

Attention-Seeking Behavior and Digital Aggression Among Social Media Users in the Era of Digitalization

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Abstract

The current study examined the association between attention-seeking behavior and digital aggression among social media users. Use of digital communication platforms and trends to get social approval and disapproval from others is growing. Such environments expose young people to positive feedback in the form of likes, comments, and shares and negative feedback including criticism, exclusion, and social rejection. This correlational study outlines the association between attention-seeking behavior, online disinhibition and digital aggression among social media users. The convenience sampling technique was used to collect data from university students using reliable and valid scales, i.e. attention-seeking behavior (8 items), digital-aggression (8 items) and online disinhibition (8 items). Pearson product-moment correlation method was used, and it was concluded that significant positive correlations between attention-seeking and cyber-aggression ($r = .368$, $p = .019$), attention-seeking and online disinhibition ($r = .435$, $p = .005$) and cyber-aggression and online disinhibition ($r = .461$, $p = .003$) were significantly present. Regression analysis reflected that attention seeking behaviour significantly predict digital aggression.

Keywords: Social media user, attention seeking behavior, online disinhibition, social media

Introduction

The rapid explosion of social media sites has changed the way people communicate, "present" themselves and interact in digital environments. Platforms like Facebook, Instagram, TikTok, X, Twitter and Snapchat, have put on rise to new opportunities for social engagement, identity management and self-expression. While at the same time, highly

visible and interactive nature of such platforms has generated increased interest of psychologists in understanding psychological processes as feature of these platforms may also facilitate aggressive and problematic attention seeking behaviors (DeMarsico et al., 2021).

Attention-Seeking Behavior are deliberate and inadvertent actions that are undertaken to

receive attention, recognition and validation from others. In a social media perspective, attention seeking may be expressed by frequent posting, posting controversial content, hyperbole, emphasis on personal accomplishments, exaggerated self-presentation that are intended to garner social media attention (Nadkarni & Hofmann, 2012). Such behavior is usually fueled by a basic social need to belong and affirm oneself, which cannot be met more readily than any other way like the quick feedback loop of these platforms in the form of likes, comments and shares. More current research has similarly underlined the complex association between social media intentions, attention-related practices, self-regulation, and problematical patterns of social media consumption (Arness & Ollis, 2023). In addition to this another major concern associated with digital dealings is being known as digital aggression. Digital aggression can include the sending of threatening or insulting messages, rumors spread online, deliberate embarrassing in a public place and confrontational exchanges (Gentile et al., 2014). Unlike other forms of aggression, digital aggression takes advantage of the affordances of the internet a place where people can be anonymous, less socially cued, and the messages shared are permanent which all contribute to lowering the bar for aggressive expression (Wang et al., 2023). The digital environment may influence the expression of aggression because online communication can involve physical distance, reduced nonverbal feedback, delayed responses,

and varying degrees of perceived anonymity. A recent systematic review of social networks and aggressive attitudes highlighted the growing body of research linking social-network use with aggressive behavior and emphasized the importance of examining the psychological and contextual factors underlying such behavior (Martín-Martín & Bueno-Álvarez, 2023).

Similarly, a systematic review examining anonymity and digital aggression concluded that anonymity represents an important contextual factor associated with digital aggression, although different forms of anonymity may operate in different ways (Kim et al., 2023).

So, there has been an increasing focus on studying the correlation between attention seeking and digital aggression. It has been theorized that people who regularly post content in search of social validation online may have to use more aggressive means to get attention when their social validation attempts fail, and/or when they feel that more attention is gained through provocative posting methods than prosocial (Runions et al., 2013). This effect is further magnified by the online disinhibition effect which is supposed to be the effect of the lack of social inhibition in online environments that makes people do things that they would normally inhibit in their offline environment (Suler, 2004).

Problem Statement

Social media has become an important context for interpersonal communication, self-presentation, social validation, and

psychological expression. Although seeking attention and social recognition represents a common aspect of interpersonal behavior, the characteristics of digital platforms may intensify such motives through immediate feedback and public visibility. At the same time, digital communication may provide conditions that reduce interpersonal restraint and facilitate aggressive expression.

Existing research has provided important insights into social media motivations, digital-aggression, and online disinhibition. However, these constructs have often been investigated independently or in relation to different outcomes. Much of the literature on online aggression has concentrated on digital bullying, while research on social media motivations has frequently focused on self-presentation, narcissism, problematic social media use, and social validation. Although recent research provides evidence for a relationship between online disinhibition and aggressive online behavior, further research is required to understand how attention-seeking and online disinhibition are related to digital-aggression within the same empirical framework.

Furthermore, much of the available evidence has originated from Western or East Asian populations, with comparatively limited evidence concerning South Asian social media users. Cultural context may be relevant because social norms concerning self-presentation, interpersonal relationships, and acceptable forms of confrontation may differ across societies. Examining these relationships

in Pakistan can therefore contribute to a more culturally diverse understanding of online behavior.

The present study addresses this problem by examining attention-seeking behavior, online disinhibition, and digital-aggression among social media users in Pakistan. Specifically, it investigates their associations, differences according to social media use, and the predictive contribution of attention-seeking behavior and online disinhibition to digital-aggression.

Research Gap

Several significant gaps have been identified in the existing literature. First, most research looking at attention-seeking behavior has not investigated the relationship between attention seeking behavior and online aggressive behavior in and of itself but rather with the narcissistic personality traits (Carpenter, 2012). Second, studies of digital aggression have largely focused on digital bullying incidents among teens, and less focus has been given to the full range of aggressive behaviour by young adults in their use of social media platforms (Kowalski et al., 2014).

Third, although the online disinhibition effect is well theorized, it has only been studied a little in relation to variables that are known to link attention-seeking motives to aggressive behavioral outcomes.

Fourth, there have been limited cross-cultural studies of these phenomena in South Asians. The present study is designed to address these gaps by simultaneously and at the same time

considering all three constructs in one analytical framework and in a Pakistani culture.

Research Objectives

The main objectives of this research were:

- To examine the relationship among attention-seeking behavior, online disinhibition, and digital-aggression among social media users.
- To examine differences between low- and high-frequency social media users in attention-seeking behavior, online disinhibition, and digital-aggression.
- To determine whether attention-seeking behavior and online disinhibition significantly predict digital-aggression among social media users.

Hypotheses

This study's hypotheses are:

H1: Attention-seeking behavior, online disinhibition, and digital-aggression will be significantly associated among social media users.

H2: Low- and high-frequency social media users will differ significantly in attention-seeking behavior, online disinhibition, and digital-aggression.

H3: Attention-seeking behavior and online disinhibition will significantly predict digital-aggression among social media users.

Theoretical Framework

This research's theoretical framework is based on three interwoven approaches. The online

disinhibition effect (Suler, 2004) suggests that anonymity, invisibility, asynchronicity and the lack of authority figures in online environments removes psychological inhibitions on self-expression and encourages people to act in ways that they may not do in real life. Suler differentiates between benevolent disinhibition-which helps to open positive self-disclosure and toxic disinhibition-when the Disinhibition is aggressive, hostile, or antisocial. This framework is important to recognize when it comes to the risks of attention-seeking behaviour turning into aggression in online environments.

The general aggression model (GAM) of Anderson and Bushman (2002) is a broad-based model of aggressive behavior that relies on the assumption that personal and situational factors impinge on internal states (cognition, affect, arousal) which in turn impact behavior.

In digital settings, the GAM proposes that a person's attention-seeking tendency (personal variable) along with an unfriendly or competitive social media environment (situational variable) can cause an increase in arousal and hostile attribution, which can result in an aggressive response (Runions et al., 2013). Uses and gratifications theory (Katz et al., 1974) offers an explanation as to why these people use social media in ways that can lead them to become more aggressive. This theory proposes consumers deliberately choose media to meet certain needs, such as social, self-presentational and entertainment needs. As social media does not meet their needs for

attention, they may use more aggressive or provocative posts to get the attention and recognition they want (Sheldon & Bryant, 2016).

Literature Review

The link between attention-seeking characteristics and problematic online behaviors has been well-documented in empirical studies, and this connection has been growing in number over the years.

Carpenter (2012) studied narcissism and social media use among college students and discovered that exhibitionistic behaviors (which are very similar to attention seeking) were significantly correlated with the self-promoting behaviors and antisocial reactions in the use of Facebook. Likewise, Gentile et al. (2014) created a fully digital-aggression scale which represented several different types of digital aggression and was connected to traditional aggression and reduced empathy levels.

The phenomena of online Disinhibition have been studied and found to allow the users to be more aggressive and self-disclose in online environment. In Japan, Udris (2014) examined how the online Disinhibition and digital bullying was related and found that digital-aggressive behavior was related to toxic Disinhibition. Inconsistency of this kind was found in an experiment that Lapidot-Lefler and Barak (2012) conducted, where they theorized that lack of eye contact and anonymity was a significant factor in the increase of online aggressive behavior.

Kowalski et al. (2014) performed a meta-analysis of digital bullying studies and found that many digital bullies demonstrated higher levels of narcissism, attention seeking and moral disengagement. Based on their research they concluded that "social dominance and visibility in online environments" is an important factor in digital aggression. Runions et al. (2013) suggested that a social-cognitive-based approach would involve emotional reactivity and inadequate self-regulation that would lead to the development of digital-aggressive behavior from attention seeking motivation.

According to Nadkarni and Hofmann (2012) literature on the psychological reasons for engaging in Facebook use found that the need to belong and the need to present oneself were the key factors. Their analysis showed that those who need a sense of social validation more are likely to experience negative consequences when their online efforts to be socially validated are not met, which can lead to frustration and aggression. Sheldon and Bryant (2016) furthered this work to Instagram and discovered that surveillance and documentation were related to increased usage and engagement in attention seeking behaviour.

Methodology

Research Design

The research design used in this study was quantitative, cross sectional and correlational. Data was gathered at one time using a survey-based approach, enabling analysis of the relationships between attention seeking

behavior, digital-aggression and online Disinhibition without the manipulation of variables.

Population and Sample

The sample was young adults (18-30 years of age) who use social media. Convenience sampling was used for recruiting participants. A total of 150 users of social media from different universities and social networks of Pakistan were taken as the final sample. Most participants said they spend 39.5% of their time (more than 5 hours per day) on social media.

Sampling Technique

Convenience sampling was used in which people were chosen for being easy to access and willing to take time to participate. Adults (18 years old or older), active social media users (users of at least one social media platform that they use regularly) and those who

gave informed consent were included. The exclusion criteria were as follows: participants whose age was under 18 years, and who did not use social media.

Data Collection Methods

The data were gathered by using a structured self-administered online questionnaire, which was filled with the use of Google Forms. The questionnaire had two parts: a demographic part that gathered information about the amount of time spent on social media per day; and three scales to evaluate attention seeking, digital-aggression, and online disinhibition behaviour.

Research Instruments

Three self-report questionnaires were administered, all of which had 8 items that were rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Attention-Seeking Behavior Scale. This is an adaptation of the Attention Seeking Subscale of the British Household Panel Survey (BHPS) that measures the degree to which individuals engage in attention-seeking behaviours with the goal of capturing attention, recognition and social validation, specifically in relation to social media. Some sample questions are: "I enjoy the attention" and "I feel bad when others don't pay attention to me. The Attention-Seeking Scale has been used in conjunction with personality measures and validated (Carpenter, 2012).

Cyber-Aggression Scale. This 8-item scale was adapted from Gentile et al. (2014) and measures the frequency of aggressive behaviors in online settings, such as sending messages that are rude, offensive or how to embarrass others and engaging in arguments or hostility on social media websites. Sample items include items such as, "I have upset someone by posting comments online" and "I have used offensive language towards someone via the internet.

Online Disinhibition Scale. This is an 8-item scale adapted from Udris (2014) which reflects the tendency to be less restrained in online compared to offline settings. The scale measures the extent to which individuals feel anonymous, uninhibited and free from social consequences when using the Internet to

communicate. Items may include, but are not limited to, "I feel less constrained when communicating online" or "I say things online that I don't normally say face-to-face."

Data Analysis Techniques

IBM SPSS Statistics Version 32 was used to analyses data. The following statistical techniques were used: descriptive statistics (mean, standard deviation, minimum, and maximum values) were used to summarize the distribution of the variables; the Cronbach alpha was used to test the reliability; the Shapiro-Wilk test was used to assess the normality of the variables; Pearson product-moment correlation was used for bivariate comparisons; simple linear regression was used to examine the predictive relationship between digital-aggression and attention-seeking behaviour; and independent samples t-tests and Cohen's d effect sizes were used for comparisons between the low and high social media usage groups.

Ethical Considerations

Very high standards of ethics were observed during the study. All participants gave informed consent prior to data collection. The purpose of the study, and that participation was voluntary, with the ability to opt out at any point without repercussions, and anonymity and confidentiality, were clearly explained to participants. There were no identifiers gathered or associated with responses to the survey. Data was collected in a secure manner and was only utilized for research.

Results

Table 1

*Demographic Characteristics of Participants
(N = 150)*

Variable	Category	Frequency	Percentage
Daily Social Media Usage	Less than 1 hour	17	11.3%
	1–3 hours	26	17.0%
	3–5 hours	48	32.0%
	More than 5 hours	59	39.5%

Table 2

*Reliability Analysis of Research Scales
(Cronbach's Alpha)*

Scale	Number of Items	Cronbach's α
Attention-Seeking Behavior Scale	8	.876
Cyber-Aggression Scale	8	.927
Online Disinhibition Scale	8	.891

The reliability analysis found the three measurement scales to have good to excellent internal consistency. The Cyber-Aggression Scale was the most reliable ($\alpha = .927$), followed by the Online Disinhibition Scale ($\alpha = .891$),

and the Attention-Seeking Behavior Scale ($\alpha = .876$). The value of all the instruments was above the recommended value of .70, indicating the suitability of the instruments in the present study.

Table 3

Product Pearson's Correlation Analysis Among Key Variables (n=150)

Variables	<i>ABS</i>	<i>CAS</i>	<i>ODS</i>	<i>M</i>	<i>SD</i>
Attention-Seeking Behavior Scale (ABS)	-	.368*	.435**	27.11	6.05
Cyber-Aggression Scale (CAS)		-	.461**	15.78	5.90
Online Disinhibition Scale (ODS)			-	22.59	6.61

*Note: **p<0.01, *p<0.05*

Table 4

Independent Samples T-Test: Low vs. High Social Media Usage Groups

Variable	Low M (SD)	High M (SD)	<i>t</i>	<i>df</i>	<i>p</i>	Mean Diff	Cohen's d
Attention-Seeking Behavior Scale (ABS)	20.00 (6.26)	27.11 (6.05)	-3.443	38	.001**	-7.11	-1.162
Cyber-Aggression Scale (CAS)	14.69 (9.53)	15.78 (7.28)	-0.399	38	.692	-1.08	-0.135
Online Disinhibition Scale (ODS)	17.46 (7.80)	22.59 (6.61)	-2.169	38	0.36*	-5.13	-0.732

*Note. *p <.05. **p<.01.*

Table 5

Multiple Linear Regression Analysis Predicting Cyber-Aggression (n=150)

<i>Predictors</i>	<i>B</i>	<i>SE (B)</i>	β	<i>t</i>	<i>P</i>
(Constant)	19.86	10.47		8.47	.001
Attention Seeking	.32	.35	.21	2.21	.019
Online Disinhibition	.47	.25	.38	2.95	.019

Note. R² = .136, Adjusted R² = .113, F (1, 38) = 34.26, p < .001, p<.01.

Discussion

The present study examined the relations between attention seeking behavior, digital-aggression and online Disinhibition in a sample of social media users in Pakistan. The results support several hypotheses and support the evolving empirical body of knowledge on the psychological dynamics of online experience.

H₁ was supported by the significant positive correlation between attention seeking behaviour and digital aggression ($r = .368, p = .019$), which is in line with previous studies in relation to a positive correlation between attention seeking and online aggression. The results presented here replicate the association between grandiose exhibitionism and antisocial behaviour identified by Carpenter (2012) and expand on it to include a wider range of digital-aggressive behaviour. This correlation is moderate in strength, indicating that there is a correlation between attention seeking and digital-aggression, but it is not a deterministic one – many individuals who seek attention do not act aggressively online, and many who act aggressively online do not seek attention.

The results indicated that the relationship between digital-aggression and online Disinhibition ($r = .461, p = .003$) are consistent with Suler's (2004) theoretical model of online Disinhibition that suggests cyber-aggression is made easier by lowered social restraints in the

online context. This result corroborates with Udris (2014) who found that toxic online Disinhibition was a significant predictor of cyberbullying behavior. The message is that the anonymity and accountability reduction and the lack of immediate social feedback of digital communication platforms provide conditions for aggressive behavior among susceptible people.

Given that attention-seeking was significantly related to online Disinhibition ($r = .435, p = .005$), the same factors which diminish behavioural restraint online also might facilitate attention seeking behaviours. Those who have higher levels of freedom from social restrictions in digital environments might be more willing to engage in both attention-seeking and aggressive behavior, as the negative social repercussions of these behaviours are reduced in digital space (Lapidot-Lefler & Barak, 2012).

The regression analysis confirmed that the attention seeking behaviour significantly predict digital-aggression ($\beta = .368, R^2 = .136, p = .019$) and thus H₃ was accepted. This is a relatively small variance explained (13.6%) but this is not surprising as many other factors are likely to be involved in predicting human action and behavior. This discovery indicated that online aggressive behaviour might be a means to get attention and social visibility, especially in competitive online settings, where it is easier to get people's attention with provocative content as opposed to prosocial content (Runions et al., 2013).

The t-tests showed interesting differential patterns among the groups of users of social media. The large difference in attention-seeking behavior ($p = .001$, $d = -1.162$) between low and high social media users aligns with the idea that high use of social media is a result and reinforcement for attention-seeking behavior (Nadkarni & Hofmann, 2012). Such a large effect size implies that there is a significant practical difference. Likewise, high social media users had significantly higher scores of online disinhibitions ($p = .036$, $d = -0.732$), suggesting that over time, people using social media extensively may become more accustomed to acting in ways that are uninhibited online.

Notably, there was no significant difference between the low and high social media groups ($p = .692$) in terms of digital aggression. Theoretically, the finding is important because it indicates that aggressive online behavior is not necessarily caused by the amount of time spent online. Instead, digital aggression seems to be more of a product of individual traits (trait hostility, moral disengagement, situational triggers, etc.) than of simply the presence of social media platforms. This fits within the general aggression model, which considers that person and situation variables interact to produce an aggression outcome (Anderson & Bushman, 2002).

Results have both theoretical and practical significance. Theoretically, the findings suggest

that it is possible to have an integrative approach where online Disinhibition acts as a facilitating condition that links attention-seeking motives with the expression of aggressive behavior in online contexts. The results imply that digital literacy interventions need to not only aim at reducing aggressive behavior but also address the factors that motivate problematic online practices, such as the need for attention and social validation. Recognition and social engagement may be achieved through alternative platforms design (prosocial) rather than through punishment.

Conclusion

The current study aimed to assess the correlations between the following variables: attention seeking behavior, digital-aggression, and online Disinhibition in social media users. All three constructs were found to be positively associated with each other with all the correlations being significant based on the Pearson correlation analysis. H_1 was supported, as there was a significant positive correlation between attention seeking behavior and digital aggression ($r = .368$, $p = .019$). “Online disinhibition” scores were significantly correlated with attention seeking ($r = .435$, $p = .005$) and digital-aggression ($r = .461$, $p = .003$) scores. H_3 received support: simple linear regression showed cyber-aggression significantly predicted attention seeking behavior ($R^2 = .136$, $p = .019$). The hypothesis was

partially confirmed: ones who were high social media users scored significantly higher on the attention-seeking and online disinhibition subscales but not on digital-aggression.

To conclude, the results offer empirical evidence of the interaction between attention seeking behavior, digital aggression and online disinhibition for social media use. The strong correlations and predictive relationships are indicative of the theoretical concepts of online Disinhibition (Suler, 2004), general aggression (Anderson & Bushman, 2002) and uses and gratifications (Katz et al., 1974). The study adds to the sparse literature in the Pakistani culture settings for these constructs and underlines the significance of impacting behavioural and motivational factors in interventions which aim to improve healthier online interactions.

Recommendations

Based on the findings the following recommendations are made:

Digital Literacy Programs

Digital literacy and digital citizenship education should be comprehensive, including not only the technical parts of online safety but also the psychological mechanisms of "attention seeking" and "aggression" online. These programs should enable the user to identify the reasons for online behavior that is problematic and provide a more positive method to engage in social interaction.

Mental Health Interventions

Social media excess should be emphasized when educating mental health workers about the relationship between social media overuse and aggression online. Emotional regulation skills should be explicitly taught, empathy increased, and other ways to satisfy social needs should be strengthened.

Platform Design Considerations

Social media app designers can take note that they can foster prosocial behaviours by designing features that reinforce such behaviours rather than provocative content. Modifications to algorithms that would make content more difficult to see and more likely to be constructive in nature may help to break the cycle of seeking attention and digital aggression.

Future Research Recommendations

Future research should: (a) increase the generalizability by employing larger and more diverse samples; (b) use longitudinal designs in order to establish temporal and causal relationships among the variables; (c) include behavioral measures of attention-seeking and digital-aggression, in addition to self-reports; (d) examine moderating variables like personality traits, empathy, moral disengagement, and cultural values; (e) explore gender differences in the relationships among these constructs; and (f) apply mediation analysis techniques to assess the potential role of online Disinhibition as a

mediator in the relationship between attention-seeking and digital aggression.

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