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**A Scientific Examination of the Advantages and Disadvantages of Mouth Mask
Use In the midst of the COVID-19 pandemic**

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Abstract: Millions of individuals have been impacted by the COVID-19 pandemic, which has led governments and health organizations to advise or require the use of face masks, including mouth masks, as a preventive strategy to lessen the virus's transmission. Although the use of mouth masks has become widespread, there has been discussion and disagreement over their efficacy and possible disadvantages. The purpose of this review is to examine the advantages and disadvantages of using a mouth mask during the COVID-19 epidemic. The analysis is predicated on a thorough examination of the body of current scientific literature, which includes randomized controlled trials, laboratory tests, and epidemiological research. Wearing a mouth mask has several advantages, such as lowering the spread of potentially infectious respiratory droplets, stopping asymptomatic carriers from spreading the virus, and shielding the wearer from getting infected. However, a number of variables, like the mask's quality, fit, and frequency of usage, may affect how effective mouth masks are. The pain, breathing difficulties, skin irritation, and risk of mask-related illnesses are some of the disadvantages of wearing a mouth mask. These disadvantages could change based on the kind of mask, how long it is used, and the person's health. Overall, the data indicates that using a mouth mask can effectively stop the spread of COVID-19. When determining whether to wear a mouth mask, people should take into account their unique circumstances and adhere to the recommendations of health organizations, since the advantages and disadvantages of doing so vary depending on a number of factors.

Keywords: Mouth mask, COVID-19, WHO, Advantage, Disadvantage, and Pandemic

Introduction

As a result of the most recent COVID-19 or "Corona-Virus" pandemic, we are dealing with new, undetectable issues, and an increasing number of medical concepts and applications are being developed. Patient welfare and the therapist must be taken into account in addition to the opportunities and applications of modern and contemporary rehabilitation technology, such as telemedicine, telerehabilitation, or the use of virtual reality. This is especially true in the case of a phased transition to face-to-face (FTF) therapy (Tirupathi et al., 2020). Another issue is how our faces are covered with (surgical) MMK, which protects your lips and nose while leaving your eyes and front uncovered (Scheid et al., 2020). While everyday eyesight is still quite uncommon in Middle Europe, the United States, and Canada, regular and regular usage of this MMK is highly significant in Asian countries. The World Health Organization (WHO) frequently modifies its recommendations for when and how to utilize different types of MMK during the pandemic (Fegert et al., 2020).

When working with FTF, several guidelines in several countries recommend protecting patients and professionals from face masks; nevertheless, this is typically limited to intensive care and patients (Rubio-Romero et al., 2020). Since the majority of thoughts and emotions are expressed through the face, we could wonder what is wrong with our nonverbal communication abilities. In this blog, we discuss some ideas and viewpoints regarding how this clinic should handle such circumstances in the future (Erkhembayar et al., 2020).

Our face as a communication tool:

Our faces have an amazing ability to communicate nonverbally. Emotional facial expressions, which also serve as an early warning system and convey a person's current emotions, are the foundation of nonverbal communication. Empirical evidence indicates that our subjective experience is altered by our own facial expressions. For instance, a person's smile (stimulus) starts right with the

A "facial mimicry" of another person's smile. In addition to other physical reactions such as autonomous arousal (sweating, pulse change) and body motor movements (smiling), this will encourage an emotional response

(happy). The brain examines millions of previous face mimicking interactions in addition to preserving this somatosensory-motor memory, which helps people communicate subtly and empathize (Martin et al., 2020). Another concept is the empathy mode, where various "fused" facial expressions with longer intervals and intensities combine, which may manifest themselves in positive/negative feelings or moods with severity variations. More than 6,000-8,000 different fusion face expressions can be used to explain what we think in different situations and activities, and what we like and feel about someone else (Celina *et al.*, 2020). Several experiments have shown that our first reflection is the scan of the face, eyes and mouth of another human. We are determining from an ecological perspective whether a dangerous situation occurs. The lower portion of our face (the area of our mouth) plays an important role in recognising disgust, indignation and pleasure (Brewster *et al.*, 2020).

Partial facial covering: What is that for us? What does it do?

Partial cover (occlusion) of the faces (especially eyes and mouth) affect the consistency and pace at which emotions are identified which may occur in children and adults. Occlusion of the mouth usually leads to a wider declining recognition of the face than eye occlusion. Occlusion of the mouth affects especially rage, anxiety, happiness and sorrow, and occlusion of the eye primarily affects disgust (Brooks and Butler, 2021). These data was the product of clinical testing which happened most of the time during brief periods of face occlusion. Long-term facial occlusion statistics are not available, but chronic pain, facial pain, condition of Parkinson, facial paresis, depression or stroke pain are less precise and less accurate in recognition and emotional expression. This can lead to blindness in emotion called alexithymia (Adedoyin and Soykan, 2020).

Will your face blending be of benefit?

One way to conceal our true emotions when we cannot express them due to societal expectations and moral principles is by partially covering our faces in a reflection that primarily captures the lower part. This

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technique, known as "facial blending," can come in handy in various situations. For instance, if someone cracks a joke at a classical concert, we may have to stifle our laughter. Similarly, if a dear friend cooks something with a pungent odor, we may need to keep our disgust in check. In Handan Province, North China, the employees of a real estate firm wear MMK masks every Tuesday as part of their "facial day." This way, they can express any emotion they want without worrying about their colleagues' reactions (WHO, 2020).

Does wearing MMK have real consequences for us in our society?

Will long-lasting wears of surgical MMK affect or alter our facial imitation which may contribute to some kind of alexithymia, "surgical MMK" (2003)? Would our feelings be flatter and less strong and will the balance of negative behaviour change less? Do we become more human people as our unique diversity and emotional strength declines in an environment in which we are "closed" by an unlimited pandemic? If you think about the "New World Order" conspiracy theories, in which (world) authorities devote us to wearing MMK (Roy *et al.*, 2020), might it be a good contribution to completing the globalist agenda more quickly than usual?

Does wearing a MMK have consequences for workers in the cranio (oro) facial field?

Part-time blending of the MMK with no time limit during a nervous pandemic society will have strong effects on patients and practitioners (Roy *et al.*, 2020).

We can ask ourselves a few questions:

- Can MMK worn by clinicians and patients cause a loss of facial reflections and mood estimates to disrupt communication?
- Is the quality of life for craniofacial patients with, say, TMD, bruxis or traumatic headaches affected by facial expression limitations? Comorbidities in medical category are often stress and tragedy. Does wearing MMK affect your complaints more effectively?
- How do we detect or measure whether an absence or a difference in emotional answers and treatment can be a possibility or a factor in complaints?
- What are the options for action when we consider those consequences?

New results from research conflict with statements that relate the use of MMK to poisoning carbon dioxide by trapping CO₂ (Wei *et al.*, 2020). The wearing of MMK during the COVID19 pandemic became a highly political problem for some people who wrongly argue that wearing MMK could jeopardise human health. Michael Campos and co-authors measured "Effect of MMK on gas sharing in healthy persons and COPD patients,' i.e. changes in level of Oxygen or carbon dioxide in healthy persons as well as chronic obstructive lung disease veterans or COPD before and when wearing MMK. People with COPD "must strive harder to breathe and can lead to breath loss and/or tiredness," says the ATS Patient Education Factsheet (Van Bavel *et al.*, 2020).

Pollution caused by massive growth in the selling of MMK:

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The marketing of the wear of MMK as a means of halting COVID-19 spread has resulted in an unprecedented spike in the production of disposable MMK. UNCTAD predicts global revenue of some \$166 billion this year, up from some \$800 million in 2019. With the COVID-19 pandemic in the world, the wearing of a MMK is considered a means for fighting the virus' spread. Most places in general, including grocery stores and places essential, now require shoppers to cover their mouths and nose. In the meantime, health care professionals and health workers must wear complete protection clothing, including MMK, for the length of their transition (Napoli *et al.*, 2020).

The World Health Organization suggested MMK for health workers only when the newer outbreak of corona virus occurred in China and was out of control. It was recommended not to wear MMK because the likelihood of contracting other diseases might rise. Empirical observations and research striations subsequently distinguished governments from WHOs by issuing advisories (Tcharkhtchi *et al.*, 2021). Hong Kong researchers have screened over 3,000 people to determine the effectiveness of MMK in COVID-19 prevention. They found that wearing surgical facial masks could deter symptomatic individuals from passing on human corona viruses and influenza viruses (Welt *et al.*, 2020).

Today, wearing a MMK is main recommended corona virus shield. Yet wearing a MMK does not have any side effects. In certain cases, following long hours of wearing MMK's, people have reported decreased body oxygen levels. Others formed rashes on their faces with MMK's of plastic material (Onyema *et al.*, 2020). Now you can use a plain three-layer face MMK, N-95/N-99 MMK's or your own DIY MMK made of cotton. Although these MMK's may decrease people's vulnerability to new corona viruses, they can be lethal for kids. The Japan Paediatric Association warned that children below 2 years old might need MMK's. The medical community said, "Infants have short passages in the air in the respiratory tract. Using MMK's will make breathing difficult and put a heavy pressure on your heart (Broderick *et al.*, 2020).

The risk of suffocation for babies by MMK's is also raised. The association has cautioned that children sometimes vomit and wear MMK's may cause pneumonia in children. The risk of heat strike is additional because MMK's do not encourage heat from the face of the infant. In addition, the US CDC and the American Academy of Paediatrics have both suggested, in their in- depth advice on wearing MMK's, that face masks be used by those over 2 years and only in those cases where social distance at 6 feet is impossible to be maintained. MMK's should not be used for children. India tells all and all of the time to use masks in public. There are clearly no children in the COVID-19 safety guidance (Machida *et al.*, 2020).

Following the initial controversy, the value of the MMK's is still universally recognised throughout the COVID-19 pandemic. MMK's are highly valuable, as the dominant science view suggests, and even comparatively simple MMK's can provide a great amount of security from novel corona viruses. Several new researches in recent days have increased this opinion with fresh evidence. These experiments show that if a substantial majority of the population begins to wear these MMK's, the distribution may be substantially limited (Vordos *et al.*, 2020).

The pandemic COVID-19 represents now a significant challenge to the public health and economy. The case load and deaths are also progressively rising in India, especially in recent weeks. These numbers may

have been much higher if the Indian government had not taken such rigorous, preventive restrictive steps. There is also a clear disparity between the way individual states handle the epidemic and this difference is apparent in the number of new incidents and deaths. Yet the government alone can not monitor this pandemic. They need the commitment and enthusiasm of all Indians; and they need simple, workable steps that average citizens will implement to help minimise transmission. The lockdown has played an important part, but cannot last indefinitely, in so flattening the disease curve. Not only India, but other countries too, continue to be involved in an experimental intervention.

With lack of clarification about the ultimate advantages and the effects of the elimination of the lockout, any degree of relaxation could lead to an increase in transmission until the disease is significantly weakened, although that has not yet been indicated. Sustainable approaches for minimising population transmission are therefore essential to study. While the steps of physical separation and regular hand washing are widely known, MMK's or facial protections are now a third component of voluntary activity- practical and cost-effective.

Since the start of an outbreak, the tide has turned around, and even the CDC (United States) has reversed its stand and released a revised guidance urging the public to display unmedical faces, whether or not they have been sick outside their homes. Can a large-scale Indian mass mobilisation serve to relieve dissemination strain through the community? The propagation mechanisms of COVID-19 infection need to be clarified before we understand the role of MMK's in the spread of infection.

Droplet transmission takes place if an individual has close contact (within 1 m) with a person having respiratory symptoms (for instance, cough, sneezing or even talking). In the immediate area of the infected individual, infection may also occur by fomites. A fomite is an inanimate entity that can transmit disease to a different individual when infected or exposed to infectious agents (such as disease that causes bacteria, viruses or fungi). Door knobs, buttons, electronic keyboards etc. have fomites.

Stethoscopes, collar bonds, IV drips and other hospital devices may be present in hospitals. The propagation of fomite can be critical as the virus can be viable for hours and in some cases days, depending on the soil. Foaming may also be used often for hand washing and cleaning schedules. However, the main mode of propagation is still the inhalation pathway.

Many people claim that wearing a MMK covers them and that is partly true. Although the greatest advantage of all the masked people is that the MMK helps keep these droplets from falling into the air and infecting those with sick people. They limit the virus spread to other individuals. That is much more important, since studies show that the virus will remain in the air for up to three hours after release from an infected person, which lasts well after the human leaves the region. Moreover, one in four or five people with COVID-19 are not symptomatic and may have begun releasing viruses before symptoms occur.

The capacity of the infection to transmit and the sick individuals do not even know they kill other people is a crucial factor. The value of MMK's in minimising population distribution has been endorsed. In mainland China, the effect of the first epidemic in the province Hubei appears to have been reduced by extremely high

forms of social distancing and obligatory wear of MMK's in public areas. MMK in other provinces has also limited population transmission after five million people left Wuhan before the Chinese New Year. While in Hong Kong the government just told citizens to stay home, they began to wear MMK's in public places voluntarily. As a result, Hong Kong laboratories registered a substantial decline in influenza and other respiratory viruses from patient samples, strongly implying that the transmission of these viruses was minimised.

During the current COVID-19 breakdown, the COVID-19 virus was spread to 5 in the same vehicle by one patient from chongqing, China when he did not use a MMK's, and nobody was contagious later when he was wearing a MMK's in the second vehicle he took. This shows how important it is that everybody wears MMK's in a private area. Therefore, wearing MMK's covers the individual and the others. Consequently, the use of MMK's in society will play an important role in reducing the propagation of diseases. We believe it should be compulsory to use the MMK's when people leave their homes to any place where social distance is not practical. This is an inexpensive and sustainable procedure.

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