



# The Impact of Wearing a Face Mask on the Psychiatric Interview: a National Survey During the COVID-19 Pandemic

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## Abstract

The COVID-19 pandemic has forced to rapidly encourage the use of face masks during medical consultations, with significant implication for psychiatry. This study examined the opinions and attitudes of psychiatrists toward the impact of wearing a face mask on the psychiatric interview. 513 psychiatrists and trainee psychiatrists completed an electronic survey about the impact of wearing a face mask on the psychiatric interview. Less efficiency in capturing clinical signs/symptoms, emergence of false inferences in patients and altered patient-clinician interactions were commonly reported negative impacts of face mask (66–96%). The quality of the therapeutic alliance was reported as affected by the mask by 47% of the sample. Results were mixed on the use of telepsychiatry as a potential solution to mask-related inconvenience. The use of face masks has significant negative effects on the psychiatric interview. Providing specific training to clinicians could be a potential solution for masks-induced biases.

**Keywords** COVID-19 · Face mask · Psychiatry · Interview · Survey

## Introduction

On March 11th, 2020, the World Health Organization declared COVID-19 to be a global pandemic [1]. Many countries, including France, entered a lockdown or sheltered in place. As such, many populations were instructed to stay in their home except to obtain essential supplies. Many individuals began working from home for an extended period of time,

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but some professionals, such as healthcare providers, were considered essential employees and continued with their missions. With the severity of the global pandemic increasing, wearing face masks was advised to prevent COVID-19 transmission effectively in high-risk areas such as medical settings as part of a comprehensive approach to prevent the spread of SARS-CoV-2 [2].

The use of face masks quickly revealed how working with face uncovered is essential in psychiatry [3]. Unlike most disciplines of medicine, psychiatry only relies on the selection of the relevant observable signs and symptoms, with neither external validating criteria nor laboratory tests to refute or confirm diagnostic impressions [4]. Externally observable signs depend on two complementary types of cues – verbal and non-verbal. On the patient side, establishing a therapeutic alliance also involves those cues, such as noticing the clinician's empathy by facial expressions or tone of voice, which are inevitably affected when wearing a face mask [5].

Because of the COVID-19 pandemic, many health care systems around the world were forced to rapidly encourage the use of face masks during all psychiatry visits. This unprecedented scenario provided a unique opportunity to assess the opinions and attitudes of psychiatrists toward the impact of wearing a face mask on the psychiatric interview.

## Methods

An online survey was nationally distributed between June and November 2021. French psychiatrists and trainee psychiatrists were invited to complete the survey anonymously and electronically. The study was considered exempt from review by our local institutional review board.

The survey followed the CHERRIES statement for online surveys [6]. Practices in the pandemic context starting from the beginning of the first nationwide lockdown on 17th March 2020 in France were qualitatively explored. The survey included 23 questions about the impact of wearing a face mask on the medical practice in the context of COVID-19, as well as questions about telepsychiatry that allows interactions without masks (the survey is available in online supplement S1 and S2). The survey completion time was around 5-minutes. The weblink to the online questionnaire was sent through email listings of psychiatric hospitals, social networks and federative associations of French psychiatrists and trainee psychiatrists.

Descriptive statistics are presented in text using frequency distribution for categorical variables.

## Results

Five hundred and thirteen ( $N=513$ ) respondents returned the survey, with a response rate of ~3% of estimated eligible respondents. Characteristics of the respondents are described in the online supplement S3. Briefly, respondents were distributed across all age groups (mean 33.8 years old, range: 24–69 years), 73% ( $N=373$ ) were female, with the majority being young psychiatrists (less than 15 years of practice:  $N=459$ , 90%). The majority of respondents were adult psychiatrists and trainee psychiatrists. A large range of psychiatric disorders was represented across practices, as well as both in- and outpatients. Numbers

of weekly seen patients ranged mostly between 10-30 ( $N=239$ , 47%) and 30-50 ( $N=131$ , 26%).

The vast majority of psychiatrists wore masks during consultations at all time ( $N=462$ , 90.1%), while less than half of patients wore masks at all time ( $N=238$ , 46%). Most respondents considered that the overall quality of their consultations had deteriorated since the use of face masks ( $N=461$ , 83%). Consultation durations with face masks were mostly unchanged in comparison to without face masks ( $N=440$ , 86%,  $n=440$ ). The majority of respondents reported that the wearing of a mask by the *patient* biases the collection of clinical signs/symptoms that involves both verbal and non-verbal cues ( $N=340$ , 66% and  $N=477$ , 93%, respectively). Similarly, most reported that the wearing of a mask by the *psychiatrist* biases the collection of clinical signs/symptoms that involves both verbal and non-verbal cues ( $N=287$ , 68% and  $N=426$ , 83%, respectively). The risk of false inferences or beliefs emergence associated with the wearing of a mask by both the patient and the psychiatrist was almost always considered to be present ( $N=494$ , 96%,  $N=489$ , 95%, respectively). Most respondents reported a negative impact when both the patient and the psychiatrist wear a mask on the psychiatrist-patient interaction during the clinical interview ( $N=370$ , 72.1% and  $N=385$ , 75%, respectively), while half considered that the quality of the therapeutic alliance was similar when the psychiatrist and/or the patient wear a mask in comparison to not wearing a mask ( $N=271$ , 53%; Table 1, online supplement S3).

At time of the survey, telepsychiatry using videoconferencing had been used by 41% ( $N=211$ ) of the respondents while 39% ( $N=198$ ) judged they gained new skills in using telepsychiatry equipment during the pandemic. In parallel, telepsychiatry was reported as useful by a vast majority of the respondents ( $N=502$ , 97%). Most telepsychiatry users reported that the clinical interview was better in person than with telepsychiatry (without masks) for a first evaluation ( $N=169$ , 80%) and for the evaluation of known *unstable* patients ( $N=163/211$ , 77%), while half reported that telepsychiatry was more convenient for the evaluation of known *stable* patients (49%,  $n=103/211$ ). The majority of responders judged that telepsychiatry could be a solution for mask inconvenience through the pandemic (is a solution:  $N=229$ , 44.6%, might be a solution:  $N=251$ , 48.9%; Table 1, online supplement S3).

## Discussion

In this study, we report significant impacts of face mask use on the psychiatric interview across a large sample of psychiatrists. This is the largest national cross-sectional study of psychiatrists' opinions toward face masks to date, which is timely in the context of the current COVID-19 pandemic and use of face masks in clinical settings, the duration of which is unclear.

While the vast majority of respondents and patients wore face masks during consultations, at least irregularly, psychiatrists were unanimous about the negative impact of wearing masks on the quality of their clinical examination. Not surprisingly, the wearing of a mask by the patient largely hindered the collection of clinical signs/symptoms indexed by both verbal and non-verbal expressions. Indeed, although a face mask covers only half of the patient's face, it makes it more difficult for the clinician to detect essential clinical signs such as subtle mummings indicative of hallucinations or abnormal facial emotional reactivity to stimuli which are important markers for some psychiatric conditions [7]. In addition, speaking through masks can stifle speech, which impairs its coherence. In disorders such as schizophrenia or

**Table 1** Reported opinions related to face masks use during the COVID-19 pandemic among 513 psychiatrists. Percentages of responders are based on the total number of respondents (N=513) except for \*N=211 responders who seen patients with telepsychiatry during the pandemic. Responses are listed in the order of most frequently answered items

	Responders who endorsed		Responders who endorsed	
	N	%	N	%
<b>Face masks impacts</b>				
On practice quality				
<i>Deteriorated</i>	216	42		
<i>Slightly deteriorated</i>	210	41		
<i>Very deteriorated</i>	58	11		
<i>Not deteriorated</i>	29	6		
On consultation duration				
<i>Same</i>	440	86		
<i>Shorter</i>	40	8		
<i>Longer</i>	33	6		
On therapeutic alliance				
<i>No</i>	271	53		
<i>Yes</i>	242	47		
<b>Telepsychiatry</b>				
Global interest in telepsychiatry				
<i>Useful</i>			313	61
<i>A little useful</i>			126	25
<i>Very useful</i>			63	12
<i>Not useful</i>			11	2
Developed new skills in telepsychiatry				
<i>No</i>			315	61
<i>Yes</i>			198	39
Better interview with telepsychiatry*				
<i>Known stable</i>			108	51
<i>Known unstable</i>			49	23
<i>First evaluation</i>			42	20
Telepsychiatry as a solution for mask inconvenience				
<i>No</i>			229	49
<i>Maybe</i>			251	45
<i>Yes</i>			33	6
<b>Patient's Face Mask</b>				
Wearing (patients)				
<i>Sometimes</i>	247	48		
<i>Everytime</i>	238	46		
<i>Never</i>	28	6		
Impact of the collection psychiatric signs/ symptoms through verbal cues				
<i>Everytime</i>			462	90
<i>Sometimes</i>			51	10
<i>Never</i>			0	0

**Table 1** (continued)

	Responders who endorsed		Responders who endorsed	
	N	%	N	%
<i>Slightly biased</i>	26	5	198	39
<i>Unbiased</i>	126	25	136	27
<i>Biased</i>	190	37	78	15
<i>Largely biased</i>	84	16	18	4
Impact of the collection psychiatric signs/ symptoms through non-verbal cues				
<i>Unbiased</i>	200	39	200	39
<i>Biased</i>	164	32	93	29
<i>Slightly biased</i>	121	24	148	18
<i>Largely biased</i>	30	6	60	12
Risk of false inference				
<i>Possible</i>	237	46	263	51
<i>Present</i>	203	40	115	22
<i>No</i>	54	11	110	21
<i>Strong</i>	19	4	25	5
On patient-clinician interaction				
<i>Slightly deteriorated</i>	237	46	262	51
<i>Not deteriorated</i>	143	28	128	25
<i>Deteriorated</i>	116	23	110	21
<i>Very deteriorated</i>	13	3	13	3

severe depression, where the patient may be barely audible under normal circumstances, masks can make conversations nearly impossible [8, 9]. To a lesser degree, the wearing of a mask by the psychiatrist was also considered to bias the collection of clinical signs. One possible explanation is that the documented discomfort and functional symptoms experienced during prolonged periods of mask wearing may alter the psychiatrist's concentration during the psychiatric interview [10].

Almost all respondents rated the risk of false inference and beliefs induced by the *psychiatrist* wearing a mask as high. Mental disorders such as psychosis, depression and autism are particularly vulnerable to false inferences or beliefs in their social world. Moreover, veiled faces have been demonstrated to bias the perceptual inference toward more negative emotions [11], which can trigger and accentuate patient's current stress. To illustrate, wearing a face mask can cause a clinician to modulate her/his tone of voice, which patients can infer as threat or anger. Interestingly, most respondents reported that the risk of false inferences was also associated with the wearing of a mask by the *patient*. This finding emphasizes that reciprocal mask wearing induces both receptive and expressive impairments that can critically impair efficient social reciprocity between the patient and the clinician [12]. This result is corroborated by the clear deterioration of the doctor-patient interaction experienced by most respondents in our study. From a social perspective, it is posited that the mask, as an object-symbol of a free circulation of the virus, therefore reminds the patient of the existence of the infectious risk which, in turn, can mark the patient-clinician interaction by mutual stress and induce wrong inferences in patients [13]. Increasing the duration of consultation was not a consequence of these difficulties in our study, which is probably a reflection of scheduling constraints. Interestingly, wearing a face mask affected the quality of the therapeutic alliance in only half of the responders. This might suggest that, while a therapeutic alliance requires positive and collaborative patient-clinician interactions, other alliance constructs such as clear definitions of shared goals, confidentiality and patient's a priori positive expectations are less impacted by face masks [14].

Our study shows that psychiatrists express an overall interest toward telepsychiatry in the context of the COVID-19 pandemic, corroborating previous results [15]. However, few patients were seen with telepsychiatry by responders, and a minority felt they had acquired telepsychiatry skills during the pandemic. Opinions were mixed on the use of telepsychiatry as a potential solution to mask inconvenience. While uncovered faces during remote consultations could facilitate the clinical interview, this results might reflect some challenges health care providers report with telepsychiatry such as inadaptability to use conference devices and lack of sense of connection with the patient [15].

Some limitations of this study need to be considered. First, our response rate was low and the majority of respondents were young clinicians. Therefore unwanted selection biases were possible, potentially hampering our efforts to capture comparisons between masked and unmasked psychiatric interviews. Second, because this was a survey study, response biases might have occurred. Longitudinal studies will be needed to assess whether face masks have any impact on outcomes for patients, including misdiagnosis, non-adherence or relapses.

## Conclusion

Less efficiency in capturing clinical signs and symptoms, emergence of false inferences and altered patient-clinician interaction were commonly reported negative impacts of face mask on the psychiatric interview. Providing training to clinicians on the correct usage of

face mimics, body postures and prosody to speak clearly through a mask [12] could be a potential solution for masks-induced biases during the psychiatric interview.

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s1126-021-09962-3>.

**Authors Contributions** Clément Dondé, Arnaud Pouchon and Albane Pelluet conceptualized the study, built the survey, performed the analyses and wrote the first draft of the manuscript; Mircea Polosan supervised the study, Thierry Bougerol provided critical inputs to the manuscript; All authors approved the manuscript in its final form.

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**Availability of Data and Material** Upon request.

## Declarations

**Informed Consent** The study was considered exempt from review and consent by our local institutional review board.

**Research Involving Human Participants and/or Animals** Yes.

**Conflicts of Interest/Competing Interests** None.

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