

A Study of Japanese University Students Influenced by the Covid-19 Pandemic and their Awareness with Their One's Own Face

Nozomi Komiya^{1*} 

¹Chiba University of Commerce, Platform for Arts and Science, Chiba, Japan, e-mail: nozokomi@cuc.ac.jp

Abstract: In 2019, an outbreak of novel coronavirus infection (hereafter referred to as Covid-19) occurred, and on January 16, 2020, the first case of an infected person was confirmed in Japan. Now that more than two years have passed, the world is gradually returning to normal. However, the increased use of Social Networking Services (SNS) and web conferencing tools has caused young people, who are accustomed to seeing filtered faces, to become dissatisfied and uncomfortable with their own real faces. This has resulted in an increased number of young people who have become dissatisfied and mentally stressed with their facial features and expressions. Therefore, the author conducted a study on young people aged 18–20 years old in 2022 regarding this issue. The author evaluated the changes in awareness one's own face between the Covid-19 pandemic and the present among students attending Japanese universities, despite being affected by Covid-19 in the latter half of their high school or college years. The results indicated that 49.2% of the respondents revealed that their awareness their own faces had changed during the Covid-19 pandemic. Based on these findings, it is necessary for educators and parents to take considerable actions, so that young people do not become obsessed with the quality of their facial features and feel unduly stressed. Furthermore, young people should not be ashamed of their real, unfiltered faces.

Keywords: Covid-19 pandemic, changes in awareness of one's own face, students, face filtering, use of social media, education.

Introduction

On December 12, 2019, a new coronavirus (hereafter referred to as Covid-19) that causes acute respiratory syndrome humans began to spread in Wuhan, China (Zhou et al., 2020). According to Toriumi, Sakaki and Yoshida (2020), the social environment surrounding people in Japan changed significantly because of the effects of the Covid-19 pandemic, including requests to refrain from leaving the house, school closures, and other measures.

For example, one major change in behavior during the Covid-19 outbreak was in the manner of communication. Most meetings, discussions, and lectures that used to take place in-person before the Covid-19 pandemic were now conducted remotely using web conferencing tools. This resulted in an increase in the number of people who developed a negative perception of their own faces (Shauna et al., 2021). A study conducted in the U.S. found that mental anxiety increased as time spent on social media and web conferencing increased, especially among young adults aged 18–24 (Silence et al., 2021). Not only did communication methods and mental states change, lifestyle aspects, such as diet (Akaiwa et al., 2022), sleep (Okajima et al., 2021), and consumption behavior (Sun, 2021) changed as a result of the Covid-19 pandemic. It is also quite possible that the Covid-19 pandemic has brought to light the dissatisfaction that young people had with their own faces and body images. Even before the Covid-19 pandemic, facial attractiveness was regarded as a very important factor in social life (Baudouin and Tiberghien, 2004). And in fact, it has also been shown that physically attractive individuals benefit in a number of ways, including higher average wages and greater choice in dating partners (Olson and Marshuetz, 2005). These facts also predicted that young people would think that those with better facial and physical attractiveness would benefit, regardless of the Covid-19 pandemic, and that they would compare their face and body image with that of others. Sato (2021) showed that taking a facial selfie

*Corresponding author: nozokomi@cuc.ac.jp



using a camera application with a face filter and manipulating one's own face had the effect of increasing the photographer's own self-esteem. This is thought to be mainly due to the ability to change one's own face in an attractive way, similar to makeup in females, and thus to an increase in self-esteem. In addition, the remarkable spread of image-posting SNS such as Instagram has led to an increase in the number of youths who are dissatisfied with their body image as well as their face, and some youths have been reported to have problems with their eating behavior (Hashimoto et al., 2018). The author assumes that the Covid-19 pandemic is further manifesting these problems related to the spread of SNS and youth dissatisfaction with their faces and body images.

Based on these societal changes, the author examined the awareness of young people living at universities in Japan toward their own faces in response to the Covid-19 pandemic. As mentioned above, the increased use of social media and web conferencing caused young people to question and feel uncomfortable about their own appearance (Swami, Horneec and Furnham, 2021). Prior to the widespread use of web conferencing tools, the use of Instagram among college students has increased annually (Adachi and Muto, 2018); thus, it is clear that opportunities to view doctored human faces and videos have also increased.

Paying attention to one's appearance, including face and body shape, is not in itself a bad thing; however, young people who are faced with unexpected opportunities to use web conferencing tools as a result of the Covid-19 pandemic may become dissatisfied when they see their own faces, and this may increase the risk of becoming dependent upon cosmetic surgery and carrying a heavy mental burden. Because it is likely that the number of students who are psychologically stressed or dissatisfied with their facial features and expressions will continue to increase, it is necessary to examine and discuss the issue. Therefore, the author believe that it is essential to understand the current awareness of Japanese university students toward their appearance during the Covid-19 pandemic. The author conducted a survey targeting students entering their first year of college in April 2022. The students were asked about their awareness of their own faces and other changes in their lifestyles before and after the Covid-19 pandemic. The results provide insight into how the Covid-19 pandemic has affected the awareness of young people attending Japanese universities.

Materials and Methods

Student life usually consists of socializing with friends, participating in clubs and circles, and working part-time, in addition to taking classes and completing assignments (Mizokami, 2009). The majority of students entering college in the 2022 academic year were forced to change class formats and cancel events during their second and third years of high school because of Covid-19. Even after entering universities, students attend a mixture of online lectures using web conferencing tools (Tanaka, 2021) and in-person lectures. For some courses, there are few opportunities for students to participate in discussions with their peers. Even outside of the lectures, students were restricted in their on-campus activities, including wearing masks and refraining from talking with friends while eating or drinking.

Several studies (Rajkumar, 2020; Torales et al., 2020) on the impact of the Covid-19 pandemic on mental state and anxiety have been conducted in the past two years in countries around the world. For example, Hashimoto (2020) reported that the Covid-19 pandemic in Japan caused a great deal of anxiety and stress to many people. Many cited decreased income, anxiety about purchasing food and daily necessities, and anxiety about transporting their children to and from school while working. Although Hashimoto (2020) included some respondents in their teens and twenties, most of the respondents were between 30 and 60 years old, thus this was not a study specifically focused on college students or young people. Yomoda (2020) conducted a quantitative analysis of social media posts on the Twitter platform and a survey was conducted that reflected the awareness of the younger generation using SNS. However, these studies were based on surveys and analyses of the sentiments and awareness of subjects in the early stages of the 2020 Covid-19 pandemic. Thus, they did not account for the changes in behavioral restrictions and awareness since that time.

Cases have been documented in which people became dissatisfied with their appearance during the Covid-19 pandemic. A survey of 7,295 subjects in the United States conducted by (Silence et al., 2021) revealed that 70.6% of the subjects were anxious about resuming in-person activities. The reason given for the anxiety about resuming in-person contact was not related to contracting the virus, but rather "not wanting to be seen" with a deteriorating appearance including weight gain and increased face wrinkles. In addition, Silence et al. (2021) stated that one of the reasons for the anxiety associated with resuming in-person activities was the increased use of web conferencing tools, such as Zoom, because

it enabled the subjects to watch themselves speaking and responding to others in real time. As a result, they noticed wrinkles in their facial expressions and wrinkles on their faces that they would otherwise not have noticed by simply looking into a mirror. In addition, because one's face is displayed alongside the other participants in a web conference, it is possible to compare one's face with the others. As a result, one's awareness of their own appearance changed in ways that were not noticed before the Covid-19 pandemic. Some people became so anxious about interacting directly with others that they developed a lack of confidence in their appearance and underwent cosmetic surgery (Cristel, Demesh and Dayan, 2020). It is anticipated that anxiety associated with resuming in-person activities will vary depending on infection status; however, there are a certain number of people who are anxious about resuming in-person activities for reasons related to dissatisfaction with their face, in addition to anxiety about the virus, as has been shown in previous studies.

The problem that the author focuses on in this study is that young people have become used to seeing filtered faces and have begun to feel dissatisfied and uncomfortable with their own faces as a result of the increased use of SNS and web conferencing tools in the wake of the Covid-19 pandemic. After the spread of SNS and web conferencing tools, the number of young people who experience mental stress due to dissatisfaction with their own facial features and expressions has increased, and this may have a negative impact on the maturing process of young people, especially those in their late teens and early twenties, who are still maturing and acquiring a self-concept. Therefore, it would be significant to discuss the changes in young people's awareness of their own faces after the Covid-19 pandemic in this study in order to devise practical measures to support young people in the process of maturing in the future. The author believes that it is significant to conduct this study in order to find a solution to this problem because it may have a more serious impact on the psychology of maturing youth, even though there are few examples of this problem in previous studies. Most importantly, the conclusions of this study will be useful for the education of young people in the process of maturing. For this reason, the author hypothesized that some university students had a change in their awareness of their own faces after the Covid-19 pandemic and formulated the following two hypotheses to determine whether there were differences in the change in awareness of faces by gender.

h1: There is a difference in facial awareness between male and female during the Covid-19 pandemic.

This hypothesis was formulated since different genders have different habits, such as shaving and makeup, and there are differences in awareness the face between the genders based on a series of results.

h2: There might be no difference in the "reason" for the change in their awareness of their faces between the genders.

This hypothesis was formulated that include the fact that the respondents were all living a similar life of self-restraint during the Covid-19 pandemic, that they became accustomed to having their faces manipulated through Instagram and YouTube while they were unable to go out during the period of self-restraint, and that more and more male are interested in cosmetic surgery and makeup nowadays.

In the following sections, the author describes the methods used to test this hypothesis.

The study population consisted of young people that were 18–20 years old as of May 2022. They were students attending Japanese universities in the latter half of their high school years or in the midst of their college years, although they were greatly affected by the Covid-19 pandemic. The social situation in 2022 is different from the chaos that occurred at the beginning of the pandemic and social activities, such as going out and having contact with people, have resumed. However, there have not been many studies on the awareness of young Japanese people living as students during this period, when it is unclear whether Covid-19 is under control. Therefore, in this study, the author used a questionnaire to survey young people living in Japan during their college years. The author evaluated the appearance issues surrounding young people during the Covid-19 pandemic. The following is an explanation of the methods used to achieve the purpose of this study. The survey was conducted in six steps.

[Step 1] Based on the above-mentioned rationale, there are two hypotheses (h1 and h2) to be formulated.

[Step 2] To obtain information to be used in testing the hypothesis, questions are prepared for use in a questionnaire survey of college university students.

[Step 3] The questions are posted on a web-based survey tool and distributed to students who will be entering university in 2022, requesting responses and obtaining information.

[Step 4] Simple tabulations and cross tabulations are conducted on the information obtained from the survey.

[Step 5] Tests are conducted from the results of cross-tabulations between genders for specific

questions to determine if hypotheses h1 and h2 are significant or not, respectively.

[Step 6] Based on the results of the tests, the author discusses whether the Covid-19 pandemic has affected the youth's own change in awareness of their faces, as well as educational measures to support youth who are overly conscious of their faces.

The gender and age of the respondents are shown in Figure 1(a). The largest age group was 18 year-olds for both males and females, which accounted for 166 out of 191 respondents, because the questionnaire was administered to university students who were enrolled in the 2022 academic year. As shown in Figure 1(b), 62.3% of the respondents were male and 37.7% of the respondents were female. The respondents were asked to indicate their gender as registered in their school registry at the time of enrollment.

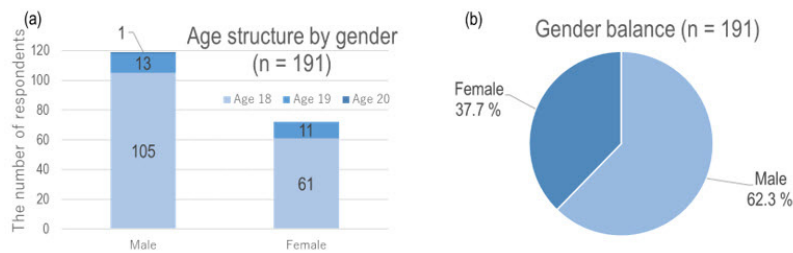


Figure 1. (a) Age structure by gender; (b) Gender balance.

The survey was conducted over a total of 5 days, from May 13 to May 18, 2022. There was no intention of inquiring about the subject's history of Covid-19 or their behavior during the period of infection spread. The respondents were informed that their answers would not be disclosed in a form that would enable their identification. Specifically, 191 university students attending school in Chiba Prefecture in Japan as of May 2022 were queried via a Google Form, a web-based survey tool, whether their awareness and behavior had changed during the Covid-19 pandemic and whether they were aware of a different lifestyle after the Covid-19 convergence. The questions were answered online and are listed in Table 1.

Table 1
Questions presented to the respondents

Question	
Q1	Please indicate your current age
Q2	Please select your gender (Please choose the gender that was registered at the time of admission to the university)
Q3	Which format for dinners, socializing, and entertainment do you prefer in the future?
Q4	Which format of lectures and meetings do you prefer in the future? (Excluding physical education and practical training courses that are difficult to sit in on)
Q5	Have there been any changes in your awareness of your own face after the outbreak of Covid-19?
Q5-1	Please select all the reasons that apply (Question asked only of those who answered "Yes" in Q5)
Q6	Has there been any change in your awareness of your own body shape since the outbreak of Covid-19?
Q6-1	Please select all the reasons that apply (Question asked only of those who answered "Yes" in Q6)
Q7	On May 11, 2022, the Cabinet Secretariat announced at a press conference that "it is not always necessary to wear a mask outdoors as long as you can keep a sufficient distance from people (The Nikkei Electronic Edition, 2022)." Please select the answer that is closest to your opinion about the future wearing of masks
Q7-1	Please select all the reasons that apply (Question asked only of those who indicated that they would like to continue to wear a mask year-round for the time being)
Q7-2	Please select all the reasons that apply (Reasons other than to prevent heat stroke in mid-summer, Question only for respondents who indicated that they would like to stop wearing masks regardless of TPO)
Q8	What do you think about increased opportunities for in-person activities in anticipation of Covid-19 convergence? Please choose the one that comes closest to your opinion
Q9	Please select all the new lifestyles you would like to see continue in our society after Covid-19 pandemic

The questions were developed based on "New Lifestyle Practices" (Chiba Prefecture, 2022) published by Chiba Prefecture as a reference material, as well as on the issues related to the perception of appearance as included in the previous studies described above. The previous studies demonstrated that the Covid-19 pandemic caused many people to look at their own and other people's faces more often than before, and many underwent cosmetic surgery as a result of the pandemic. In addition, some

previous studies (Suzuki and Yazawa, 2021) have shown a relationship between the wearing of masks and the awareness of one's own face. The questions were designed with an awareness of the issues raised by the previous studies. In particular, questions regarding the wearing of masks were designed so that the respondents could select their answers according to time, place, and the situation. In addition, questions were designed so that the respondents could select either financial, physical, or mental burden as the reason for not choosing to wear a mask. The author confirmed that there were no omissions or biases in the answers.

Q5-1 and Q6-1 asked those who answered "yes" to the question whether their awareness of their face and body image had changed. Only those who answered "yes" were asked the reason for the change. Q7-1 and Q2 Q7-2 asked those who chose either "want to continue wearing a mask all year round" or "want to stop wearing a mask immediately," but not all 191 respondents answered these questions. The author analyzed the results by simple tabulation and crosstabulation among the attributes and conducted a χ^2 test to analyze the differences in awareness of the face between genders during the Covid-19 pandemic.

Results

Results a In this study, the author asked young Japanese students to answer the questions listed in Table 1 to clarify how the awareness their own faces have changed since the Covid-19 pandemic. The study focused on changes in the awareness of college students toward their own faces during the Covid-19 pandemic. Thus, the author analyzed the answers to the questions in Table 1, especially those that were concerned with face awareness.

Figure 2 (a) shows the breakdown of the responses (n = 191) to the question of whether or not face awareness changed and (b) the gender ratio of the 94 respondents who answered "yes." Of the 94 respondents who reported a change in awareness of their face, 43.6% were male and 56.4% were female.

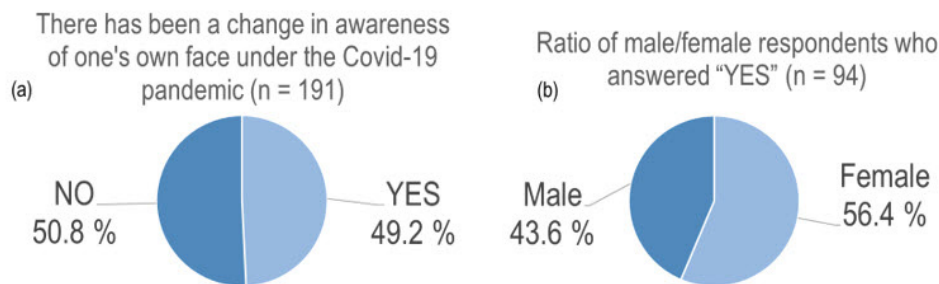


Figure 2. (a) Answers to questions asking about changes in awareness of one's face; (b) Ratio of male: female respondents who answered "YES."

The 94 respondents who indicated that their face awareness had changed were asked to give the reason for the change. The result is shown in Figure 3 in next page.

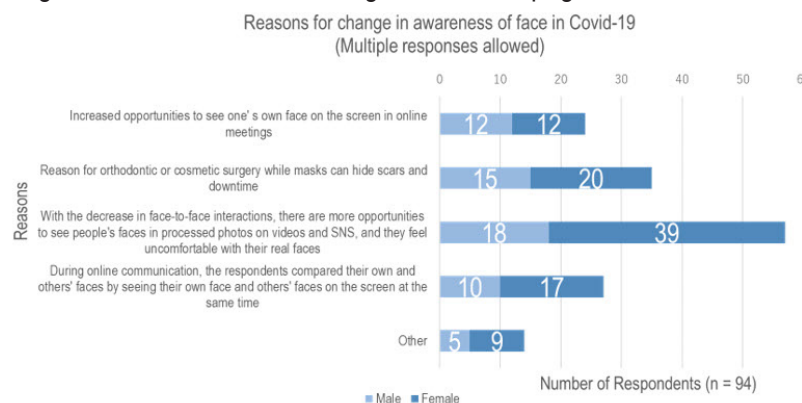


Figure 3. Reasons for the change in awareness of one's face during Covid-19 (Multiple responses allowed).

As shown in Figure 3, the main reason for the change in the respondents' awareness of their own faces was "Because I have fewer in-person interactions, I have more opportunities to see people's faces in processed photos on videos and SNS, and I feel uncomfortable with real faces without processing," which was selected by 60.6% of the respondents (57 out of 94, including 18 males and 39 females). The next most common response was "I feel uncomfortable with unprocessed photos" (60.6% of the 94 respondents, including 18 males and 39 females). The next most common response was "I wanted to have braces or cosmetic surgery while I could hide my scars and the progress of my surgery with a mask," which was derived from the fact that wearing a mask had become an everyday occurrence. This answer was supported by 37.2% of the respondents (35 out of 94, including 15 males and 20 females).

The question asking about changes in awareness faces corresponded to the question that does not ask about one's approval or disapproval of things, but rather the reasons for such changes. To take such cases into account, the questionnaire used a multiple-choice format that enabled the respondents to answer more than one question. In addition, a free response box was provided for "other" in case none of the options matched the respondent's opinion, or in case the respondent wanted to express his or her own opinion. Table 2 shows, in its original form, the answers that were considered valid for the question in which answers were included in the "Other" column.

Table 2

Free response content corresponding to "Other" (original text by the respondent)

Responses to "Other"
My awareness of makeup has changed
The more the mask hid my complex, the more I resisted taking it off
I want to clean my skin while my face is hidden by the mask and look good when I take it off
Cannot receive facial expressions in gestures, etc., unless face-to-face
Embarrassed to take because they are accustomed to being in a mask
I feel safe when I wear a mask and uncomfortable when I don't
I shave less often
I lost confidence in my face
I became concerned about the way people look at me and the way they look at me with respect to my face. I can no longer remove my mask in front of others
I no longer wear foundation and lipstick
The mask caused skin irritation
I am less concerned about my beard and other parts of my body that are hidden by the mask
I've got a bigger expression on my face
I noticed the change in my impression before and after removing the mask

In the "other" category, thoughts about makeup and cosmetic surgery were given as well as the habit of wearing a mask enabled them to hide their dissatisfaction with their face, or they became concerned about the way people looked at them and they could not take off their mask. In addition, they were concerned about the way people looked at them and their own faces and were unable to remove their masks. Other responses included no longer wearing makeup and no longer shaving, indicating that they had become less conscious of their appearance. The fact that they were no longer conscious of their faces was one of the changes. In addition, some students also changed their awareness of their faces, not in terms of facial features, beauty, or ugliness, but in terms of facial expressions, such as the need for gestures in communication. The facial expressions of others cannot be conveyed when wearing a mask, and there was a desire to make their own facial expressions more expressive.

As shown in Table 3, a crosstabulation of the results was conducted to test the hypothesis that "there is a difference in facial awareness between male and female during the Covid-19 pandemic." This hypothesis was formulated based on the fact that different genders have different habits, such as shaving and makeup, and there are differences in awareness the face between the genders based on a series of results.

Table 3
Results of crosstabulation between genders on changes in awareness one's own face during the Covid-19 pandemic

There was a change in awareness of own face			
	n (%)	YES	NO
Gender	191 100.0	94 49.2	97 50.8
Female	72 100.0	53 73.6	19 26.4
Male	119 100.0	41 34.5	78 65.5

The results of the χ^2 test for the above data revealed that there was a significant difference (0.1% level, $p = 1.6E-7$, $\chi^2 = 27.5$) between "gender" and "whether or not there is a change in awareness of one's own face after the Covid-19 pandemic." In other words, the hypothesis that there was a difference in the presence or absence of a change in facial consciousness during the Covid-19 pandemic depending on gender was confirmed. More female students than male students showed a change in facial awareness with a difference of 39.1 points.

Table 3 shows that more female than male clearly had a change in their awareness of their own faces during the Covid-19 pandemic. However, this is only because more female respondents had changes in their awareness of their faces, indicating that there is a relationship between gender and changes in awareness. In fact, Table 3 shows that 34.5% (41 out of 94) of the male students responded that there was a change in their awareness of their faces, although this proportion was smaller than that of the female students. The author hypothesized that whether or not there was a change in awareness of faces was only a consequence of the results, and that there was no significant difference between males and females in terms of the reasons or triggers for the change in awareness. The reasons for this hypothesis include the fact that the respondents were all living a similar life of self-restraint during the Covid-19 pandemic, that they became accustomed to having their faces manipulated through Instagram and YouTube while they were unable to go out during the period of self-restraint, and that more and more male are interested in cosmetic surgery and makeup nowadays. In addition, more and more male consumers are interested in cosmetic surgery and cosmetics nowadays. The author conducted another cross tabulation and test for the hypothesis that there might be no difference in the "reason" for the change in their awareness of their faces between the genders. The results are shown in Table 4.

Table 4
Results of Cross-tabulation among Attributes for Reasons for Change in awareness of Face in Covid-19

Reasons for change in awareness of face in Covid-19 (multiple responses allowed)	Total	Gender	
	n (%)	Male (%)	Female (%)
Answer frame	94 100.0	41 43.6	53 56.4
Increased opportunities to see one's own face on the screen in online meetings	24 100.0	12 50.0	12 50.0
Reason for orthodontic or cosmetic surgery while masks can hide scars and downtime	35 100.0	15 42.9	20 57.1
With the decrease in face-to-face interactions, there are more opportunities to see people's faces in processed photos on videos and SNS, and they feel uncomfortable with their real faces	57 100.0	18 31.6	39 68.4
During online communication, the respondents compared their own and others' faces by seeing their own face and others' faces on the screen at the same time	27 100.0	10 37.0	17 63.0
Other	14 100.0	5 35.7	9 64.3

The results of the χ^2 test for the above did not reveal any significant difference in "reasons for change in awareness of one's face after the Covid-19 pandemic" according to "gender" (0.5 % level, $p = 0.33$, $\chi^2 = 4.60$). The most frequently cited reason for the change in facial awareness among males was that they had more opportunities to see their own faces due to the use of web conferencing tools, accounting for 50.0% (12 out of 24) of the respondents. The largest number of female respondents, 68.4% (39 out of 57), chose the reason that they had become accustomed to looking at processed photos of their faces, and that their awareness of their real faces had changed. The results of this survey indicate that many Japanese university students have experienced a change in their awareness of their own faces as a result of the Covid-19 pandemic, and that this change is more pronounced among females. However, there was no difference in the reasons for the change in consciousness between male and female, and the author can predict a change in male awareness of lifestyle, cosmetics, and cosmetic surgery. This point is discussed in the next section.

Discussions

Throughout the Covid-19 pandemic, nearly half (49.2%) of the students who participated in the survey recalled a change in their awareness of their own faces. As mentioned above, the author do not believe that wanting to be beautiful or being conscious of one's face and other aspects of one's appearance is in itself a bad thing. However, (Třebický et al., 2016; Rice, Graber and Kourosh, 2020) indicated that it is necessary to prevent the spread of problems, such as "Snapchat dysmorphia" or the excessive concern about one's face caused using apps with face-processing filter functions, especially among younger generations. This should be discouraged, especially among the younger generation. As shown in the aforementioned studies and the results of this survey (Figure 3 and Table 2), there were a certain number of people who had become accustomed to their own and others' faces being filtered through the increased use of Instagram and web conferencing tools during the Covid-19 pandemic, or who had become highly dissatisfied with their own faces and expressions when their faces were placed alongside others. There are a certain number of people who have become accustomed to their own and others' filtered faces and who have become highly dissatisfied with their own faces and expressions when their faces are placed alongside those of others. In other countries, the number of people who underwent aesthetic changes, such as cosmetic surgery, increased after the Covid-19 pandemic, because the habit of wearing masks made it easier to hide temporary scars and swelling after cosmetic surgery (The Aesthetic Society, 2020). As shown in Figure 3 and Table 2, some students considered cosmetic surgery while their faces were hidden by masks and some students were opposed to having their masks removed to reveal their true faces, suggesting that the same phenomenon may occur among Japanese university students as reported elsewhere. Therefore, it is possible that the same phenomenon as reported in other countries may also occur in Japanese university students.

As shown in Table 3, 49.2% of the respondents indicated that their awareness their faces changed after the Covid-19 pandemic. Among them, 42.9% of males (15 out of 35) considered cosmetic procedures, whereas masks could hide postoperative facial scars and swelling. The sense of beauty is also growing among males and cosmetic surgery is no longer limited to females (Kawano et al., 2021). Thus, appearance is becoming an important component of masculinity for males (Castro-V, 2012; Saladin, 2015) and issues related to aesthetics and appearance are highly relevant to both genders, despite differences in awareness. In particular, male may become increasingly concerned about facial wrinkles and expressions and compare their appearance with that of others, especially since many business people will be using web conferencing tools when they begin working, even if they are currently university students. As shown in Table 4 and the results of the χ^2 test, although fewer males than females reported a change in their awareness of the Covid-19 pandemic, the reasons for the change did not differ between males and females. The author consider that college-age youth have become particularly conscious of their appearance, regardless of gender, due to various changes caused by the Covid-19 pandemic. On the other hand, according to a survey conducted in 2020 on 579 adult female ranging from 20 to 60 (Yazawa and Suzuki, 2022), 46% of the subjects answered that they "no longer wear makeup on parts of their face (lipstick, lipstick, blush, cheek rouge, etc.) that are not visible when wearing a mask" because of the mask mandate. In fact, the number of subjects who stopped wearing makeup because of mask wearing was the highest among all respondents.

The respondents of this study was a group of young people between the ages of 18 and 20 that were attending a university. The author speculate that young people need to be told that the pictures of their faces posted on SNS are not always accurate and they should not be ashamed of their real faces.

They should understand that they rarely have the opportunity to interact with people at a distance from the camera in which they take selfies and many of the faces they see in short videos and photos are processed. Above all, educators and adults who have completed their schooling should tell young people that facial features alone do not determine the quality of a person in the society in which the author live. The author conclude that it is also important for adults that are around young people to affirm the good qualities of a person, which are not related to his or her face or appearance.

Conclusions

In this study, the author focused on 18–20 year-old students attending Japanese universities in the midst of their student life in 2022, who were greatly affected by the Covid-19 pandemic. The author assessed the changes in their awareness of their own faces before and after Covid-19 pandemic. As a result, 49.2% of the respondents indicated that their awareness of their own faces had changed as a result of the Covid-19 pandemic. Of the 94 respondents who reported a change in their face awareness, 43.6% were male. In addition, there was a significant difference in the change in awareness of one's own face after the Covid-19 pandemic among college students between the ages of 18 and 20, which was dependent on gender.

Nowadays, cosmetics and cosmetic surgery are becoming more common not only among females, but also among young males. Although it was good that both genders are becoming more aware of beauty, educators and adults should prevent young people from becoming highly dissatisfied with their real faces and accompanying undue stress. They should help them understand that many of the faces they see in short videos and photos are processed. In the post-Covid-19 era, the solution to the appearance problem lies in communicating to young people that the faces in doctored images are rather unnatural and that should not be ashamed of their real faces. Finally, since the number of respondents in this study was small (191), it will be necessary to conduct additional surveys targeting a larger number of young people in the future.

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This is to certify that this paper has been edited for English language, grammar, punctuation, and spelling by Enago, the editing brand of Crimson Interactive Pvt. Ltd under Advance Editing B2C.

Conflict of interests

The author declares no conflict of interest.

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