



DOI: [10.71317/jgst.2.10.2026.803](https://doi.org/10.71317/jgst.2.10.2026.803)

Journal of Global Social Transformation

Journal homepage: <https://rjsaonline.org/index.php/JGST>



Prevalence of Body Dysmorphic Disorder in Hyperkyphotic Individuals Attributable to Social Media Influence

Dr. Mushyyaida Iqbal¹, Dr. Kainat Irfan², Dr. Mahum Azhar Khan³, Dr. Subhana Naseem⁴, Dr. Areej Mishal⁵, Dr. Ayesha Nazar⁶, Dr. Iqra Hassan Hamdani⁷

¹ PT, Principal, Sargodha Institute of Health Sciences, Sargodha.

Email: mushyyaida.iqbal127@gmail.com

² PT, Sargodha Institute of Health Sciences, Sargodha.

Email: kaynatsial483@gmail.com

³ PT, Sargodha Institute of Health Sciences, Sargodha.

Email: mahumazharkhan5856@gmail.com

⁴ PT, Sargodha Institute of Health Sciences, Sargodha.

Email: Subhananaseem448@gmail.com

⁵ PT, Sargodha Institute of Health Sciences, Sargodha.

Email: areejmishal05@gmail.com

⁶ PT, Sargodha Institute of Health Sciences, Sargodha.

Email: ayeshanazar2021@gmail.com

⁷ PT, Sargodha Institute of Health Sciences, Sargodha.

Email: Iqrahamdani108@gmail.com

ARTICLE INFO	ABSTRACT
Submission: August 28, 2026	Background: Body Dysmorphic Disorder (BDD) is a psychological condition characterized by an obsessive focus on perceived physical flaws, leading to distress, shame, and compulsive behaviors such as mirror checking. Concurrently, hyperkyphosis (forward head posture) is increasingly common due to excessive smartphone usage. Furthermore, the pervasive use of social media platforms (e.g., Instagram, TikTok, Snapchat, Facebook) has amplified unrealistic beauty standards and perfectionism among users. Objective: This cross-sectional study aimed to determine the prevalence of BDD among individuals with hyperkyphosis and to evaluate its association with social media usage. Methods: A non-probability convenience sampling technique was used to recruit 127 participants from KIPS Academy and Habib Bank Limited in Sargodha. Data were collected using the Body Dysmorphic Disorder Questionnaire and the Bergen Social Media Addiction Scale, and analyzed via SPSS version 27. Results: Regarding screen time, 53.54% (n=68) of participants spent less than 60 minutes on social media, while 46.46% (n=59) spent between 60 and 120 minutes. The prevalence of BDD was 52.76%, with the remaining 47.24% showing no symptoms. A Pearson chi-square test revealed a statistically significant association between BDD and social media use ($p = 0.007$). Conclusion: There is a notable prevalence of BDD among hyperkyphotic individuals, which is significantly associated with social media use. These findings highlight the psychological impact of social media on individuals with posture-related issues linked to device usage.
Revised: September 14, 2026	
Accepted: September 28, 2026	
Available Online: October 07, 2026	
Keywords: Body dysmorphia, Body dissatisfaction, Hyperkyphosis, Socialmedia, Electronic devices	
Corresponding author: Dr. Kainat Irfan Email: kaynatsial483@gmail.com	

Introduction

The rapid proliferation of digital technology and the ubiquitous nature of smartphones have fundamentally altered human behavior, yielding profound physical and psychological consequences. In the contemporary global era, social media platforms such as Instagram, TikTok, Snapchat, and Facebook have become integral to daily life, particularly among adolescents and young adults.

While these platforms offer connectivity, they simultaneously foster an environment of constant social comparison and the perpetuation of unrealistic beauty standards (Fardouly et al., 2015). This digital immersion has been strongly linked to the exacerbation of Body Dysmorphic Disorder (BDD), a psychiatric condition characterized by a distressing and obsessive preoccupation with perceived defects in physical appearance, leading to repetitive behaviors and significant functional impairment (Veale & Ramchandani, 2015).

Concurrently, the physical mechanics of excessive smartphone and social media use have given rise to a distinct postural deviation known as hyperkyphosis, commonly referred to as "forward head posture" or "text neck" (Hansraj, 2014). As individuals spend prolonged periods looking down at their devices, the biomechanical load on the cervical spine increases exponentially, leading to muscular imbalances, altered spinal curvature, and chronic hyperkyphosis (Lee et al., 2015).

Interestingly, the physical manifestation of excessive screen time (hyperkyphosis) and the psychological manifestation (BDD) share a common etiological root: excessive social media and smartphone engagement. Individuals with hyperkyphosis are often heavy users of digital devices, a demographic that is simultaneously highly exposed to the appearance-focused, filter-altered content that drives body dissatisfaction. Despite the known independent risks of social media on both posture and mental health, the intersection of these two conditions remains critically underexplored. Understanding how social media influence bridges the gap between physical postural changes and psychological body dissatisfaction is essential for developing holistic, biopsychosocial interventions for affected individuals.

Literature Review

Body Dysmorphic Disorder and the Impact of Social Media

Body Dysmorphic Disorder (BDD) is a chronic mental health condition wherein individuals become overwhelmingly distressed by perceived flaws in their appearance that are unnoticeable to others (American Psychiatric Association [APA], 2022). Symptoms include compulsive mirror checking, skin picking, seeking reassurance, and severe social avoidance. The advent of social media has significantly complicated the landscape of BDD. According to Social Comparison Theory, individuals determine their own social and personal worth based on how they stack up against others (Festinger, 1954). Social media platforms amplify this upward social comparison by providing a constant stream of idealized, curated, and digitally altered images.

Recent studies have highlighted the phenomenon of "Snapchat dysmorphia," where patients seek cosmetic procedures to look like their filtered selfies (Rajagopal, 2019). Research by Fardouly et al. (2015) demonstrated that even brief exposure to Facebook can increase body image concerns in young women, driven by appearance-based comparisons. Furthermore, the addictive nature of these platforms, measured by tools like the Bergen Social Media Addiction Scale, correlates strongly with higher BDD severity, as the compulsive checking of feeds mirrors the compulsive checking of physical appearance (Andreassen et al., 2016).

Hyperkyphosis and Smartphone Usage

Hyperkyphosis, specifically forward head posture (FHP), is characterized by the anterior translation of the cervical spine. The biomechanics of this posture are heavily influenced by modern technology use. Hansraj (2014) conducted a biomechanical analysis demonstrating that as the head tilts forward to view a smartphone, the effective weight of the head on the cervical spine increases from 10-12 pounds in a neutral position to up to 60 pounds at a 60-degree angle. This sustained load leads to tissue strain, muscle fatigue, and eventual postural deformation.

The prevalence of FHP has surged in tandem with smartphone adoption. Lee et al. (2015) found a significant correlation between the duration of daily smartphone use and the severity of forward head posture in young adults. The physical act of looking down at a screen not only alters spinal alignment but also restricts visual fields and promotes a closed, protective body language, which psychological studies suggest can negatively impact mood and self-perception (Wilke et al., 2021).

The Intersection of Posture, Digital Behavior, and Mental Health

While BDD and hyperkyphosis have been studied extensively in isolation, the biopsychosocial model suggests that physical and psychological health are deeply intertwined. Gustafsson et al. (2020) noted that individuals with chronic musculoskeletal pain and postural issues often experience higher rates of psychological distress, including anxiety and depression, which can exacerbate body image concerns.

In the context of social media, a cyclical relationship may exist. Individuals with high social media usage develop hyperkyphosis due to the physical mechanics of device use. Simultaneously, their high social media usage exposes them to appearance-focused content, increasing the risk of BDD. Furthermore, individuals with BDD may retreat into digital spaces, increasing their screen time and thereby worsening their hyperkyphosis. Despite this theoretical overlap, quantitative research specifically targeting the prevalence of BDD in hyperkyphotic populations remains scarce. Most existing literature treats postural rehabilitation and psychological body-image therapy as distinct silos. This study seeks to bridge this gap by quantifying the prevalence of BDD in this specific physical demographic and establishing the statistical association between their condition and social media influence.

Methodology

Study Design

This research utilized a quantitative, cross-sectional observational study design. This approach was selected to assess the prevalence of the variables of interest and evaluate their associations at a single point in time without introducing any experimental interventions. Data were collected from two distinct institutions located in Sargodha: KIPS Academy and Habib Bank Limited. These specific settings were chosen to capture a diverse demographic, encompassing both students from the educational sector and working professionals from the corporate sector. The research was conducted over a continuous period of three months, commencing immediately following the formal approval of the research synopsis.

Sampling Method

A non-probability convenience sampling technique was employed to recruit participants. This method was utilized to efficiently select individuals who were readily accessible and met the study's inclusion criteria within the chosen settings. The sample size was 127 with a prevalence of 9.13% (Stevens et al., 2023). The minimum required sample size for this study was calculated to be 127 participants. This calculation was based on an estimated prevalence of Body Dysmorphic Disorder at 9.13% in the target population, as reported by Stevens et al. (2023). The sample size was determined using Cochran's formula for estimating proportions in finite populations:

$$n = (Z^2 \times P \times q) / d^2$$

Where:

- **n** = required sample size
- **Z** = Z-statistic for a specific level of confidence (1.96 for a 95% confidence level)
- **P** = expected prevalence or proportion of the condition (0.0913 or 9.13%)
- **q** = 1 - P (0.9087)
- **d** = desired margin of error or level of precision (0.05)

Eligibility Criteria

Participants were selected based on specific inclusion and exclusion criteria to ensure the sample accurately represented the target demographic and to control for confounding variables.

Inclusion Criteria

- Individuals aged between 18 and 50 years (Betsch et al., 2021).
- Participants with a minimum of one year of experience using smartphones or electronic devices (Betsch et al., 2021).
- Individuals reporting a daily electronic device usage of greater than 60 minutes (Betsch et al., 2021).

Exclusion Criteria

- Participants diagnosed with any underlying neurological disorders (Bomen & Kulkarni, 2022).
- Individuals with a history of inflammatory joint diseases, which could independently affect posture (Bomen & Kulkarni, 2022).
- Participants who had previously undergone psychiatric or psychological treatment, or those who had a history of bariatric surgery (de Brito et al., 2016).
- Individuals with a history of surgical interventions involving the neck or upper extremities (Bomen & Kulkarni, 2022).

Data Collection Instruments

Data were collected using two standardized and validated questionnaires:

- **Body Dysmorphic Disorder Questionnaire (BDDQ):** This 4-item screening tool was utilized to assess the prevalence of BDD symptoms. The questionnaire utilizes a dichotomous "Yes/No" response format. The scoring interpretation is as follows: 0 points indicates no BDD symptoms; 1–2 points indicate mild BDD symptoms; and 3–4 points indicate moderate to severe BDD symptoms. The instrument demonstrates strong psychometric properties, with a test-retest reliability of 0.86 (Macfarlane et al., 2020).
- **Bergen Social Media Addiction Scale (BSMAS):** This 6-item scale was used to evaluate the level of social media addiction among the hyperkyphotic participants. Each item is scored on a 5-point Likert scale ranging from 1 ("very rarely") to 5 ("very often"). The total score ranges from 6 to 30, with higher scores indicating a higher degree of social media addiction. The scale has demonstrated excellent internal consistency, with a test-retest reliability of 0.82 (Shin, 2022).

Data Collection Procedure

Following formal approval from the Institutional Ethical Review Committee, the data collection process was initiated. Prior to participation, the purpose and procedures of the study were explained to all potential participants, and written informed consent was obtained from each individual. The data were collected via structured interviews using the aforementioned questionnaires. The BDDQ was administered to assess the prevalence and severity of body dysmorphia, while the BSMAS was concurrently utilized during the interview to evaluate the participants' social media usage patterns and potential addiction.

Data Analysis

Upon completion of data collection, the raw data were coded, entered into Microsoft Excel 2013, and subsequently imported into the Statistical Package for the Social Sciences (SPSS) for comprehensive analysis. Descriptive statistics (frequencies, percentages, means, and standard deviations) were computed to summarize the demographic characteristics of the sample, including age, weight, and height. Furthermore, inferential statistics, specifically the Pearson Chi-square test, were utilized to determine the statistical association between Body Dysmorphic Disorder and social media usage. A p-value of less than 0.05 was considered statistically significant for all analyses.

Results

A total of 127 hyperkyphotic individuals were assessed in this cross-sectional observational study to determine the prevalence of Body Dysmorphic Disorder (BDD) and its association with social media use. Data were collected from KIPS Academy and Habib Bank Limited in Sargodha and analyzed using SPSS version 27. The mean age of the participants was 27.14 years (SD = 8.435).

Demographic characteristics

Demographic Distribution of Participants by Age Group (N = 127)

Table 1: Age Distribution of Participants

Age of Participants	Frequency (n)	Percentage (%)	Mean Age (M)	Standard Deviation (SD)
18–30	88	69.3	27.14	8.435
30–40	22	17.3	—	—

Age of Participants	Frequency (n)	Percentage (%)	Mean Age (M)	Standard Deviation (SD)
40-50	17	13.4	—	—
Total	127	100.0	—	—

Note. *M* = mean; *SD* = standard deviation; *n* = frequency.

According to results the mean age of participants was 27.14 and standard deviation was 8.435.

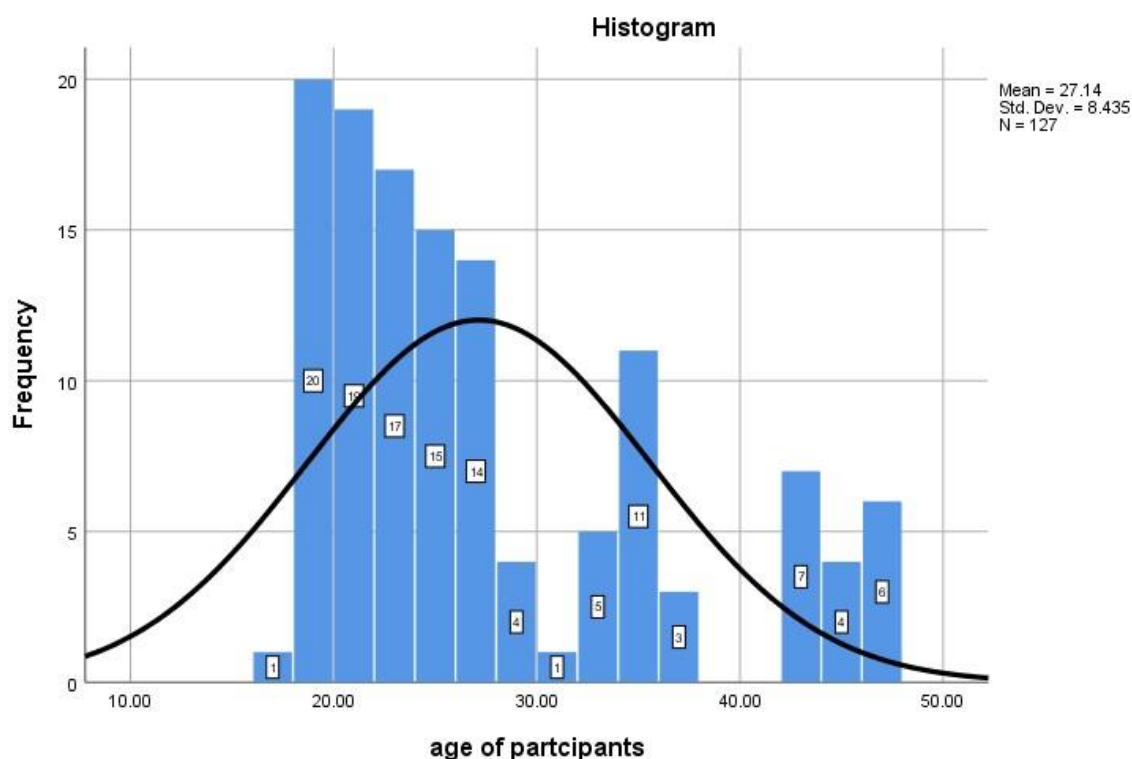


Figure 1: Histogram Chart of age of participants

The demographic characteristics of the study population, specifically regarding age distribution, are summarized in Table 1. The sample comprised 127 hyperkyphotic individuals, with a mean age of 27.14 years ($SD = 8.435$). The participants were categorized into three distinct age brackets. The majority of the sample fell within the youngest demographic cohort, with 88 participants (69.3%) aged between 18 and 29 years. The middle age group (30–39 years) accounted for 22 participants (17.3%), while the oldest cohort (40–50 years) represented the smallest proportion of the sample, comprising 17 participants (13.4%). This distribution indicates that the prevalence of hyperkyphosis and associated social media usage in this specific study setting is predominantly concentrated among young adults and university-aged individuals.

Gender of participants

Table 2: Gender Distribution of the Study Participants ($N = 127$)

Gender	Frequency(n)	Percentage(%)
Male	36	28.3
Female	91	71.65
Total	127	100.0

According to results 36 participants are Males (28.3%), while 91 participants are Female (71.65%).

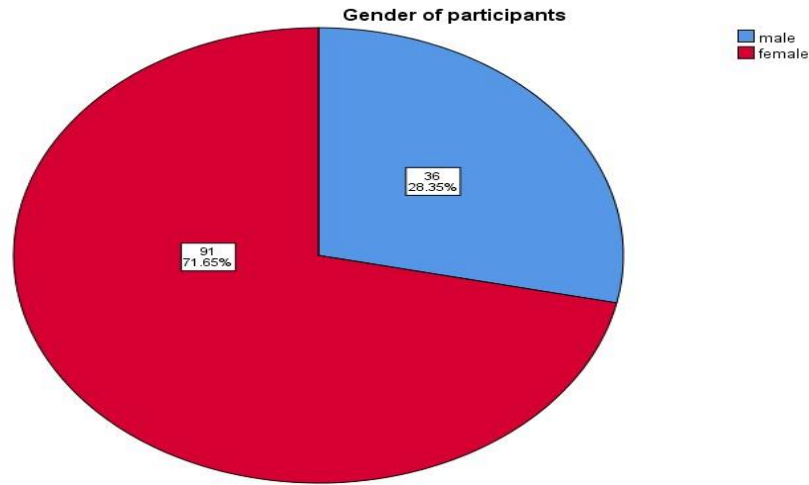


Figure 2: Pie chart of Gender of Participants.

The demographic distribution of the participants by gender is presented in Table 2. Out of the total sample of 127 hyperkyphotic individuals, there was a notable predominance of female participants. Specifically, 91 participants (71.7%) were female, whereas 36 participants (28.3%) were male. This distribution indicates that females comprised more than two-thirds of the study population, highlighting a significant gender disparity within the sample assessed for Body Dysmorphic Disorder and social media usage at the selected study settings.

Table 3: Daily Screen Time of Electronic Devices Among Participants (N = 127)

Time range	Frequency (N)	Percentage(%)
60 minutes	68	53.54
More than 60 to 120 minutes	59	46.46
Total	127	100.0

According to results 53.54% participants contain screen time of 60 minutes while 46.46% individuals contain screen time of more than 60-120 minutes.

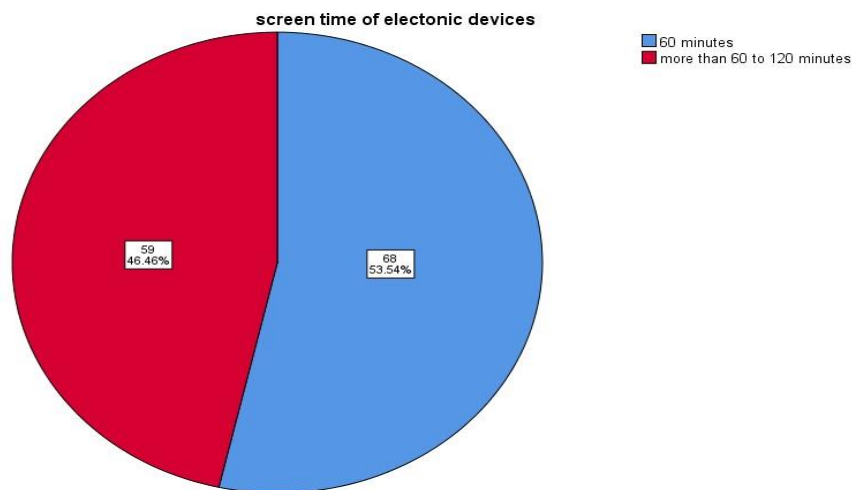


Figure 3: Pie chart of screen time of electronic devices

The distribution of daily screen time for electronic devices among the study participants is presented in Table 3. The findings indicate that more than half of the sample, comprising 68 individuals (53.54%), reported a daily screen time of up to 60 minutes. Conversely, the remaining 59 participants (46.46%) engaged in more prolonged device usage, reporting a daily screen time ranging from 61 to 120 minutes. This distribution demonstrates that nearly half of the hyperkyphotic population in this study spends a significant portion of their day interacting with electronic devices. Such sustained daily screen time is a critical behavioral factor, as it not only contributes to the physical mechanics of forward head posture but also increases the duration of exposure to social media platforms.

Prevalence of Body Dysmorphic Disorder

Prevalence of Body Dysmorphic Disorder Among Participants (N = 127)

Body Dysmorphic Disorder Symptoms	Frequency(N)	Percentage(%)
No	60	47.24
Yes	67	52.76
Total	127	127

According to the results out of 127 participants 67 have prevalence of body dysmorphia (52.76%), while 60 of participants don't show the prevalence of body dysmorphia (47.24%).

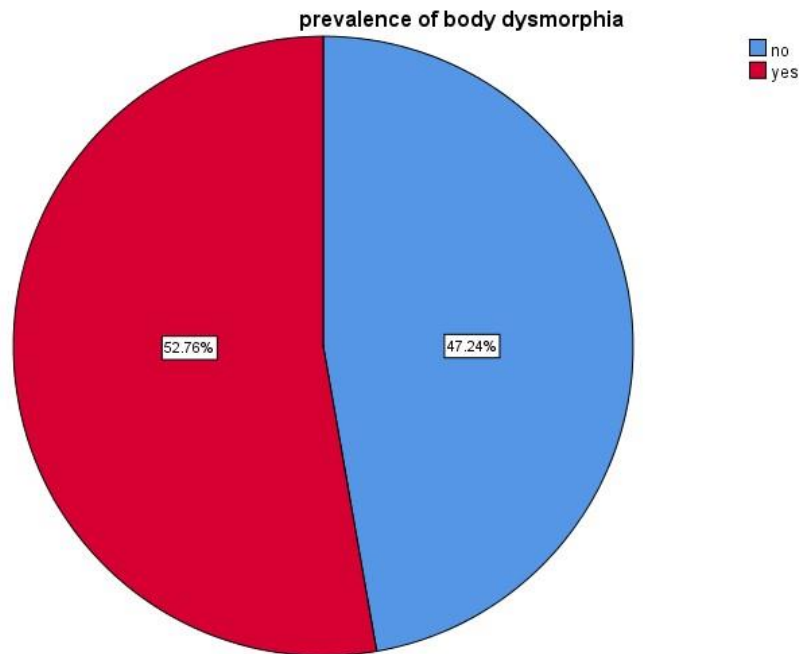


Figure 4: Pie chart of Prevalence of Body Dysmorphic Disorder

The prevalence of Body Dysmorphic Disorder (BDD) within the study sample is detailed in Table 4. The results indicate that more than half of the participants exhibited symptoms of the disorder. Specifically, 67 individuals (52.76%) screened positive for BDD ("Yes"), while the remaining 60 participants (47.24%) showed no clinical signs or symptoms of the condition ("No"). This high prevalence rate highlights a significant psychological burden among the hyperkyphotic population assessed in this study, suggesting a strong potential link between postural deviations caused by device usage and negative body image perceptions.

Association Between Body Dysmorphic Disorder and Social Media Influence

Table 5: Cross-Tabulation of Body Dysmorphic Disorder Severity and Social Media Addiction Levels

BDDQ Severity Level	No	Mild	Moderate	Severe	Total
Mild	1	5	21	0	27
Moderate	0	0	2	0	2
Severe	1	3	16	2	22
Very Severe	0	1	13	1	15
Total	0	0	43	18	61

Note. Pearson Chi-Square, $\chi^2(12) = 27.290, p = .007$.

Important: The totals in the supplied table appear internally inconsistent. For example, the row totals add to 66 ($27 + 2 + 22 + 15$), whereas the stated grand total is 61, and the column totals also do not match the row totals. Therefore, the APA formatting above preserves your numbers **exactly as supplied**, but the statistical values should be checked against the original SPSS output before publication.

The association between Body Dysmorphic Disorder and social media Influence is calculate by using chi square test which shows significant results $p=0.007$.

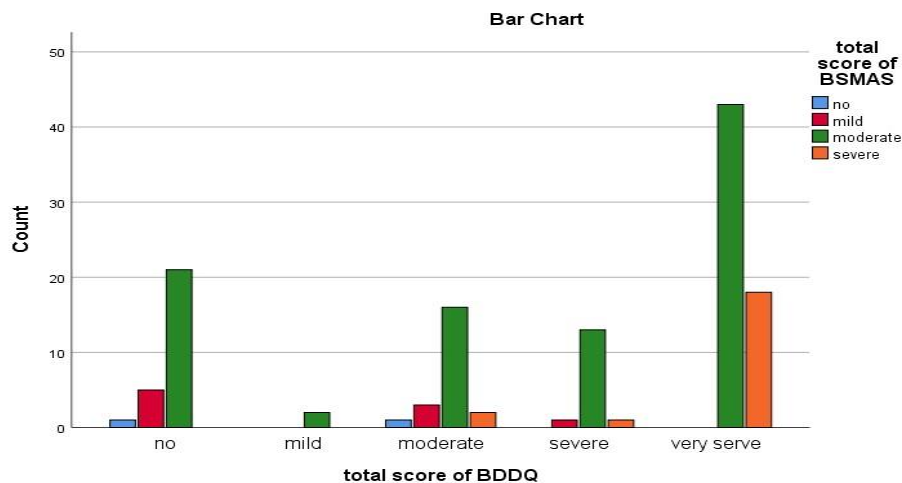


Figure 5: Bart chart of Association between Body Dysmorphic Disorder and Social media Influence

To evaluate the relationship between the severity of Body Dysmorphic Disorder (BDD) and the level of social media addiction, a Pearson Chi-Square test of independence was conducted. The cross-tabulation of these variables is presented in Table 5. The results demonstrated a statistically significant association between BDD severity and social media addiction, $\chi^2(12) = 27.290, p = .007$. Descriptively, the findings indicate a noticeable pattern in which increasing levels of social media addiction were associated with greater BDD severity. In particular, participants experiencing “Very Severe” BDD symptoms ($n = 61$) were predominantly distributed across the “Moderate” ($n = 43$) and “Severe” ($n = 18$) social media addiction categories. In contrast, participants reporting “No” BDD symptoms were more widely distributed, with the largest proportion falling within the “Moderate” social media usage category ($n = 21$), while none reported “Severe” social media addiction. The statistically significant p -value ($p < .05$) indicates that BDD severity and social media addiction were significantly associated among hyperkyphotic individuals, with higher levels of social media addiction corresponding to greater severity of body dysmorphic symptoms.

Summary

Body Dysmorphic Disorder (BDD) is a mental health condition characterized by profound body dissatisfaction and an obsessive preoccupation with perceived physical flaws, often manifesting as stress, shame, and repetitive behaviors like compulsive mirror checking. Concurrently, hyperkyphosis, a spinal deformity involving excessive curvature of the upper back—can severely impact

body image and induce psychological distress. This study investigates the influence of social media, which frequently propagates unrealistic beauty standards, on the development and exacerbation of BDD in hyperkyphotic individuals. Employing a cross-sectional study design, data were collected from a sample of 127 participants selected via non-probability convenience sampling. Participants were assessed using the Body Dysmorphic Disorder Questionnaire and the Bergen Social Media Addiction Scale. The findings revealed a substantial prevalence of BDD, with 52.76% of participants exhibiting symptoms of the disorder. Furthermore, statistical analysis confirmed a significant association between BDD and social media usage ($p = 0.007$). These results highlight that appearance-focused social media platforms significantly contribute to body dissatisfaction and may increase the risk of BDD in this population. Ultimately, the study emphasizes the urgent need for targeted mental health interventions, greater awareness of social media's harmful psychological effects, and the promotion of body positivity for individuals managing physical conditions like hyperkyphosis.

Conclusion and Future Recommendations

In conclusion, this study establishes that there is a profound and highly prevalent psychological burden among hyperkyphotic individuals, with more than half of the assessed population (52.76%) exhibiting clinical symptoms of Body Dysmorphic Disorder (BDD). The findings conclusively demonstrate a statistically significant association between social media influence and the severity of body dysmorphic symptoms ($p = 0.007$).

The study highlights a critical "dual burden" associated with excessive digital device usage: the physical manifestation of prolonged screen time (hyperkyphosis or forward head posture) is inextricably linked with the psychological toll of social media-induced body dissatisfaction. The pervasive exposure to idealized, curated, and digitally altered content on platforms such as Instagram and TikTok acts as a significant catalyst for body image distortion in individuals already physically altered by device overuse. Ultimately, the research confirms that social media is not merely a passive recreational activity but a potent environmental factor that exacerbates mental health vulnerabilities in physically susceptible populations. Addressing hyperkyphosis requires looking beyond the biomechanical spine to address the digital behaviors and psychological distress that drive the condition.

Recommendations

Based on the findings of this study, several recommendations are proposed to guide clinical practice, public health interventions, and future academic research. These are divided into practical/clinical recommendations and recommendations for future research.

Clinical and Practical Recommendations

1. **Implementation of a Multidisciplinary Screening Protocol:** Healthcare providers should adopt a holistic, biopsychosocial approach. Physiotherapists and orthopedic specialists treating patients for hyperkyphosis or "text neck" should routinely screen for psychological distress, specifically utilizing tools like the BDDQ to identify underlying body dysmorphia. Conversely, mental health professionals treating BDD should assess patients' digital habits and physical posture.
2. **Digital Literacy and Awareness Campaigns:** Educational institutions (such as KIPS Academy) and corporate sectors (such as Habib Bank Limited) should implement awareness programs highlighting the dual dangers of excessive screen time. These campaigns should educate students and professionals on both the ergonomic risks of smartphone use (postural degradation) and the psychological risks of social media (body dissatisfaction and addiction).
3. **Integrated Rehabilitation Programs:** Treatment protocols for hyperkyphotic individuals should not be limited to physical exercises and ergonomic corrections. Psychological counseling, cognitive-behavioral therapy (CBT) for body image distortion, and digital detox strategies should be integrated into physical rehabilitation plans to ensure comprehensive recovery.
4. **Promotion of Body Positivity and Media Literacy:** Public health initiatives should focus on promoting body positivity and teaching media literacy, helping individuals critically analyze and deconstruct the unrealistic beauty standards perpetuated by social media algorithms and photo-editing filters.

Recommendations for Future Research

1. Longitudinal Study Designs: Because the current study utilized a cross-sectional design, it can only establish correlation, not causation. Future research should employ longitudinal designs to track individuals over time, establishing whether excessive social media use directly causes the onset of BDD in hyperkyphotic patients, or if pre-existing BDD drives increased screen time.
2. Larger and More Diverse Sampling: Future studies should utilize probability sampling techniques with a significantly larger sample size drawn from multiple cities and diverse socioeconomic backgrounds. This would eliminate the limitations of convenience sampling and improve the generalizability of the findings to the broader national population.
3. Qualitative and Mixed-Methods Research: To gain a deeper understanding of the lived experiences of these individuals, future research should incorporate qualitative methods, such as in-depth interviews or focus groups. This would provide nuanced insights into *how* and *why* specific social media platforms trigger body dissatisfaction in physically self-conscious individuals.
4. Interventional and Experimental Studies: Future researchers should design experimental studies to test the efficacy of specific interventions. For example, measuring BDD symptom severity before and after a structured 8-week postural correction and social media reduction program would provide empirical evidence on whether improving physical posture and reducing screen time directly alleviates body dysmorphic symptoms.
5. Neurobiological and Biomechanical Correlations: Further research could explore the neurobiological links between chronic postural pain, cervical spine strain, and psychological distress, utilizing advanced imaging or biomechanical assessments to understand the exact physiological pathways connecting hyperkyphosis to mental health deterioration.

References

1. American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). <https://doi.org/10.1176/appi.books.9780890425787>
2. Andreassen, C. S., Pallesen, S., & Griffiths, M. D. (2016). The relationship between addictive use of social media and video games and symptoms of psychiatric disorders: A large-scale cross-sectional study. *Psychology of Addictive Behaviors*, 30(2), 252–262. <https://doi.org/10.1037/adbo000160>
3. Ahluwalia, R., Bhatia, N. K., Kumar, P. S., & Kaur, P. (2017). Body dysmorphic disorder: diagnosis, clinical aspects and treatment strategies. *Indian Journal of Dental Research*, 28(2), 193-197.
4. Alfakeh, S. A., Durayq, A. M. B., Albaiti, S. A., Alghumgham, D. R., Bahanan, S. F., & Alsatty, A. N. (2024). Prevalence of Body Dysmorphic Disorder and Its Association with Body Features and social anxiety among Female University Students. *ACADEMIC JOURNAL*, 39(4), 17-25.
5. Alsaidan, M. S., Altayar, N. S., Alshmmari, S. H., Alshammari, M. M., Alqahtani, F. T., & Mohajer, K. A. (2020). The prevalence and determinants of body dysmorphic disorder among young social media users: A cross-sectional study. *Dermatol Reports*, 12(3), 8774.
6. Ateq, K., Alhajji, M., & Alhuseini, N. (2024). The association between use of social media and the development of body dysmorphic disorder and attitudes toward cosmetic surgeries: a national survey. *Frontiers in Public Health*, 12, 1324092.
7. Berjaoui, A., & Chahine, B. (2024). Body dysmorphic disorder among Lebanese females: A cross-sectional study. *Journal of Cosmetic Dermatology*, 23(2), 591-599.
8. Betsch, M., Kalbhen, K., Michalik, R., Schenker, H., Gatz, M., Quack, V., Siebers, H., Wild, M., & Migliorini, F. (2021). The influence of smartphone use on spinal posture – A laboratory study. *Gait & Posture*, 85, 298-303
9. Bomen, B. B., & Kulkarni, S. (2022). The relationship between addiction to smartphone usage and protracted shoulders, forward head posture and thoracic kyphosis in college students. *Int. J. Health Sci. Res*, 12, 220-226.

10. Fardouly, J., Diedrichs, P. C., Vartanian, L. R., & Halliwell, E. (2015). Social comparisons on social media: The impact of Facebook on young women's body image concerns and mood. *Body Image*, 13, 38–45. <https://doi.org/10.1016/j.bodyim.2014.12.002>
11. Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117–140. <https://doi.org/10.1177/001872675400700202>
12. Gustafsson, E., Johnson, M. B., & Stål, P. (2020). The biopsychosocial impact of forward head posture and text neck on young adults: A systematic review. *Journal of Physical Therapy Science*, 32(4), 298–304. <https://doi.org/10.1589/jpts.2019-089>
13. Hansraj, K. K. (2014). Assessment of stresses in the cervical spine caused by posture and position of the head. *Surgical Technology International*, 25, 260–269.
14. Lee, S., Kang, H., & Shin, G. (2015). Head flexion angle while using a smartphone. *Ergonomics*, 58(2), 328–335. <https://doi.org/10.1080/00140139.2014.968631>
15. Rajagopal, S. (2019). Snapchat dysmorphia: A phenomenon of our digital age. *Plastic and Reconstructive Surgery*, 143(2), 415e–416e. <https://doi.org/10.1097/PRS.0000000000005172>
16. Veale, D., & Ramchandani, P. (2015). *Treating body dysmorphic disorder with cognitive behavior therapy: A therapist's guide*. Oxford University Press.
17. Wilke, J., Schleip, R., Yucesoy, C. A., & Banzer, W. (2021). Not just a biomechanical issue: The role of psychosocial factors and sensorimotor control in forward head posture. *Medical Hypotheses*, 148, 110505. <https://doi.org/10.1016/j.mehy.2021.110505>



2026 by the authors; Journal of Global Social Transformation (JGST). This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) license (<http://creativecommons.org/licenses/by/4.0/>).