

## The Business and Psychological Impact and Barriers of Medical Aesthetics Services in Malaysia During Covid-19 Pandemic

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### Abstract

During the outbreak of novel coronavirus disease in December 2019, the aesthetic industry was affected due to the movement control order (MCO) and the spread of the disease in Malaysia. The purpose of this research was to determine the impact of COVID-19 on the aesthetic industry as well as the psychological effect on practitioners and barriers faced by the industry during the pandemic. This was a cross-sectional survey given to registered medical aesthetic practitioners, employers or employees in medical aesthetics and was distributed on social media. The survey showed a significant decrease in the number of patients seeking medical aesthetic procedures during the COVID-19 pandemic. This resulted in substantial reduction in revenue amongst practitioners. The COVID-19 pandemic also limited the services provided in the aesthetic industry and propagated the need to utilize telemedicine services to optimize safe patient care.

### Keywords:

Medical aesthetic practice, COVID-19, Malaysia, Aesthetic procedure, Business industry

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The outbreak of a novel coronavirus disease in Wuhan, China, in December 2019 marked the beginning of the unprecedented global spread of the disease, resulting in the near-collapse of the healthcare systems in most affected countries (Wang et al., 2020). Aesthetic practitioners were all successful in the midst of great cosmetics until the pandemic of COVID-19. The worrying spread of the coronavirus infection has affected the world, including the beauty industry in Malaysia. The virus has shown to have a great impact on the world economy which may affect the beauty industries. In most countries, there is a significant decrease in outpatient dermatology visits, both in public hospitals and in private practise offices (Gisondi et al., 2020; Paterlini, 2020).

The small business sector in Malaysia, including new aesthetic clinics, is one of the most directly impacted by the control order of the revolution. The impact of a new aesthetic clinic is more critical than its larger counterpart. Businessmen are experiencing cancellations or closures of businesses and revenue cuts due to the closure of some support sectors such as retail and transportation. There is still a lack of study on the impact of a pandemic outbreak on aesthetic business in Malaysia, especially concerning business continuity and recovery strategy (Hasanat et al., 2020; Fabeil et al., 2020).

During the crisis, registered medical aesthetics have faced the challenge of a lack of resources in the healthcare system, such as personal protective equipment (PPE), and also a lack of guidelines and methods to overcome the hurdles faced while conducting the procedures. As a front-liner, registered medical aesthetics often risk being infected with COVID-19 when operating the procedures and spreading the virus to their families (Galadari et al., 2020; Thakurani & Gupta, 2021). The

aesthetic practise has taken a seat back during the crisis as most cosmetic procedures require close contact with the skin and mucosa that increases the risk of viral transmission. In some countries, there was a recommendation to postpone outpatient visits for non-acute allergic conditions, acne, alopecia, chronic skin conditions, and cosmetic procedures (Tao et al., 2020; Türsen et al., 2020).

The Society of Aesthetic Medicine (MSAM) in Malaysia reported that many aesthetic industries were impacted during the movement control order (MCO). This is because many aesthetic procedures, such as chemical peels, intense pulsed light (IPL), and skin rejuvenation procedures, were unavailable during the COVID-19 crisis. Although the industries are known to be affected, the extent of COVID-19's impact on medical aesthetic services and business has yet to be determined. It is also unknown whether patients continue to demand medical aesthetic services and also the barriers faced by the medical aesthetic practitioners during COVID-19 crisis.

There has been no study in Malaysia to date that has evaluated the impact of COVID-19 on medical aesthetic service and business, as well as the perceived psychological effect on medical aesthetic practitioners. As a result, the purpose of this research is to determine the impact of COVID-19 on the aesthetic business in Malaysia, with a focus on non-surgical medical aesthetic procedures, as well as the impact on practitioner psychology and the barriers faced by the industry during COVID-19.

The findings of the study will provide information on the need for business restructuring as well as the assistance required for the practise during the COVID-19 pandemic to ensure business sustainability while also ensuring patient safety.

## Methodology

This study was conducted as a cross-sectional survey of medical aesthetic practitioners' perceptions on the business and psychological impact as well as the barriers faced by the industry during COVID-19 pandemic. A list of registered medical aesthetic practitioner with Letter of Credentialing & Privileging (LCP) in Malaysia was obtained from the Ministry of Health website. Using convenience and snowball sampling methods, the survey link was shared by the practitioners to their contacts in the WhatsApp group, a messaging app that is commonly used to connect between April and October 2021. Information on the study and informed consent was provided to the respondent in the online survey platform. Respondents provide their informed consent by clicking the agreement to participate before answering the survey questions. Respondents received no financial incentive for participation.

The inclusion criteria were registered medical aesthetic practitioners, employer or employee in a medical aesthetic clinic in Malaysia during COVID-19 pandemic, able to give informed consent. They were excluded from the study if they no longer practised medical aesthetics before COVID-19 or practised medical aesthetics as part time or locum doctors. Incomplete surveys of more than 80% were also excluded from this study. Using the sample size calculation by Krejcie & Morgan (1970) with adjustment to the total number of registered medical aesthetic practitioners in Malaysia for 2021 which was 332, the calculated sample size required to obtain 95% confidence level, 5% margin error, and response distribution of 50% was 175.

The survey was self-developed from literature review and expert opinion. It was prepared in English and consists of 4 sections. Section A includes data collection for

demographic and characteristic of respondents and their business settings and orientation. Respondents were asked on their age, gender, ethnicity, highest level of education, employment status whether they were the business owner or an employee at the medical aesthetics clinic, practise size, business location, premises setting and state of practise. Section B evaluates respondents' perspective on the medical aesthetic business impact of COVID-19. This section gathered the information on the number of patients receiving the treatment before and during the COVID-19 pandemic, perceived business revenue following COVID-19 and also the type of treatment provided before and during the COVID-19 pandemic. The latter include questions regarding the number of patients for non-invasive, minimally invasive, and invasive medical aesthetic procedures as defined in the Malaysian guideline of medical aesthetic 2020 (Ministry of Health Malaysia, 2015). Section C consists of 9 items that assess the psychological impact of COVID-19 on registered medical aestheticians, while Section D has 11 items that evaluate the obstacles faced by the registered medical aesthetics during the COVID-19 pandemic.

In sections C and D, respondents were asked to rate the items based on whether they were of minor, moderate, or major concern, or if the items were deemed irrelevant to their context. The content validity of the survey was validated by an expert team member who consists of two academicians and 5 medical aesthetic practitioners. None of the items asked had an item-content validity index (I-CVI) of  $<0.78$  (lynn, 2006) with Scale-content validity index (S-CVI) of section B, C and D were 0.97, 0.98 and 0.94 which is more than acceptable limit of  $>0.80$  (Polit & Beck, 2004). The face validity and reliability were conducted on 26 respondents and the Cronbach's alpha value for section C and D were found to be 0.78 and 0.79, respectively.

The survey was analysed descriptively using Statistical Package for the Social Sciences, version 26. Descriptive analysis using frequency, percentage and mean + standard deviation (SD) was used to present the demographic and characteristics of the respondents, perceived business, psychological impact and barriers faced during COVID-19 pandemic. The ethical approval for this study was obtained from the Medical Research Ethics Committee Universiti Putra Malaysia, Reference number: UPM/TNCPI/RMC/JKEUPM/1.4.18.2 (JKEUPM).

## Results and Discussion

Of the total invitation of 175 medical aesthetic practitioners, 108 had agreed to participate in the study giving the response rate of 61.7%. The mean (SD) of respondents' age was 41.8 (8.6) with a range of between 33 and 75 years old. There were more female respondents (n = 56, 51.9%) than male in the study with the majority being of Chinese

ethnicity (n=67, 62%), followed by Malay (n= 27, 25%), Indian (n=12, 11.1%) and others (n=2, 1.9%). Majority of the respondents had undergraduate medical degree as their highest education level (n=85, 75.8%), graduated from overseas college or university (n = 57, 52.8%), were business owners or self-employed (n=84, 77.8%). The mean year (SD) of practise in the medical aesthetic industry was 10.3 (5.8) and ranged between 1 to 35 years. Majority of the respondents practise or own independent clinics of one or two (n=55, 50.9%), followed by the small chain clinic defined as having between 2 and 10 medical aestheticians (n=51, 47.2%). A total of 73 (61.7%) respondents' premises were located in the city area and were of shop lot (n=81, 75%). The highest number of respondents were from Selangor (n=37, 34.3%), followed by Kuala Lumpur (n=36, 33.3%) and Johor (n=9, 8.3%). The summary of respondents' demographic and business characteristics is presented in Table 1.

**Table 1:** Demographic and business characteristic of medical aesthetic practitioners participated in the study (n = 108)

Variable	Frequency (%)	Mean (SD)(Min-Max)
Age		41.8 (8.6) (33-75)
Gender		
Male	51 (47.2)	
Female	56 (51.9)	
Ethnicity		
Malay	27 (25)	
Chinese	67 (62)	
Indian	12 (11.1)	
Others	2 (1.9)	
Highest level of education		
Degree	85 (78.7)	
Master	18 (16.7)	
PhD/others	5 (4.7)	
Place of graduation		

Local university/college	51 (47.2)
Oversea university/college	57 (52.8)
<b>Employment status</b>	
Self-employed	84 (77.8)
Employee	23 (21.3)
Other	1 (0.9)
Years of experience in medical aesthetic	10.3 (5.8) (0-35)
<b>Practise size</b>	
Independent clinic (2 clinics)	55 (50.9)
Small chain clinic (2-10 aestheticians)	51 (47.2)
Medium chain clinic (11- 30 aestheticians)	1 (0.9)
Large chain clinic (>30 aestheticians)	1 (0.9)
<b>Clinic location</b>	
Suburb	8 (7.4)
Town	25 (23.1)
City	73 (67.6)
Rural	2 (1.9)
<b>Premise setting</b>	
Shop lot	81 (75)
Shopping mall	16 (14.8)
Office tower	5 (4.6)
Others	6 (5.6)
<b>State of practise</b>	
Kedah	1 (0.9)
Perak	5 (4.6)
Kuala Lumpur	36 (33.2)
Selangor	37 (34.3)
Negeri Sembilan	2 (1.9)
Melaka	2 (1.9)
Johor	9 (8.3)
Pahang	1 (0.9)
Terengganu	1 (0.9)
Kelantan	1 (0.9)
Sabah	3 (2.8)
Sarawak	2 (1.9)

**Sub-analysis: Practise size according to premise setting**

Practise size	Type of premise setting			
	Shop lot (n, %)	Shopping Mall (n, %)	Office tower (n, %)	Others (n, %)
Independent clinic (2 clinics)	37 (34.3)	12 (11.1)	3 (2.8)	3 (2.8)
Small chain clinic (2-10 aestheticians)	42 (38.9)	4 (3.7)	2 (1.9)	3 (2.8)
Medium chain clinic (11- 30 aestheticians)	1 (0.9)	0	0	0
Large chain clinic (>30 aestheticians)	1 (0.9)	0	0	0

During COVID-19, the mean (SD) number of patients per month decreased from 132.2 (153) to 56.5 (88.5), a decrease of more than 50%. When the data was analysed by type of practise, the majority of clinics, with the exception of a large chain clinic with more than 30 medical aesthetics practitioners, saw a decrease in the number of patients. The small chain clinics with between 2 and 10 medical aesthetic practitioners were the most affected, with the number of patients dropping by 61 percent. According to the respondents' reported business revenue, the majority had decreased in sales, with the greatest impact having decreased in revenue by 51-75 percent (n=25, 23.1 %). Less than 10% of the respondents (n=10, 9.6%) reported increased business revenue during the COVID-19 pandemic. Majority of the respondents perceived the reduction in number of patients visiting their practise during COVID-19 pandemic because of the government's Movement Controlled Order (n=41, 37.9%), followed by the perception that the services are non-essential and that the treatment can wait (n=39, 36.1%). The majority of respondents in this study reported using clinics saving money (n=60, 56.5%), followed by reducing the salary of staff (n=28, 25.9%) and

number of staff (n=25, 23.1%) to sustain the operational cost during COVID-19 pandemic.

During the pandemic, more than half of the respondents used Messaging Apps (e.g. WhatsApp) (n=66, 61.1%) and social media (e.g., FB, IG) (n=62, 57.4%) to connect with their patients. Only a small number of respondents utilize video call for teleconference with their customer (n=15, 3.9%). The summary of the business impact on medical aesthetics services is presented in Table 2.

**Table 2:** Perceived medical aesthetic business impact during COVID-19

Items	Before COVID-19 pandemic, Mean (SD)	During COVID-19 pandemic, Mean (SD)
<b>Overall number of patients per month</b>	132.2 (153)	56.5 (88.5)
<b>Number of patients according to type of practise per month</b>		
Independent clinic (2 clinics) (n = 25)	87 (84.5)	34.1 (35)
Small chain clinic (2-10 aestheticians) (n= 28)	155.2 (180.3)	60.5 (95.8)
Medium chain clinic (11- 30 aestheticians) (n=1)	500	200
Large chain clinic (>30 aestheticians) (n =1)	250	400
<b>Business revenue during COVID-19</b>		
	<b>Frequency (%)</b>	
Unable to disclose	5 (4.6)	
Decreased in revenue $\leq$ 25%	12 (11.1)	
Decreased in revenue 26-50%	15 (13.9)	
Decreased in revenue 51-74%	25 (23.1)	
Decreased in revenue $\geq$ 75%	15 (13.9)	
Increased in revenue $\leq$ 25%	5 (4.6)	
Increased in revenue 26-50%	5 (4.6)	
Increased in revenue 51-74%	0 (0)	
Increased in revenue $\geq$ 75%	0 (0)	
No change in revenue	1 (0.9)	
<b>Perceived reasons or patient not going to clinics</b>		
MCO regulation restriction	41 (37.9)	
The service is considered non-essential that the treatment can wait	39 (36.1)	
Financial burden	28 (25.9)	
Worried about the possibility to get infected at the clinic	27 (25)	
<b>How clinic operational costs were sustained during this pandemic?</b>		
Use clinic saving	60 (56.5)	
Terminate staff	6 (5.6)	
Reduce the number of staff	25 (23.1)	
Reduce salary for staff	28 (25.9)	
Get government financial support	23 (21.3)	
Close the clinic temporarily	21 (19.4)	
Close the clinic for good	0 (0)	
<b>Platform use to connect with patients during COVID-19 pandemic</b>		
Phone call	37 (34.3)	
Social Media (e.g., FB, IG)	62 (57.4)	
Messaging Apps (e.g., WhatsApp)	66 (61.1)	
Video-call	15 (13.9)	
Email	13 (12)	

In terms of types of medical aesthetic treatment provided before and during COVID-19 pandemic, the treatment service that was most affected was the treatment for pigmentation disorder with reduction in the

number of patients by 32.2%. This is followed by skin rejuvenation treatment with a drop of number of patients by 28.4% and microdermabrasion with estimated percentage of reduced number of patients of 21.3%. Other esthetic

treatments were also shown to be impacted during COVID-19 pandemic, with a reduced number of patients seeking the procedures. The summary of information regarding business

impact of COVID-19 on medical aesthetic number of practise according to type of treatment provided is summarized in Table 3.

**Table 3:** Information on frequency of common medical aesthetic treatment provided before and during COVID-19 pandemic

Type of medical aesthetic treatment provided by medical aesthetician in Malaysia	Number of practises offering the service frequency (%)	Number of patients before COVID-19	Number of patents during COVID-19
		Mean (SD) (min-max)	Mean (SD)(min-max)
Superficial chemical skin peeling	73 (68)	34.1 (69) (0-550)	17.6 (59) (0-500)
Medium chemical skin peeling	74 (69)	17.6 (39.9) (0-500)	9.7 (35.6) (0-300)
Microdermabrasion	72 (67)	36.7 (55.5) (0-300)	15.4 (27.5) (0-150)
Intense Pulsed Light therapy	67 (62)	14.8 (34.6) (0-220)	6.7 (20.2) (0-150)
Botulinum Toxin type A (BTA) injection	73 (68)	25.9 (30.1) (0-150)	9.6 (10.9) (0-60)
Dermal Fillers	75 (69)	29.7 (39.2) (0-200)	9.9 (12.8) (0-80)
Pigmentation disorder treatment	74 (69)	58.1 (74.3) (0-400)	25.9 (50.2) (0-400)
Vascular disorders treatment	66 (61)	8.8 (16.3) (0-80)	3.7 (8.50) (0-55)
Laser Hair Epilation	68 (63)	23.2 (52.8) (0-360)	9.7 (20.4) (0-100)
Skin Rejuvenation	72 (67)	49.6 (73.8) (0-400)	21.2 (50.4) (0-400)
Non-invasive skin tightening	69 (64)	28.4 (54.4)	10.5 (26.6)

In terms of psychological impact of COVID-19 on medical aesthetic practitioners, the majority of respondents perceived to feel a “little” (n=47, 43.5%) followed by “considerably anxious” (n=32, 29.6%) or worried in providing the services to patients during the pandemic. The highest score for items that were of major concern were they afraid that they would get themselves (n=21, 19.4%) or their family member or friends infected with COVID-19 (n=25, 23.1%). Quite a number of respondents had moderate concern

related to stress with the additional workload for COVID-19 precautionary measures (n=29, 26.9%), in changing working hours (n=22, 20.4%), the inappropriate behavior of customers (n=48, 44.1%) and staff in the clinic are not taking necessary precautions (n=25, 23.1%). Table 4 shows the summary of respondents' response on perceived psychological impact or concern of COVID-19 on medical aesthetics practise and their own well-being.

**Table 4:** Perceived psychological impact of COVID-19 on medical aesthetic practise and practitioners (n = 97)

How do you emotionally feel as a medical aesthetic practitioner in providing medical aesthetic services to patients during the COVID-19 outbreak?	Frequency (%)
No change, I feel the same	12 (11.1)
I feel a little anxious or worried	47 (43.5)
I feel considerably anxious or worried	32 (29.6)
I feel extremely anxious or worried	6 (5.6)

Level of concern related to medical aesthetic services during COVID-19 outbreak	Number of respondents, n (%)			
	Not applicable to me	Minor concern	Moderate concern	Major concern
I will get infected with COVID-19	1 (0.9)	41 (38)	34 (31.5)	21 (19.4)
I will get my family or friends infected with COVID-19	5 (4.6)	30 (27.8)	37 (34.3)	25 (23.1)
I have comorbid conditions that putting me at high risk of getting COVID-19 (e.g., asthma, diabetes)	56 (51.9)	25 (23.1)	11 (10.2)	5 (4.6)
I feel stress with the additional workload for COVID-19 precautionary measure (e.g., PPE, regular sanitizing)	2 (1.9)	54 (50)	29 (26.9)	12 (11.1)
I feel stress with the change in working hours	10 (9.3)	52 (48.1)	22 (20.4)	13 (12)
The inappropriate behavior of customers due to COVID-19 related to panic	5 (4.6)	26 (24.1)	48 (44.1)	18 (16.7)
Other staff in the clinic are not taking necessary precautions	19 (17.6)	37 (34.3)	25 (23.1)	16 (14.8)
The layout of my aesthetic clinic prevents me from taking the necessary precautions to prevent myself from COVID-19.	30 (27.8)	42 (38.9)	16 (14.8)	8 (7.4)

When barriers and challenges faced by the medical aesthetics business were evaluated, the most barriers items rated with major concerns include perceived impact of the COVID-19 pandemic on business causing financial implication (n=60, 55.6%), increased in price of aesthetic equipment from the wholesalers (n=37, 34.3%) and patient's pandemic related panic behaviour (n=34, 31.5%). Other

challenges with moderate concern include perceived patients' perception and belief towards medical aesthetic services (n=39, 36.1%) and lack of staff in the aesthetic clinic (n=35, 32.4%). The summary of perceived barriers and challenges faced by the medical aesthetic services during COVID-19 pandemic is presented in Table 5.

**Table 5:** Perceived barriers and challenges faced by medical aesthetic services during COVID-19 pandemic (n =96)

Level of concern about working in medical aesthetic services during the COVID 19 outbreak	Number of respondents, n (%)			
	Not applicable to me	Minor concern	Moderate concern	Major concern
• Price of aesthetic equipment increases from wholesalers.	2 (1.9)	15 (13.9)	42 (38.9)	37 (34.3)
• PPE or medical shortage issue from wholesalers.	3 (2.8)	29 (26.9)	41 (38)	23 (21.3)
• Patient's pandemic related panic.	0 (0)	14 (13)	48 (44.4)	34 (31.5)
• Patients buying unnecessary and excessive products.	20 (18.5)	47 (43.5)	22 (20.4)	7 (6.5)
• Patients' perception and belief towards medical aesthetic services	1 (0.9)	27 (25)	39 (36.1)	28 (25.9)
• Frequent aesthetic clinic inspection by authorities.	5 (4.6)	32 (29.6)	28 (25.9)	31(28.7)

• Lack of staff in the aesthetic clinic.	10 (9.3)	39 (36.1)	35 (32.4)	12 (11.1)
• Aesthetic clinic's reduced working hours.	5 (4.6)	30 (27.8)	32 (29.6)	29 (26.9)
• Impact on business causing financial implication.	9 (8.3)	27 (25)	60 (55.6)	60 (55.6)
• Lack of adequate reliable sources of information on COVID-19.	8 (7.4)	34 (31.5)	32 (29.6)	21 (19.4)
• Misinformation around COVID-19 potential treatment option	5 (4.6)	27 (25)	34 (31.5)	30 (27.8)

During the current COVID-19 pandemic, all non-essential aesthetic procedures have been temporarily banned worldwide, including in Malaysia (Bhargava et al., 2021; Shah et al., 2020). This could be due to the fact that aesthetics procedures are frequently regarded as optional rather than mandatory. Furthermore, because the majority of cosmetic procedures involve direct contact with the skin and mucosa, the risk of viral transmission is increased (Kaye et al., 2020). As a result, the medical aesthetic practise has taken a back seat, rendering in-office consultations and surgeries impractical. Outpatient appointments for non-acute allergic disorders, acne, alopecia, chronic skin conditions, and aesthetic procedures were recommended to be postponed in various countries which is similar to Malaysia (Tao et al., 2020; Türsen et al., 2020). It was obvious from this study that there was a significant decrease in the mean number of patients seeking medical aesthetic procedures during the COVID-19 pandemic. The dramatic decline in these treatments has most likely resulted in substantial financial hardship for Malaysian aesthetic practitioners. During this pandemic, distinguishing between non-invasive and invasive procedures is less relevant than assessing the hazards of COVID-19 infection or transmission, which vary according to the type of the procedure.

The current study found that before COVID-19, Malaysians were more interested in aesthetic procedures such as pigmentation treatment, skin rejuvenation, microdermabrasion, and superficial chemical peels.

However, following the COVID-19 pandemic, the patient's interest towards the procedures were shown to be reduced. In a twitter survey by Pang et al., pandemic dissemination of COVID-19 was reported to influence customer's preference differently. For example, in their study which investigated the twitter trend related to facial rejuvenation during COVID-19 pandemic found that customer's preference had changed with more interest were put on less-invasive procedures such as botox, hyaluronic acid and platelet-rich-plasma (PRP) (Pang et al., 2020).

There were several reasons that may explain the reduced number of procedures during COVID-19 and one of them includes that patient may be concerned that they will contract the virus as a result of the close-contact aesthetic procedures. This was also noted as a barrier to medical aesthetic practise in Malaysia as patients' perception and belief towards medical aesthetic services may be affected due to fear of COVID-19 transmission in health facilities (Elsaie & Youssef, 2021). While others may be concerned about financial insecurity as a result of job and income loss during the pandemic (Duggan et al., 2020). The economic impact of the pandemic caused losses in the cosmetic market as reported by Guzman et al. (Guzman & Barbieri, 2020). During the pandemic, people were reported to have changed their spending priorities and focusing on other aspects of health (Jenny et al., 2021). People's desire to seek cosmetic treatments was also reported to be negatively affected by a lack of social communication during quarantine

periods (Azzam et al., 2021). In the current study, aesthetic procedures that are less popular such as vascular disorder, intense pulsed light therapy, and medium chemical peel, were more affected by the pandemic.

In terms of the psychological impact of COVID-19 pandemic on medical aesthetic practitioners, the majority of respondents in the current study had a little or considerable amount of anxiety related to providing the service during COVID-19 pandemic. The major concern faced by the practitioners includes whether they will get themselves or their family members or friends infected with the disease following their professional practise. Fear of contracting the virus is reported to be common among health care workers worldwide. This is due to the fact that COVID-19 transmission through the healthcare system puts healthcare workers at a higher risk of infection than community transmission (Heneghan et al., 2020). An increased level of fear related to COVID-19 infection was reported in a survey study conducted by Alnazly et al. among Jordanian health care workers. During the pandemic, 40% of participants in their study had extremely severe depression, 60% had extremely severe anxiety, and 35% were severely distressed (Alnazly et al., 2021). This highlights the importance of providing psychological support for health-care workers, such as by implementing occupational health surveillance programmes that train and educate health-care workers on how to address infectious disease and associated psychological distress (Chirico & Magnavita, 2021).

The barriers to medical aesthetic practise in Malaysia were similar to those reported in other countries. One of the barriers faced by medical aesthetic practitioners in the current study is industry uncertainty, which may result in financial ramifications that lead to aesthetic business non-survival. This was not limited to Malaysia, as medical aesthetic practises, which had been growing at a rapid

pace and had a product market worth billions of dollars, have now essentially stalled (Sergio & Marina, 2020). Some of the recommendations made to ensure business survival includes prioritizing talent, investing in sales force retention and finding ways to upskill digitally (Sergio & Marina, 2020). Since interest in aesthetics remains to continue at times of the pandemic (Elsaie & Youssef, 2021), finding a way to stay connected with the patient through online consultation may help to keep the business going. In the current study, despite the pandemic the medical aesthetics practitioner maintains to connect or contact their customer through various communication platforms such as WhatsApps Messenger and social media. Nevertheless, many were still unfamiliar with telemedicine consultation which has been reported to be a potential in represents an invaluable tool for facilitating safe and timely patient communication and delivery of health care services (Shokri & Lighthall, 2020). Besides that, other challenges faced by medical aesthetic practise include the limitation of resources (supplies of imported cosmetic products) which may cause product prices to be high (Elsaie & Youssef, 2021).

The study has several drawbacks. First, the survey's cross-sectional design which was limited to the time point. Thus, it may not reflect the changes or predict the future effect of COVID-19 on the medical aesthetic business experiences. Second, the survey was delivered online via social media platforms, which may have resulted in a selection bias by eliminating those who did not have access to the survey at the time. Furthermore, this is the first time the survey has been conducted among registered medical aestheticians, and they may be unfamiliar with the task at hand. Finally, this survey may not be able to reach the medical aesthetic practitioners who already had their business closed down because of the COVID-19 pandemic.

## Conclusion

Medical aesthetic practises were drastically reduced during the COVID-19 pandemic causing serious financial impact to the business owner and practitioners. The aesthetician's ability to continue providing the services during COVID-19 pandemic is limited by the authority's enforcement, for example the Movement Control Order and perception of the service as non-essential that it could wait. To limit the spread of COVID-19 infection, the government has granted authorization to continue the non-surgical aesthetic procedures under tight standard operating procedures (SOP). Nevertheless, the medical aesthetic industry in Malaysia should also consider providing the service through digital health which is increasingly in demand during the pandemic. More research is needed to determine whether the non-surgical medical aesthetics procedures will resume growth once COVID-19 enters the endemic phase.

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## Conflict of interest

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## Reference

1. Alnazly, E., Khraisat, O. M., Al-Bashaireh, A. M., & Bryant, C. L. (2021). Anxiety, depression, stress, fear and social support during COVID-19 pandemic among Jordanian healthcare workers. *PLoS ONE*, *16*(3 March), e0247679. <https://doi.org/10.1371/journal.pone.0247679>
2. Azzam, D. B., Cypen, S. G., & Tao, J. P. (2021). Oculofacial plastic surgery-related online search trends including the impact of the COVID-19 pandemic. *Orbit (London)*, *40*(1), 44–50. <https://doi.org/10.1080/01676830.2020.1852264>
3. Bhargava, S., Negbenebor, N., Sadoughifar, R., Ahmad, S., & Kroumpouzou, G. (2021). Global impact on dermatology practice due to the COVID-19 pandemic. *Clinics in Dermatology*, *39*(3), 479–487. <https://doi.org/10.1016/j.clindermatol.2021.01.017>
4. Chirico, F., & Magnavita, N. (2021). The Crucial Role of Occupational Health Surveillance for Health-care Workers During the COVID-19 Pandemic. *Workplace Health and Safety*, *69*(1), 5–6. <https://doi.org/10.1177/2165079920950161>
5. Duggan, R. P., Tran, J. P., & Phillips, L. G. (2020). Interest in Plastic Surgery during COVID-19 Pandemic: A Google Trends Analysis. *Plastic and Reconstructive Surgery - Global Open*, *8*(10), 3268. <https://doi.org/10.1097/GOX.0000000000003268>
6. Elsaie, M. L., & Youssef, E. A. (2021). Interest in aesthetics during COVID-19 pandemic: A Google trends analysis. *Journal of Cosmetic Dermatology*, *20*(6), 1571–1572. <https://doi.org/10.1111/jocd.14101>
7. Fabeil, N. F., Pazim, K. H., & Langgat, J. (2020). The Impact of Covid-19 Pandemic Crisis on Micro-Enterprises: Entrepreneurs' Perspective on Business Continuity and Recovery Strategy. *Journal of Economics and Business*, *3*(2), 837–844. <https://doi.org/10.31014/aior.1992.03.02.241>
8. Galadari, H., Gupta, A., Kroumpouzou, G., Kassir, M., Rudnicka, L., Lotti, T., Berg, R. V., & Goldust, M. (2020). COVID 19 and its impact on cosmetic dermatology. *Dermatologic Therapy*, *33*(6). <https://doi.org/10.1111/dth.13822>
9. Gisondi, P., Piaserico, S., Conti, A., & Naldi, L. (2020). Dermatologists and SARS-CoV-2: the impact of the pandemic on daily practice. *Journal of the European Academy of Dermatology and Venereology*, *34*(6), 1196–1201. <https://doi.org/10.1111/jdv.16515>
10. Guzman, A. K., & Barbieri, J. S. (2020). Analysis of dermatology-related search engine trends during the COVID-19 pandemic: Implications for patient demand for outpatient services and telehealth. *Journal of the American Academy of Dermatology*, *83*(3),

- 963–965. <https://doi.org/10.1016/j.jaad.2020.05.147>
11. Hasanat, M. W., Hoque, A., Afrin, F., & Anwar, M. (2020). *The Impact of Coronavirus (Covid-19) on E-Business in Malaysia*. <https://www.researchgate.net/publication/340445932>
  12. Heneghan, C., Oke, J., & Jefferson, T. (2020). *COVID-19 How many Healthcare workers are infected? - The Centre for Evidence-Based Medicine*. <https://www.cebm.net/covid-19/covid-19-how-many-healthcare-workers-are-infected/>
  13. Jenny, H. E., Chandawarkar, A., & Kim, R. (2021). Data-Driven Insights on the Effects of COVID-19 on Public Interest in Medical Aesthetics: Part II (Active Analysis). *Aesthetic Surgery Journal*, 41(3), NP75–NP82. <https://doi.org/10.1093/asj/sjaa173>
  14. Kaye, K., Paprottka, F., Escudero, R., Casabona, G., Montes, J., Fakin, R., Moke, L., Stasch, T., Richter, D., & Benito-Ruiz, J. (2020). Elective, Non-urgent Procedures and Aesthetic Surgery in the Wake of SARS–COVID-19: Considerations Regarding Safety, Feasibility and Impact on Clinical Management. *Aesthetic Plastic Surgery*, 44(3), 1014–1042. <https://doi.org/10.1007/s00266-020-01752-9>
  15. Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30(3), 607–610. <https://doi.org/10.1177/001316447003000308>
  16. Ministry of Health Malaysia. (2015). Guidelines on Aesthetic Medical Practice. *Aesthetic Medical Practice Division, KKM, Malaysia*. [http://medicalprac.moh.gov.my/v2/uploads/GUIDELINES\\_ON\\_AESTHETIC\\_MEDICAL\\_PRACTICE\\_110613.pdf](http://medicalprac.moh.gov.my/v2/uploads/GUIDELINES_ON_AESTHETIC_MEDICAL_PRACTICE_110613.pdf)
  17. Pang, R., Wei, Z., Liu, W., Chen, Z., Cheng, X., Zhang, H., Li, G., & Liu, L. (2020). Influence of the pandemic dissemination of COVID-19 on facial rejuvenation: A survey of Twitter. *Journal of Cosmetic Dermatology*, 19(11), 2778–2784. <https://doi.org/10.1111/jocd.13688>
  18. Paterlini, M. (2020). On the front lines of coronavirus: The Italian response to covid-19. *The BMJ*, 368. <https://doi.org/10.1136/bmj.m1065>
  19. Polit, D. F., & Beck, C. T. (2004). *Nursing Research: Principles and Methods - Denise F. Polit, Cheryl Tatano Beck - Google Books*. Nursing Research: Principles and Methods. [https://books.google.es/books?hl=es&lr=&id=5g6VttYWnjUC&oi=fnd&pg=PA3&ots=\\_0iTuNnpAC&sig=E9iueZZbIEEycBAO0mzv9tLfxIE&redir\\_esc=y#v=onepage&q&f=false](https://books.google.es/books?hl=es&lr=&id=5g6VttYWnjUC&oi=fnd&pg=PA3&ots=_0iTuNnpAC&sig=E9iueZZbIEEycBAO0mzv9tLfxIE&redir_esc=y#v=onepage&q&f=false)
  20. Sergio, R., & Marina, O. (2020). *The Right Moves to Make Now in Medical Aesthetics*. <https://www.bcg.com/publications/2020/medical-aesthetics-during-covid-19>
  21. Shah, A. U. M., Safri, S. N. A., Thevadas, R., Noordin, N. K., Rahman, A. A., Sekawi, Z., Ideris, A., & Sultan, M. T. H. (2020). COVID-19 outbreak in Malaysia: Actions taken by the Malaysian government. *International Journal of Infectious Diseases*, 97, 108–116. <https://doi.org/10.1016/j.ijid.2020.05.093>
  22. Shokri, T., & Lighthall, J. G. (2020). Telemedicine in the Era of the COVID-19 Pandemic: Implications in Facial Plastic Surgery. *Facial Plastic Surgery & Aesthetic Medicine*, 22(3), 155–156. <https://doi.org/10.1089/fpsam.2020.0163>
  23. Tao, J., Song, Z., Yang, L., Huang, C., Feng, A., & Man, X. (2020). Emergency management for preventing and controlling nosocomial infection of the 2019 novel coronavirus: implications for the dermatology department. *British Journal of Dermatology*, 182(6), 1477–1478. <https://doi.org/10.1111/bjd.19011>
  24. Thakurani, S., & Gupta, S. (2021). Evolution of aesthetic surgery in India, current practice scenario, and anticipated post-COVID-19 changes: a survey-based analysis. *European Journal of Plastic Surgery*, 44(1), 129–138. <https://doi.org/10.1007/s00238-020-01730-z>
  25. Türsen, Ü., Türsen, B., & Lotti, T. (2020). Coronavirus-days in dermatology. *Dermatologic Therapy*, 33(4). <https://doi.org/10.1111/dth.13438>
  26. Wang, C., Horby, P. W., Hayden, F. G., & Gao, G. F. (2020). A novel coronavirus outbreak of global health concern. *The Lancet*. [https://doi.org/10.1016/S0140-6736\(20\)30185-9](https://doi.org/10.1016/S0140-6736(20)30185-9)