INSTAGRAM, A PSYCHOLOGICAL TOOL FOR DEPRESSION (AN INVESTIGATIVE STUDY)

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Abstract— Different ideologies as been related to the role of Instagram on the psychological thinking of individuals health. With each issue detailing how Instagram has influenced its users in various ways. However, the influence has become increasingly unclear with different opinions on whether or not Instagram is a psychological tool for depression. This study aims to carry out an investigative study using various reviews to create a hypothesis(research question) and analyse those hypotheses to cut across each age group. With the stated hypothesis, the result helps to conclude if similarities in each age group are of positive influence or vice versa.

Keywords— *Depression, Instagram, social media, psychology, mental health.*

I. INTRODUCTION

These conflicting reports have prompted an investigative study on the use of Instagram concerning the users' psychological health. Although this research will base its review on secondary data, and give its analysis based on the data.

Instagram is ranked second among the most used social media between Twitter and Facebook and fourth among all-around used social media [5]. This shows how fast Instagram is growing in terms of users, with statistics of over one billion active users every month [6], which makes it the most popular social network worldwide [6]. This high growth shows there is no limit to what influence it can have on its users' psychological health. With this high influence comes the question of:

- What is the depression rate across each age group?.
- Which age group uses Instagram the most?.
- Is social media causing depression? and across which age group.
- What is the depression rate across each group by Instagram? If there is any.

The above questions will help to determine whether Instagram usage, encourage unfavourable social comparison, which may, in turn, serve as a psychological tool for depression among its users

II. LITERATURE REVIEW

A. Instagram has been a contributing factor to depression

Since its creation in October 2010, Instagram has been a platform where people express themselves and relate to

different people (either family, friends, or strangers). However, the good impression showed by various users ignite mental trauma in other users[7]. This mental trauma is a result of social comparisons [7]. Whereby users try to compare their social life with others, causing low self-esteem. This act of comparison was evident when research showed a positive correlation between depression and the number of selfies taken before posting on Instagram[8]. This is because Instagram is well-known for its utilization of picture-enhancing filters and for enabling users to edit visual content before uploading, which allows users to be more appealing in the social-cultural context[9].

Also, khadarahim and faith in 2017 found evidence among the Iranian people that Instagram users display a high level of depressive symptoms [10], i.e. among Facebook, Twitter and Instagram, Instagram produces the highest rate of depressed users. Similarly, a survey of 1,479 people was conducted in the united kingdom in May 2017, between the age of 14-24, asking them to rate social media to anxiety, depression, loneliness, bullying and body image. After the whole survey, it was concluded that Instagram was rated the worst for young mental health[11].

This research has led to some studies that suggested that Instagram usage could aggravate depressive symptoms such as browsing other users' photos or scrolling down through comments or pictures; all these are been linked to a depressive mood [9, 12]. The age group that tends to increase in depressive symptoms are between the ages 18-29[13], all this effect is a result of social comparison.

B. Instagram has not been a contributing factor to depression

It is rationalizable that a platform that has more than one billion active users monthly [14] should have a way to address the concerning issue about their users' psychological health, especially depression. This has been the reason some researchers are convinced that Instagram is not a psychology tool for depression[4]. Some research stating that Instagram usage has helped in increasing individuals self-esteem and reducing the rate of depression among Instagram users[15]. Instagram has been their turning point to prevent and address mental health issues[16], because it entertains conversation and essential interaction to overcome difficult psychological issues, especially when it can be difficult to express one mental health in person[17], with research reports showing seven of ten teens receiving support on Instagram (second to Facebook) during tough or challenging times[17].

Furthermore, Instagram connects people, making it possible for one depressed person to connect with another depressed person, and have an online conversation that reviews their depressive nature, which proves they are not alone in any situation they face. This makes Instagram more reliable to users'[18]. Which analyse how Instagram, also proved to not be a contributing factor and a psychological tool for depression.

III. METHODOLOGY

The study used, is the analysis approach, but commensurate with the issue of what kind of influence Instagram is having on its users. The overview of this research depends on past researched data and reviews to answer and analyse the pre-defined question:

- What is the depression rate across each age group?
- Which age group uses Instagram the most.
- Is social media causing depression and across which age group.
- What is the depression rate across each group by Instagram? If there is any.

This research will genuinely engage its study with different literature reviews with a clear sense of crucial analysis in achieving the research goal of Instagram role on its users' psychology.

IV. ANALYSIS

Data from a smaller range to a wider range will be used to analyse the above questions. This will help to analyse the similarity each data carries and use it to compare the facts laid down about the psychological (depression) influence of Instagram on its users. The first question is:

A. What is the depression rate across each age group?:

Statistically, depression varies across different age groups, there is a need to know which age group has the highest frequency of depression. This will be the first part of the analyse.

From the national institute of mental health, it was estimated in 2019 that 13.1 million US adults from age 18 older had at least one major depressive episode which represents 5.3% of all US adults[19] this statistics is represented below

Past Year Prevalence of Major Depressive Episode Among U.S. Adults (2019)

FIG I National Institute of Mental Health [19]

In the UK in 2014 the proportion of people within age 16 and above with depression evidence increased from 18.3% to 19.7%, with women having the highest proportion of 22.5% compared to men 16.8%, the age group with the highest proportion is 45 to 54 year old (22.8%), whereas the lowest age with depression percentage is age 65 to 74 (14.4%)[20].

	16 and above (2014)	Men	Women	Age group	
Data	19.7%	16.8%	22.5%	45-54	65-74
				22.8%	14.4%

Fig 1

And globally the population with depression in 2015 is estimated to be 4.4% upper and lower with females (5.1%) recognise to be more depressed than males (3.6%)[21].

Cases of depressive disorder (millions), by WHO Region

FIG II[21]

Prevalence of depressive disorders (% of population), by WHO Region

Global prevalence of depressive disorders, by age and sex (%)

FIG III[21]

The above represent the statistical depression rate across the UK, US and globally. These statistics show that women are more depressed than men. With these statistics of depression based on different factors, the research tends to highlight the contributing factor of Instagram following the next question.

B. Which age group uses Instagram the most

Nearly two-thirds of Instagram users between 18-29, 18-34 years old are the most active age group [22]. As of July 2021, research shows that 15.7% of global active Instagram users were women between the ages of 25 and 34[23].

Distribution of Instagram users worldwide as of July 2021,

FIG IV[23]

The above statistics show that the most active users are men between the age of 25 to 34 although the difference between the percentage of women of the same age and men of age 18 to 24 is slightly little. This analysis shows that the statistics of those that are depressed to those that use Instagram generally is slightly different but both focuses on women.

C. Is social media causing depression and across which age group:

Social network service (SNSs) such as Facebook, Instagram, Snapchat and Twitter is widely the most used social media and it is mostly intertwined with adolescents daily lives[24]. Analysis of 19 European countries reports a survey that adolescents of the age group between 10-16-year-olds spend an average of 4hours 22minute daily online[25]. This influence of social media can hurt their psychological well-being putting them at risk for depressive symptoms, with various statistics indicating an unprecedented increase in depression among the age group of 10-16-year-olds caused by social media. Below is a graph representing an association between digital use and psychological well-being.

Fig. 2. Percentage of 14- to 17-year-olds with lifetime diagnoses of anxiety and depression as a function of their hours per day of screen use. Demographic controls are included. Data are from the National Survey of Children's Health

FIG v [26]

The data in Fig V shows the percentage of 14-17-year-olds with lifetime diagnoses of anxiety and depression as a result of their hours per day on social media[26]. Although the analysis varies to UK and U.S data, it was reported that teens who spent more than 7 hours a day on social media were twice as likely to behave depression symptoms as those who spent an hour[27]

FIG VI [26]

The above fig represents the percentage of adolescents with depression or low-being as a function of their frequent social media usage[27].

D. What is the depression rate across each group by Instagram? If there is any:

Following the first three (3) questions of analysis, focusing on whether Instagram is a psychological tool for depression. The last question analysis will be based on just literature review without real statistics data to commensurate the facts. In a report review in 2017, it was analysed that among the social network servers, Instagram was the leading factor causing depression[29]. Although the research, having been conducted four years ago, was also limited to 103 participants excluding people of age 15[29], making the analysis falsifiable because of Instagram usage according to the analysis in fig iv cut across age 13 to 65+. and depression through social media mostly affects the age of 13-16[24]. This proves Instagram to be minimal in terms of factors contributing to depression.

V. RESULT

The summary of the above analysis shows the correlation of depression with Instagram. The first statistics show the most depressed people in the UK, the US and globally and it was deduced that females age the most depressed group in the world and these locations with an age group of 18, 25 – 34-year-old. Although this is debatable because the contributing factors will be different, but then to narrow the contributing factors i.e. there will be other factors contributing to the depression, also there will be social media (which include Facebook, Twitter, WhatsApp) and then Instagram. Since the focus is specifically on the contributing factors of Instagram. So, analysis showed that

the highest number of users for Instagram was also between the age group of 18, 25 and 34 years old[30], which is in correlation with the most depressing age group statistics, these statistics also commensurate with a study which shows that teenage and young adult (18, 25 and 34) that spend the most time on Facebook and Instagram record 13 to 66 per cent high causing the rate of depression[31].

Furthermore, it was analysed that depression risk rose in tandem with time spent on social media compare with the highest users [32], this means users can be on Instagram and will not use it often, while some users Instagram usage is high in hours. Teenagers spend more than nine hours per day on social media mostly on Instagram [33], this time is most spent when they are not in school.

Lastly, this analysis shows the age group that is mostly affected by Instagram compared to the age group that uses Instagram. Statistically showing 3.7% of teens are the least Instagram users but showing depressed symptoms to 15.7% of adults with the most Instagram usage with least or no depression symptoms. The result of this analysis can be tagged as pre-Instagram depression or some circumstances causally unrelated to Instagram

VI. LIMITATION

The statistics from WHO only showed depressed people generally, which can be from any contributing factor including any social media platform. Making the result analysis falsifiable, considering those factors makes the research open to further research.

Thereafter, the statistics for Instagram users is included with both active users and non-active users, getting separated statistics was challenging. Also, the analysis and statistics for depression caused by social media could be opened for review as the data must have been outdated compared to the continuous increase in Instagram users that were put into consideration in analysing the result. lastly, the lack of absolute data to buttress the research point on the last research question limit the research view about the topic. Conclusively, this research is based on a review of others peoples work and statistics, making it falsifiable for further investigative study and analysis in the nearest future.

VII. CONCLUSION

Having set up a research question and analysed them based on each age group, with the main focus to help find if there is a similarity in data across each age group. The first question has helped to structure the depression rate globally and in prominent countries, this helps to understand firstly the significant issue about depression among individuals statistically. Thereafter the research begins to link the various causes of depression to a specific cause (Instagram). So, therefore, the data collation stated that generally women are the most depressed statistically in the world, with their depression caused by so many external factors including social media(Instagram), but men are the most active users on Instagram generally, with statistics showing activeness of both frequent users and non-frequent users. But having narrow the research to be age-based rather than gender-based. Analysis shows that adolescents between ages 13 to

17 to be more depressed compared to teenagers between ages 18 to 24 who are the most active.

Conclusively, the idea of Instagram psychologically causing depression can be re-addressed. As the minority of the age been depressed might not be affiliated with Instagram, with the possibility of users showing a depression symptom before logging into Instagram triggering an already depressed mind into a high depression rate.

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