# ORIGINAL ARTICLE

# Relationship between the Intensity of Instagram Utilisation and the Tendency of Body Dysmorphic Disorder in Female Students

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## ABSTRACT

**Introduction:** Social media has become a medium for developing beauty's definition, widely popularised by influencers, such as Instagram. Body dysmorphic disorder is often found in adolescents who fail to achieve developmental tasks. This study examines the relationship between the intensity of Instagram usage and the tendency of body dysmorphic disorder in female students. **Methods:** This study uses a cross-sectional correlational design. The population was active students of the Faculty of Nursing, Universitas Padjadjaran, aged 18-24 years (N=712), by total sampling with a response rate of 75% (n=539). This study used Instagram User Intensity questionnaires and Body Dysmorphic Tendency questionnaires. The data were analysed using SPSS.25 with the Spearman rho test. **Results:** There was a significant relationship between the intensity of Instagram use and body dysmorphic tendencies with a correlation coefficient of $r = 0.099$ and a significance level of $p = 0.022$ ($p < 0.05$). **Conclusion:** In conclusion, the more intense the use of Instagram, the higher potential for body dysmorphic tendencies. The results are expected to assist nurses in preventing or overcoming negative perceptions of patients regarding body image that allows for body dysmorphic disorder by encouraging patients to reduce the intensity of using Instagram.

**Keywords:** Body dysmorphic disorder, Body dissatisfaction, Social media

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## INTRODUCTION

Depictions of beauty standards are often found on various social media platforms. In addition, the growth of social networking sites (SNS), such as Facebook or Instagram, also increases exposure to the ideal of being thin and fit (19, p.12). In addition, social media is an aspect that accommodates people to focus on body image because it is a tool often used by adults (1) related to concerns of individual autonomy, individual self-monitoring, obsessions, and addiction to social media (2. pp.114–125). In addition, it can be seen from access to features that social media can offer, such as face filters and photo editing features (3).

The beauty standards set by the media create a network for some people against physical changes. The changes in physical form experienced by adolescents are ordinary things, but some people have not accepted their physical changes (3-4). Physical development in humans at middle age causes changes in appearance, such as skin shrinks and becomes less taut, hair falls, thins and changes colour to white, and changes in body weight.

Physical changes are always related to the individual's body image (5). Interpreting the concept of beauty will affect people's perceptions in realising normative values, which is considered a declaration in applying a beautiful concept. It causes most people in middle adulthood to pay too much attention to physical body changes and want to keep an ideal body and attractive appearance (6). Study results show that body dysmorphic disorder tends to occur more often in adolescents aged 15 years to young adults around 30 years old. However, there has been no research related to body dysmorphic using Instagram. This study examines the relationship between the intensity of Instagram usage and the tendency of body dysmorphic disorder in female students.

## MATERIALS AND METHODS

### Study design
This study used a cross-sectional study design (14).

### Population and study setting
A total of 539 respondents was recruited using the total sampling technique. The inclusion criteria were undergraduate student Faculty of Nursing at Universitas Padjadjaran, Instagram users, and 17-24 years.

### Variables
The independent variable was the intensity of Instagram

use, and the dependent variable was the body dysmorphic tendency. Body dysmorphic disorder is a term that refers to the focus of patients with perceived deficiencies in their appearance, which are unknown to others, and Instagram is a web-based media that is useful for sending various information quickly, both in the form of photos and videos. In addition, Instagram has several other functions, such as photo management, photo editing and sharing on other social networks.

## Instruments

This research used a Body Shape Questionnaire (BSQ) questionnaire (16) to measure the tendency of BDD. The questionnaire was translated and modified at the Language Institute of the University of Sanata Dharma Yogyakarta. There were 34 questions with a Likert scale of favourable items (11). In addition, there were four dimensions; the self-perception of body shape dimension, which had a higher number of items. It happened because the individual's perception of the body was the key to whether a person can experience body dysmorphic disorder tendencies, predominantly negative perceptions of their body (11).

Moreover, it used Instagram usage intensity scale, created by (12). The instrument is a Likert scale consisting of 10 favourable questions. The dimensions of the Instagram social media intensity measurement scale consist of frequency and duration. If the score obtained is higher, then the intensity of Instagram users is also increased, and vice versa. Both instruments have been tested for validity, and the results obtained are 0.850 on the Instagram user intensity scale and 0.974 on the BDD tendency questionnaire. Finally, the researcher used the Instagram Intensity Scale to examine the intensity of Instagram use (12). The instrument was ten favourable questions with a Likert scale.

## Data analysis

Statistical analysis was performed using SPSS version 25. Data were analysed by Spearman rho with a significance level of 0.022.

## Ethical clearance

Ethical clearance was obtained from the Research Ethics Committee of Universitas Padjadjaran with letter number 147/UN6.KEP/EC/2021. The ethics considerations in this research include autonomy or respect for human dignity, respect for privacy and confidentiality of respondents, fairness and openness.

## RESULTS

The study found that most of the respondents were in the medium category of the intensity level of Instagram users. In addition, most of the respondents' body dysmorphic tendencies were at a moderate level (Table I).

Table II shows that the respondents were at a moderate

**Table I: Distribution of the Intensity of Instagram Utilisation and Body Dysmorphic Disorder Tendency in Nursing Faculty Students, Universitas Padjadjaran (n=539)**

| Category | Intensity of Instagram Utilisation | | Body Dysmorphic Disorder Tendency | |
|---|---|---|---|---|
| | Frequency | Percentage (%) | Frequency | Percentage (%) |
| Low | 38 | 7.05 | 15 | 2.78% |
| Medium | 346 | 64.74 | 403 | 74.76% |
| High | 155 | 28.75 | 121 | 22.44% |

**Table II: Overview of Body Dysmorphic Disorder Tendency (n=539)**

| Category | Frequency | Percentage (%) |
|---|---|---|
| Low | 15 | 2.78% |
| Medium | 403 | 74.76% |
| High | 121 | 22.44% |

level in each dimension of BDD tendency. The result was directly proportional to the tendency of BDD based on age. Based on Table III, the intensity of Instagram users aged 20 years was mainly in the high, moderate category, while age 21 was primarily in the group of low Instagram users. The age of 20 years was mainly in the group of high tendency, and age 21 was the most in the moderate category, while 21 and 20 years were equivalent to the highest number. The intensity of Instagram users was analysed based on the class. The first-year and third-year students were mainly in the high category, while the second-year was primarily in the low category. In addition, the fourth-year students were the most in the medium and low category. The tendency of BDD based on campus origin shows that the Jatinangor campus had a high category in all aspects of the intensity of Instagram.

Based on the output of the Spearman test, it can be concluded that there was a significant relationship between Instagram usage and BDD tendencies. However, the relationship between Instagram usage variables and BDD tendencies was fragile, and there was a positive relationship between the use of Instagram and the tendency of BDD (Table IV).

**Table III: Frequency Distribution of Body Dysmorphic Disorder Tendency based on BSQ Dimensions (n=554)**

| Dimension | Measurement | Frequency (f) | Percentage (%) |
|---|---|---|---|
| Self perception of body shape | High | 112 | 20.77 |
| | Medium | 393 | 72.91 |
| | Low | 34 | 6.30 |
| Comparative perception of body image | High | 104 | 19.29 |
| | Medium | 435 | 80,70 |
| | Low | 0 | 0 |
| Attitude concerning body image alteration | High | 87 | 16.14 |
| | Medium | 452 | 83.85 |
| | Low | 0 | 0 |
| Severe alteration in Body perception | High | 103 | 19.10 |
| | Medium | 436 | 80.89 |
| | Low | 0 | 0 |

**Table IV: The Distribution and Correlation of the Frequency of BDD Tendency and Intensity of Instagram Utilisation based on the characteristics (n=539)**

| Demographic Characteristics | Intensity of Instagram Used | | | | | | p | BDD Tendency | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Low | | Medium | | High | | | Low | | Medium | | High | |
| | f | % | f | % | f | % | | f | % | f | % | f | % |
| **Age** | | | | | | | | | | | | | |
| 18 | 7 | 1.29 | 43 | 7.97 | 9 | 1.66 | p=0.022 | 1 | 0.18 | 39 | 7.23 | 19 | 3.52 |
| 19 | 19 | 3.52 | 68 | 12.61 | 24 | 4.45 | | 3 | 0.55 | 80 | 14.84 | 28 | 5.19 |
| 20 | 23 | 4.26 | 88 | 16.32 | 34 | 6.30 | | 7 | 1.29 | 109 | 20.22 | 29 | 5.38 |
| 21 | 32 | 5.39 | 85 | 15.76 | 29 | 5.38 | | 7 | 1.29 | 111 | 20.59 | 28 | 5.19 |
| 22 | 18 | 3.33 | 41 | 7.6 | 13 | 2.41 | | 3 | 0.55 | 56 | 10.38 | 13 | 2.41 |
| 23 | 0 | - | 4 | 0.74 | 2 | 0.37 | | - | - | 6 | 1.11 | - | - |
| **Class** | | | | | | | | | | | | | |
| 2017 | 40 | 7.42 | 98 | 18.18 | 31 | 5.75 | r=+ 0.099 | 5 | 0.92 | 134 | 24.86 | 30 | 5.56 |
| 2018 | 25 | 4.63 | 94 | 17.43 | 40 | 7.42 | | 10 | 1.85 | 115 | 21.33 | 34 | 6.30 |
| 2019 | 12 | 2.22 | 54 | 10.01 | 18 | 3.33 | | 3 | 0.55 | 65 | 12.05 | 16 | 2.96 |
| 2020 | 22 | 4.08 | 83 | 15.39 | 22 | 4.08 | | 3 | 0.55 | 87 | 16.14 | 37 | 6.86 |
| **Campus** | | | | | | | | | | | | | |
| Jatinangor | 64 | 11.87 | 209 | 38.77 | 68 | 12.61 | | 10 | 1.85 | 261 | 48.42 | 70 | 12.98 |
| Pangandaran | 14 | 2.59 | 53 | 9.83 | 15 | 2.78 | | 3 | 0.55 | 58 | 10.76 | 21 | 3.89 |
| Garut | 21 | 3.89 | 67 | 12.43 | 28 | 5.19 | | 8 | 1.48 | 82 | 15.21 | 26 | 4.82 |

## DISCUSSION

This study examined the relationship between the intensity of Instagram usage and the tendency of body dysmorphic disorder to see the direction and strength of the relationship between the two variables. In addition, these results showed that, although the correlation was small, the level of Instagram users also played a role in predicting the tendency of body dysmorphic or dissatisfaction. It is supported by the results of research conducted by (7). Researchers have explained in a theoretical review that the intensity of social media use can lead to body dysmorphic disorder, which mainly occurs in adolescents (8-9). Thus, it proved that social media was one of the predictors of the emergence of Body Dysmorphic Disorder tendencies.

Based on the output of the Spearman correlation test, it was found that the value of the correlation coefficient between the Intensity of Instagram Use and BDD Tendency is 0.099. Thus, it can be concluded that the relationship between the Instagram usage variable and the tendency of BDD was very weak. It means that the intensity of Instagram users did not have a significant effect on body dysmorphic disorder.

The findings were supported by the research results by (10), which states that the factors that caused body dysmorphic disorder were low self-esteem, negative body image, unrealistic beauty standards and first impression culture. It might happen because the body dysmorphic tendency variable measured in this study leads to body shape dissatisfaction, which refers to a feeling of fat of body shape through surgery. This result was supported by (7) who wrote a systematic review of 20 articles published in 2016 and found that photo-based activities, such as browsing Instagram content or uploading personal photos, become a particular problem related to negative thinking about one's body. The same study also showed that women who viewed pictures with a positive body image continued to objectify themselves. After viewing the photos, it was measured by participants being asked to write down ten things about themselves (7, p.144).

The subjects in this study were limited to one university and one faculty only, so the research results could not be generalised. In addition, the research questions are quantitative research and do not contain specific Instagram content related to beauty.

## CONCLUSION

The researchers concluded a significant relationship with a weak strength and a positive direction between the intensity of Instagram usage and body dysmorphic disorder (18) in nursing students. Using Instagram intensely increased the potential of body dysmorphic tendency. This research was expected to assist nurses in preventing or overcoming negative perceptions of patients related to body image that allows body dysmorphic disorder by encouraging patients to reduce the intensity of using Instagram. It was recommended that subjects filter the content seen on Instagram. If the content can affect self-perception about the body that causes dislike, then it is better to activate the content filter feature on their account.

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