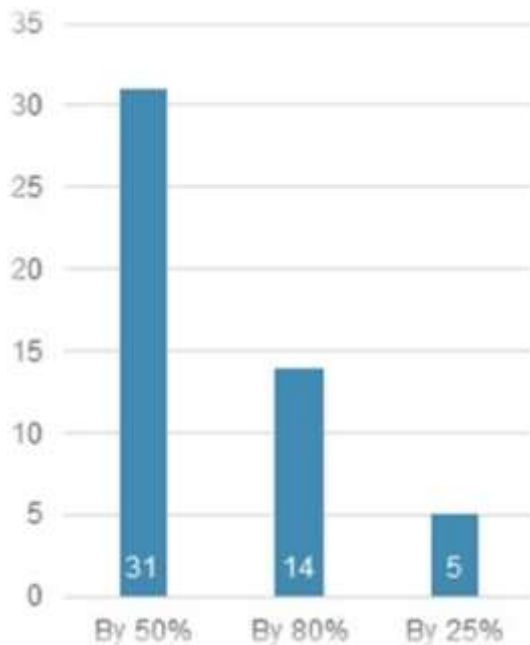


Fig.3: Percentage Increase in daily Screen usage

Graph 4 shows that people spend about 5-6 hours of their day with screens, but they say confinement increased digital interactions by nearly 50%. A recent study has shown that adolescents have a high chance of developing myopia [4]. Statistics have shown us that people are being more socially active in this pandemic era, that poses a threat to public health.

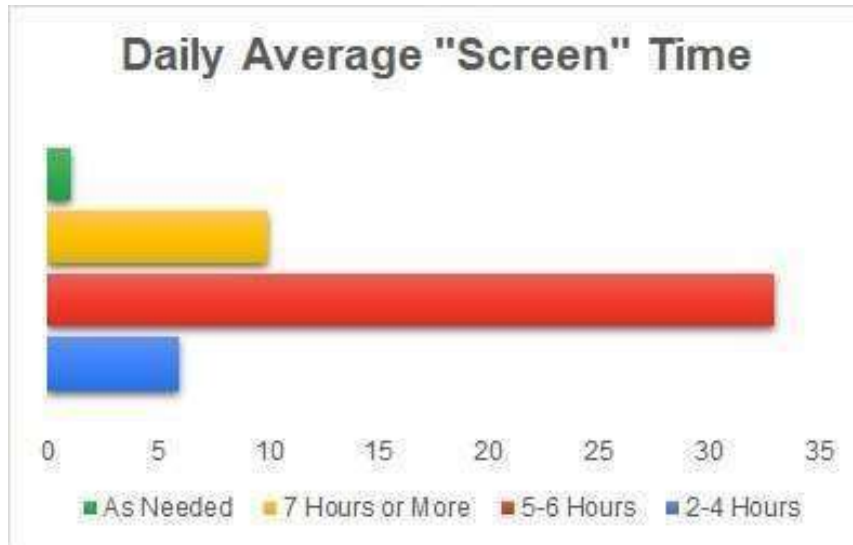


Fig.4: Estimated Daily Average Screen Time

Nowadays, almost everyone has access to screens in some form or another. The world around us has changed dramatically as a result of smart phones. A quick glance around demonstrates the importance of this most important digital device for people of all ages. We've all seen family members sitting in a room together but distracted by their phones rather than engaging with one another, or a group of college/university students sharing memes and creating blogs rather than making memories of this magnificent era of their student life. All this calls into question the technology's primary goal. This innovation was intended to connect people, but by becoming so engrossed in it, people who live together are becoming disconnected. We also recorded an approximate number of such screens around us in our everyday lives.

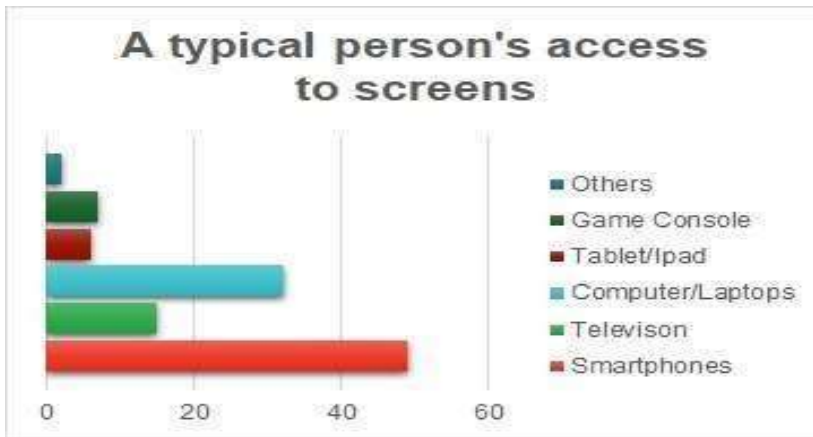


Fig.5: Access to Different Screens

One more point that came up during this research study and some informal interviews was people's thoughts on what they thought played a role the most to this excessive screen usage on a daily basis in this home confined era. The outcome reveals the stats of the chosen response from the available options.

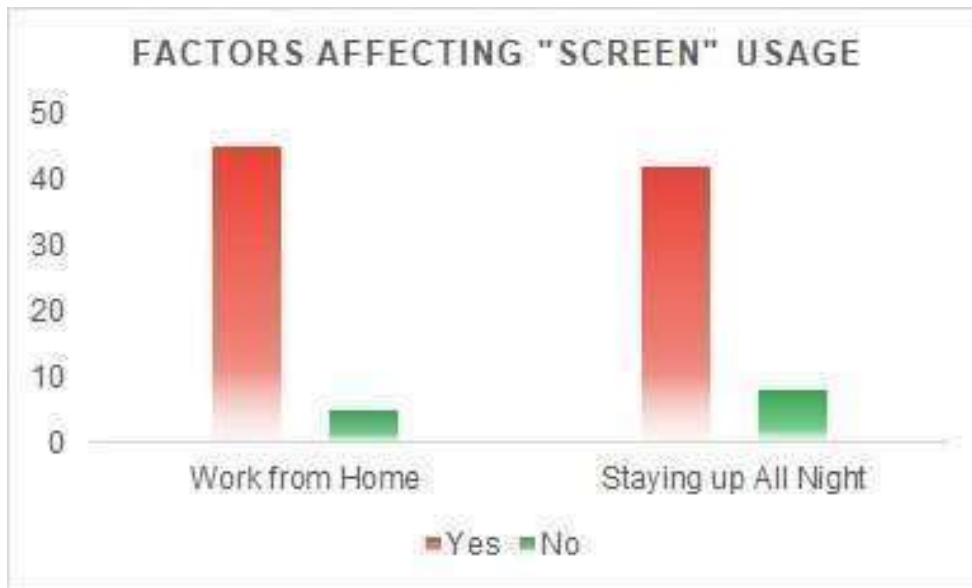


Fig.6: Affecting Factors

Percentage of responses recorded also revealed that due to the corona epidemic, gaming and socializing also play a huge role in growing screen time. Public Health Restrictions contributed to social distancing, without gatherings and other activities.

Many holidays and big celebrations have been restricted or deferred. Providing ourselves with plenty of free time. Digital media, in disguise, proved to be friend. The use of social media in this time has been reported to have increased dramatically. Owing to lockdowns, online shopping firms have also hit their peaks. People wasted time scrolling through social media doing nothing, too. In this regard, scholarly aims are a different discussion. Together, all these factors created a huge difference in the use of screen before and during this pandemic era.

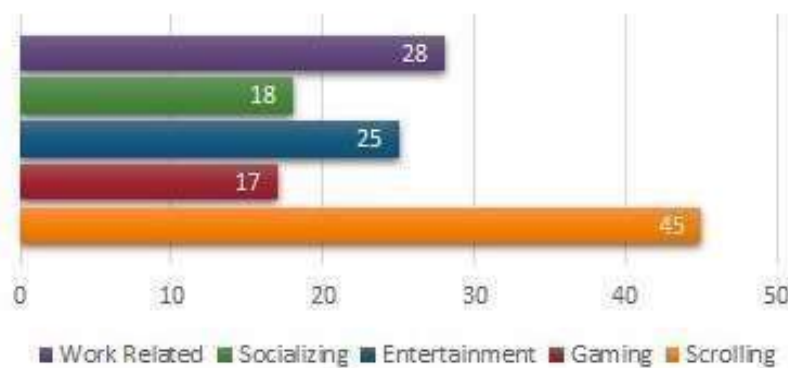


Fig.7: Intent to use Digital Media

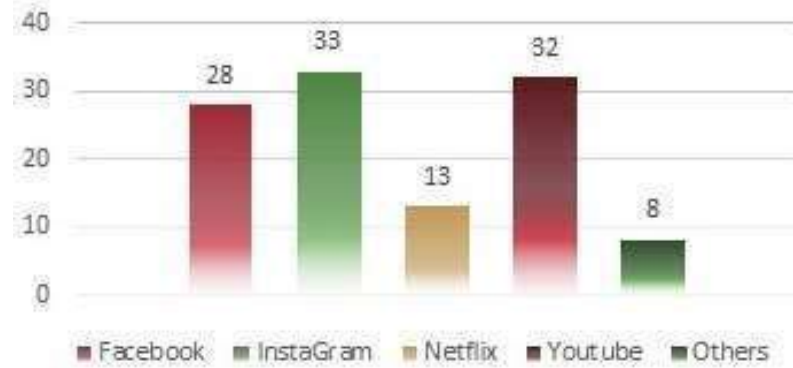


Fig.8: Frequently Used Social Applications

In discussing this online shift in our academic or official routines, we asked our respondents to rate this new normal based on what they thought of it. The recorded response clearly demonstrates their point of view on this subject. And, for the time being, I believe it is safe to say that people are not clear about their views about the change. The results we recorded on the question are shown in the graph below.

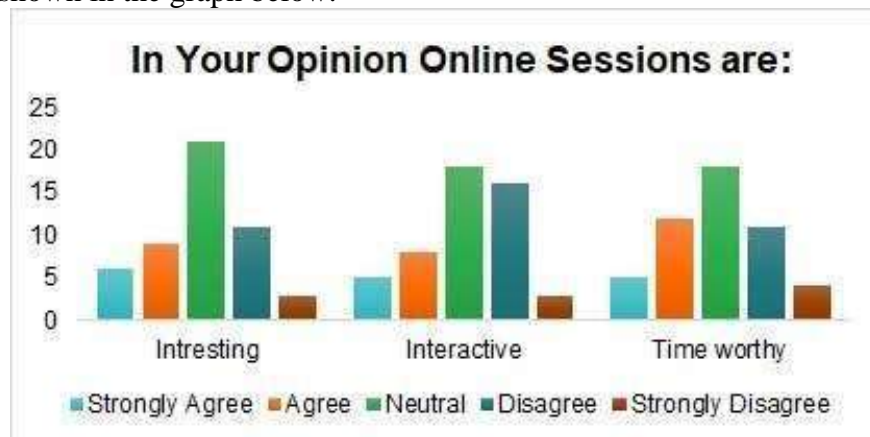


Fig.9: Respondent's Opinion

The key result of the analysis was to learn whether people are pleased with the new routine change. It has been noticed from the attached Pi-Chart that individuals typically don't enjoy working from home. People find the medium less interactive and fascinating, aside from digital use and health risks. When working from home, they find it hard to maintain a work-life balance. The current shift has contributed to abnormal schedules for sleeping and strange habits for working. The atmosphere of the office makes working more relaxed.

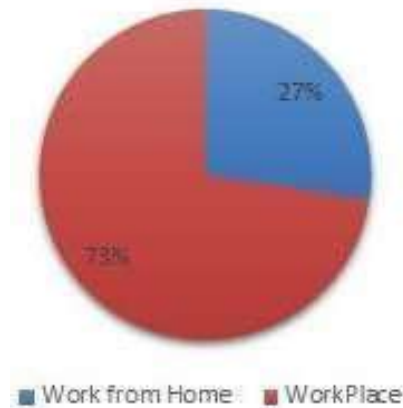


Fig.10: Preference of the People

As students, we must have heard from our elders that we are hooked to tv screens, mobile phones, or whatever screen we use on a regular basis. And, if not, the increase in screen use addressed above indicates that we are addicted. The vital point, however, is that can we restrict this use. The results are depicted visually in the graphs below.

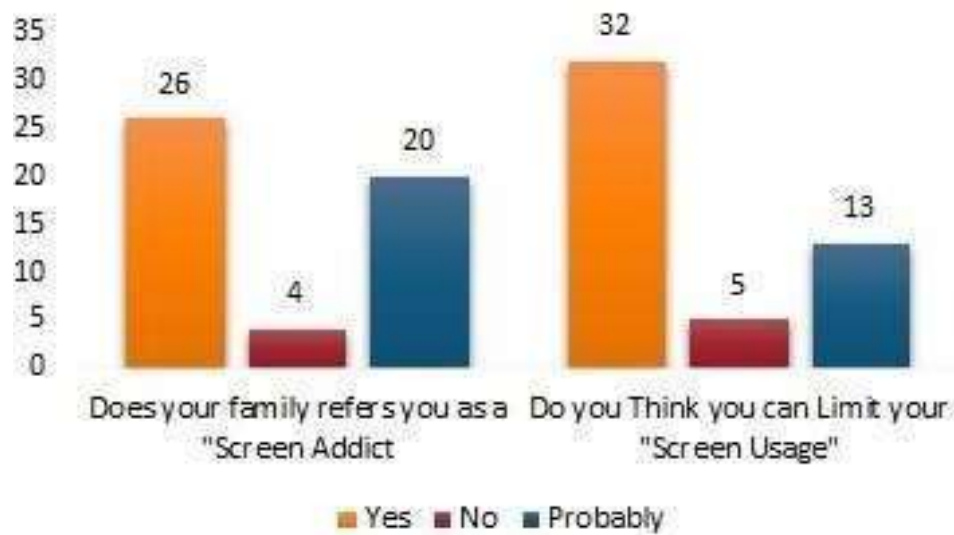


Fig.11: General Opinions

7. RESULT

Co-Vid19 has influenced the human life in a variety of ways. This also involves the pattern of the use of digital screens. Previous reports inform us of the health impacts associated with Screen usage. Further studies can provide more insights into how abnormal screen usage may impact health status across population. Our analysis indicates that there is a certain trend in the use of screens among the chosen age range. The results revealed the trend of use from teenagers to above, both positive and negative. It also provided us with their preferences for new rituals and ideas for minimizing their use. For our majority respondents i.e., students it is technically difficult to restrict the screen use amidst of online classes and assignments, but it never hurts to try. The spread of pandemic has resulted in crucial change in the youth's routine. American Academy of Pediatrics encourages the use of screens for both children and adults with certain criteria. In addition, they emphasize that screen time should not replace physical activity. Health care professionals highlight the need to follow healthy lifestyles and interventions to avoid unhealthful screening periods and other habits that can impair the health and well-being of at-risk populations. In a study conducted for Canadians, those who indicated improved mental health during the pandemic were more likely to mention having served outdoors [5]. Without a question, the use of screens can help to lay down some rules on etiquette to make navigating social interactions easier and more enjoyable. Daniel Post Senning said, "Each generation has to learn the etiquette of its time. A strong starting point is to extrapolate what has performed in the past and adapt it to the new" [2]. In this context, we have gathered some advice to handle the increasing use of displays.

- Enjoying time with friends and families.
- Setting the time limits and screen breaks on the devices.
- Participation in Casual interactions.
- Avoid screens before going to bed.
- Investing time in productive activities.

The survey does not provide a detailed analysis, but an effort is made to collect and track as many feedbacks as possible. Provided by the drop-down menu to differentiate the head from the text.

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