

UNREPORTED DAMAGES TO SCHOOL CHILDREN FROM FACE MASK USE DURING COVID-19



Unreported Damages to School Children from Face Mask Use During COVID-19: An Observational Study

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ABSTRACT

In this observational study, 475 school age students were interviewed and examined between August 2021 and February 2022 for evidence of harm associated with face covering (FC) use in school. A recent PubMed search showed no studies of adverse effects of face mask use in school age children. As a result, ample evidence is presented showing headaches, mood disorders, attention disorders, dyspnea and other irregularities resulting from mask use. This is the first report of adverse effects directly associated with mask use. The author has proposed a new diagnostic category: Mask Induced Exhaustion Syndrome in Children (MIESC) with guidelines for diagnosing and treating the condition.

INTRODUCTION

Data is lacking for harm to pre-K to high school students from facial covering or mask use. This study originated from multiple requests for mask exemptions from parents whose children were suffering negative effects from wearing masks. A survey of PubMed produced no current data on

adverse effects of masking on school age. Dorfman, et.al., in *JAMA Health Forum*. 2020;1(7):e200810 recognized that medical exemptions for masking are necessary and appropriate, reiterating the CDC recommendations. (1) When students' requests failed to fall under these guidelines, parents found their children's primary care and specialty care physicians unwilling or unable to provide exemptions offering reassurance, consolation, and referral to counselling or psychiatry for extreme situations. (Personal conversations with the author). As a result, this study uncovered a wealth of signs and symptoms not previously explored or reported. K. Kiesilienski, et.al., described side effects of mask use in common use in adults. (2) He proposed a new condition, termed: Mask Induced Exhaustion Syndrome (MIES) to describe the plethora of symptoms adults suffered from prolonged mask use in multiple situations using multiple mask types. From that data, the author proposes a new diagnostic category for school age students: Mask Induced Exhaustion Syndrome in Children (MIESC).

Materials and Methods

Dr. James A. Taylor, DO, Board Certified Family Physician, conducted the study over a six-month period from August 2021 to February 2022. During this time, the author consulted with parents and associates who had experienced the adverse effects of FC use on their children. Initially, several individuals requested evaluation of their children for face mask exemption in school because of ongoing behavioral problems. Facial Covering exemptions are available per Michigan law: MCL 333.2253(5)(c) and 7(a) as stated: "...requirement does not apply to individuals who: (b) cannot medically tolerate a face mask." The medical conditions which qualify are required to be determined by a physician [Doctor of Osteopathic Medicine (DO) or Medical Doctor (MD)]. (3) Having researched the appropriate requirements, the author developed a document set establishing which conditions may qualify to meet these requirements:

TABLE 1

List of Potentially Qualifying Conditions for Mask Exemptions

ADHD/ADD: Includes specific wording by students or parents with complaints of any of the following: current, physician diagnosed conditions; as well as children with provisional diagnoses; and children who may or may not require medications.

Allergic rhinitis: Includes specific wording by students or parents with complaints of any of the following: children requiring daily or intermittent topical or oral medications, ones who have seasonal or irritative exacerbations, and children who exhibit classic allergic examination findings (e.g., bluish-swollen nasal membranes, allergic shiners and Deney's lines).

Anxiety: Includes specific wording by students or parents with complaints of any of the following: a constant state of fear, worry, inability to cope with normal daily activities, social agitation, inattention/poor focus, headaches, stomach aches, avoidance behaviors, tantrums, meltdowns, refusal to go to school, and even hair loss.

Asthma examples: Includes specific wording by students or parents with complaints of any of the following: diagnosed asthma including mild intermittent, mild-moderate-severe persistent asthma as well as cough variant asthma which may require medication therapy.

Concentration disturbance: Includes specific wording by students or parents with complaints of any of the following: that mask wearing and/or maintenance, repeated reminders, mask changing, and fluctuating rules which significantly impair the learning environment.

Distraction Disturbance: Includes specific wording by students or parents with complaints of any of the following: that mask wearing and/or maintenance, repeated reminders, mask changes, and fluctuating rules which significantly distract attention from the instructor's directions impairing the educational process.

Depression disturbance: Includes specific wording by students or parents with complaints of any of the following: depressive symptoms and behaviors including a formal diagnosis by a physician/extended and treatment to include medication and/or counseling.

Dizziness disturbance: Includes specific wording by students or parents with complaints of any of the following: a rotational disorientation associated with mask use which is immediately relieved by removal of said mask.

Dyspnea disturbance: Includes specific wording by students or parents with complaints of any of the following: difficulty breathing associated with mask use and relieved by removal of the offending face covering.

Can't Breathe disturbance: Includes specific wording by students or parents with complaints of any of the following: describing "I can't breathe" associated with mask use and relieved by removal of the offending face covering. This is frequently accompanied by panic and anxiety symptoms.

Epistaxis: Includes specific wording by students or parents with complaints of any of the following: exacerbation of or new onset of nasal bleeding which is resolved by removal of the facial covering and proper emergent treatment.

Fatigue/Exhaustion disturbance: Includes specific wording by students or parents with complaints of any of the following: newly observed fatigue/exhaustion/excess sleeping which is relieved by removal of the mask.

GI Upset: Includes specific wording by students or parents with complaints of any of the following: abdominal pain, stomachache, heartburn, cramps, diarrhea, or nausea associated with mask use and relieved with removal of the offending facial covering. This may be associated by anxiety/panic symptoms.

Headache: Includes specific wording by students or parents with complaints of any of the following: frequent daily headaches exacerbated by mask use and relieved by removal of the facial covering: this may include medication and non-medication treatments which include mask removal.

Migraine: Includes specific wording by students or parents with complaints of any of the following: all types of migraines both newly diagnosed and previously diagnosed. Modifications of treatment with OTC and prescription medications are common. Migraine headaches which are exacerbated by facial covering wearing and relieved or reduced in frequency and severity by removal of the offending facial covering may also qualify.

Moodiness/Personality Changes: Includes specific wording by students or parents with complaints of any of the following: significant behavioral changes initiated or exacerbated by facial covering use in school. Typical behaviors include explosive behavior, excessive crying, fighting, verbal and physical outbursts directly related to mask use.

Examples: embarrassment which leads to mutism, new onset of insomnia, unrealistic but realized fear of multiple instructor corrections (verbal, by signing, by "the look", by gestures), irritability, agitation, resistance to going to school or riding a bus, fear of interactions with students or instructors, excessive

crying in school and at home, refusing to participate in school related activities which require masks (e.g., sports).

Heavy Exertion: Includes specific wording by students or parents with complaints of any of the following: impaired performance in strenuous physical activity while wearing a facial covering, which significantly restricts air flow causing lightheaded, dizziness, fatigue, nausea, or vomiting which are resolved by removal of the offending facial covering.

Oral Fixations: Includes specific wording by students or parents with complaints of any of the following: children who compulsively bite, chew, suck, or drool on facial coverings which then require multiple replacements; this behavior is resolved by the removal of the facial covering which are resolved by removal of the facial covering.

Oral Ulcers: Includes specific wording by students or parents with complaints of any of the following: children who develop recurrent aphthous ulcers which are exacerbated by use of facial covering and are improved or resolved by their removal.

Sensory Deficit/Learning Disabled: Includes specific wording by students or parents with complaints of any of the following: a child's typical but abnormal behaviors exacerbated by use of facial covering and improved or returned to baseline with its removal.

Skin Changes: Includes specific wording by students or parents with complaints of any of the following: significant exacerbations of facial acne, peri oral dermatitis, rosacea, contact dermatitis, or seborrheic dermatitis which are improved or resolved with removal of the offending facial covering. This may include exacerbation of chronic urticaria.

Speech Deficit: Includes specific wording by students or parents with complaints of any of the following: children who are in specific training or require training that has not been yet accessed for speech and language deficits, or instructors who provide the training for the students who require visualization of facial features necessary for the learning process and which can be improved or resolved by removal of the offending facial covering. This may include vocal cord dysfunction requiring inhaled corticosteroids for management.

Sinusitis/Allergic Rhinitis: Includes specific wording by students or parents with complaints of any of the following: multiple conditions which produce copious, intermittent, or continuous nasal discharge which interfere with adherence of facial covering to the face. Such conditions exacerbate infectious agents which adhere to the facial covering and are inhaled continuously.

IEP's: Includes students who have an established IEP which includes conditions which involve hand-mouth behaviors, oral behaviors, and speech behaviors

TEACHER EFFECTS: Marked increase in stress due to changing protocols for mask use, dual teaching due to in-class and remote site learning, increased acting out and non-cooperation by students, having to become "Police Chief of the classroom" when enforcing ever-changing rules for mask use, lack of safe spaces for students in the classroom, and markedly increased paperwork for reporting rules which markedly impair the teacher's ability to provide a safe, equitable, and inclusive classroom environment. The teacher said: "This entire class will be kicked out of school if all of you don't wear your face covering."

One mother said regarding her daughter's teacher: "She has been instructed if she doesn't wear it properly and fails to show these "life skills" it will reflect in a lower grade in that specific class."

SCHOOL NURSE: a marked increase in visits due to headaches, dizziness, nausea, stomachache, dyspnea, anger, acting out.

The child's evaluation for school mask exemption initially took place at the requesting parent or parents' location of choice. As the requests for exemptions grew by word of mouth, this author devised a system of referrals, a document set, a visit schedule, and a study protocol. All parents were informed of the protocol and verbally agreed to allow de-identified data to be used in the study.

This author recruited "Mask Captains" comprised of parents who had completed the mask exemption assessment previously. Each Mask Captain was trained to provide the following services:

- Receive and adjudicate the mask exemption requests
- Provide a location agreeable to parents and examining physician
- Provide documentation electronically for parents to complete prior to the visit with the examining physician
- Request a copy of the birth certificate, most recent primary care physician's office notes, and a personal statement from the parents describing the reason for the exemption request
- Counsel parents on appropriate completion of the documentation prior to evaluation by the physician
- Screen parents and children arriving for the examination for infectious diseases
- Assess completeness of documentation
- Provide chaperone service when requested by the parents
- Provide original documentation to the parents and copy to the examining physician
- Answer any follow-up questions for the parents

The parental statement should reflect significant physical, psychological, and emotional changes associated with FC use, as well as changes which occurred when the FC was discontinued to demonstrate a significant contrast. The exemptions were not provided nor promised in advance but were only provided upon completion of the assessment process.

No funds were collected for the service of the Mask Captains or the examining physician; all services were volunteer based.

Once the student/parent completed the pre-check process, the examining physician's role was to explain the process of obtaining a mask exemption, including the process of presentation to the school authorities, obtain consent to review records, examine and photograph the student, provide post-examination counseling, and finally, answer questions associated with the process. In the office following the examinations, the data from the examinations was logged onto a worksheet with approximately twenty-five conditions associated with prolonged FC use, tabulated, and used to construct this study. Because the definition of the medical conditions which constitute "medical intolerance" was lacking, the author pressed the parents to describe in detail those physical and behavioral changes reported and how significantly they affected the student's and of course the parent's lives to understand the severity of the conditions and associated ramifications of FC use. Requests for exemptions for personal preferences were not provided. In addition to the list of Qualifying Conditions above, an example of data used to define "medical intolerance" may include initiation of or modification of students' medications, reports from teachers, and the student's and parent's own statements. The result of the study appears below.

TABLE 2

RESULTS:

A total of 475 students, age four to eighteen years of age were included in the data Table 2. *

47.8% Headaches

46.3% Anxiety/Panic/Claustrophobia

27.7% Dyspnea/Can't Breathe**

22.7% Personality Changes

21.0% Concentration/Distracton**

15.1% Allergic/Vasomotor Rhinitis

11.4% Skin Changes

9.5% Fatigue/Exhaustion

8.2% Asthma exacerbation

7.4% Gastrointestinal Upset

Of those students qualifying for mask exemptions, 47.8% complained of significant headaches, including tension type with and without vomiting, initiation or exacerbation of known migraine cephalgia, and exacerbation of cluster headaches. Significantly, 46.3% of students who qualified for exemptions complained of acute anxiety, acute exacerbation of chronic anxiety, claustrophobia, and finally, new onset or exacerbation of depressive symptoms. The dyspnea/can't breathe group demonstrated their symptomology in the classroom and with sporting activities. Personality changes range from new explosive or oppositional behaviors to sullen disrespect and mutism at school and home. Concentration/ distraction exploded in the attention deficit group; although there were many new findings of inattention noticed by teachers and parents alike.

Allergic and vasomotor rhinitis frequency was similar with obvious exacerbations due to FC wearing. Acne predominated in the skin changes but did not qualify for exemption. However, angular cheilitis and contact dermatitis frequently qualified for exemption. Fatigue and exhaustion were the issues most readily resolved with FC removal as the students' energy upon returning home from school became readily apparent. Asthma exacerbations resulted most often in modifications of chronic daily treatment or initiation of a referral back to the primary care physician to address the problem. Apparently, the parents knew the cause of the exacerbation but were unable to effectively relay the reason for the exacerbation to the managing doctor. Gastrointestinal upset was least frequent but clearly associated with FC use according to the parents.

This study reported the prevalence of symptoms described by students and parents. The changes were verified by the examining physician, who then looked for an overarching cause for concern. Most students suffered from multiple adverse effects; few suffered from a single event. While follow up of these conditions has not been completed, parents happily denoted that their children were symptom-free or symptom-reduced when FC were excluded. Physical and behavioral changes followed according to the adverse event, and lack of events such as during summer vacations or after school at home, helped provide evidence that the FC use was at least an inciting event for these conditions. The result of interviews with the affected children and parents, assessment of their verbal and written concerns, and results of physical assessments is reported here. This is new information presented to the pediatric medical community and may well represent a new diagnostic condition.

DISCUSSION

As the SARS-CoV-2 pathogen began its initial spread, pandemic emergency measures were implemented across workplaces, businesses, and schools with the intent to reduce the acute threat of

the virus to the public health system quickly and effectively. Face mask use in the United States was initiated as an integral part of the Centers for Disease Control (CDC) guidelines, and has been adopted at the state, county, local school district and even school principal levels in an effort to first bend the curve of rising COVID-19 cases and deaths, then to reduce hospitalizations, then to reduce case numbers, and currently to pressure unvaccinated or partially vaccinated individuals to get either their primary series of vaccines or their boosters.

Despite the unprecedented effort by the federal administration, universal masking remains a controversial topic across the country, particularly when it comes to school children, who may suffer physical, psychological, and developmental damages from prolonged mask use. In addition, promotion of the COVID-19 vaccine continues, even though the vaccine was produced against a now defunct alpha variant of the SARS-CoV-2 strain and has lost efficacy with time and multiple boosters. With the passage of time, the effects of continuous masking in the kindergarten to senior high school age population have begun to show. Unfortunately, little reporting (aside from anecdotes from parents) have been published to date. The goal, then, of this observational study was to determine the types and frequency of mask-induced symptoms in school-aged children.

While much has been written regarding the efficacy of face mask use (4) , or even facial coverings (including from gators to N95 masks properly fitted and used correctly), this observational study assumes affected children aged four to eighteen years are simply covering a portion of their face for a specified period of time (during school hours, on the school bus to and from school, during monitored regular classroom, and after school activities such as sports, class events, etc.). There will be no comment on how effectively the face covering behavior is carried out or monitored.

Significantly, a comprehensive review of the undesirable side effects of mask use in adults has been recently reported by Kai Kisielinski, **et.al.**, in the *International Journal of Environmental Research and Public Health* 2021, 18, 4344 titled: “Is a Mask That Covers the Mouth and Nose Free from Undesirable Side Effects in Everyday Use and Free of Potential Hazards?” (2) The stated aim of that research “...was to find, test, evaluate and compile scientifically proven related side effects of wearing masks.” As such, the authors “...refer to the psychological and physical deterioration as well as multiple symptoms described because of these consistent, recurrent, and uniform presentation from different disciplines.” The authors termed this collection of symptoms as Mask Induced Exhaustion Syndrome (MIES).

Kisielinski’s et.al., research was exhaustive, initially examining 1113 papers with a final tally of 65 scientific papers on masks qualified for a purely content-based evaluation. A chart of his findings is presented on page 4 of 42 of his paper. (2) Interestingly, 22 of the 44 papers reviewing quantitative data were completed in 2020, before the COVID-19 mask mandates. In reviewing his work, several issues pertinent to this study are noted. Much of the data from this study fits with the previously published condition described by Kisielinski, **et.al.**. This author shall summarize them with more relevant headings.

General Issues:

According to Kisielinski, et.al., “The literature revealed relevant adverse effects of masks in numerous disciplines.” (2) In the study of Liu in 2020, decreased oxygen, respiratory impairment, exhaustion/fatigue, and drowsiness/dizziness were all present within his study. Controlled experimental settings with different mask types showed significant changes in pulse, O2 saturation, difficulty of

breathing, dizziness, listlessness, impaired thinking, and concentration problems. (5) Even our German colleagues have weighed in. An observational study of tens of thousands of mask wearing children in Germany reported symptoms which were similar to this study: headaches (53%) and difficulty concentrating (50%), learning difficulties (38%), fatigue (37%), and anxiety (25%). (6) Prolonged mask use with presumed elevation of carbon dioxide levels may affect heart rate, blood pressure, headache, fatigue, and concentration leading to long term consequences. (7) Sub-threshold stimuli are also capable of causing pathological changes if the exposure time long enough. (8)

Headache Issues:

Six of ten studies of N95 mask users complained of significant headaches. (2) A study of surgical type and N95 masks among medical personnel caused detectable physical adverse effects, such as impaired cognition and headaches of which 28% persisted and required medication. (9,10) The apparent mechanism for these headaches is the trending toward hypercapnia and hypoxia contributing to cerebral artery vasodilation. Additional factors include mechanical factors (pressure from elastic) pressing on nerves of the head and neck. (10) Headaches were reported by 47.8% of participants in the current study.

Psychological Issues:

Both Masks and face shields caused fear in 46% of children in a scientific study. (11) Reports of suppressed anger and rage, and constant distraction were present especially in the younger population of students already suffering from ADHD variants. Evidence of reduced psychomotor abilities, reduced responsiveness during important class interactions, and impaired cognitive performance were similarly present. (12) Perhaps most importantly, the anxiety and psychovegetative stress reactions in children surely portend an increase in psychosomatic and stress-related illnesses, depressive self-experiences, reduced participation, social withdrawal, and lower health related self-care. (12) “Over 50% of mask wearers studied had at least mild depressive symptoms.” “However, changes that lead to hypercapnia are known to trigger panic attacks.” (13) Anxiety/panic/claustrophobia-(46.3%), and concentration/distraction-(21.0%) were reported in this study.

Exercise Issues:

All masks used during bicycle ergometer testing showed increased breathing frequency as well as shortness of breath and headaches with fabric masks.(14) Low oxygen levels were directly correlated to new onset fatigue. (13, 15) The increased carbon dioxide was proven in adults during maximum load exercise in both surgical and N95 mask use. (16) Students who have not yet developed adult lung function are at significantly more risk for increased carbon dioxide effects (17) Fatigue and exhaustion were reported 9.5% of the time in this study, although most were exercise related. It is not surprising when students in running- intensive sports complained of weakness as well as becoming faint. Even in the face of the World Health Organization and Centers for Disease Control and Prevention advice against wearing masks during physical exercise, the schools continued to require it to at least the affected student’s detriment.

Social Issues:

Masks interfere with nonverbal and verbal communications. (14) “According to experts, masks block the foundation of human communication and the exchange of emotions and not only hinder learning but deprive children of the positive effects of smiling, laughing and emotional mimicry. The effectiveness of mask use in children as a viral protection is controversial and there is a lack of

evidence for their widespread use in children...” (18) Voice disorders can be aggravated by the need to increase air volume required for louder speech and impaired vocal cord coordination. (19) “The mask, which originally served a purely hygienic purpose, has been transformed into a symbol of conformity and pseudo solidarity.” Mark McDonald MD, Child Psychiatrist, in his newly published book: *United States of Fear, How America Fell Victim to a Mass Delusional Psychosis*, argued during a July 2021 roundtable discussion sponsored by Gov. Rick DeSantis, “...there is no scientifically based medical reason to ever place a mask on a child in school. In fact, I declared it to be child abuse.” This is a powerful statement from a practicing child psychiatrist with enough ammunition to assist Florida Governor DeSantis in crafting his policy banning mask use in Florida schools.(20).

Dermatologic Issues:

Dermatological side effects including acne, contact dermatitis, itching, and angular cheilitis reported by Kisielinski et.al, were present in 11.4% of students in this report. These findings are likely due to reduced barrier function of the skin due to prolonged contact with the peri oral area compounded by the moisture of breath. (21) Oral moisture promotes so called “mask mouth” with gingivitis, halitosis, candidiasis, cheilitis, plaques and caries. Curiously, dry mouth is a proven effects of mask use. (22) A contributing factor is a new form of irritant rhinitis due to fibers originating in the masks causing rhinitis, itching, swollen mucus membranes, and increased sneezing. (23) These symptoms promote FC removal for nose hygiene further promoting dermatitis.

Asthma/ Respiratory Issues:

Mask use led to breathing problems in a British study in 100 School children. (24) Due to small increases in carbon dioxide in the inhaled air, this disease promotion effect has been proven with the creation of headaches, irritation of the respiratory tract up to asthma exacerbation as well as an increase in blood pressure and heart rate... (25) Despite listings for possible problems from such common conditions as asthma, bronchitis, anxiety disorders, physical disability, symptomatic rhinitis or acute respiratory conditions, the schools demanded mask use in this student population. (7) New onset and asthma exacerbations were reported in 8.2% of examined students in this study.

Contamination Issues:

A frequent concern of parents, noted in both written and verbal accounts from this study, is the risk of mask contamination with everyday use, especially in the younger age groups. Rather than enumerate the specific species of bacterial, viral, and fungal contaminants, rest assured the source of these contaminants are from students’ hands and faces, the floor, toilets, water fountains, and dirt. Masks are rarely properly: selected (N95s do not fit children or are not available), fitted for seal, or maintained in a sealed state as is required for effective use. Eating, drinking, removal for nose wiping and sneezing, removal for irritation, moisture or pain generate more risk for infection along with increased volumes of contaminants. (26)

Mechanical Issues:

The currently available masks are designed for adult use. (24) Stephen E. Petty, P.E., C.I. H., C.S.P., et. al., in a letter to Rochelle P. Walensky, MD, MPH, Director, Centers for Disease Control and Prevention and associates, stated that “Both 3M and Moldex explicitly state that their masks are not to be used by children. (p 19).” (4) N-95 masks were recommended later by the CDC during the pandemic because typically used facial coverings were recognized as ineffective in stark contrast to the initial push for FC compliance using essentially any FC.

Controlled experimental settings with different mask types showed significant changes in pulse, O₂ saturation, difficulty of breathing, dizziness, listlessness, impaired thinking, and concentration problems. (5) The currently available masks have not been tested for efficacy in children. (24) Package directions for commonly used “surgical” masks specifically state: Do not use in any setting where significant exposure to liquid bodily or other hazardous fluids may be expected. This warning provides little comfort for any FC user.

Recognizing Harm:

A letter to Rochelle P. Walensky MD, MPH by professional experts in industrial hygiene notes the following: “To further emphasize the point, the WHO-UNICEF understands the risk-rewards analysis should be done before recommending unproven, unscientifically supported policies before masking them (children).” (4) In the advice by the WHO-UNICEF panel to decision makers on the use of mask for children in the community were these overarching guiding principles:

- Do no harm
- The best interest, health and well-being should be prioritized
- The guidance should not negatively impact development and learning outcomes

“Based on expert opinion gathered through online meetings and consultative processes, children aged up to five years should not wear masks for source control due to loss of childhood developmental milestones and autonomy and use for children between six and eleven years of age should consider the child’s capacity to comply, the potential impact of mask wearing on learning, and psychological development among other issues.” (4, p8-9) In their own document, the WHO guidance on the community use of masks in children in the community... must be weighed up against the potential harms, including social and communication concerns. (28)

It is no wonder, that in verbal comments from parents, their children complain incessantly.

The stress of mask use comes from multiple angles. While the World Health Organization prioritizes social distancing and hand hygiene with moderate evidence and recommends wearing a mask with only weak evidence, especially in situation where individuals are unable to maintain a one-meter distance, (2, 27) schools persist in placing students at further risk of the symptoms revealed in this study by always insisting on FC use.

It is cruel to demand mask use for hearing and speech impaired students and markedly counterproductive for instructors. Facial covering use clearly interferes with the educational, emotional, and social progress parents demand from the schools. Parent pressure, peer pressure, and personal preference for FC use battle for the attention and emotional energy needed to live every day as a student.

Physician Behavior:

Patterns of health care providers behavior have begun to emerge in medical practices across the nation, fostered by the unexplained hesitancy by the medical community to both understand the problems associated with FC use, and provide workable solutions for the child and parent. When FC intolerance is noted by parents, and treatment requested from their primary care physicians and counselors/psychologist alike, many practitioners simply offer behavioral techniques to develop tolerance and encourage compliance without addressing the pressing problem at hand, referring rather handily to the instructions promoted by relevant medical societies.

An example of physician's apparent reluctance to consider the negative impact of masking children can be drawn from a Health Bulletin from the University of Utah written by Jeremy Kendrick, MD, Assistant Professor of Psychiatry at Huntsman Mental Health Unit. Kendrick asserts the following: "The evidence we have does not point us to any concern that masks affect mental health negatively," Yet he then goes on to note: "We are experiencing a mental health crisis on top of a pandemic, and for children, this can be even harder. It is a fact that kids are more anxious and depressed right now. ...There is no evidence that a child wearing a mask causes depression or anxiety." (29, p5 of 7 of the bulletin) Amazingly, Dr. Kendrick asserts no negative mental effects with mask use, then contradicts himself by noting a "mental health crisis on top of a pandemic" although stopping short of ascribing it to FC use. His solution is to simply require all children to wear masks in addition to appropriate counseling and medication, so they don't experience the anxiety from looking different than their peers.

While some medical professionals insist masking children is not problematic, others take a strong stance against the practice. Contrasting the standard recommendation to mask children, Mark McDonald, MD Child Psychiatrist informed all of his patients of his professional policy via his website: "Effective immediately, all forms of child abuse will no longer be tolerated in my office. This includes masking of children." McDonald defends his policy, noting declines in speech and language development, cognitive decline, IQ point losses, and marked increases of office visits due to anxiety and depression. (30) Indeed, the evidence presented in this paper supports avoiding FC use in children by the author.

The management of adverse effects of FC use early in the pandemic may have focused on perceived prevention of fearsome illnesses and death from Covid-19. Unfortunately, many health care providers failed to recognize the negative impact of facial covering use. When presented with the problem, they failed to reassess the situation and make constructive changes. All the interested parents the author spoke with stated that their providers declined to issue exemptions but were not given written reasons. Why? Clearly, parents as well as physicians who did provide facial covering exemptions disputed the standard masking policies during this pandemic.

When the federal government lifted general mask requirements in spring of 2021, the responsibility to impose FC use fell first to the states. In Michigan, the voters removed the governor's ability to extend the emergency declaration ending state control of FC use. Then, by withholding State of Michigan funds from health departments, Michigan was able to control FC mandates which allowed health departments and school administrators to further enforce mandate FC use in schools. Perhaps employed physicians and allied health care providers suffered under the same onus as the health departments to conform to CDC guidelines which targeted healthcare facilities and schools. As a result, FC exemptions were actively discouraged.

While some in the medical community continue to support the masking of children, the outcome of the continued intolerance to mask wearing goes poorly addressed. There seems to be little regard for the adverse effects mentioned in this document, notwithstanding the potential long-term damages mentioned elsewhere. This apparent indifference by some in the health care community acutely exacerbates the anxiety and frustration plaguing the parents and provides little comfort for the affected child as they fall progressively behind in their studies and fail to deal with the associated physical and psychological damage due to physician inattention to the issue.

Conclusion:

Mask Induced Exhaustion Syndrome, then, a newly described diagnosis cited in the *International Journal of Environmental Research and Public Health* 2021, 18,4344 by K. Kisielinski, et. al. is the first comprehensive investigation of the adverse health effects of adult mask use in common day practice. Investigators reveal relevant adverse effects of mask use including both physiological and psychological deterioration of mask users.(2) The adverse effects become clinically relevant to the medical team managing mask usage.

A review of PubMed online original sources for this diagnosis in children reveals a paucity of reviews prior to submission of this paper. In the face of ongoing and at times inappropriate mask use, this study provides a basis for the evaluation and management of issues associated with mask use in school age children. To help address this problem, the author hopes this review will assist physicians and associated medical professionals in identifying the signs and symptoms of significant mask intolerance and provide a comprehensive solution which identifies the source of conflict and points to the single most effective solution: removal of the mask. By utilizing the forms accompanying this document found in Appendix A, physicians can provide the relief children and their parents so desperately need. The accompanying document set may serve as a template for assessment of each students' risks for adverse effects from facial covering use. The practitioner may then provide an appropriate recommendation with confidence. Provisions for guidelines and further study of the diagnosis and management of MIES in children and the reported adverse effects should follow.

At the time of publication of this paper, mask use is retreating rapidly; yet the Federal Government insists on mask use in one the "safest" locations for respiratory viral spread on earth: the modern jet. On April 18, 2022, U. S. District Judge Kathryn Kimball Mizelle in Tampa, Florida struck down the federal mask mandate on airplanes and mass transit showing further evidence of inappropriate use of mask mandates. An appeal by the White House is being considered. (31) In addition, the same Federal Government is planning annual vaccine requirement starting in the fall of 2022. Part of this federal planning anticipates ongoing Covid-19 infections with typical seasonal exacerbations. Additionally, concern for progressively virulent variants must be considered. Ongoing new vaccine development and readily available antiviral medications play a role as well. Facial covering use in children during the Covid-19 seasons, however, has been an unadulterated failure with severe adverse outcomes as demonstrated in this study. Despite all the damage and all the controversy, this author believes federal masks requirements will resume in the fall. Amazing, and tragic if it occurs.

To ensure that widespread masking policies are never instituted again and that no further harm is caused to children and adults alike, this author believes there are certain vital next steps that the medical community should pursue.

First, recognize that the newly identified condition, Mask Induced Exhaustion Syndrome in Children-MIESC, should become the next area of intensive study. Future investigators may use this author's format to construct more detailed data sets. National medical organizations such as the American Medical Association, American Osteopathic Association and all the pediatric medical associations should begin intensive evaluation of current office practices to elicit past and potential problems with facial covering use with a strong emphasis on risk-benefits.

Second, the loss of day-to-day skills of childhood demand further investigation and most certainly, prevention. Other investigators have enumerated complications of pandemic management

risks such as IQ loss, social disruption, and delayed milestones; topics not addressed in this document. (20) Searching for the sources of practitioners' hesitancy to provide facial covering exemptions in obviously required situations will further remove barriers to learning encountered with facial covering use.

Unfortunately, yet truthfully, as described by Kisielinski et.al., "...the exact frequency of the described symptoms constellation, MIES, in the mask-using populace, remains unclear and cannot be estimated due to insufficient data." (2) This author's hope is the data from this observational study will help build the database of adverse outcomes from facial covering use, stimulate further study, and add to the growing evidence of harms to our youngest citizens, especially considering future pandemic planning.

This study revealed a need for critical assessment of the medical, psychological, physical, and emotional needs for our school age children in the face of the Covid-19 pandemic. The apparent absence of insight of medical practitioners, failure to reassess ongoing risks, lack of evidence-based guidelines for face covering exemptions, or effect of outside forces such as federal, state, local and school level administrative mandates contributed to the harm to our children, a medical tragedy. Despite one-on-one pleas to primary care and specialist practitioners for facial covering relief by parents of suffering children, for the most part they only received a recommendation of tolerance. This author's plea to the medical community is to practice medicine, ask the hard questions, seek the truth despite unreasonable demands by outside forces and treat your patients compassionately.

Author's Note:

As I considered the effects of the interviews, of exams, of speaking with students and their parents, the overwhelming message I received was a sense of helplessness. As the waning effects of the pandemic and particularly FC use became clear, the adverse effects of FC, lock downs, work related restrictions, and variability of protocols ramped up and could not be ignored. Parents begged for help from their primary care physicians, only to be met with a single unified response in so many situations: NO. The parents clearly stated that their physicians were required to deny FC exemptions for no discernable reason. No exceptions, no options, no discussion; just manage the best you can. It was clear to me that the medical community by in large failed these mothers and fathers by not independently evaluating their options.

As an independent physician, I was able to respond to these parents and their children. Many other physicians have participated in the process as well, perhaps under duress from employers and colleagues. What seems to be lacking in those physicians who did not respond to the parents' pleas is the drive to care for their patients independent of the *force majeure*-the irresistible force provided by our national leaders in medicine. Perhaps the term *force de jure* is more appropriate-intentional actions by the federal government; but instead of referring to racial segregation, it refers to separation of patients from their physicians by contradictory mandates and edicts applied to some but not others. My hope is the lesson to be learned is to put our patients' care and well-being first and behave as physicians. That is our job after all.

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- **Six adult interviews were included in the data set*
- ***The two listed conditions were additive*

APPENDIX 1

The documentation packet was comprised of the following:

- . Documents for Exam Day form to obtain names of children to be assessed along with parent's contact information
- . A school specific Medical Waiver for Face Mask form to give to requesting organization as proof of exemption status
- . Physician Verification Sheet which verified the examining physician's credentials
- . Consent Form for Mask Exemptions providing permission to assess, examine, and provide documentation necessary for mask exemptions and obtain photographic evidence of the encounter.
- . Medical Examination Form to document review of documents, take verbal statements, provide targeted physical assessment of the affected child, and obtain requested photograph.

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2 Comments

ADD YOURS

1. **coop442020 on June 7, 2022 at 1:25 pm**
Reply

The U.S. military on Sunday arrested former Clinton campaign lawyer Michael Sussmann on charges of treason, only a week after a Washington, DC, federal jury found him “not guilty” of lying to the FBI about President Donald J. Trump and Russia.

- **Our Spirit on June 7, 2022 at 7:09 pm**

Reply

That's old news and not relevant to our intelligence operation. Sussman is low hanging fruit in the swamp to distract us from the relationship that Mueller had with British Pilgrim handler Arvinder Sambei.

Leave a Reply

