



## RESEARCH ARTICLE

# Instagram Story Effects Usage Scale (ISEUS): A Scale for User Tendencies in Social Media

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## ABSTRACT

In today's technology, especially on Instagram, story effects have been used frequently by women. These effects make the face perfect by performing aesthetic procedures and make-up on the face. As a result of this perfection, the use of Instagram story effects can negatively affect women's perceptions of beauty. Additionally, the usage of beauty affects might make women have poor body image by diminishing their self-esteem and confidence and raising their social anxiety. This may lead to a rise in young girls seeking plastic surgery, particularly during adolescence. A scale related to the use of Instagram story effects and its effect on the perception of beauty has not previously been developed in order to measure this situation. Including this scale in the literature will open the door for further research that will support and raise awareness of the issue. As a result, an 8-item Instagram Story Effects Usage Scale (ISEUS) was developed in this study using data from 147 Instagram story effects users. In order to reveal the construct validity of ISEUS, exploratory and confirmatory factor analysis was applied. The results show that the developed scale's psychometric properties are satisfactory. ISEUS is intended to be used in a variety of research projects that bring together different disciplines.

Instagram has evolved into a social media platform that people of all ages use on a daily basis, allowing its users to be visible. Social media platforms affect people in different ways. However, the most prominent factor among them is beauty standards (Siddiqui, 2021). While users display the appearance they want to have on Instagram or the life they want to live; they may cause others to have unrealistic expectations. Eldaly and Mashaly (2021) emphasize that social media leads to unrealistic expectations among users. It is becoming easier to be visible because of the updates that are released each year. Instagram story effects, which entered our lives not long ago, are one of the innovations that help in this situation. Story effects appear as photo editing tools that allow users to change their images (Siddiqui, 2021). According to Javornik et al. (2022), these effects increase the appearance of users. In the past, filters that would only improve the appearance of the photo (e.g. the brightness) could be added to the photos shared on Instagram, but now there are effects that can improve the appearance of the person in the photo. According to research, 600 million users use these effects on various social media platforms (Bhatt, 2020). These beauty effects, which are especially popular among women in selfies, give the person a completely different appearance than they do in the mirror. The effects' surreal appearance reflects today's ideal beauty patterns. Briefly, full lips, slanted eyes, an archless thin and upturned nose and beautiful cheekbones etc. Effects can provide all of this, as well as meet the person's

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make-up and hair needs. Sometimes it can even improve to the point where users become unrecognizable (Mendoza, 2022). For this reason, many women use effects to define their jawline, enlarge their lips, smooth their skin and make many other appearance improvements (Siddiqui, 2021). According to Sari and Susilawati (2022) these filters not only become the most popular feature today, but also make users dependent on the use of effects before posting photos or videos. As a result, the increasing use of these face-enhancing effects in Instagram stories among people of all ages may cause women to dislike their ineffective state and move away from their naturalness, leading to a variety of negative psychological situations. Taking and posting selfie photos is among the important features that increase social anxiety (Eldaly & Mashaly, 2021). Instagram, as an image-based application, has evolved into a social media platform where hundreds of thousands of selfie photos are shared every day, as well as an environment where effects are frequently used. As the aforementioned effects become more advanced in terms of beautification, it may become difficult for users to distinguish between the effected and non-effected versions, and they may begin to prefer the effected versions (Burnell et al., 2021). As a result, most selfies are now shared with effects, and users find selfies without effects odd. This situation may negatively affect the perception of beauty of the face of women using beauty effects. When women look in the mirror, they may not like themselves and may feel unhappy. Thus, with the use of effects, women's self-confidence may decrease (Siddiqui, 2021). In addition, they may want to display their appearance on social media in the real world. As the researchers, we specifically targeted women in this study because existing research provides strong justification for women's greater use of Instagram story effects compared to men (Slater et al., 2017; Tiggemann et al., 2018; Engeln et al., 2020). Multiple studies have indicated that women spend significantly more time on Instagram and engage more actively with all features, especially those related to photo/video editing and sharing (Geurin-Eagleman & Burch, 2016; Engeln et al., 2020). A 2022 Pew Research study found over 63% of young women use Instagram filters and editing tools before posting photos of themselves, compared to only 38% of young men (Daneshjo, 2023). Given the disproportionate pressure women feel to meet beauty standards through image editing practices, sampling women would provide unique insights into the effects of Instagram story filters that accentuate or conceal certain facial features and body types. However, these effects provide an insatiable perfection and create an unattainable beauty perception. Even if they resort to various beautification procedures, hoping to approach this perception of beauty in women who use effects every day, they will always want more. Maes and Lenne's study results (2022) show that the use of effects plays an important role in adolescents' acceptance of plastic surgery, increasing socially motivating beliefs to have plastic surgery. Even if women resort to these surgical procedures, they can always ask for more. Because the effects can create a surreal perception of beauty. As far as we know, the lack of a valid and reliable scale for the use of Instagram story effects hinders quantitative research in this sense. Mendoza (2022) reported that the absence of any scale for effects was a shortcoming. ISEUS aims to pave the way for research on this subject and to bring different disciplines together. Thus, awareness of conducting preventive research for mental health would be raised.

### **Instagram Story Effects**

Instagram is an image-based social media platform that derives its name from the combination of the English words instant (quick) and telegram (telegram). It enables users to instantly share the pictures and videos they take on their own profiles by applying different filters and effects, along with a text caption (Aslan & Ünlü, 2016; Öztürk et al., 2016; Faelens et al., 2021). Kevin Systrom and Mike Krieger's endeavors brought Instagram into our lives in 2010, and Facebook's acquisition of Instagram in 2012 helped it gain further prominence. Since Instagram is primarily an image-based application, it has evolved with many upgrades over time and had a significant impact on the notion of photography, which has seen many changes since its creation, in terms of its production and presentation style (Gümüş, 2021). Instagram's updated filtered photo sharing feature is one of the most significant examples of this impact. With the help of these Instagram filters, users may enhance the appearance of the photographs they upload by adjusting the color tone, light, brightness, sharpness, etc. Users also have the option to alter their images in the editing section without using any of the available filters. The perception of photo editing as a specialty of professional photographers has changed because of this update. Everybody can now experience what professional photographers do.

One of the most important updates after filters is undoubtedly the story feature. After updating the Instagram story feature, it has increased its audience considerably. Instagram stories, which entered our lives in August 2016, have 500 million daily users (Statista, 2022). This feature has become one of the most used features of Instagram. Thanks to the story feature, users can share photos and videos that can only be viewed 24 hours a day, unlike the posts they share on their profiles. These stories appear at the top of Instagram's home page as red circles drawn outside users' profile pictures. In this way, users can watch by clicking on the stories of their friends they follow. They can create stories with their own photos and videos.

The story function has begun to receive changes because of its regular use. The user can submit photographs with different effects, disclose their location, add a clock, use text styles, tag their friends, and pin their stories to their profiles in the story area. Since quite some time ago, Instagram's story feature has employed effects that are comparable to those that were previously used in Snapchat. The beautifying effects were the upgrade that, out of all these updates, had the most impact on women in particular.

Users can create effects, which mostly apply make-up and visually enhance the face, and add them to the story portion of a photo, either at the moment the photo is shot or subsequently. The fact that effects are frequently used on selfies is an essential issue about effects. With effects, a very basic and unremarkable selfie can become an ideal picture (Sanlav, 2014). The importance of portraying oneself and an image on social media has grown with the rise in popularity of the selfie, which is particularly popular among young people (Gümüş, 2021). Selfie images are regarded as playing a significant role in the formation of an individual's identity (Özdemir, 2015). The effects are especially applied to selfies and directly beautify the face. Thanks to these effects that beautify the face, women can recreate themselves, be happy with the result, and thus become dependent on the effects (Güzel & Çizmeci, 2018). In short, the person presents the image she has created by editing rather than her own image and draws a misleading image (Gümüş, 2021).

In conclusion, Instagram has a negative aspect that frequently fails to reflect reality, presents the image of a flawless existence, and promotes impossible expectations (Staniewski & Awruk, 2022). The image manipulation capabilities known as filters and effects, according to Sherlock and Wagstaff (2018), are what feed this sinister side of Instagram. As a result, many people exert a lot of effort to achieve unachievable goals. Lup et al. (2015) claim that Instagram users may tend to exaggerate their idealized versions of the world because of the proliferation of beautiful editing tools. All these things can encourage social comparison, undermine one's self-worth, and lead to body dissatisfaction (Staniewski & Awruk, 2022). According to a study by Holland and Tiggemann (2016), creating and consuming picture-based content can have a negative impact on one's body image. Therefore, the popularity of selfies and story effects may have an impact on consumers' psychological well-being. As a result, additional study should be done on this topic.

### **The Present Study**

**Purpose of the study.** The story effects used on Instagram have become a hot topic recently. These effects are Filter VS Reality on Instagram is the main topic of many occasions, such as interviews in popular magazines, statements by plastic surgeons, and self-confidence projects where brands like Dove aim to protect the psychological health of young girls. However, the literature for such an important subject is rather empty. This is because there is no valid and reliable scale for the beauty effects in question. Since we believe that the use of Instagram stories may have an impact on women's psychology and preferences, the purpose of this study is to develop a valid and reliable scale about these effects. With the aid of this scale, various research can be done in the literature, by mental health professionals working in the field, by aesthetic surgeons, by social media experts, and, of course, by the entire society to provide benefits and gain new perspectives.

**Development Procedures of the Scale.** The message of “always look for the more beautiful” given to women through the media is given more insistently thanks to the beauty effects available through Instagram today (Güzel & Çizmeci, 2018). Image-based content shared on Instagram is generally transformed into different versions with effects to achieve a more aesthetically pleasing appearance (Kınlı et al., 2021). Therefore, with the expansion of these opportunities offered by technology, women can approach ideal beauty thanks to the effects they use on Instagram (Güzel & Çizmeci, 2018). However, it also has negative consequences. Although applying effects offers women an ideal appearance, it can blur their perception of reality (Youn, 2019). The

fact that the use of effects is increasing day by day in the population of all ages, the fact that women begin to dislike their ineffective state and move away from naturalness reveals the importance of this situation. The lack of a valid and reliable scale for the use of Instagram story effects hinders quantitative research and hinders research on such an important subject. During the scale development process, a literature review was conducted, and expert opinion was taken for the questions. Basic concepts of scale, theoretical frameworks and previously used measuring materials were identified. This information formed the basis for the content of the scale. Academics with experience in the field were contacted to obtain expert opinion. Feedback from experts was received through structured discussions and surveys on the first draft articles being prepared. Experts commented on whether the items adequately reflect transparency, validity, integrity of meaning and related concepts. Based on literature review and expert opinions, the draft scale was produced. Each item is designed to reflect the concept clearly and comprehensively to be measured. The content was taken care to be simple, clear, and understandable. As a result of all the feedback and evaluations, the scales have ended.

## Method

### Research Design

The research type for the development and validation of the "Instagram Story Effects Usage Scale (ISEUS)" is a Quantitative, Instrument Development Research. This refers to the process of creating a new tool or scale for measuring a specific construct or variable (Elangovan & Sundaravel, 2021). In this study, the ISEUS is being developed to measure the impact of Instagram story effects on users' perceptions of beauty.

**Data Collection and Study Group.** The online survey created using Google Forms was sent over several social media platforms (Instagram, Whatsapp, and Facebook), as well as email groups, to recruit the 149 women who ultimately took part in the study. Participants range in age from 17 to 45. The survey was conducted between November 2021–December 2021. Considering the extreme values, the data of two of the participants were excluded from the analysis. Thus, the sample of the study consists of 147 women. The average age of the participants participating in the scale development study is 25.09. 16.3% (24) of the participants were married and 83.7% (123) were single. 1.4% (2) of the participants were at primary school, 6.1% (9) at high school, and 92.5% (136) at university level. 40.1% (59) of the participants are working, 59.9% (88) are not working. 59.2% (87) of the participants think about having aesthetic or cosmetic applications, while 40.8% (60) do not.

**Statistics.** Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed for validity examination. SPSS was used for exploratory factor analysis and reliability tests, and SPSS Amos was used for confirmatory factor analysis. Explanatory factor analysis was performed, varimax rotation was applied over the main components analysis and the factor formation status of the scale was examined. As a result of the calculation, Kaiser-Meyer-Olkin (KMO) value was calculated for sample size adequacy. In addition, Barlett's sphericity test was performed to determine the suitability of the scale items for analysis. For the reliability analysis of the scale, Cronbach's Alpha and internal consistency item statistics were examined. Cronbach's alpha values above .700 were considered sufficient (Terwee et al., 2007; Greco et al., 2018). In addition, when the item was removed, Cronbach's alpha values were also calculated and evaluated. Item-total correlation values, which are generally required to be above .300–.400, were also calculated (Rouquette & Falissard, 2011).

## Results

The findings show that the sample fit coefficient was found to be .855 (>.600), the Barlett Sphericity test  $\chi^2$  value was 627.339 ( $p < .01$ ), and it was understood that the scale was suitable for factor analysis.

**Table 1.** Factor structure of the scale and factor loadings.

|                                   | Component |        | Eigenvalues |
|-----------------------------------|-----------|--------|-------------|
|                                   | 1         | 2      |             |
| i5                                | .815      |        | .764        |
| i6                                | .813      |        | .710        |
| i7                                | .785      |        | .699        |
| i4                                | .727      |        | .670        |
| i8                                | .713      |        | .519        |
| i2                                |           | .827   | .726        |
| i1                                |           | .751   | .618        |
| i3                                |           | .685   | .530        |
| <b>Variance explained %</b>       | 52.863    | 12.597 |             |
| <b>Total variance explained %</b> | 52.863    | 65.461 |             |

As shown in the Table 1, in the first analysis performed for exploratory factor analysis in the context of principal component analysis for all items, the component matrix was examined, and some items were removed since it was seen that the difference between the factor loading values of some items and the loading values of the other factor did not have to be at least .100 (Büyüköztürk, 2010). This process was repeated until there was no overlapping item, and a total of 4 items were removed. After these items were removed, sampling adequacy and Barlett Sphericity tests were checked again. At the end of the analyzes, it was determined that the sample fit coefficient was .856 (>.600), the Barlett Sphericity test  $\chi^2$  value was 523.489 ( $p < .01$ ), and it was understood that the scale was suitable for factor analysis (McCroskey & Young, 1979). Varimax rotation was performed again to determine the factor structure of the scale, which had 8 items. When the Varimax rotation table was examined, it was seen that the 8-item scale had two factors. These two factors explain 65,461% of the total variance. The first factor (Perception of Beauty) consists of 5 items and explains 52,863% of the total variance. Considering the factor loadings of the items in this factor, it was observed that it varied between .519 and .764. The second factor (Use of Effect) consists of 3 items and explains 12.597% of the total variance. Considering the factor loadings of the items in this factor, it was observed that it varied between .530 and .726.

**Table 2.** Regression Weights

| Model |      |    | $\beta_1$ | $\beta_2$ | S.E. | C.R.  | p     |
|-------|------|----|-----------|-----------|------|-------|-------|
| i3    | <--- | F1 | .465      | 1         |      |       |       |
| i2    | <--- | F1 | .708      | 1.775     | .47  | 3.777 | <.001 |
| i1    | <--- | F1 | .576      | 1.334     | .359 | 3.713 | <.001 |
| i8    | <--- | F2 | .513      | 1         |      |       | <.001 |
| i7    | <--- | F2 | .734      | 1.315     | .237 | 5.548 | <.001 |
| i6    | <--- | F2 | .729      | 1.341     | .242 | 5.529 | <.001 |
| i5    | <--- | F2 | .852      | 1.504     | .256 | 5.886 | <.001 |
| i4    | <--- | F2 | .728      | 1.176     | .213 | 5.524 | <.001 |

In Table 2, it is seen that the items that provide the formation of the two-factor structure of the scale have a significant contribution to the factor formation ( $p < .01$ ). It is seen that the error variance values for CFA vary between .213 and .470 and all values are at a significant level.

**Table 3.** CFA Fit Indices Values

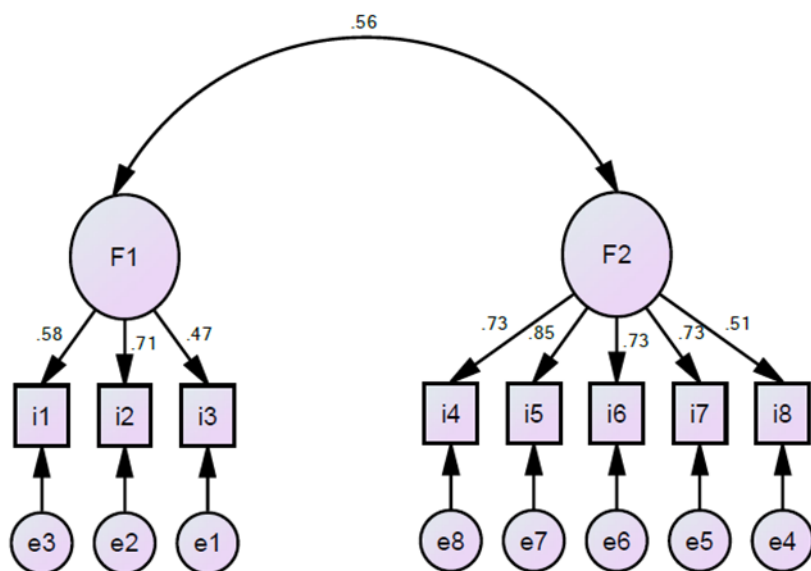
| Model   | $\chi^2/df$ | SRMR | RMR  | GFI  | AGFI | NFI  | CFI  | RMSEA |
|---------|-------------|------|------|------|------|------|------|-------|
| Default | 1.865       | .050 | .058 | .942 | .889 | .900 | .949 | .081  |

Note.  $\chi^2=35.444$ ;  $df=19$ ;  $p=.012$

As shown in the Table 3, fit indices values of the current model is as follows:  $\chi^2= 35.444$  ( $df=19$ ,  $p=.012$ ),  $\chi^2/sd=1,865$ , SRMR=.050, RMR=.058, RMSEA=.081, GFI=.942, AGFI=.889, CFI=.949 and NFI=.900. The fit index values found by Schermelleh-Engel et al. (2003) and Çokluk et al. (2012) were examined and it was reported that  $\chi^2/sd$ , RMSEA, SRMR, GFI, AGFI, CFI, NFI, NNFI values showed acceptable fit. It was demonstrated with these values that the level of fit of the model obtained from the CFA is sufficient.

As shown in the Figure 1, the factor load value for CFA is between .56. It is seen that the path coefficients between the items and the dimensions are between .47-.58 for the first factor and between .51-.85 for the second factor.

**Figure 1.** Measurement Model for the Scale.



### Reliability Analysis

The reliability of the scale was examined based on Cronbach Alpha methods. Considering that, the measurement results with a reliability coefficient of .700 and above are reliable (Greco et al.). It has been revealed that Cronbach Alpha reliability coefficient is .871 for Perception of Beauty subscale, .704 for Use of Effect subscale and, .869 for total scale.

In order to determine the discrimination levels of the items and to determine the predictive power of the total score, corrected item-total correlations were calculated. The findings obtained as a result of item analysis are shown in Table 4.



**Table 4.** Item Statistics

|    | Mean  | Sd     | Corrected item-total correlation | When the item is removed scale Alpha |
|----|-------|--------|----------------------------------|--------------------------------------|
| i1 | 19.86 | 37.790 | .525                             | .863                                 |
| i2 | 20.35 | 37.091 | .544                             | .862                                 |
| i3 | 20.95 | 38.826 | .492                             | .866                                 |
| i4 | 19.86 | 34.849 | .724                             | .843                                 |
| i5 | 20.03 | 33.280 | .766                             | .837                                 |
| i6 | 20.74 | 33.508 | .694                             | .845                                 |
| i7 | 20.53 | 33.867 | .719                             | .842                                 |
| i8 | 20.20 | 35.529 | .534                             | .865                                 |

Table 4 reveals that item-total score correlations vary between .492 and .724. Items with item-total score correlations over .300 are considered discriminating. All these findings reveal that the items are discriminatory.

#### Evaluation of Scores Obtained from the Scale

There are 8 items in the scale and there is no reverse item. The scale is a five-point Likert-type as; "Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), and Strongly Disagree (1)". The scale has two dimensions. The total score obtained from the scale indicates that the person's use of Instagram story effects is intense and therefore the perception of beauty is negatively affected.

#### Discussion

The main purpose of this research is to provide a valid and reliable scale to the literature on the use of Instagram story effects and the effect of these effects on the perception of beauty. In this direction, the data of 147 Instagram story effects user women were used to develop ISEUS and to examine its psychometric suitability. To determine the sample size, the number of participants was used as 10 times the number of items (Nunnally, 1978).

The factor analysis process in this study further strengthens the construct validity of ISEUS. Construct validity refers to how well a test or tool measures the concept that it's intended to measure (Stone, 2019). In the context of the ISEUS, this would be the impact of Instagram story effects on users' perceptions of beauty and their usage behavior. By conducting both exploratory and confirmatory factor analyses, the study rigorously tests the scale's structure and the interrelationships among its items, ensuring that they effectively capture the underlying constructs they are intended to measure (Brown, 2015). The Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO) analyzes outcomes are critical in assessing the suitability of the data for factor analysis, which is a fundamental step in validating a new scale. As a result of the analyzes, it was determined that the sample fit coefficient was .856 (>.600), the Barlett Sphericity test  $\chi^2$  value was 523.489 ( $p < .001$ ). Based on the KMO value of .856, it is evident that the partial correlations among variables are not too small, supporting the appropriateness of conducting a factor analysis on the data. According to (Watkins, 2018), KMO values greater than .800 are considered 'meritorious' for factor analysis, indicating that the data is suitable for this statistical technique. Additionally, Nkansah (2018) states that in scientific studies, it is only possible to apply factor analysis if the KMO value is higher than .60, further supporting the suitability of the data for factor analysis. It was understood that the scale was suitable for factor analysis (McCroskey & Young, 1979).

Varimax rotation was used to determine the factor structure of ISEUS. Varimax rotation maximizes the variance of the squared loadings of a factor on all the variables. It simplifies the interpretation of the factors by making the factor structure more distinct. The use of Varimax rotation helps in achieving a clearer, more interpretable factor structure by making the loadings of each item on their respective factors as high as possible while minimizing cross-loadings (Sass, 2010). In accordance with Churchill's (1979) statement that items with

a corrected item-total correlation value less than .300 should be deleted, 4 items with insufficient factor loading were removed from the scale and an 8-item scale was formed. When the Varimax rotation table was examined, it was concluded that the remaining 8 items formed a two-factor structure and these factors explained 65,461% of the total variance. Explaining over 65% of the total variance is a strong outcome, especially in social sciences and psychological research where complex behaviors and traits are often measured (Smedslund et al., 2022). The first factor obtained consists of 5 items and explains 52.863% of the total variance. Considering the expressions in the factor, this factor was named as Beauty Perception, since there were expressions about the negative impact of the perception of beauty. The second factor consists of 3 items and explains 12.597% of the total variance. Since the three questions in the factor were created to determine the frequency of effect usage, this factor was named as Effect Usage.

The two dimensions identified in ISEUS offer valuable insights into how Instagram story effects impact users, particularly in the context of beauty perception and usage behavior. The items in the first dimension revolve around the negative impact of Instagram story effects on the perception of beauty. This suggests that the use of these effects significantly influences how users perceive beauty, potentially altering their natural perception of what is considered beautiful. This dimension likely captures psychological aspects such as self-image, body image, and internalization of beauty standards influenced by the frequent viewing or use of filtered images. The significant variance explained by the Beauty Perception dimension indicates that the perception of beauty is a major area affected by Instagram story effects. It suggests a strong psychological impact, potentially leading to issues like lowered self-esteem, body dissatisfaction, or the adoption of unrealistic beauty standards. While the second dimension has a smaller percentage compared to the first dimension, it still represents a notable aspect of how users interact with Instagram story effects. The items in this dimension focus on the frequency of using Instagram story effects. This dimension measures the behavioral aspect of how often users apply these effects to their stories. This could reflect habits, preferences, or the degree of reliance on these effects for social media interactions. Even though it accounts for a smaller portion of the variance, the Effect Usage dimension is crucial for understanding the practical aspect of interaction with Instagram story effects. A high frequency of effect usage may correlate with an increased influence on beauty perceptions.

Cronbach's alpha and internal consistency coefficients were examined to measure the reliability of the ISEUS. The Cronbach's alpha reliability coefficient, which was found to be .871 for the Perception of Beauty subscale, indicated a very high level of internal consistency. This suggests that the items within this subscale are closely related to each other in measuring the construct of beauty perception among Instagram users. Furthermore, the Use of Effects subscale with a reliability coefficient of .704 falls just above the threshold identified by Greco et al. (2018) for acceptable reliability. While this indicates satisfactory internal consistency, it is marginally lower than that of the Perception of Beauty subscale. This difference could imply that the concepts covered under the Use of Effects subscale are slightly more diverse or that respondents might have interpreted these items in a more varied manner. However, it still reflects a reliable measure of the effects of Instagram story effects on users. The total scale's Cronbach's alpha reliability coefficient of .869 highlights the overall consistency and reliability of the ISEUS. This high level of reliability across the scale suggests that the ISEUS is a reliable tool for measuring the impact of Instagram story effects on users' perceptions of beauty and their usage behaviors. In summary, the reliability analysis of the ISEUS demonstrates its potential as a valuable instrument for research in social media psychology, particularly in the context of Instagram usage and its impact on beauty perceptions and related behaviors. The scale's reliable psychometric properties open avenues for interdisciplinary research, contributing significantly to the understanding of social media's influence on contemporary beauty standards and self-esteem issues, particularly among young women.

### **Limitations and Implications**

This study has a major limitation. The scale was developed for only women. As the researchers, we specifically targeted women in this study because existing research provides strong justification for women's greater use of Instagram story effects compared to men (Slater et al., 2017; Tiggemann et al., 2018; Engeln et al., 2020). Multiple studies have indicated that women spend significantly more time on Instagram and engage more



actively with all features, especially those related to photo/video editing and sharing (Geurin-Eagleman & Burch, 2016; Engeln et al., 2020). A 2022 Pew Research study found over 63% of young women use Instagram filters and editing tools before posting photos of themselves, compared to only 38% of young men (Daneshjo, 2023). Given the disproportionate pressure women feel to meet beauty standards through image editing practices, sampling women would provide unique insights into the effects of Instagram story filters that accentuate or conceal certain facial features and body types. The ISEUS aims to assess women's motivations, emotions, and attitudes related to the effects on their self-perception, body image, and comparisons to societal beauty ideals. In summary, ample precedent in social science literature demonstrates women's heavier and more complex use of Instagram story editing tools to "improve" self-presentation and feel more positively about appearance. Thus, Instagram Story Effects Usage Scale intentionally focuses on women as the target population given the distinct role these filters play in impacting their beauty ideals and self-image in relation to powerful sociocultural standards. It is obvious that these beautifying effects have the potential to harm women's perceptions of beauty. Different consequences on human psychology and behavior may result from these factors. While in the past women struggled to achieve the ideals of beauty depicted on magazine covers, with the proliferation of beauty effects, they now compare themselves not only to models or other beautiful women in the media, but also to their friends who appear attractive on social media and even to themselves, who appear more attractive because of the effects (Egger, 2021). Considering all these, it is clear that the use of effects can cause psychological problems for women. Even if the use of effects does not negatively affect the self-esteem of every woman, most women can feel bad by comparing the effect they see in the mirror with the effect they see in the mirror. In addition, individuals in adolescence may be more affected by this situation. It has been seen that there are trends in this regard on Instagram as well. Filter & Reality videos have gone viral. In these videos, it can be seen how unhappy they are in the facial expressions of most of the women when they switch to their neutral state (Tiggemann & Anderberg, 2020). Therefore, the use of effects has become a serious global problem, and this problem is growing day by day.

Developing a scale to evaluate all these with quantitative research provides multidisciplinary benefits. The reason for this is that the use of these effects is a subject that closely concerns both social media experts, plastic surgeons, and mental health experts. In a study, it was concluded that the use of effects has significant correlation with accepting plastic surgery and self-esteem. Accepting plastic surgery and low self-esteem can be explained by the beautifying effects used in Instagram stories (Tabak, 2022). The results of a previous qualitative study also support these findings (Eshiet, 2020). However, research is limited. It is thought that one of the biggest reasons why such an important subject could not be investigated further is the lack of a valid and reliable scale on the subject. At the same time, the fact that the use of effects has become widespread in our lives in the last few years shows that the concept is up-to-date and will take more place in future research.

In its current form, ISEUS was decided to be a Likert-type additive scale with 8 items and two sub-scales. The lowest score that can be obtained from ISEUS is 8, and the highest score is 40. The high score obtained from ISEUS indicates that the person's use of Instagram story effects is intense and therefore the perception of beauty is negatively affected. Considering that the scale, which was developed for the first time in the international literature, is short, easy to apply and easy to score, it is predicted that it will contribute to research that can be carried out in different societies and different geographies. Thanks to this scale, which we believe will lead to studies that are hoped to raise awareness for mental health professionals, plastic surgeons, and especially all women working in the field, the importance of developing self-confidence projects for women, recognizing the role of social media on the perception of beauty, and acting is further emphasized.

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## Appendix 1

### Instagram Story Effects Usage Scale (ISEUS)

1-) Never 2-) Rarely 3-) Sometimes 4-) Often 5-) Always

1. I use effects when sharing a selfie story on Instagram.
2. I look for new story effects to save on Instagram.
3. I save to use a story effect I just saw on Instagram, and I like.
4. When sharing a selfie story on Instagram without using effects, it bothers me.
5. Using story effects for selfies on Instagram makes me feel better than I am.
6. When using effects for my selfie stories on Instagram, I often say "I wish my face looked like this".
7. After I started using the story effects for my selfies on Instagram, I started to think about plastic surgery.
8. I think that using Instagram story effects negatively affects my perception of beauty.