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The Relationship and Effect Analysis between Social Media Addiction and White Bear Thought Suppression in the Age of Social Media: Is the New Phenomenon 'White Bear Suppression on Social Media'?

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Abstract: The use of social media is increasing worldwide, and thus, some new problems that negatively affect life are coming to the fore. The "White Bear Thought Suppression" problem, which was put forward in previous years, has re-emerged in the digital environment as psychological disorders accompanying excessive social media use. The reason for this study was that people constantly think about what is happening on social media, cannot distinguish between digital and reality, and cannot manage their mental process. The aim of this study is to examine the relationship between social media addiction and White Bear Thought Suppression and the factors affecting it from the perspective of White Bear Suppression on social media. The sample of the research consists of 356 volunteer participants in Turkey between the ages of 18-71. The research was conducted by analyzing the data collected with the Social Media Addiction Scale (SMAS) and White Bear Suppression Inventory (WBSI) scales in accordance with the quantitative method. Some of the results obtained in the research are as follows: (a) Women's social media addiction and White Bear Suppression were found to be high, (b) Generation Z is the generation in which social media addiction and White Bear Suppression are seen at the highest level, (c) As daily social media use increases, the level of social media addiction and White Bear Suppression increases; (d) The frequency of opening live chats and having more than one profile increases social media addiction and White Bear Suppression. (e) The frequency of sleep disorders and perceived loneliness affect both phenomena. At the end of the research, it was emphasized that social media impacted White Bear Suppression and that new clinical studies were needed, especially with young people.

Keywords: social media addiction; White Bear; White Bear thought suppression; White Bear suppression

1. Introduction

Sometimes it is tempting to wish to get away from the thoughts. Any intrusive thoughts, inappropriate ideas, or mental images that may lead to undesirable behavior can cause a desire to escape. However, thought suppression is not easy, whether a person is trying not to think about a negative event or trying to avoid thinking about food while dieting.

The most well-known study on thought suppression is by Wegner et al. [1]. In their famous experiment, a group of participants were asked to repeatedly verbalize their stream of consciousness out loud for five minutes while thinking of a white bear. They were instructed to ring a bell each time a white bear comes to mind. The second group was given almost the same instructions, but an important difference was that they were explicitly instructed to avoid thinking of a white bear. It has been observed that this group thought of a white bear more than once per minute, on average. Finally,

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the second group was asked to repeat the experiment while consciously thinking of the white bear. It turned out that they rang more bells than even the first group, who had been told from the beginning to think of white bears. Wegner's conclusion was that trying not to think about a white bear caused it to bounce back even more into the participants' minds.

White bear suppression, is a vicious cycle of thinking characterized by thinking, wanting not to think, and thinking again. It is the state of keeping the thought alive while trying to avoid thinking. The person who wants to get rid of this intrusive thought repeats them over and over again. This can become an obsession in the process. When the literature is examined, there are thoughts suppression efforts, misinterpretation of intrusive thoughts, repetitive intrusive thoughts and accompanying compulsive behaviors to reduce anxiety in obsessive-compulsive disorder (OCD) within the scope of the cognitive behavioral model [2]. Accordingly, when an intrusive thought comes to mind, the person uses various mental control methods to get away this thought but realizes that they cannot control their thoughts. Trying to suppress them has the opposite effect [3]. Thus, the thoughts become more apparent. A vicious cycle occurs when the person begins to exhibit repetitive behaviors aimed at eliminating thoughts.

As identified by the Obsessive-Compulsive Disorder Working Group (OCDWG) formed by scientists from different countries, one of the research topics regarding the problem of thought suppression is about belief domains. Belief domains are defined as importance of thoughts, excessive concern about the importance of controlling one's thoughts, inflated responsibility, overestimation of threat, perfectionism and intolerance for uncertainty. In this context, the study group developed the Obsessive Beliefs Questionnaire, which examines six defined belief domains, and the Interpretations of Intrusions Inventory, which measures parameters such as beliefs, immediate interpretations, and thought control methods [4].

There is a study conducted with university students without a psychiatric diagnosis to examine the psychometric properties of these measurement tools [5]. There is another study conducted by Yorulmaz et al. [2] in a clinical sample. In this study, some measurement tools were applied to patients with OCD and any other anxiety disorders. Undergraduate university students were included as control group. An instrument set on immediate misinterpretations, beliefs, control strategies, responsibility attitudes, fusions of thoughts and actions, thought suppression, OCD symptoms, self-esteem and personality characteristics was applied to the sample. As a result of the research, immediate interpretations, beliefs and thought control methods scores were found to be higher in OCD patients. These three factors also showed significant relationships with other cognitive factors. Similar results were obtained in measurement tools whose psychometric properties were examined with various samples in Western societies [6–10].

It is stated that many people may have disturbing thoughts and it is thought that trying to control these thoughts is a natural phenomenon [11]. However, it is reported that thought control is not possible to achieve absolute results and ends in failure [12]. As noted by Wegner and Zanakos [3], thought suppression efforts result in adverse effects. It has also been confirmed by clinical research that diagnosed and undiagnosed people have different thought suppression efforts [2]. Thus, it becomes clear that thought suppression studies need to be approached from multiple perspectives and new influencing factors can be added each day.

Today, the effects of digital media are discussed from many perspectives such as individual and social effects, intergenerational effects, and the power to influence emotions and thoughts [13–16]. With widespread use around the world, the power of social media in influencing emotions, thoughts and activating behaviors has created an important area of discussion. By so, social media affects the status of individuals and institutions, either positively or negatively, and can even be seen as a psychological battlefield. Written, visual or audio media are functional in activating suppressed thoughts. Thus, it becomes clear that thought suppression needs to be reconsidered with the effects of digital media.

The extreme level of digital media production and consumption along with new media tools has brought the problem of thought suppression to the agenda again. In this study, the effect of digital media in activating thoughts and changing the direction of belief areas will be discussed. It is thought

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that this study, which is considered as white bear suppression on social media, will find a place in the scientific literature as a new research area in terms of emphasizing the role of media tools in suppressing thoughts.

1.1. Thought Suppression Problem

The idea that people can have unwanted thoughts is one of Freud's central perspectives, and the idea that people repress such thoughts has long served as a theoretical basis for the study of psychopathology [17,18]. Classical psychoanalytic theory refers to the problem of thought suppression. Suppressing a thought requires (a) planning to suppress a thought and (b) carrying out that plan by suppressing all manifestations of the thought, including the original plan. Thought suppression therefore requires simultaneously knowing and not knowing. Freud [19,20], made this theoretically possible by postulating the dissociated state, namely the unconscious. The unconscious can perform the suppression of conscious thought.

This psychoanalytic emphasis on unconscious repression has resulted in a long-standing bias against the study of consciousness during processes of thought suppression. In contrast, contemporary research has addressed directed forgetting [21] and posthypnotic amnesia rather than directed inattention or directed conscious avoidance, since the process of repression is expected to be observable only after the event and to leave a trace in memory. There are many examples of this in daily life. Trying not to think about an upcoming stressful event, avoiding thoughts of smoking when trying to quit, or trying to banish persistent thoughts about a lost love are common experiences for many. Anxiety of all kinds are conscious thoughts in which people express desires they do not have. Researchers have been curious about what happens when people make a conscious effort to avoid a particular thought.

When the research is examined, there are reports that there is not enough evidence in studies on thought suppression and that it is difficult. Accordingly, early studies by Mcgranahan [22] showed that people instructed to avoid making color associations with stimulus words still reported such associations even when threatened with shock. In these cases, people only knew the general color category rather than knowing in advance the specific thought to suppress. In another study, Logan [23] examined response time patterns to stop signals while subjects performed short tasks. Logan found that actions can be stopped midway, but thoughts reach conclusions when stimuli that activate them are present. This method was also tried for obsessive disorders by Wolpe and Lazarus [24].

Another line of evidence emerges from research urging people to ignore information relevant to a decision they have to make. People were instructed to ignore information before encountering it (e.g., subsequent decisions). Jurors are influenced by information they are instructed to ignore [25], and media audiences are influenced by news they are told is untrue [26]. Accordingly, people who evaluate probabilities are reportedly influenced by information, even when they are offered money to ignore it [27]. These effects seem unlikely if people could eliminate their conscious experience of the thoughts they are instructed to ignore [28]. Then, the hypothesis proposed by a wide range of studies to date, is that conscious thought suppression is not a cognitive transformation that people perform with great ease.

The mental state produced by attempted thought suppression appears to differ in several ways from the accompanying simple inattention or unwanted distraction. The hypothesis put forward by several theorists is that attempts to suppress thoughts (or emotions) may result in subsequent reabsorption with these issues. Prototypical work in this area [29] demonstrated that individuals who tended to personally avoid thinking about impending surgery subsequently had more anxious responses to it. Although the meaning of this finding is still debated (e.g., [24,29]), there is some degree of theoretical consensus to conclude that avoiding a stressful thought can lead to subsequent intrusions of that thought (e.g., [30]).

The possibility that thought suppression leads to absorption is also observed in people's reactions to situations where they have to abstain from food or addictive substances. Given the assumption that attempts to avoid a habitual behavior only precede attempts to suppress or avoid habit-related thoughts, the pattern of behavior that follows attempts at self-control is informative

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about the pattern of thoughts that may occur. For example, Polivy and Herman (1985) noted that in the case of food abstinence, dieting often leads to subsequent overeating. There is some strong evidence to suggest that restricting eating is a reliable predictor of binge eating and overweight. It seems that attempting to avoid thoughts of food can lead to subsequent preoccupation with such thoughts.

Marlatt and Parks [31] observed the more general abstinence-violation effect and suggested that the abstinence state is delicate because relapse into an addictive behavior can be triggered by a seemingly minor violation of prohibition. This is in line with the idea that an initial attempt to suppress thoughts may be followed by an unusual preoccupation with the suppressed thought domains. In their view, the event that freezes suppression and triggers relapse may be a single event that draws the person's attention to the originally suppressed thought. Thus, results from past findings emerge in two different directions. First, thought suppression has been shown to be difficult for people; consciously avoiding a thought may be confusing and even time consuming. Second, there is some evidence to suggest that even if thoughts can be suppressed, they can return to consciousness with minimal stimulation, perhaps to become obsessive preoccupations.

When the literature is examined, it is seen that some studies have been carried out to measure thought suppression. WBSI (White Bear Suppression Inventory), developed by Wegner and Zanakos [3], is a self-report scale to evaluate the tendency to consciously suppress unwanted thoughts. Other scales such as "Thought Control Questionnaire" [32] and "Interpretation of Intrusions Inventory" [4] have also been developed to be used for similar purposes in this field. However, the use of these scales is largely limited to OCD compared to the WBSI. WBSI offers a wider range of uses. In this context, it has also been used in psychiatric diseases such as OCD, other anxiety disorders, depression and substance addiction [33–36].

1.2. White Bear Suppression

White bear suppression is based on the studies of Wegner et al. [1]. It has two scientific bases. Accordingly, it is a system of thought within the theory developed by Freud [37] within the science of psychology. It was also included in the writings of Dostoyevsky [38] and Tolstoy (Act. [39]) about the difficulty of avoiding thoughts about the white bear. Many studies on the difficulty of avoiding thoughts form the basis of white bear suppression [26,40].

It is stated that the reason why it is called white bear is that the idea that white bears eat people in Russia spread among people and was inspired by people's efforts to remove this. In the following years, this suppression began to be included in the scientific field. A scale for this suppression called the White Bear Suppression Inventory was obtained by Wegner and Zanakos, based on two factors: Suppression and Aggression. The White Bear Suppression Inventory (WBSI) has been associated with measures of obsessive thinking and depressive and anxious affect. It has been stated that it can be used to predict clinical symptoms of obsession among individuals prone to obsessive thinking, to predict depression among individuals motivated to dislike negative thoughts, and to predict failure to habituate to electrodermal responses among people with emotional thoughts [3]. Some findings were obtained in a later study conducted with the scale. According to the findings, it was found that intrusive rumination significantly predicted anxiety and depression [41].

A preliminary study on the validity and reliability of the White Bear Suppression Inventory was conducted by Ağargün [42] and added the Turkish version of the scale to the literature in 2004. In the study involving 30 patients diagnosed with OCD (obsessive-compulsive disorder) according to DSM-IV criteria and 47 subjects, the internal consistency reliability Cronbach Alpha value of the scale was found to be 0.92. Psychometric analyzes of the study were conducted with individuals diagnosed with OCD and healthy individuals. Study results have shown that the psychometric properties of the WBSI are a reliable and valid scale for assessing the tendency to consciously suppress unwanted thoughts in a Turkish sample. According to the researchers, this scale can contribute to studies on the etiopathogenesis of anxiety disorders, especially OCD, and to studies in the treatment phase as well as in the emergence of psychopathology.

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WBSI (White Bear Suppression Inventory) measures a person's tendency to suppress unwanted thoughts, which are ego-dystonic and cause significant distress. Although adaptation studies of this scale have been carried out in different samples in the past years, it is necessary to re-study it within the new conditions such as widespread social media use. Since technological advances provided a new perspective in the evaluation of thought suppression studies, the contribution of current studies in the context of the relationship with different scales is important. Thus, it can be said that new conditions serve as a locomotive that carries existing theories to the present day.

Wegner et al. [1] state that there are various strategies to help "suppress the white bears", that is, to control obsessive thoughts. These strategies are as follows:

Choose a distractor and focus on that instead: Wegner and colleagues asked participants to think of a red Volkswagen instead of a white bear. Giving participants something else to focus on has been found to help them avoid unwanted white bears.

Try to postpone worry: Asking people to devote half an hour a day to worry allows them to try to avoid worrying for the rest of the day. So, the next time an unwanted thought comes to mind, it is suggested that one try to tell oneself: "I am not going to think about it until tomorrow."

Reduce multitasking: It has been found that people under increased mental load show an increase in the presence of thoughts of death. It is known that this thought is one of the most undesirable thoughts for most people.

Exposure: When a person is allowed to think in a controlled way about what he/she wants to avoid, it will be less likely to return to the thoughts at other times.

Meditation and mindfulness: There is evidence that meditation and mindfulness strengthen mental control and help people avoid unwanted thoughts.

1.3. White Bear Suppression on Social Media

The media has been a phenomenon that has affected people and society from past to present. The extent of this impact has varied with the various forms of media presentation. While written media activities had an impact on a small number of people in the early periods, the formation of audio and visual media structures over time had an impact on larger audiences [43]. The concept of media includes elements such as written press, visual media, audio media. In this context, information, news, comments and etc. can be conveyed to people visually, audibly and in writing [44]. Nowadays, the use of the internet along with developing technologies and the creation of interaction-based websites due to Web 2.0 have enabled the structure called "social media" to enter the literature. Thus, the ease of access and worldwide prevalence of social media has revitalized the reproduction of media in written, visual, audio and even animated forms. It made the media's influence sphere stronger by moving it to different grounds.

Social media has a decisive role on the individual and society. It leads events, situations and people to take an attitude on a subject. Thus, it reveals its social role and even its mechanism of action. There are many examples of social experiments conducted on this subject [45]. Although the media's decisiveness sometimes occurs unconsciously, its guiding effect on people and society is an undeniable fact. According to Christakis and Fowler, who specifically touch upon the individual effects of social media, the emotional state contained in posts on social networks spreads with high impact strength up to three degrees, and the strength of the impact gradually dissipates at later levels. According to this; the emotional state contained in the sharing spreads to a friend (one degree), a friend of a friend (two degrees), and even a friend of a friend of a friend (three degrees). Researchers, who state that social networks deeply affect emotions, have proven this through many social experiments. Just as people's emotional states affect each other when they are in the same environment in real life, emotions are transmitted to others on social media sites, which are a digital platform, through the same mechanism. In addition, as daily social media usage time increases, exposure to mood spread also increases. Moreover, another study revealed that social media is functional in spreading benevolence and malevolence. Accordingly, the level of maliciousness of those who use social media for 4 hours or more increases significantly [46]. It is a very interesting fact that social media affects people's emotional states that shape their attitudes and behaviors towards

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events and people. This situation also gave rise to new research areas and caused researchers to work. For example; "Uskudar Benevolence and Malevolence Scale" developed by Tarhan and Tutgun Ünal in 2022 was applied to social media users. The power of social media to influence emotions in the context of benevolent and malicious attitudes has been revealed with quantitative data.

Another dimension in understanding the influence of social media on thoughts is "Occupation". It is included as an addiction dimension in social media addiction studies in the literature. It is related to the recurrent thoughts to what is happening on social media [47–50]. Thus, constantly thinking about social media even while doing other things, and the fact that this thought habit results in the work being interrupted or postponed creates a serious area of struggle for the person.

Some studies report that the daily life of the individual is disrupted by unlimited social media use, such as less and poor-quality sleep, postponing the work to be done, interpersonal problems in social and private life, excessive mental preoccupation, wanting to limit the use but not being able to, craving when it is not accessible, recurring thoughts about limiting the use of the internet [49–55]. Therefore, the fact that social media causes such problems in people's lives has brought the problem of social media addiction to the agenda. Many scale development studies have been carried out on social media addiction to define this problem and measure it psychometrically.

Tutgun-Ünal (2015) defines social media addiction as "a psychological problem that develops through cognitive, affective and behavioral processes and causes problems such as occupation, mood modification, relapse and conflict in many areas of a person's daily life such as private, work/academic and social areas" [54]. Thus, she developed the first social media addiction scale in Turkey and aimed to examine the problems such as occupation, mood modification, relapse and conflict created by social media in all areas of life of individuals. The 5-point Likert type measurement tool, consisting of 41 items and 4 factors, is used to determine social media addiction levels. Following the study, many researchers in Turkey continued to develop addiction scales with various names on different groups for general social media addiction, which includes all social media applications [56–59].

Wegner's thought suppression research proposed as "White bear suppression", is one of the theories associated with excessive use of social media, which creates mental preoccupation today. Therefore, associating white bear suppression with social media is important as it adds a new dimension to the problem of thought suppression. In order to test the association, psychometric scales were investigated by providing concrete data. It was decided to apply the social media addiction scale and thought suppression inventory to social media users in this study. It is thought that the retention feature of visual media may be functional in activating these problems in excessive social media users and those with occupation addiction. In this research, it was aimed to conduct some statistical analyzes by associating the white bear suppression inventory with the occupation, mood modification, relapse and conflict dimensions of the social media addiction scale.

2. Materials and Methods

2.1. Ethical Approval

This study received ethical approval from the Uskudar University Non-Interventional Research Ethics Committee report number of 61351342/April 2023-27 (23 April 2023). This study was performed according to the principles set out by the Declaration of Helsinki for the use of humans in experimental research.

2.2. Participants

The sample of the research consists of a total of 356 participants, 256 women (71.9%) and 100 men (28.1%). The age range of the participants is 18 to 71 and the average age is 27.8. Considering their education level, 3.3% (n=12) was primary school, 8.1% (n=29) was high school, 75.3% (n=268) was university, 3.7% (n=13) were at college level, 9.5% (n=34) were at master's and doctoral level. When looking at the social media usage history of the participants, it was learned that 57% of them

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have been using for more than 7 years; 24.7% have been using for 4-6 years; 13.8% have been using it for 1-3 years and 4.5% have been using it for less than 1 year.

2.3. Data Collection Tools

The data collection tool is a survey consisting of demographic questions, social media habits, some general problems, as well as the two scales used in the research, the Social Media Addiction Scale (SMAS) and the White Bear Suppression Inventory (WBSI). At the beginning of the survey, participants were asked about their gender, age, education level, social media platform preferences, liking habits, liked and disliked social media content, number of profiles, screen viewing habits, frequency of headaches and sleep disorders, and perceptions of loneliness. Scales were included in the rest of the survey.

2.3.1. Social Media Addiction Scale-SMAS

The Social Media Addiction Scale (SMAS) was developed by Tutgun-Ünal and Deniz in 2015 in order to measure people's social media addiction, and all validity and reliability studies were carried out [54]. Consisting of 41 items and four factors (occupation, mood regulation, relapse, and conflict), SMAS is a 5-point Likert-type scale graded as "Always", "Often", "Sometimes", "Rarely" and "Never". All factors explained 59% of the total variance in SMAS. The Cronbach Alpha value of the scale was found to be .96. The highest score that can be obtained from the scale is 205, and the lowest score is 41. Sub-scales can be evaluated separately. Items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 in the measurement tool are related to the "Occupation" dimension and measure the effect of social media on cognitive engagement. Items 13, 14, 15, 16 and 17 in the measurement tool are related to the "Mood Modification" dimension and measure the emotional impact of social media. Items 18, 19, 20, 21 and 22 in the measurement tool are related to the "Relapse" dimension and measure whether the person wants to control social media use or not and continues to use it to the same extent. Items 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40 and 41 in the measurement tool are related to the "Conflict" dimension and measures the impact of the problems that social media causes in a person's life.

2.3.2. White Bear Suppression Inventory- WBSI

WBSI is a Likert-type self-report scale to assess the tendency or effort to consciously suppress unwanted and disturbing thoughts. It was developed by Wegner and Zanakos in 1994 and its psychometric properties were tested by Muris et al. [60]. It does not evaluate to what extent the person has achieved this action. It consists of 15 items. A typical WBSI item is: "I always try to put problems out of mind." Each item consists of five options, and one of these options is answered by the participants. These 5 options are "A=Strongly disagree; B=Disagree; C=Neutral or do not know; D=I agree and E=I strongly agree". The sum of the answers marked to all items gives the total score of the scale. The total score may range between 15-75. Higher scores mean a stronger tendency or potential to consciously suppress unwanted thoughts. The original scale demonstrated high internal consistency (Cronbach Alpha=0.89) and test-retest reliability (r=0.80). The factor analysis revealed a single factor structure. The Turkish version of the scale with a Turkish sample was prepared by Ağargün et al. [42]. In the study conducted with the participation of 30 patients diagnosed with OCD (obsessive-compulsive disorder) according to DSM-IV criteria and 47 healthy subjects, the internal consistency reliability Cronbach Alpha value of the scale was found to be 0.92. Validity and reliability studies and psychometric examinations were conducted with individuals diagnosed with OCD and healthy individuals. The psychometric properties of the WBSI turned out to be a reliable and valid scale in the evaluation of the tendency to consciously suppress unwanted thoughts in the Turkish sample.

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2.4. Criteria for Inclusion/Exclusion

While creating the study group in the research, volunteer participants aged 18 and over were included. People under the age of 18 were considered as the exclusion criteria of the study.

2.5. Procedures

Pilot Application: The comprehensibility of the questions was tested by applying the online questionnaire, which was prepared as a data collection tool in the research, to 10 people for trial purposes. It was determined that no problem was encountered during the pilot application, and then the field application was started.

Application of Survey: The online questionnaire including Demographic Information Form, SMAS and WBSI was applied digitally to participants on a voluntary basis for 4 weeks between 1-30 September 2023, after the approval of the Ethics committee dated.

2.6. Data Processing and Statistical Analysis

Data analysis in the research was carried out by taking into account the independent variables and dependent variables. In the analysis of differences between independent variables and dependent variables, techniques such as independent group t-test, one-way analysis of variance and intergroup comparison tests such as LSD test were used, based on the normal distribution of the data. The relationship between the two scales was calculated with the Pearson correlation coefficient. The specific evaluation rules of the scales were taken into account when obtaining the scale total score and averages. SPSS 26.0 statistical program was used to analyze the data.

3. Results

This section includes comparisons, relationship and impact analyses which were aimed to be carried out within the scope of the research. Firstly, the average scale scores of the participants in the study were calculated.

When Table 1 is examined, according to the Social Media Addiction Scale average score, the participants have a low level of social media addiction (X = 84.54). White Bear Suppression Inventory average score indicates the presence of a moderate level of White Bear Suppression (X=46.66). Evaluations of the scales were made with score ranges obtained according to the equal spacing technique. Accordingly, 15-34 points indicate low level WBS, 35-55 points indicate medium level WBS, and 56-75 points indicate high level WBS. For SMAS, the ranges specified by the scale developers were taken as reference: (41-73 point: "No Addiction"; 74-106 point: "Low Addiction"; 107-139 point: "Middle Addiction"; 140-172 point: "High Addiction"; 173-205 point: "Very High Addiction").

Table 1. Average Scores of SMAS & WBSI Scales of Groups.

Groups	X	SD
SMAS – (n=356)	84.54	34.56
WBSI – (n=356)	46.66	15.78
SMAS Factors		
Occupation – (n=356)	29.22	11.32
Mood Modification – (n=356)	11.82	5.90
Relapse – (n=356)	10.33	5.56
Conflict – (n=356)	33.15	16.20

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When the SMAS subscales are examined, it is understood that all four factors indicate a low level of social media addiction. Again, factors are evaluated at five levels by dividing the subscale score by the number of items using the equal spacing technique (No Addiction, Low Addiction, Middle Addiction, High Addiction, Very High Addiction).

Following the general evaluation, the participants were divided into groups according to their age ranges in accordance with the generation theory (1999-1980: "24-43 years"; 1979-1965: "44-58 years"; 1964-1946: "59-77 years") and generation comparison was made with one-way Anova variance analysis and LSD Test. Baby Boomers were not included in the analysis because they were only 3 people.

According to Table 2, where SMAS scores are compared between generations, the most dependent group to social media is Generation Z (X=91.08). According to the variance analysis and LSD group comparison, there was a significant difference in scale scores between generations ($p<0.05$). Accordingly, the generation most dependent on social media is Z, followed by Y. The difference between all three groups is significant. As age increases, social media addiction decreases. Thus, those who are most dependent on social media are individuals in the younger generation. When the effect size was calculated with Cohen (d) effect analysis, the effect size of the difference between Generation Z and Generation X was found to be high (d=0.57;>0.5). The effect size between Y and Z is moderate (d=0.44;>0.2<0.5); The effect size between X and Y is low (d=0.11;<0.2). Intergenerational comparison was made based on WBSI scores (Table 3).

Table 2. SMAS Scores according to the Generations.

Groups of Generations	X	SD	d
X Generation: SMAS (n=37)	72.29	30.25	
Y Generation: SMAS (n=103)	75.99	32.27	0.57^{ac}
Z Generation: SMAS (n=213)	91.08	35.09	0.11^{ab} 0.44^{bc}
Total (n=353)	84.71	34.64	

The range is between 1-5. [a]Reference group1 was calculated as SMAS – X Generation X_1-X_2/SD_{XZ}. [b]Reference group2 was calculated as SMAS – Y Generation X_1-X_2/SD_{XY}. [c]Reference group3 was calculated as SMAS – Z Generation X_1-X_2/SD_{YZ}.

Table 3. WBSI Scores according to the Generations.

Groups of Generations	X	SD	d
X Generation: WBSI (n=37)	42.02	15.98	
Y Generation: WBSI (n=103)	43.98	15.89	0.43^{ac}
Z Generation: WBSI (n=213)	48.84	15.45	0.12^{ab} 0.31^{bc}
Total (n=353)	46.71	15.82	

The range is between 1-5. [a]Reference group1 was calculated as WBSI – X Generation X_1-X_2/SD_{XZ}. [b]Reference group2 was calculated as WBSI – Y Generation X_1-X_2/SD_{XY}. [c]Reference group3 was calculated as WBSI – Z Generation X_1-X_2/SD_{YZ}.

Table 3 shows that WBSI scores differ between generations. The difference was found to be statistically significant as a result of variance analysis and LSD test ($p<0.05$). Accordingly, the white bear suppression level was found to be highest among Generation Z (X=48.84). The effect size of the difference between Generation Z and Generation X was found to be at a medium level (d=0.43;>0.2<0.5). Again, the effect size of the difference between Generation Z and Generation Y is at

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a medium level (d=0.31;>0.2<0.5). However, as can be seen, the two groups with the highest effect size difference are Generation Z and Generation X. Although there was a difference between Generation X and Generation Y, the effect size was observed at a low level (d=0.12;<0.2).

In the analysis for generations, one-way ANOVA and LSD Test were applied to SMAS subscales. It has been observed that Generation Z differs significantly from Generations X and Y. Accordingly, it was revealed that Generation Z was more dependent on social media ($p<0.05$) in the dimensions of occupation (X=31.55), mood modification (X=12.92), relapse (X=10.99) and conflict (X=35.61). Since the SMAS total creates a clear and significant difference in intergenerational comparison, the result obtained in the sub-dimensions is an expected result, so there is no need to include detailed scores on the basis of dimensions.

In another analysis conducted in the study, differentiation according to gender was questioned. According to the independent group t-test results conducted with SMAS mean scores and WBSI mean scores and gender, SMAS did not differ according to gender ($p>0.05$). However, WBSI differed by gender ($p<0.05$). The results are given in Table 4.

Table 4. WBSI Scores according to the Gender.

Groups of Gender	X	SD	d
Female: WBSI (n=37)	47.98	15.67	0.29[ac]
Male: WBSI (n=103)	43.30	15.64	

The range is between 1-5. [a]Reference group1 was calculated as WBSI – Kadın X_1-$X_2/SD_{kadın.}$ [b]Reference group2 was calculated as WBSI – Erkek X_1-$X_2/SD_{erkek.}$

Table 4 shows that women's scale score was found to be higher than men (X=47.98). Accordingly, the level of white bear suppression in females is higher than in males. When the effect size was calculated, it was understood that there was a medium effect (d=0.29;>0.2<0.5). Another analysis was made based on daily social media usage time. Thus, daily social media usage time was divided and examined in three groups (less than 1 hour, 1-3 hours, more than 4 hours) The results are given in Table 5.

Table 5. Average SMAS & WBSI Scores of Daily Social Media Usage Groups.

Groups of Daily Use of Social Media	X	SD	d
SMAS: Less than 1 hour (n=57)	59.35	24.97	1.55[ac]
SMAS: 1-3 hours (n=198)	81.77	32.61	0.77[ab]
SMAS: More than 4 hours (n=101)	104.18	32.07	0.69[bc]
WBSI: Less than 1 hour (n=57)	37.47	14.36	1.09[df]
WBSI: 1-3 hours (n=198)	46.13	15.83	0,57[de]
WBSI: More than 4 hours (n=101)	52.89	13.68	0,45[ef]

The range is between 1-5. [a]Reference group1 was calculated as SMAS – less than 1 hour of daily use X_1-$X_2/SD_{Less\ than\ 1\ hour.}$ [b]Reference group2 was calculated as SMAS – 1-3 hours of daily use X_1-$X_2/SD_{1\text{-}3\ hours.}$ [c]Reference group3 was calculated as SMAS – more than 4 hours of daily use X_1-$X_2/SD_{More\ than\ 4\ hours.}$ [d]Reference group1 was calculated as WBSI – less than 1 hour of daily use X_1-$X_2/SD_{Less\ than\ 1\ hour.}$ [e]Reference group2 was calculated as WBSI – 1-3 hours of daily use X_1-$X_2/SD_{1\text{-}3\ hours.}$ [f]Reference group3 was calculated as WBSI – more than 4 hours of daily use X_1-$X_2/SD_{More\ than\ 4\ hours.}$

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As seen in Table 5, the differentiation of SMAS and WBSI scores according to daily social media usage time was examined. The results of the variance analysis revealed a significant difference and the groups between which the difference existed was determined by the LSD test. Differences between all three groups were observed in both scale scores. That is, as the daily social media usage time increased, the level of social media addiction increased ($p<0.05$) and the white bear suppression level also increased independently ($p<0.05$). Accordingly, the level of social media addiction of those who use social media for 4 hours or more a day was found to be significantly high (X=104.18). The effect size of the difference between groups was high for all three groups ($d>0.5$). Again, white bear suppression was highest in those who used social media for 4 hours or more a day (X=52.89). The effect size of the differences between the groups was observed at medium level and above for all three groups ($d>=0.5$). As daily social media usage time increased, white bear suppression also increased.

Additionally, the study questioned the relationship between social media addiction and white bear suppression. Scores of both scales were tested with Pearson correlation coefficient analysis. The results are given in Table 6.

Table 6. Pearson Correlation Value of Scales.

Scales	N	X	SD	r	p
WBSI & SMAS	356	46.66	15.78	,41	,000
	356	84.54	34.56		
WBSI & Occupation	356	46.66	15.78	,44	,000
	356	29.22	11.32		
WBSI & Mood Modification	356	46.66	15.78	,43	,000
	356	11.82	5.90		
WBSI & Relapse	356	46.66	15.78	,32	,000
	356	10.33	5.56		
WBSI & Conflict	356	46.66	15.78	,30	,000
	356	33.15	16.20		

When Table 6 was examined, a moderately strong and positive relationship (r) was detected between WBSI and SMAS ($r=0.41$; $p<0.01$). Similarly, moderate positive relationships were found between SMAS subscales and WBSI, ranging from 0.30 to 0.44 ($r>0.30$; $p<0.01$). It is understood that as social media addiction increases, white bear suppression also increases. Additionally, it was found remarkable that the relationship between the mental preoccupation dimension and white bear suppression had the highest value (r:0.44).

In the research, some analyzes were also conducted among the groups with the highest scores from the SMAS and the WBSI (Table 7).

Table 7. High Addiction Scores of SMAS & WBSI.

Groups	X	SD	r
SMAS – High Addiction Level (n=33)	155.48	16.54	0.04
WBSI – High White Bear Suppression (n=33)	58.00	11.69	
SMAS Factors			
Occupation – High Addiction Level (n=33)	46.84	7.34	
Mood Modification – High Addiction Level (n=33)	21.24	3.50	
Relapse – High Addiction Level (n=33)	19.51	4.30	

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Conflict – High Addiction Level (n=33)	67.87	11.03

According to Table 7, 33 people with high addiction levels were observed in the sample (X=155.48). The white bear suppression level of these people was also high (X=58). Although there was a moderate relationship between the two scale scores in the previous analysis table, in the analyzes made by selecting and removing the highly dependent group and creating a separate sample, the relationship between the two conditions disappeared (r:0.04), even though the white bear suppression of these people was also high. In other words, when social media addiction reaches a high level, white bear suppression remains unrelatedly high as a separate phenomenon. In other words, we can say that it becomes two separate problems. Or we can say that there were two separate problems at the beginning. However, the reasons for this situation need to be questioned separately in order to be clearly revealed. Again, when the SMAS factors are examined, it is seen that each of them is at a high level, as is the case with the total scale. Additionally, the variables of live chatting, having more than one profile, frequency of sleep disturbances, frequency of perceived loneliness, and SMAS and WBSI scores were compared with independent group t-test and analysis of variance (Table 8).

Table 8. Average SMAS & WBSI Scores of Some Independent Variables.

Groups of Daily Use of Independent Variables	X	SD	d
SMAS: Never Use Live Chat (n=68)	66.35	25.81	0.53^{ab}
SMAS: Less Often Use Live Chat (n=119)	82.24	32.78	0.80^{ac}
SMAS: Middle Often Use Live Chat (n=114)	90.57	34.04	0.98^{ad} 0.47^{bd}
SMAS: Very Often Use Live Chat (n=55)	99.50	38.97	
WBSI: Never Use Live Chat (n=68)	43.77	14.81	
WBSI: Less Often Use Live Chat (n=119)	44.68	16.05	0.37^{ac}
WBSI: Middle Often Use Live Chat (n=114)	49.46	15.39	0.31^{ad} 0.30^{bc}
WBSI: Very Often Use Live Chat (n=55)	48.72	16.34	

The range is between 1-5. [a]Reference group1 was calculated as SMAS – never use live chat X_1-$X_2/SD_{\text{never use live chat.}}$ [b]Reference group2 was calculated as SMAS – less often use live chat X_1-$X_2/SD_{\text{less often use live chat.}}$ [c]Reference group3 was calculated as SMAS – middle often use live chat X_1-$X_2/SD_{\text{middle often use live chat.}}$ [d]Reference group4 was calculated as SMAS – very often use live chat X_1-$X_2/SD_{\text{very often use live chat.}}$ [a]Reference group1 was calculated as WBSI – never use live chat X_1-$X_2/SD_{\text{never use live chat.}}$ [b]Reference group2 was calculated as WBSI – less often use live chat X_1-$X_2/SD_{\text{less often use live chat.}}$ [c]Reference group3 was calculated as WBSI – middle often use live chat X_1-$X_2/SD_{\text{middle often use live chat.}}$ [d]Reference group4 was calculated as WBSI – very often use live chat X_1-$X_2/SD_{\text{very often use live chat.}}$

As seen in Table 8, SMAS and WBSI scores differed significantly ($p<0.05$) when the frequency of live chatting was questioned. Following the one-way Anova and LSD test, the social media addiction of the group that never used live chat was found to be lower than those who used it moderately and frequently. T The highest level of social media addiction and influence was seen in the group that frequently chatted live ($d=0.98>0.50$). As the frequency of live chat increased, social media addiction also increased.

In the analyzes based on having more than one social media profile, a significant difference was observed in SMAS with its subscales and WBSI scores ($p<0.05$).

According to Table 9, SMAS scores of those with more than one profile were found to be significantly higher than those without (X=93.83). The effect size was found to be moderate

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(d=0.38>0.2). WBSI scores were also found to be high and significant in those with more than one profile (X=50.20). It was observed that the difference created a medium effect (d=0.32;>0.2). Those with more than one profile on the SMAS subscales showed a difference (p<0.05), except for the relapse factor. Accordingly, those with more than one profile had higher levels of mental preoccupation (X=33.13), mood regulation addiction (X=13.48) and conflict addiction (X=36.02) than those without. The effect size of these differences generally varies at a medium level (d>0.20<0.50).

Table 9. Average Scores of SMAS & WBSI Scales of Multiple Profiles on Social Media.

Groups	X	SD	d
SMAS – Multiple Profiles: "Yes" (n=104)	93.83	34.27	
SMAS – Multiple Profiles: "No" (n=252)	80.70	34.00	0.38[ab]
WBSI – Multiple Profiles: "Yes" (n=104)	50.20	15.04	0.32[cd]
WBSI – Multiple Profiles: "No" (n=252)	45.20	15.88	
SMAS Factors			
Occupation – Multiple Profiles: "Yes" & "No"	33.13 & 27.60	11.23 & 10.98	0.50[ef]
Mood Modification – Multiple Profiles: "Yes" & "No"	13.48 & 11.14	5.82 & 5.81	0.40[gh]
Relapse – Multiple Profiles: "Yes" & "No"	11.19 & 9.98	5.79 & 5.44	-0.24[ij]
Conflict – Multiple Profiles: "Yes" & "No"	36.02 & 31.97	16.61 & 15.89	

[a]Reference group1 was calculated as SMAS – Multiple Profiles: "Yes" X_1-X_2/SD $_{Yes.}$ [b]Reference group2 was calculated as SMAS – Multiple Profiles: "No" X_1-X_2/SD $_{No.}$ [c]Reference group3 was calculated as SMAS – Multiple Profiles: "Yes" X_1-X_2/SD $_{Yes.}$ [d]Reference group4 was calculated as SMAS – Multiple Profiles: "No" X_1-X_2/SD $_{No.}$ [e]Reference group5 was calculated as Occupation – Multiple Profiles: "Yes" X_1-X_2/SD $_{Yes.}$ [f]Reference group6 was calculated as Occupation – Multiple Profiles: "No" X_1-X_2/SD $_{No.}$ [g]Reference group7 was calculated as Mood Modification – Multiple Profiles: "Yes" X_1-X_2/SD $_{Yes.}$ [h]Reference group8 was calculated as Mood Modification – Multiple Profiles: "No" X_1-X_2/SD $_{No.}$ [i]Reference group9 was calculated as Conflict – Multiple Profiles: "Yes" X_1-X_2/SD $_{Yes.}$ [j]Reference group10 was calculated as Conflict – Multiple Profiles: "No" X_1-X_2/SD $_{No.}$

Analysis of the effects of sleep disorder frequency and perceived loneliness variables on SMAS and WBS scores was conducted with one-way ANOVA.

Table 10. Average Scores of SMAS & WBSI Scales of Sleeping Disorders and Loneliness.

Groups	X	SD	d
SMAS – Sleeping Disorders: "Never" (n=66)	68.21	28.90	
SMAS – Sleeping Disorders: "Sometimes" (n=189)	83.79	30.51	0.52[ab] 0.76[ac]
SMAS – Sleeping Disorders: "Often" (n=52)	91.71	32.40	0.86[ad] 0.45[bd]
SMAS – Sleeping Disorders: "Everyday" (n=49)	101.79	47.01	

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WBSI – Sleeping Disorders: "Never" (n=66)	37.03	14.03	
WBSI – Sleeping Disorders: "Sometimes" (n=189)	46.20	14.63	0.63[ab] 0.94[ac] 0.97[ad]
WBSI – Sleeping Disorders: "Often" (n=52)	53.57	17.60	0.45[bc] 0.56[bd]
WBSI – Sleeping Disorders: "Everyday" (n=49)	54.07	13.40	

[a]Reference group1 was calculated as SMAS – Sleeping Disorders: "Never" X_1-X_2/SD $_{Never.}$ [b]Reference group2 was calculated as SMAS – Sleeping Disorders: "Sometimes" X_1-X_2/SD $_{Sometimes.}$ [c]Reference group3 was calculated as SMAS – Sleeping Disorders: "Often" X_1-X_2/SD $_{Often.}$ [d]Reference group4 was calculated as SMAS – Sleeping Disorders: "Every day" X_1-X_2/SD $_{Everyday.}$ [a]Reference group1 was calculated as WBSI – Sleeping Disorders: "Never" X_1-X_2/SD $_{Never.}$ [b]Reference group2 was calculated as WBSI – Sleeping Disorders: "Sometimes" X_1-X_2/SD $_{Sometimes.}$ [c]Reference group3 was calculated as WBSI – Sleeping Disorders: "Often" X_1-X_2/SD $_{Often.}$ [d]Reference group4 was calculated as WBSI – Sleeping Disorders: "Every day" X_1-X_2/SD $_{Everyday.}$

Table 11. Average Scores of SMAS & WBSI Scales of Loneliness.

Groups	X	SD	d
SMAS – Loneliness: "Never" (n=91)	67.57	28.25	0.60[ab]
SMAS – Loneliness: "Sometimes" (n=169)	85.86	32.05	0.94[ac] 0.88[ad]
SMAS – Loneliness: "Often" (n=56)	96.69	32.92	0.33[bc] 0.37[bd]
SMAS – Loneliness: "Always" (n=40)	100.55	44.56	0.37[cd]
WBSI – Loneliness: "Never" (n=91)	38.15	13.72	0.67[ab]
WBSI – Loneliness: "Sometimes" (n=169)	47.73	14.79	0.99[ac] 0.97[ad]
WBSI – Loneliness: "Often" (n=56)	52.00	14.16	0.37[bc] 0.29[bd]
WBSI – Loneliness: "Always" (n=40)	54.02	18.36	

[a]Reference group1 was calculated as SMAS – Sleeping Disorders: "Never" X_1-X_2/SD $_{Never.}$ [b]Reference group2 was calculated as SMAS – Sleeping Disorders: "Sometimes" X_1-X_2/SD $_{Sometimes.}$ [c]Reference group3 was calculated as SMAS – Sleeping Disorders: "Often" X_1-X_2/SD $_{Often.}$ [d]Reference group4 was calculated as SMAS – Sleeping Disorders: "Always" X_1-X_2/SD $_{Always.}$ [a]Reference group1 was calculated as WBSI – Sleeping Disorders: "Never" X_1-X_2/SD $_{Never.}$ [b]Reference group2 was calculated as WBSI – Sleeping Disorders: "Sometimes" X_1-X_2/SD $_{Sometimes.}$ [c]Reference group3 was calculated as WBSI – Sleeping Disorders: "Often" X_1-X_2/SD $_{Often.}$ [d]Reference group4 was calculated as WBSI – Sleeping Disorders: "Always" X_1-X_2/SD $_{Always.}$

When sleep disorders and perceived loneliness are examined, it is seen that the majority of people said "sometimes" (Sleeping Disorders: n=189; 53.1%; Loneliness: n=169; 47.5%). As a result of comparing the groups with the LSD test, both SMAS and WBSI scores increase as the frequency of sleep disorders increases. Accordingly, it was revealed that those who reported sleep disorders frequently and constantly had the highest levels of social media addiction and white bear suppression. The same situation also exists for the loneliness variable. A high effect size was observed between those who said "never" about the frequency of sleep disorders and loneliness and those who reported it frequently (d>0.90).

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4. Discussion

In the study, social media addiction and white bear thought suppression issues in the age of social media were examined. In this context, it is aimed to bring an up-to-date perspective to the literature by analyzing the relationship between both phenomena and the effect sizes of some variables. Thus, this research has brought "white bear suppression on social media" to the agenda as a new problem awaiting heavy users of social media.

According to the examinations made in the study, SMAS and WBSI scores of 356 participants in the Turkish sample were first calculated. Although social media addiction was at a "low" level, white bear suppression was found at a "medium" level. This situation has brought up a serious problem of thought suppression. The relationship between the two problems in question was moderately strong and positive. Thus, it can be said that as social media addiction increases, white bear thought suppression also increases. Interestingly, when the group with a high level of social media addiction was examined separately, although the white bear thought suppression levels of this group were also high, the relationship between the two problems remained low. Social media addiction and white bear thought suppression manifested themselves at high levels independently of each other as two separate problems. This situation can be examined in detail by including clinical examinations in further studies, and new impact factors that will differ from person to person may emerge.

Since the social media age was discussed in the research, it was thought that examining generation differences could provide important clues. Because it is stated in the literature that Generation Z differs from other generations in terms of their outlook on life and behavior in many aspects [61–67]. Starting from this point, according to the generation theory, X, Y, Z generation groups were created and compared by taking into account their age ranges. It has been revealed that both social media addiction and white bear suppression of Generation Z, the youngest generation, are significantly high. In particular, the difference between Generation X and Generation Z has created a moderate impact. Thus, it is understood that with digitalization and increasing use of social media, young generations born to these technologies must deal with a new danger. When the literature is examined, the research results support intergenerational differences put forward in terms of social media use and other digital behaviors [68–70].

A significant difference was found in social media usage habits according to addiction and white bear suppression. It has been revealed that daily social media use, frequency of live chatting, and having more than one social media profile differentiate social media addiction and white bear suppression. The increase in these variables increases the level of both problems. Further, it was observed that the increase in the frequency of sleep disorders and perceived loneliness in the study participants increased the level of white bear suppression and social media addiction. It was concluded that many variables questioned in the study were factors affecting social media addiction and white bear suppression. It has become clear that there is a need for models to be established with these variables and to verify the results with further analysis.

In addition to studies stating that women are more likely to have social media addiction [50,52–54,71,72], this study revealed that women were more exposed to white bear suppression than men. Both social media addiction and white bear suppression have affected women. Social media is a feature of the digital age and it is accompanied by new psychological and psychopathological problems. Therefore, there is a need for multidimensional studies. This study is considered important in terms of bringing white bear thought suppression phenomenon to the agenda by examining it together with social media.

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References

1. Wegner, D.M., et al., Paradoxical effects of thought suppression. Attitudes and Social Cognition, 1987. 53(1): p. 5-13.
2. Yorulmaz, O., et al., Misinterpretation, beliefs, and thought control methods in patients with obsessive-compulsive disorder. Anatolian Journal of Psychiatry, 2013(14): p. 183-191.
3. Wegner, D.M. and S. Zanakos, Chronic thought suppression. Journal of Personality, 1994. 62(4): p. 615-640.
4. Group, O.-C.C.W., Development and initial validation of the obsessive beliefs questionnaire and the interpretation of intrusions inventory. Behav Res Ther, 2001(39): p. 987-1006.
5. Yorulmaz, O.G., T., Psychometric properties of the Interpretation of Involuntary Thoughts Inventory, Obsessive Beliefs Questionnaire and Thought Control Questionnaire, which evaluate the interpretation and control processes in OCD symptoms. Turkish Psychology Articles, 2008(11): p. 1-13.
6. Faull, M., et al., Obsessive beliefs and their relation to obsessive-compulsive symptoms. Clinical Psychology & Psychotherapy, 2004. 11(3): p. 158-167.
7. Julien, D., et al., The specificity of belief domains in obsessive-compulsive symptom subtypes. Personality and Individual Differences, 2006. 41(7): p. 1205-1216.
8. Group, O.-C.C.W., Psychometric validation of the Obsessive Beliefs Questionnaire and the Interpretation of Intrusions Inventory: Part I. Behav Res Ther., 2003(41): p. 863-78.
9. Group, O.-C.C.W., Psychometric validation of the Obsessive Beliefs Questionnaire and the Interpretation of Intrusions Inventory: Part II. Factor analyses and testing a brief version. Behav Res Ther., 2005(43): p. 1527-42.
10. Sica, C., et al., A study of the psychometric properties of the Obsessive Beliefs Inventory and Interpretations of Intrusions Inventory on clinical Italian individuals. Journal of Anxiety Disorders, 2004. 18(3): p. 291-307.
11. Salkovskis, P.M. and J. Harrison, Abnormal and normal obsessions: A replication. Behav Res Ther., 1984(22): p. 549-552.
12. Purdon, C. and D.A. Clark, The need to control thoughts, in Cognitive Approaches to Obsessions and Compulsions, R Frost and G. Steketee, Editors. 2002, Pergamon. p. 29-43.
13. Tarhan, N., Psychological warfare. 22 ed. 2017: Timaş Publishing.
14. Tarhan, N., Social media has turned into a psychological battlefield. 2021.
15. Tarhan, N. and A. Tutgun-Ünal, Social Media Psychology. 1 ed. 2021: Der Publishing.
16. Tutgun-Ünal, A., Social Media: Effects-Addiction-Measurement. 2 ed. 2021a: Der Publishing.
17. Erdelyi, M.H. and B. Goldbeig, Let'snotsweeprepressionunder the rug: Toward a cognitive psychology of repression, in Functional disorders of memory, J. F. Kihl- slrom and F.J. Evans, Editors. 1979, Erlbaum. p. 355-402.
18. Hart, B., The psychology of insanity. 1934: Macmillan.
19. Freud, S., Remembering, repeating, and working-through, in The standard edition of the complete psychological works of Sigmund Freud J. Strachey, Editor. 1958, Hogarth. p. 145-150.
20. Freud, S., Repression, in The standard edition of the complete psychological works of Sigmund Freud J. Strachey, Editor. 1957, Hogarth. p. 145-158.
21. Geiselman, R.E., R.A. Bjork, and D.L. Fishman, Disrupted Retrieval in Directed Forgetting - a Link with Posthypnotic Amnesia. Journal of Experimental Psychology-General, 1983. 112(1): p. 58-72.
22. McGranahan, D.V., A critical and experimental study of repression. Journal of Abnormal and Social Psychology, 1940(35): p. 212-225.
23. Logan, G.D., On the ability to inhibit simple thoughts and actions: I. Stop-signal studies of decision and memory. Journal of Experimental Psychology: Learning, Memory, and Cognition, 1983(9): p. 585-606.
24. Wolpe, J. and A.A. Lazarus, Behavior therapy techniques. 1966: Pergamon Press.

25. Thompson, W.C., G.T. Fong, and D.L. Rosenhan, Inadmissable evidence and juror verdicts. Journal of Personality and Social Psychology, 1981(40): p. 453-463.
26. Wegner, D.M., et al., Incrimination through innuendo: Can media questions become pub- he answers? . Journal of Personality and Social Psychology, 1981(40): p. 822-832.
27. Tversky, A. and D. Kahneman, Judgment under uncertainty: Heuristics and biases. Science, 1974(185): p. 1124-1131.
28. Sherman, S.J. and E. Corty, Cognitive heuristics, in Handbook of social cognition J. R. S. Wyer and T.K. Srull, Editors. 1984, Erlbaum. p. 189-286.
29. Janis, I.L., Preventing pathogenic denial by means of stress inoculation, in The denial of stress S. Breznitz, Editor. 1983, International Universities Press. p. 35-76.
30. Horowitz, M., Instrusive and repetitive thoughts after experimental stress. General Psychiatry, 1975(32): p. 1457-1463.
31. Marlatt, G.P. and G.A. Parks, Self-management of addictive behaviors, in Self-management and behavior change P. Karoly and F.H. Kanfer, Editors. 1982, Pergamon Press. p. 443-488.
32. Wells, A. and M.I. Davies, The thought control questionnaire: A measure of individual differences in the control of unwanted thoughts. Behav Rese Ther., 1994(32): p. 871-878.
33. Wenzlaff, R.M., et al., Depression and mental control: The resurgence of unwanted negative thoughts. J Pers Soc Psychol., 1988(55): p. 882-892.
34. Rassin E, et al., Thought-action fusion and thought suppression in obsessivecompulsive disorder. Behav Res Ther., 2001(39): p. 757-764.
35. Rassin, E. and P. Diepstraten, How to suppress obsessive thoughts. Behav Res Ther., 2003(41): p. 97-103.
36. Toll, B.A., et al., The relationship between thought suppression and smoking cessation. Addictive Behaviors, 2001. 26(4): p. 509-515.
37. Freud, S., A general introduction to psychoanalysis (J. Riviere, Trans.). 1924: Boni & Liveright.
38. Dostoevsky, F., Winter notes on summer impressions (R. L. Renfield, Trans.). 1955: Criterion.
39. Simmons, E.J., Leo Tolstoy. 1949: Lehmann.
40. Ross, L., M.R. Lepper, and M. Hubbard, Perseverance in self-perception and social perception: Biased attributional processes in the debriefing paradigm. Journal of Personality and Social Psychology, 1975(32): p. 880-892.
41. Schmidt, R.E., et al., Anatomy of the White Bear Suppression Inventory (WBSI): A review of previous findings and a new approach. Journal of Personality Assessment, 2009(91): p. 323-330.
42. Ağargün, M.Y., et al., The reliability and validity of the White Bear Suppression Inventory. Turkish Journal of Psychiatry 2004. 15(4): p. 282-290.
43. Vardarlıer, P. and C. Zafer, Media and Society. Journal of Selçuk University Vocational School of Social Sciences, 2019. 22(2): p. 355-361.
44. Soydan, E. and N. Alpaslan, The Function of Media in Natural Disasters. Istanbul Journal of Social Sciences, 2014. 7: p. 53-64.
45. Christakis, N.A. and J.H. Fowler, The surprising power of social networks and their impact on shaping our lives. 2012: Varlık Publishing.
46. Tarhan, N. and A. Tutgun-Ünal, Validity and reliability studies of the Uskudar Benevolence and Malevolence Scale (USBEMA) in the digital age. TOJET: The Turkish Online Journal of Educational Technology, 2022. 21(3): p. 101-113.
47. Andreassen, C.S., et al., Development of a Facebook Addiction Scale. Psychological Reports, 2012. 110(2): p. 501-517.
48. S., A.C., Online social network site addiction: A comprehensive review. Curr Addict Rep., 2015(2): p. 175-184.
49. Griffiths, M.D., A components model of addiction within a biopsychosocial framework. 2005(10): p. 191-197.
50. Kuss, D.J. and M.D. Griffiths, Addiction to social networks on the Internet: A literature review of empirical research. International Journal of Environmental and Public Health, 2011(8): p. 3528-3552.
51. Dewald, J.F., et al., The influence of sleep quality, sleep duration and sleepiness on school performance in children and adolescents: A meta-analytic review. Sleep Medicine Reviews, 2010. 14(3): p. 179-189.
52. Hazar, M., Social media addiction: A field study. Journal of Communication, Theory and Research, 2011(32): p. 151-175.

53. Karaiskos, D., et al., Social network addiction: A new clinical disorder? European Psychiatry, 2010(25): p. 855.
54. Tutgun-Ünal, A. and L. Deniz, Development of the social media addiction scale. Online Academic Journal of Information Technology 2015. 6(21): p. 51-70.
55. Wilson, K., S. Fornasier, and K.M. White, Psychological predictors of young adults' use of social networking sites. Cyberpsychology, Behavior and Social Networking, 2010(13): p. 173-177.
56. Ağyar Bakrır, B. and B. Uzun, Developing the Social Media Addiction Scale: Validity and Reliability Studies. Addicta-the Turkish Journal on Addictions, 2018. 5(3): p. 517-525.
57. Savcı, M. and F. Aysan, Technological addictions and social connectedness: Predictor effect of internet addiction, social media addiction, digital game addiction and smartphone addiction on social connectednes. Düşünen Adam The Journal of Psychiatry and Neurological Sciences, 2017. 30(3): p. 202-216.
58. Şahin, C. and M. Yağcı, Social media addiction scale adult form: Validity and reliability study. Ahi Evran University Kırşehir Faculty of Education Journal, 2017. 18(1): p. 523-538.
59. Taş, İ., Validity and reliability study of the short form of the social media addiction scale for adolescents. Online Journal of Technology Addiction & Cyberbullying, 2017. 4(1): p. 27-40.
60. Muris, P., et al., Individual differences in thought suppression. The White Bear Suppression Inventory: factor structure, reliability, validity and correlates. Behav Res Ther., 1996(34): p. 501-513.
61. Berkup, S.B., Working with generations X and Y in generation Z period: Management of different generations ın business life. Mediterranean Journal of Social Sciences, 2014. 5(19): p. 218-229.
62. Ekşili, N. and Ö.L. Antalyalı, A study to determine the characteristics of Generation Y in Turkey: A research on school administrators. Humanities Sciences (NWSAHS), 2017. 12(3): p. 90-111.
63. İnce, F., Entrepreneurial tendency of Generation Z: a research on university students. Journal of Pamukkale University Social Sciences Institute, 2018(32): p. 105-113.
64. Latif, H. and S. Serbest, The 2000 generation and the business and working approach of the 2000 generation in Turkey. Journal of Youth Research, 2014. 2(4): p. 132-163.
65. Taş, H.Y., M. Demirdöğmez, and M. Küçükoğlu, Possible effects of generation Z, the architects of the future, on business life. International Journal of Social Research, 2017. 7(13): p. 1031-1048.
66. Tutgun Ünal, A., Social media generations' levels of acceptance of diversity. TOJET: The Turkish Online Journal of Educational Technology, 2021b. 20(2): p. 155-168.
67. Zemke, R., C. Raines, and B. Filipczak, Generations at work: Managing the clash of boomers, gen Xers, and gen Yers in the workplace 2ed. 2013: Amacom.
68. Dewanti, P. and R.E. Indrajit, The effect of XYZ generation characteristics to e-commerce C-to-C: A review. 2018. 2(2): p. 56-60.
69. Tarhan, N., A. Tutgun-Ünal, and Y. Ekinci, New generation disease Cyberchondria: Relationship between Cyberchondria and Health Literacy of generations in the new media age. OPUS-International Journal of Social Studies, 2021. 17(37): p. 4253-4297.
70. Tutgun-Ünal, A. and L. Deniz, Social media usage levels and preferences of social media generations. OPUS-International Journal of Social Studies, 2020. 15(22): p. 125-144.
71. Kıran, S., H. Küçükbostancı, and İ.E. Emre, Examining the effects of social media use on individuals. Journal of Information Technologies, 2020. 13(4): p. 435-441.
72. Ünlü, F., Social media addiction and social isolation in individuals over middle ages. PESA International Journal of Social Research, 2018. 4(1): p. 161-172.