



The Impact of Social-Media on Real World Relations

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ABSTRACT

The objective of this study is to investigate the intricate correlation between social media and face-to-face interactions, with a specific emphasis on the influence of platforms such as Facebook, Instagram, Twitter, and TikTok on friendships, familial bonds, and interpersonal connections. The research seeks to comprehend the impact of social media on interpersonal relationships and their wider societal consequences. The swift adoption of social media platforms has ignited scholarly discussions on whether they augment or diminish authentic connections. Although social media serves as a valuable tool for immediate communication, it also poses difficulties in terms of identity representation, privacy, and mental well-being, prompting concerns regarding its lasting effects. The study employed both sorts of data collection methods, this strategy is known as a mixed methods approach. We implement stratified sampling to determine whether or not the respondent is close to the people they follow on social media in real life. 57% of respondents claim they are close to people on social media in real life, compared to 43% who say they are not. According to the poll results, social media has a neutral or mild influence on real-world relationships.

1. INTRODUCTION

With the widespread use of online social networks, they have emerged as dependable and effective sources of news. A significant number of users utilize social media sites to acquire knowledge, particularly on current events. Even conventional mass media entities, such as newspapers and TV news channels, currently utilize social media platforms to disseminate information to their audience at a faster pace [1]–[4]. Social media users serve as both consumers and creators of information, as well as distributors of that information. Countless individuals worldwide have undertaken the responsibility of reporting and providing commentary on noteworthy events. Specifically, the social media network Twitter has emerged as a favored outlet for individuals seeking current and timely information [4]–[7]. Tweets, which are messages posted on Twitter, have a

character limit of 140. Upon the emergence of breaking news, Twitter users promptly respond by creating content and engaging in exchanges [5]–[8]. The unique characteristics of Twitter messages, combined with the prevalence of mobile device usage among its users, enables rapid dissemination of information [9]–[12]. Twitter offers optimal settings for analyzing social behavior and doing comparative historical study, along with various other social and scientific fields. Comparative historical research focuses on analyzing historical events in relation to other historical events in order to acquire broader knowledge that transcends individual events [8]–[11]. Historical research has thus far been limited to conventional archival material and written narratives by historians regarding previous occurrences [13]–[16]. However, it is indisputable

that the information shared on social media regarding global events holds significant importance for society. The evidence is in the growing body of scientific research focused on analyzing past microblog data [17]–[20]. To provide a brief overview, below are a few examples: Castillo et al gathered data to forecast the reliability of rumors on social media, while [21]–[23] utilized Twitter to identify earthquakes in real-time. [24] conducted a study on Twitter tweets as a corpus for sentiment analysis, while [25]–[28] also explored this topic. The utilization of tweet coordinates facilitated the identification of areas that have been impacted by flooding [29]. Social media platforms significantly impact our interactions, communication, and relationship-building. Despite extensive research on communication dynamics, authenticity, privacy, and emotional well-being, the complex interactions between these factors remain understudied [1]–[3]. This study aims to fill this gap by investigating the linkages and potential conflicts between these factors in the context of interpersonal interactions [30]. Despite some research focusing on specific aspects of social media's impact on relationships, a comprehensive understanding of these interactions remains inadequate [31]–[33]. The study aims to provide a more comprehensive understanding of social media's impact on human interaction.

2. LITERATURE REVIEW

“Used neuroticism, agreeableness, and extraversion were found to be positively related to the inclination to express one's true self. Neuroticism was shown to be connected with the appearance of ideal and concealed self-aspects. The drive to disclose these characteristics of oneself moderated the link between neuroticism and self-disclosure.” [34]–[37].

“Uses the frequency of social media usage projected decreasing loneliness and higher happiness at first, but after perceived closeness was included, it was an even greater indicator than frequency of use [38]. The more one uses social media, the more one believes it is a good method to interact with people (perceived intimacy), and the more likely one is to be fulfilled and have a connection with others. Intimacy was discovered to mediate the anti-loneliness and anti-happiness ramifications of social media use.” [24], [39].

“This Pakistani study examines the relationship between Snapchat use and life happiness, revealing that frequent users spend more time communicating, watching highlight reels, and keeping streaks, while profile visits are less common. Excessive Snapchat use can have both positive and negative impacts.” [1], [2], [40], [41].

“The purpose of this research is to investigate the link between the usage of Facebook, a major online social network site, and the building and maintenance of social capital [12]–[15]. In addition to analyzing bonding and bridging social capital, we investigate a component of social capital known as maintained social capital, which examines one's capacity to keep contact with members of a previously occupied group. reveal a substantial link between Facebook use and the three categories of social capital, with bridging social capital having the largest relationship.” [5], [6], [42], [43].

“Uses two studies to explore jealousy's impact on users' life satisfaction and platform avoidance. The first examines Facebook jealousy events and the second examines envious sentiments' mediation between passive following intensity and life satisfaction [7], [8], [44], [45]. The study shows that passive following exacerbates envy sentiments, which lower life satisfaction, confirming complete mediation [46]. From the standpoint of a provider, the findings indicate that users typically regard Facebook as a stressful environment, which may jeopardize platform viability in the long term.” [9], [12], [47], [48].

“The study found that higher Facebook use strongly predicts Facebook-related envy, even after adjusting for individual, personality, and relationship characteristics [16]–[19]. They claim that this impact is the consequence of a feedback loop in which using Facebook exposes individuals to frequently unclear information about their relationship that they would not otherwise have access to, and that this new knowledge encourages them to use Facebook even more.” [14], [49]–[51].

“Three studies have developed a Fear of Missing Out (FoMO) scale, examining individual differences, the relationship between demographic, motivational, and well-being characteristics, and the behavioral and emotional aspects of FOMO in young people, with implications for future research.” [15], [52]–[54].

“They explored the association between social

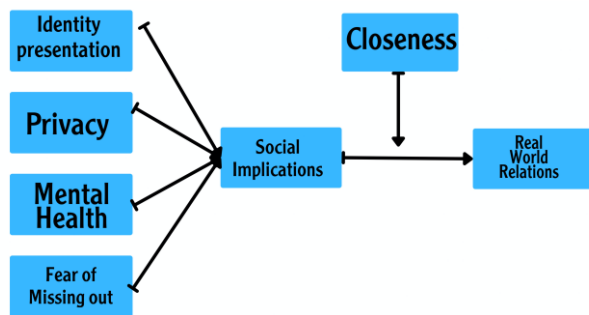
networking and depression markers in a teenage population in this study [20]–[23]. There was a statistically significant positive connection between BDI-II-II score and time spent on social networking [55]. The findings suggest that online social networking is linked to depression. More study is needed to evaluate the potential causative nature of this association.” [17], [19], [53], [56].

“This study demonstrates how Snapchat affects their interpersonal interactions in both good and bad ways. Positive aspects included its function in encouraging new connections, its value in relationship maintenance, and users' confidence that sensitive material could be sent safely [24]. The negative influences, on the other hand, were its proclivity to create negative responses and sentiments (including assumptions, judgments, FOMO, and jealousy).” [21]–[23], [57].

“The study found that appearance consciousness and high self-esteem significantly predict self-validation and social comparison on visually oriented social media platforms. Unhappiness with one's physique led to more social comparison, indicating that appearance consciousness and self-esteem indirectly influence the choice of visually focused social media sites.”

3. METHODOLOGY

3.1. Framework



The following Table 1 presents the variables of this study.

Research questions

RQs 1: Does Identity Presentation impact social

implications?

RQs 2: Does Privacy impact social implications?

RQs 3: Does Mental Health impact social implications?

RQs 4: Does Fear of Missing Out (FoMO) impact social implications?

RQs 5: Does Social Implications Effect Real world Relations?

RQs 6: Does closeness have an effect on the relationship between social implications and real-world relations?

The Hypothesis Statements are as follow:

RQs 1:

Null Hypothesis H0: Identity Presentation does not impact social implications.

Alternative Hypothesis H1: Identity Presentation does impact social implications.

RQs 2:

Null Hypothesis H0: Privacy does not impact social implications.

Alternative Hypothesis H1: Privacy does impact social implications.

RQs 3:

Null Hypothesis H0: Mental Health does not impact social implications.

Alternative Hypothesis H1: Mental Health does impact social implications.

RQs 4:

Null Hypothesis H0: Fear of Missing Out does not impact social implications.

Alternative Hypothesis H1: Fear of Missing Out does impact social implications.

RQs 5:

Null Hypothesis H0: Social Implications do not affect Real world Relations.

Alternative Hypothesis H1: Social Implications do affect Real world Relations.

RQs 6:

Null Hypothesis H0: Closeness do not have an effect on the relationship between social implications and real-world relations.

Alternative Hypothesis H1: Closeness do have an effect on the relationship between social implications and real-world relations.

Table 1: Variables

Variable	Type	Category
Identity presentation	IDV	DEMOGRAPHIC
Privacy	IDV	DEMOGRAPHIC

Mental Health	IDV	DEMOGRAPHIC
Fear of Missing Out (FoMO)	IDV	DEMOGRAPHIC
Social Implications	MEDIATOR	DICHOTOMOUS
Closeness	MODERATOR	DICHOTOMOUS
Real world relations	DV	DEMOGRAPHIC

4. DATA COLLECTION

Data collection methods are classified into two types: qualitative and quantitative. It essential to choose a data collection strategy that will aid in answering research questions. This study employs both qualitative and quantitative data collection approaches to determine whether or not social media has an impact on real-world relationships. Qualitative research: It is expressed verbally. It is utilized to understand concepts, ideas, or experiences. This form of research allows you to have a thorough understanding of things that are not generally discussed. Open-ended interviews, observations documented in terms, and literature reviews that investigate concepts and hypotheses are common qualitative methodologies. In this study, we conducted a literature review." Quantitative: To express quantitative research, numbers and graphs are employed. It is employed in the validation or testing of hypotheses and notions. This type of research may be used to find generalizable facts about a subject. Common quantitative processes include experiments, observations, and surveys with closed-ended questions. In terms of quantitative data collection, we developed an online survey." Because we employed both sorts of data collection methods, this strategy is known as a mixed methods approach."

"There are two sorts of surveys: surveys based on deployment technique and surveys based on deployment frequency. The deployment method: The way the survey is conducted. Deployment approaches include online surveys, print surveys, phone surveys, and one-on-one interviews. This research study, carried out using Google Forms, employs an online survey technique. "Method of deployment frequency: Cross-sectional studies, longitudinal surveys, and retrospective surveys are the three types of frequency techniques based on deployment frequency. The deployment frequency is one since my survey was only conducted once.

The survey in question has had a total of 65 responses."

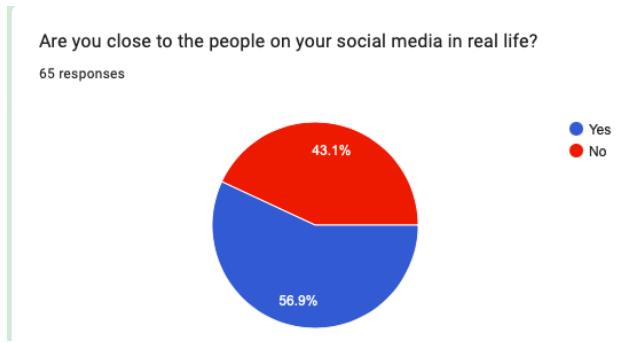
"A sample is the specific group from whom you will collect data. The population size is always smaller than the sample size. Sample techniques are classified into two types: Probability and non-probability." Non-Probability Sampling: A sampling procedure in which the likelihood of any given member of the population being picked is uncertain. The following are examples of common types:"

1. "Snowball Sampling occurs when existing research participants suggest others to the study, resulting in a chain or "snowball" effect."
2. "Sampling for Judgment is when specific persons are picked for a specific reason, sometimes because they exhibit certain qualities."
3. "Quota Sampling occurs when researchers pick individuals based on pre-specified demographic or trait quotas."
4. "Individuals are picked depending on their ease of availability and closeness to the researcher in the method of convenience sampling."

Probability sampling is a sampling approach in which each member of the population has an equal and known chance of being chosen for the sample. The primary kinds are as follows:"

1. "Simple Random Sampling is when each person in the population has an equal chance of getting chosen."
2. "Stratified sampling divides the population into subgroups (strata), and people are drawn at random from each stratum."
3. "Systematic Sampling occurs when members are drawn at random from a list at regular intervals."
4. "Cluster sampling involves dividing the population into clusters and randomly selecting complete clusters."

“We have used the probability sampling approach



in our research. The stratified sampling technique is one type of probability sampling approach that we are going to apply. We implement stratified sampling to determine whether or not the respondent is close to the people they follow on social media in real life. 57% of respondents claim they are close to people on social media in real life, compared to 43% who say they are not.

4. DATA ANALYSIS

Data analysis is classified into four types: report, descriptive, exploratory, and predictive.”

1. “Report data analysis aims to provide a clear and concise summary of research findings, presenting facts in a easily understandable format for the target audience.”
2. “Exploratory Data Analysis (EDA) is a method used to study data and identify patterns, trends, or correlations, using infographics, statistics, and interactive approaches for deeper analysis.”
3. “Predictive analysis uses machine learning and statistics models to predict future outcomes, trends, and behaviors, utilizing data from various industries like banking, marketing, and healthcare.”
4. “Descriptive analysis characterizes information set characteristics, using statistics and graphical representations to provide a comprehensive understanding of trends and properties, often used as the first stage in data exploration.”

“We make use of both descriptive and exploratory research methods in this study since we are using the survey as our infographic statistics and further investigating the infographics. “Some statistical terms that were used in the further study of this

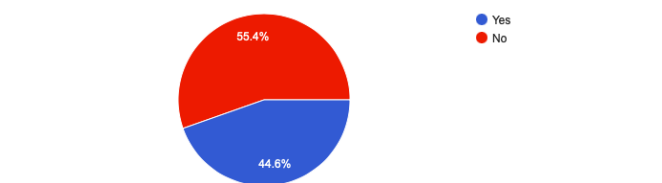
research; Mean: Denotes the average value in a set of data.” Standard deviation: Measures the spread of data around the mean.” Skewness: A measure of a distribution's asymmetry.

Research Question 1

Regarding the research question, around 57% of participants report having real-life connections with the individuals they are connected to on social media, whereas the remaining nearly 43% state that they do not.

Research Question 2

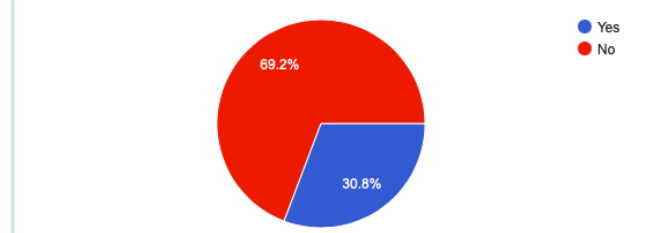
Do your social media groups (social implications) have any impact on your real-world relations?
65 responses



In response to this research question, 55% of respondents believe social implications have no influence on their real-world relationships, while the remaining almost 45% think they do. According to the data, the hypotheses of this research question are null, which means they have no impact.”

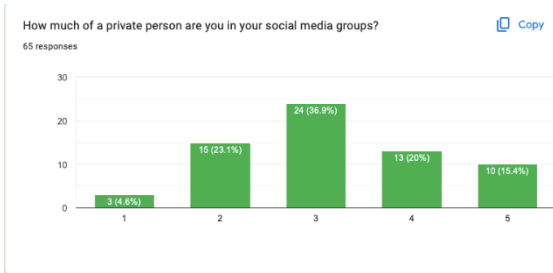
Research question 3.

Does presenting yourself in your social media groups matter to you?
65 responses



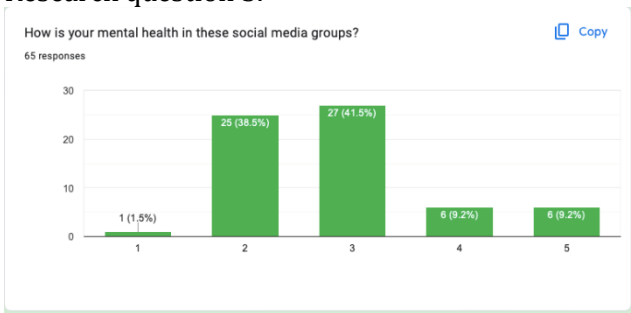
“In answer to this research question, 69% of respondents feel how they represent oneself in social implications does not important to them, while almost 31% believe it does. The findings show that the hypotheses for this research issue are null, which indicates they have no effect.”

Research question 4.



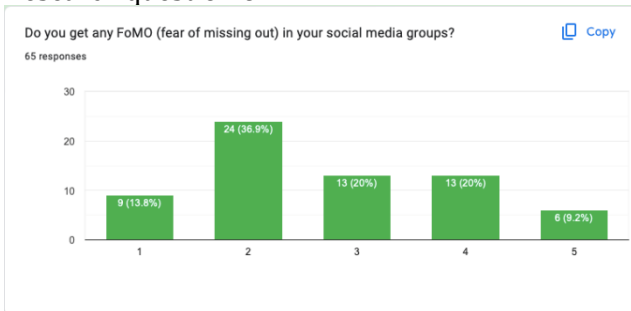
“In response to this research question, almost 5% of respondents are not at all private, 23% are little to no private, nearly 37% are somewhat private, 20% are private, and 15% are highly private regarding social media implications.”

Research question 5.



“In response to this study question, 1% of respondents have very poor mental health, 38% have poor mental health, nearly 41% have moderate mental health, 9% have good mental health, and 9% have very good mental health in terms of social media implications.”

Research question 6.



“In response to this study question, almost 14% of respondents are very likely to experience FOMO, nearly 37% are likely to experience FOMO, 20% are somewhat likely to experience FOMO, 20% are not likely to experience FOMO, and 9% are extremely likely to experience FOMO on social media implications.”

Descriptive Statistics

“The section that follows covers the mean,

standard deviation, and skewness of the study questions.”

RQ1

Close

RQ4

- “The mean is 2.95, indicating that the typical response ranges from little to no private to very private.”
- “The standard deviation is 1.03, indicating that the greatest value supplied by respondents is 3.98 (2.95+1.03) and the minimum value is 1.92 (2.95 -1.03), indicating that the answer range is from 1.92 to 3.98.”
- “The skewness is 0.28, indicating that the majority of participants replied between 2.95 and 3.98, and the normal distribution curve is right skewed.”
- “This suggests that the majority of respondents are private and close to the people in real life when it comes to social media implications.”

RQ5

- “The mean is 2.78, indicating that the typical response ranges from extremely bad to moderate mental health.”
- “The standard deviation is 0.89, indicating that the greatest value reported by respondents is 3.67 (2.78 +0.89) and the minimum value is 1.83 (2.86-0.95), indicating that the answer range is between 1.83 and 3.67.”
- “The skewness is 0.71, indicating that the majority of participants replied in the range of 2.78 - 3.67, and the normal distribution curve is right skewed.”
- “This suggests that in terms of social media implications, the majority of respondents have low to moderate mental health when close to the people in real-life.”

RQ6

- “The mean is 2.78, indicating that the typical response ranges from very likely to moderately likely to experience FOMO.”
- “The standard deviation is 1.18, indicating that the greatest value reported by respondents is 3.96 (2.78+1.18) and the smallest value is 1.6 (2.78 -1.18), indicating that the answer range is 1.6- 3.96.”
- “The skewness is 0.34, indicating that the majority of participants replied in the range of

2.78 - 3.96, and the normal distribution curve is right skewed.”

- “This suggests that the majority of respondents have FOMO on social media implications when they are close to the people in real-life.”
- Not close

RQ4

- “The mean is 3.50, indicating that the typical response is neutral.”
- “The standard deviation is 1.14, indicating that the greatest value supplied by respondents is 4.64 (3.50+1.14) and the minimum value is 2.36 (3.50 -1.14), indicating that the answer range is from 2.36 to 4.64.”
- “The skewness is -0.16, indicating that the majority of participants replied between 2.36 and 3.50, and the normal distribution curve is left skewed.”
- “This suggests that the majority of respondents are not private and not close to the people in real life when it comes to social media implications.”

RQ5

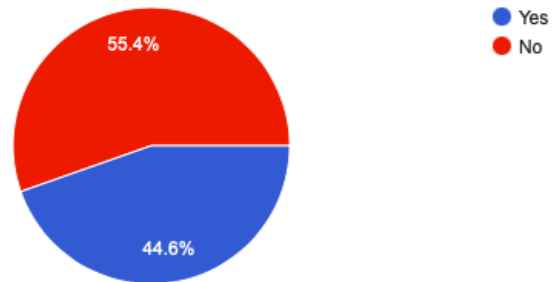
- “The mean is 2.96, indicating that the typical response ranges from extremely bad to moderate mental health.”
- “The standard deviation is 1.04, indicating that the greatest value reported by respondents is 4 (2.96 +1.04) and the minimum value is 1.92(2.96-1.04), indicating that the answer range is between 1.92 and 4.”
- “The skewness is 0.94, indicating that the majority of participants replied in the range of 2.96 - 4, and the normal distribution curve is right skewed.”
- “This suggests that in terms of social media implications, the majority of respondents have low to moderate mental health when not close to the people in real-life.”

RQ6

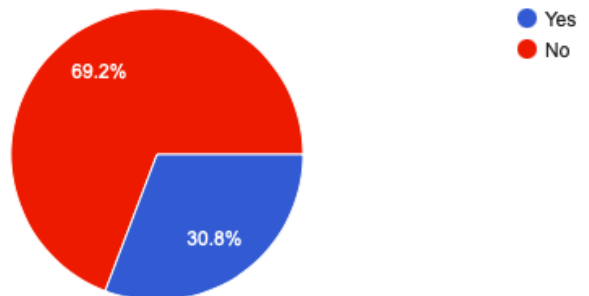
- “The mean is 2.68, indicating that the typical response ranges from very likely to moderately likely to experience FOMO.”
- “The standard deviation is 1.25, indicating that the greatest value reported by respondents is 3.93 (2.68+1.25) and the smallest value is 1.43 (2.68 -1.25), indicating that the answer range is 1.43- 3.93.”
- “The skewness is 0.42, indicating that the

majority of participants replied in the range of 2.68 - 3.93, and the normal distribution curve is right skewed.”

“This suggests that the majority of respondents have FOMO on social media implications when they are not close to the people in real-life.”



Q2: “Statistical metrics such as mean, standard deviation, and skewness do not apply to dichotomous variables with Yes/No responses. However, the meaning is clear: 55% of respondents feel that there is no impact of social implications on real-world relations, while the 45% feel there is an impact.”



RQ3: “Statistical metrics such as mean, standard deviation, and skewness do not apply to dichotomous variables with Yes/No responses. However, the meaning is clear: 69% of respondents feel that presenting yourself on social media does not matter, while the 31% feel it does.”

RQ4

RQ4	
Mean	3.18
Standard Deviation	1.10
Skewness	0.13

- “The mean is 3.18, indicating that the typical response ranges from little to no private to very private.”
- “The standard deviation is 1.10, indicating that the greatest value supplied by respondents is 4.28 (3.18+1.10) and the minimum value is 2.08 (3.18-1.10), indicating that the answer range is from 2.08 to 4.28.”
- “The skewness is 0.13, indicating that the majority of participants replied between 3.18 and 4.28, and the normal distribution curve is right skewed.”
- “This suggests that the majority of respondents are moderately private when it comes to social media implications.”
- “H0: Privacy does not impact social implications.”

“H1: Privacy does impact social implications.”
 “In this research question H1 is accepted”

RQ5

RQ5	
Mean	2.86
Standard Deviation	0.95
Skewness	0.85

- “The mean is 2.86, indicating that the typical response ranges from extremely bad to moderate mental health.”
- “The standard deviation is 0.95, indicating that the greatest value reported by respondents is 3.81 (2.86+0.95) and the minimum value is 1.91 (2.86-0.95), indicating that the answer range is between 1.91 and 3.81.”
- “The skewness is 0.85, indicating that the majority of participants replied in the range of 2.86 - 3.81, and the normal distribution curve is right skewed.”
- “This suggests that in terms of social media consequences, the majority of respondents have low to moderate mental health.”
- “H0: Mental Health does not impact social implications.”

“H1: Mental Health does impact social implications”
 “In this research question H1 is accepted.”

RQ6

RQ6	
Mean	2.74
Standard Deviation	1.20
Skewness	0.36

- “The mean is 2.74, indicating that the typical response ranges from very likely to moderately likely to experience FOMO.”
- “The standard deviation is 1.20, indicating that the greatest value reported by respondents is 3.94 (2.74+1.20) and the smallest value is 1.50 (2.74 -1.20), indicating that the answer range is 1.50-3.94.”
- “The skewness is 0.36, indicating that the majority of participants replied in the range of 2.74 - 3.94, and the normal distribution curve is right skewed.”
- “This suggests that the majority of respondents have FOMO on social media implications.”
- “H0: Fear of Missing Out does not impact social implications.”

“H1: Fear of Missing Out does impact social implications.”
 “In this research question H1 is accepted.”

6. CONCLUSION AND RECOMMENDATIONS

According to the poll results, social media has a neutral or mild influence on real-world relationships. It is not awful, but we can improve for a brighter future. some suggestions on how we might lessen our bad influence on real-world relations in our daily lives could be:”

- “Implement instructional initiatives to promote digital literacy, with an emphasis on balanced social media usage and its potential impact on real-world interactions.”
- “Create support services that address the psychological implications of online platform use, as well as aid for those who are having difficulty with their real-world connections.”
- “Work with social media platforms to create features that encourage pleasant interactions, honesty, and deliberate use, resulting in better relationships for both online and offline.”
- “Provide information and assistance to parents to help them handle discussions

about proper social media usage with their children, emphasizing the need of balancing online and offline connections.”

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