

Screen Use and Social Interaction Anxiety among Gen. Alpha vs. Gen. Z in Coimbatore City

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Abstract

Social interaction anxiety can be a major barrier for individuals to interact effectively, thereby affecting their quality of life in general and social life in particular. This first-of-its-kind study examines the prevalence of this problem among Indian members of Gen. Alpha, and their predecessors, Gen. Z, who are both digital natives. Using the theory of compensatory internet use as the base for the study, the researchers have compared both groups (n = 200; 100 from each group) with regard to their internet and gadget use patterns and their possible association with social interaction anxiety. The key variables examined were: hours spent on smartphones and laptops; age at which the respondents first used a smartphone; the type of content they prefer the most; and their association with social interaction anxiety. The results indicate that members of Gen. Alpha have a higher mean rank of social interaction anxiety when compared to members of Gen. Z. ($p < 0.01$), while certain other findings highlight significant associations between social interaction anxiety and other important factors, such as the fact that early exposure to smartphones was correlated with higher social interaction anxiety among the entire sample. This unique study, conducted in Coimbatore, offers insight into the importance of digital hygiene and how important it is to promote this, especially among Gen Alpha, who are currently at a vulnerable age, and how a reduction in screen time might be very beneficial for them, both psychologically and socially.

Keywords: Gen. Alpha; Gen. Z; Social Interaction Anxiety; Screen time; Internet use.

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Introduction

The concept of generations essentially refers to similarities between groups of people who share a common time period, values, and culture, and have experienced similar historical events. Although the concept of generations is primarily used to help understand the similarities and differences between members of the workforce (Nakai 2015), it can be used to understand a lot more, such as the differences in learning styles that can help direct teaching methodologies in schools and universities. For example, it has been noted that Generation Z prefers and depends more on learning through observation and practice combined with reliance on search engines than learning through textbooks (Shatto and Erwin, 2017). While those born between 1997 and 2009 are considered Gen Z, those who are born from 2010 onwards (till 2024) are considered Gen Alpha (McCrindle 2021). The present study is focused on these two recent generations- Gen Z and Gen Alpha, who are both digital natives and have grown up in an era where access to the latest technology has witnessed a significant improvement when compared to previous generations. This, however, does not mean that both generations are similar. In fact, there are a few key differences between them. For example, Gen Z has been known to be highly motivated by rewards and considers themselves to be compassionate towards others (Seemiller and Grace 2015). On the other hand, Gen Alpha, in one study, was found to be more persistent and less likely to give up when compared to Gen Z (McCrindle 2021). That's not all, Gen Alpha is also the most materially well-endowed generation to date, which opens up a world of possibilities for them (McCrindle 2021). While both generations have been blessed with access to modern information technology (Gen Alpha, more so) that improves their awareness of world events and access to the latest information, there is also the problem of increased screen time that is associated with mental health issues (Santos et al. 2023). Although the online world of social interaction has its advantages, such as the ease of sending and receiving information instantly

and providing a platform for content creators to entertain the public in general, and the youth in particular, the downside to being always online has been one of the most focused areas of research in the field of mental health. For example, increased screen time has been associated with depression and anxiety in one study involving a large number of youth (Maras et al. 2015). Another, perhaps an even more serious concern, is the increasing replacement of personal interaction with online interaction or isolation mediated by technology, which possibly leads to poor social skills and the development of social interaction anxiety. For young people, face-to-face peer interaction is a key aspect of development that was deeply severed during the pandemic (Orben et al. 2020). Face-to-face interaction-based activities are not only known to reduce depression and anxiety among children, but have also been reported to improve social skills as well (García-Carrión et al. 2019). That is not all, face-to-face interaction with family and friends is also known to predict quality of life (Lee et al. 2011). During the pandemic, while some Gen. Zs were working, most were in schools or colleges, and most Gen. Alphas were just beginning their schooling. The pandemic replaced actual classroom learning with online learning for a significant time period (Krishnan and Joseph 2024), which has exposed children to smartphones, as young as six years of age, and intensified the problem of smartphone dependence among children and adolescents (Serra et al. 2021). It is therefore important to acknowledge that the difference between Gen. Z and Gen. Alpha is not just generational. There are differences in educational levels, parental supervision, and social autonomy, partly powered by the pandemic, which has created a greater space for taking all this to the online realm. Let us now examine some of the existing studies related to this issue.

Review of Literature

Although, in general, there have been a few studies that have examined the impact of digital technology on well-being (Orben and Przybylski 2019), the existing literature on the

impact of screen time has been growing over the years. Here are some of the recent and most relevant studies on this: In one secondary analysis involving 3826 Canadian adolescents, it was discovered that an increase in screen time was associated with an increase in depressive symptoms. Specifically, a one-hour increase in social media was associated with a 0.64 unit increase in depressive symptoms among the respondents (Boers et al. 2019). Recent literature has also laid out how the pandemic, which shifted education to the online realm, has impacted children. For example, in one Turkish post-pandemic study, it was found that 40 per cent of the children/respondents had below-average classroom interaction levels (Kaçar Kütükçü et al. 2026). A scoping review of the impact of COVID-19 on the language skills of children offers similar insights, with the report suggesting that the pandemic had severely impacted language development in children (Zuniga-Montanez et al. 2025). This is a serious concern, as even children aged 3 years and below are said to be affected by this (Matsuo et al. 2026). It is also important to examine other important variables that may be connected to this complex relationship between screen use and mental health among adolescents. In one Canadian study that examined data from the Canadian Health Survey on children and youth, it was found that boys and girls who reported sedentary screen use of 21 hours or more in the past week had lower odds of positive mental health (Clayborne et al. 2025). Lack of physical activity is a key element here. There have also been studies that suggest that excessive screen time or overuse may also negatively impact sleep quality (Dibben et al. 2023). In this case, sleep acts as a moderator between screen use and mental health. Interestingly, the family environment can also play an important role in determining screen use and mental health risks. This has been established through a recently published scoping review, which suggests that positive family dynamics can help ensure balanced screen-media use and mental health among adolescents.

Although the term- screen time is used to refer to all forms of media consumption that are screen-oriented, there is an important distinction to be made. While active screen time

includes video games and other forms of media consumption where the individual is interacting with a particular form of media, passive screen time involves activities such as watching television or online videos, where the individual is not actively interacting with the particular media form (Khan et al. 2023). In one study that included 2320 respondents, passive screen time was more likely to be associated with mood and anxiety disorders, while active screen time was not (Kim et al. 2020). However, the existing studies on this matter have yet to provide the final verdict, as there are studies that indicate that all forms of screen time are psychologically harmful for adolescents. For example, a more recent study involving a massive sample of 414,498 adolescents in Europe and America found that both active and passive screen time were associated with psychosomatic complaints, with active screen time (that included gaming) being more problematic than the latter. The authors of that study suggest limiting the use of screen time to 2 hours or fewer could foster better wellbeing (Khan et al. 2022). From the review of recent studies, it is apparent that screen time seems to adversely impact children and adolescents, and one such negative impact could be on their ability to socialise and interact face-to-face with others. Although there is a paucity of research in this area, there have been a few studies that have found a possible correlation between screen time and its negative impact on social interaction among young people. For example, in one study conducted in China that involved 20324 children found that an increase in screen time was associated with poor psychological wellbeing by causing a decrease in parent-child interaction (Zhao et al. 2018). In another study that involved 419 two-year-old children in the Philippines, it was discovered that children who spent more than two hours a day in front of a screen were more likely to experience poor language development (Dy et al. 2023). There have been similar studies that indicate that an increase in screen time has certain negative effects, such as problems in emotional regulation and behavioural problems, which may impact a child's social skills (Panjeti-Madan and

Ranganathan 2023). The existing literature has revealed a research gap that the authors have identified and hope to fill through the present study.

Research Gap

The existing literature, though elaborate in terms of the negative psychological impact of screen time among children and adolescents, points to the fact that there have been no previous comparative studies on this aspect between both generations that could identify a possible increase in screen time combined with early exposure to technology in the more recent generation (Gen. Alpha) compared to the previous generation- Gen Z (who are both digital natives) and its possible association with social interaction anxiety. Such a study is particularly warranted in India, which has the highest youth population in the world and is expected to continue to hold this status till 2025 (UNFPA 2016). In fact, India also has the second-highest number of smartphone users in the world (Turner 2024). All of these factors motivated the researchers to undertake the present study in order to fill the existing research gap.

Theoretical Framework

The present study uses the theory of compensatory internet use by Kardefelt-Winther (2014) as the theoretical framework. According to this theory, individuals can sometimes use the internet to satisfy an unmet need, which otherwise is generally met in real life. For example, someone who might not be able to socialise because of their social interaction anxiety might be excessively using social media and other internet platforms to try and satisfy their desire to socialise. Therefore, problematic internet use might be a marker of social interaction anxiety. In the present study, the researchers will attempt to identify problematic internet and gadget use and examine whether these markers are associated with the social interaction score of the respondents. It may be noted that the researchers are not implying a causal relationship between social interaction anxiety and screen use. Instead, the results may

offer useful insights into the association between screen use and social interaction anxiety among both generations.

Objectives of the Study

Based on the existing research gap, the following objectives of the study have been framed by the researchers:

1. To describe the socio-demographic and economic characteristics of Gen. Alpha and Gen. Z respondents.
2. To compare the levels of social interaction anxiety among both groups.
3. To identify possible associations between independent variables with social interaction anxiety, among both groups.

Methodology

Operational Definitions

1. **Screen-Time:** In the present study, screen time refers to the number of hours a respondent spends in a typical day in front of an electronic device such as a computer, tablet, or mobile device.
2. **Gen. Alpha:** In the present study, Gen. Alpha refers to school children aged between 12-14 years, studying in 8th and 9th grade.
3. **Gen. Z:** In the present study, Gen. Z refers to those between the ages of 18-23 who are currently pursuing an undergraduate degree in one of the colleges in Coimbatore.
4. **Social Interaction Anxiety:** In the present study, the researchers have adopted the definition of social interaction anxiety, as laid out by Mattick and Clarke (1998). According to Mattick and Clarke (1998), social interaction anxiety refers to “distress when meeting and talking with other people, be those people members of the opposite

sex, strangers, or friends.” It may be noted that social interaction anxiety is a type of social anxiety.

- 5. Problematic Internet Use:** In the present study, problematic internet use refers to excessive and compulsive use of the internet.

Research Design and Tools of Data Collection

Since one of the major objectives of the present study is to compare one generation with another, it can be classified as a comparative study. As far as the tools of data are concerned, the researchers have used questionnaires to collect data from the respondents. While both questionnaires had the same items, one was used to collect data from Gen. Alpha, while the other was used to collect data from Gen. Z. The questionnaires had three parts. The first section was about the socio-demographic details of the respondents. The second section consisted of questions on the internet usage pattern, such as the type of social media content consumed more often than others, and questions related to factors that have been previously associated with social interaction anxiety. For example, previous studies have indicated that passive screen time is more detrimental compared to active screen time for adolescents (Kim et al. 2020). This motivated the researchers to include items that probed whether the respondents were consuming more passive vs active screen content. Since gaming has been previously associated with social anxiety (Prizant-Passal et al. 2016), a question that examines the preference given to gaming by the respondents was also included in the second part of the questionnaire. Other screen use-related factors that have been previously associated with the mental and emotional health of children and adolescents were also included in the second part. For example, the preference for engaging in physical activity vs more screen time and its association with mental health has been a point of discussion in the field of mental health (Qin et al. 2020). Hence, a question relating to the respondents' attitudes towards physical activity was incorporated into the questionnaire. The third and

final part of the questionnaire included the social interaction anxiety scale, short form (Fergus et al. 2012), which has a total of six items that measure social interaction anxiety among the respondents. The responses range from 0-4 for each item. This means that the highest possible score is 24 and the lowest possible score is 0. Higher scores indicate higher social interaction anxiety. The researchers tested the reliability of the scale and found it to be acceptable in the case of Gen. Z as well as all the respondents combined and on the borderline in the case of Gen. Alpha (Cronbach's alpha of 0.71 for all the respondents combined; 0.687 for Gen. Alpha; and 0.72 for Gen. Z). It may be noted that the scale can be read and understood by children in the 5th and 6th grade as well, as per existing information (Fergus et al. 2012).

Universe and Sampling

The universe of the present study consists of two groups- Gen. Alpha and Gen. Z. Since one of the main objectives of the present study is to compare Gen. Alpha and Gen. Z, the researchers aimed to secure 100 responses from both groups. Since Gen. Alpha includes those who were born since 2010, the researchers decided to select school children aged between 12-14 years, studying in 8th and 9th grade. Although the Alpha generation includes children who are much younger than 12 years, the researchers opted to choose this age group as they would be capable of understanding the questions being posed. Initially, the researchers identified two schools in the city of Coimbatore that were willing to be part of the study. In school A, students studying in grades 8 and 9 were informed about the study, and 55 children belonging to this age group who agreed to be part of the study were selected on a first-come, first-served basis. The same procedure of selecting students on a first-come, first-served basis was adopted to select 45 respondents from school B in order to secure a total of 100 respondents belonging to the Gen. Alpha group. Specifically, the researchers have used convenience sampling to collect data from the respondents. The data were collected using an interview schedule, and written consent was secured from the respondents.

As far as the respondents from Gen. Z were concerned, the researchers chose to select respondents who were currently pursuing an undergraduate degree in one of the colleges in Coimbatore. Although there are older as well as younger members of the Gen. Z generation, the researchers opted to select this age group to ensure homogeneity as the respondents study in the same college. An online message was posted on the class groups of all the undergraduate courses being offered in the college, and a total of 100 respondents were selected and interviewed on a first-come, first-served basis. The age of the respondents ranged between 18-23 years. Thus, the total number of respondents in the present study was 200, with an equal number of Gen. Alpha (100) and Gen. Z (100) respondents. It is acknowledged that there is a significant difference in age between the two groups. However, screen use and social interaction anxiety are two constructs that are beyond age groups. In other words, both constructs are measured on the same metric for both groups, and we assume that the interpretation of the scores is unlikely to vary in meaning across both groups.

Inclusion and Exclusion Criteria

Only those children who were born in 2010 or later were included in the Gen. Alpha group, and only those who were born between the years 1997 and 2009 and are pursuing their undergraduate degree were included in the Gen. Z group. Thus, only school and college students were included in the present study. Since the interview schedule was in English, only those respondents who were able to comprehend English were included in the study.

Analysis of Data

The collected data were then entered into PSPP, a data analysis software (Sto. -Tomas *et al.*, 2019) installed in a password-protected computer. The data was then analysed to generate four tables. The first table consists of data regarding the socio-demographic and economic details and the internet use pattern of both groups of respondents. The second table includes the results of Spearman's rank correlation (Zar 2014), while the third and fourth

tables include results of the Kruskal-Wallis test (MacFarland and Yates 2016). It is important to note that the results associated with the correlations that are marginally significant ($p < 0.10$) (as seen in Table 2) must be interpreted cautiously and seen as exploratory, as there is a higher risk for type 1 error in such scenarios.

Results

Apart from the basic percentage analysis that has been carried out to describe the socio-demographic and economic characteristics and the internet use pattern of the respondents, since the data were not normally distributed (skewness of the dependent variable = 0.71), the researchers opted to use Spearman's rank correlation to compare variables that were ordinal as well as those that were continuous in nature (Zar 2014) and used the Kruskal-Wallis test, a non-parametric alternative to Analysis of Variance (ANOVA) to identify significant associations between continuous variables and categorical variables. It is important to note that most effect sizes fall in the small range by conventional benchmarks.

Socio-Demographic and Economic Characteristics

Table 1 shows the socio-demographic and economic characteristics of the respondents. From Table 1, it is apparent that there is no major difference between Gen. Alpha and Gen. Z in terms of the socio-demographic and economic characteristics. This similarity is necessary so that the differences between both generations in the context of other important variables, such as social interaction anxiety and gadget use. It may be noted that the present study includes respondents from both rural and urban areas so as to ensure more diversity.

Spearman's Rank Correlation

Table 2 shows the results of Spearman's Rank Correlation between the selected independent variables and social interaction anxiety. In order to avoid the overcrowding of the tables, only the results that turned out to be statistically significant have been presented in

Table 2. For Gen. Alpha, a positive correlation between social interaction anxiety and hours spent on smartphones per day is similar to the findings of a similar study from Malaysia, another developing country that has certain similarities to India (Mohd Salleh Sahimi et al. 2022). Although a correlation isn't always evidence for causation, there is a need to investigate this relationship further. It is interesting to note that this correlation was found to be significant only for Gen. Alpha and not Gen. Z. One possible explanation for this difference is the fact that members of Gen. Alpha are exposed to smartphones at a very young age when compared to Gen. Z. In fact, the analysis reveals that the mean age at which members of Gen. Alpha first used their smartphone was found to be 8.86 years, while for members of Gen. Z., it is 15.73 years, meaning, members of Gen. Alpha are exposed to smartphones almost twice as early as those from Gen. Z. This difference is significant because children when they enter elementary school (at about age 7-8) spend increasingly more time with their peers, which in turn is essential for their over development including social skills (Kingery et al. 2020), and exposure to smartphones at this early stage of their development could hamper their time spent on natural face-face interactions with other children, and thereby impact their social interaction skills. Panel 2 of Table 2 further highlights this problem as it shows a positive and statistically significant correlation between the desire to use the internet all day and social interaction anxiety among Gen. Alpha respondents. Among Gen. Z respondents as well, a similar variant of the issue is observed. While panel 3 of the table shows a significantly negative correlation between the age at which the respondents first used a smartphone and social interaction anxiety, panel 4 is indicative of the impact of passive screen time, with those respondents who prefer watching YouTube all day having higher levels of social interaction anxiety. In fact, passive screen time has been previously shown to have a negative impact on an individual's mental health (Kim et al. 2020). In one recent study, a direct as well as indirect relationship between YouTube addiction and social anxiety was found (de Bérail, P., et al. 2019), highlighting the

need for limiting passive screen time in particular among members of Gen. Alpha if the goal is to reduce social interaction anxiety among the youth. It may be noted that some of the results in Table 2 are marginally significant ($p < 0.10$).

Kruskal-Wallis Test

The results of the Kruskal-Wallis test can be seen in Tables 3 and 4. Table 3 reflects the fact that members belonging to Gen. Z spend more time on smartphones, laptops, and tablets when compared to members of Gen. Alpha. On average, members from Gen. Z spend 4.03 hours per day on their smartphones, 3.94 hours on laptops, and 1.27 hours on tablets compared to members of Gen. Alpha, who on average spend 2.03 hours on smartphones, 0.77 hours on laptops, and 0.59 hours on tablets, and this difference was found to be statistically significant, as observed in Table 3. One area where the members of Gen. Alpha score higher than members of Gen. Z is the desire for gaming. This is possibly due to the fact that, since members of Gen. Alpha are exposed to smartphones and the gaming technology that comes with it at a very young age, it is more popular among them. Table 4 shows the association between the independent variables and social interaction anxiety among both groups. From the results seen in Table 4, it can be inferred that members of Gen. Alpha who prefer online interactions to face-to-face interactions are more likely to have a higher score of social interaction anxiety, while for members of Gen. Z, those who prefer to watch music videos the most are more likely to suffer from social interaction anxiety. This finding could be indicative of the fact that music is often used to help calm various forms of anxiety. In fact, a meta-analysis of studies that examined the impact of music in reducing anxiety found music to be effective in this regard (Panteleeva et al. 2017). It might be possible that those with higher levels of social interaction anxiety from Gen. Z might be using music videos to unconsciously help manage their social interaction anxiety. A deeper investigation into this is needed to fully understand this phenomenon. Finally, as seen from panel 5 in table 3, it is clear that members of Gen. Alpha have a significantly higher mean rank of social interaction

anxiety compared to members of Gen. Z. As technology continues to replace traditional ways of communicating, social interaction anxiety might become more prevalent, especially among Gen. Alpha and future generations. In one study that examined the prevalence of social anxiety in seven countries, it was found that the problem was more prevalent among younger people than those from the older generations (Jefferies and Ungar, 2020).

Discussion

The results of the present study, which are mainly generalisable to metropolitan cities such as Coimbatore, in one way or another, support the anecdotal reports that have suggested that Gen. Alpha is exposed to the online world at a much younger age than previous generations. In fact, early exposure to smartphones has repeatedly been shown to have a negative impact on the younger generation (Kim et al. 2017). It is interesting to note that, although on average, members of Gen. Z. in the present study spend more time on their smartphones, laptops, and tablets, it is members of Gen. Alpha who have a significantly higher mean score of social interaction anxiety. This again points to other important variables, such as the age at which children are exposed to screens. One major difference between the groups, apart from the age at which they were both exposed to smartphone use, is the statistically significant correlation between the desire among some members of Gen. Alpha to interact online instead of face-to-face with individuals and their high social interaction anxiety score. It could be the case that the desire to interact online instead of face-to-face could be an early indicator of social interaction anxiety among children, or members of Gen. Alpha, in this case. This study has revealed the urgent need for further research on identifying the significant markers for social interaction anxiety among members of Gen. Alpha so that it can be identified, diagnosed, and addressed at an early stage. As adolescents, such individuals may have difficulties functioning well in social situations, as research indicates that adolescents with social anxiety process social interactions with unfamiliar people in a dysfunctional manner, which may also lead them to feel more

depressed (Ernst et al. 2024). It is important to acknowledge that some of the significant correlations, though important, are only marginally significant. This includes the correlation between social interaction anxiety and desire to spend the entire day on the internet (for Gen. Alpha), social interaction anxiety and age at which they first used a smartphone (for Gen. Z), and social interaction anxiety and desire to spend the entire day watching YouTube videos (for Gen. Z). Therefore, it is necessary to be cautious while declaring their generalisability.

The era of the smartphone dates back to the year 2007, when the first iPhone was announced (Pfaff et al. 2023). It is interesting to note that just three years later, the first members of Gen. Alpha were born (McCrindle 2021). The years that followed witnessed a boom in the smartphone industry, especially in developing countries such as China and India (Zhou et al. 2016). Today, India has become the second-largest market for smartphones (World Population Review 2024). However, there is a lack of awareness among the general population about the dangers of the excessive use of smartphones, such as their negative impact on sleep quality (Zhang and Wu, 2020), among other problems. With more and more Indian children being exposed to smartphones at an early age (as seen in the present study), there is a serious threat to the health, wellbeing, and social skills of the future generation. In this regard, there is a need to first consider the possibility that this could be a cause for concern. Secondly, there is a need to educate the members of Gen. Alpha in particular about the dangers of smartphone and internet addiction. This can be carried out by teachers in schools as part of value education. In the Indian context, the pandemic not only affected the health of several older adults (Krishnan et al. 2024) but has also led to an increase in screen time among children, leading to a negative impact on their quality of vision (Saxena et al. 2021). The pandemic also brought about some major changes in schooling, with a large number of children learning entirely online for almost two years. This resulted in early exposure of screens to children, including online social interactions with peers. In the present study, members of Gen. Alpha's screen time is clocked at 5.46 hours per day, which is almost

thrice the amount of the recommended screen time by paediatricians (Legner 2021). It also has to be acknowledged that the pandemic led to a change in the pattern of communication among family members. It pushed even the elderly to learn to communicate online, thereby normalising online interaction among family members. This excessive reliance on online modes of communication, leading to late-night communication among peers, may also be associated with poor sleep quality, which requires further investigation. Schools could consider informing parents to monitor their children's screen time and ensure that it is less than two hours a day. On the other hand, teachers need to set tasks/homework for students that involve reading rather than tasks that involve screen time to ensure that reading habits are cultivated and children are not severely exposed to screen usage. For members of Gen Z, they have a challenge to not only keep their own screen time under control, but also have the responsibility to be a role model for the next generation- Gen. Alpha. One major difference between Gen. Alpha and Gen. Z is that members of Gen. Z are about to enter a world dominated by tech jobs, which require them to be well-versed with the latest technology and tech trends. This is possibly why the members of Gen. Z., on average, have a higher average screen time when compared to their Gen. Alpha counterparts. This does not, however, mean that there aren't any major problems faced by their generation. The significant negative correlation between the age at which a member of Gen. Z first used a smartphone and their social interaction anxiety score indicates that there are members of Gen. Z who were exposed to smartphones at a very young age and might be suffering from social interaction anxiety as a result of it. Despite the findings that suggest that social interaction anxiety is associated with screen-time, it is necessary to remember that social interaction anxiety experienced by the respondents could also be associated with or caused by other factors such as the developmental age at which the respondents are. Such factors could be explored in future studies.

Limitations of the Study

The present study is primarily quantitative in nature. It is therefore limited by the lack of qualitative information that researchers interested in this topic could consider in the near future. Furthermore, the two generations were not compared at the same developmental age, which is another limitation. Additionally, since the main objective of the research was to measure social interaction anxiety among both groups and to identify significant associations, but not to discover causal effects, the analysis was limited to correlations and Kruskal-Wallis tests instead of multiple or binomial regression. This is another limitation of the study. Finally, the researchers had to adopt convenience sampling, which is a non-probability sampling technique with its own limitations. However, the researchers had to opt for it to secure the required sample size for both groups.

Conclusion

The primary objective of the present study was to compare the level of social interaction anxiety between members of Gen. Alpha and Gen. Z in Coimbatore, India, and to note whether certain independent factors related to screen time, internet usage patterns, and gadget use were associated with the level of social interaction anxiety. As of today, there haven't been any previous studies that have compared both generations in this particular context. The results of the study suggest that there could be an association between extremely early exposure of children to smartphones and social interaction anxiety, as supported by the existing literature, which suggests a negative impact of smartphones on children (Domoff *et al.*, 2019). The findings of the present study also partly support the theory of compensatory internet use laid out by Kardefelt-Winther (2014). Although the study was able to identify a significant relationship between social interaction anxiety and certain preferences and behaviours that indicate problematic internet and gadget use, it does not establish causal effects. There is a need for further investigation to identify whether these behaviours are a cause of social interaction anxiety or a symptom of social interaction anxiety, as laid out by the theory, and as a result, the researchers would like to encourage other researchers to

conduct longitudinal, multi-site, developmentally matched, and mixed-method studies on this topic.

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Conflict of Interest Statement: There are no competing interests to declare.

Ethics Statement: The ethical clearance for the present study was secured from the first author's institution, and informed consent was secured from the respondents belonging to the Gen. Z category. For the members of Gen. Alpha, informed consent was obtained from the respondents' parents as well as from the respondents themselves. Furthermore, the present study was carried out in accordance with the principles laid down in the Belmont Report (Zucker 2014) and the Declaration of Helsinki.

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Table 1- Socio-demographic and Economic Characteristics

Gen. Alpha			
Sl.no.	Variable	Frequency	Percentage
	Socio-demographic and Economic Characteristics		
1.	Gender		
	Female	56	56
	Male	44	44
2.	Type of family		
	Nuclear	69	69
	Joint	31	31
3.	Currently living		
	Urban area	49	49
	Rural area	51	51
4.	Monthly family income		
	Rs. 10000 or below	17	17
	Rs. 10001-50000	43	43
	Rs. 50001- 100000	20	20
	Rs. 100001 and above	20	20
Gen. Z			
5.	Gender		
	Female	50	50
	Male	50	50
6.	Type of family		
	Nuclear	68	68
	Joint	32	32
7.	Currently living		

	Urban area	64	64
	Rural area	36	36
8.	Monthly family income		
	Rs. 10000 or below	15	15
	Rs. 10001-50000	38	38
	Rs. 50001- 100000	29	29
	Rs. 100001 and above	18	18

Table 2- Spearman's Rank Correlation- Social Interaction Anxiety

Gen. Alpha (n = 100)			
Sl. No.	Variables	r	Sig.
1	Hours Spent on Smartphone	0.22	0.027**
	Desire to spend the entire day on the internet	.19	0.057*
Gen. Z. (n = 100)			
2	Age at which you first used a smartphone	-.18	0.074*
	Desire to watch YouTube all-day	0.21	0.040**
Total (n = 200)			
3	Age at which you first used a smartphone	-.18	0.009***
	Age of the respondents	- .18	0.011**
	Desire to spend the entire day watching YouTube video	.14	0.051*

* Significant at 0.10 level
 ** Significant at 0.05 level
 *** Significant at 0.01 level
 **** Significant at 0.001 level

Table 3- Kruskal-Wallis Test: Gadget Use- Gen. Alpha vs. Gen Z

1.	Hours Spent on Smartphone per Day						
	Groups	N	Mean Rank	Chi Square	Df	Sig.	Epsilon's Squared Estimate
	Gen. Alpha	100	68.55	62.90	1	0.000****	0.32
	Gen. Z.	100	132.45				
2.	Hours Spent on laptop per Day						
	Gen. Alpha	100	71.85	51.89	1	0.000****	0.26
	Gen. Z.	100	129.15				
3.	Hours Spent on Tablet per Day						
	Gen. Alpha	100	91.75	6.16	1	0.013**	0.03
	Gen. Z.	100	109.26				
4.	Desire for Gaming						
	Gen. Alpha	100	114.94	13.22	1	0.000****	0.07
	Gen. Z.	100	86.07				
5.	Total Social Interaction Anxiety						
	Gen. Alpha	100	111.42	7.15	1	0.000****	0.03
	Gen. Z.	100	89.58				

* Significant at 0.10 level
 ** Significant at 0.05 level
 *** Significant at 0.01 level
 **** Significant at 0.001 level

Table 4- Kruskal-Wallis Test- Social Interaction Anxiety

Gen. Alpha (n = 100)							
1.	Preference for face-to-face interaction Vs. Online Interaction						
	Groups	N	Mean Rank	Chi Square	Df	Sig.	Epsilon's Squared Estimate
	Face-to face interaction	81	46.78	7.06	1	0.008***	0.03
	Online interaction	19	66.37				
2.	Gen. Z. (n =100)						
	Type of content that you prefer the most						
	Funny videos	41	44.15	14.36	6	0.026**	0.07
	Educational videos	13	51.58				
	Music videos	13	68.88				
	Cat/dog videos	06	66.50				
	Vlogs	12	59.33				
	Animated shows/cartoons	02	57.75				
	Other	13	34.42				

* Significant at 0.10 level
 ** Significant at 0.05 level
 *** Significant at 0.01 level
 **** Significant at 0.001 level