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► **To cite this version:**

Luc Auregan, Clement Lebaron, Anthony Chapron, Jean-Philippe Duguey, S Roger. Patients and general practitioners agree that wearing masks during consultations complicates physician–patient relationships: An exploratory, qualitative study. *European Journal of General Practice*, 2023, pp.2190579. 10.1080/13814788.2023.2190579 . hal-04088640

HAL Id: hal-04088640

<https://hal.science/hal-04088640>

Submitted on 31 May 2023

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To cite this article: Luc Aurégan, Clément Lebaron, Anthony Chapron, Jean-Philippe Duguey & Samuel Roger (2023): Patients and general practitioners agree that wearing masks during consultations complicates physician--patient relationships: An exploratory, qualitative study, European Journal of General Practice, DOI: [10.1080/13814788.2023.2190579](https://doi.org/10.1080/13814788.2023.2190579)

To link to this article: <https://doi.org/10.1080/13814788.2023.2190579>



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Published online: 31 Mar 2023.



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Patients and general practitioners agree that wearing masks during consultations complicates physician–patient relationships: An exploratory, qualitative study

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KEY MESSAGES

- Daily practice should be adjusted to mask wearing through clear speech and apparent non-verbal communication.
- Consultation situations requiring increased vigilance, such as people with a hearing impairment or learning difficulty, should be identified.
- A specific study including patients requiring increased vigilance would help guide adaptations for these populations.

ABSTRACT

Background: The physician–patient relationship plays a critical role in the quality of primary care management. The generalised wearing of surgical masks in enclosed spaces – common during the COVID-19 pandemic – could change the communication between patients and healthcare professionals.

Objectives: To assess how general practitioners (GPs) and patients feel about wearing masks during a consultation and its influences on physician–patient relationship. To evaluate methods healthcare professionals could use to compensate for mask wearing during a consultation.

Methods: A qualitative study using semi-structured interviews based on a literature-based interview guide with GPs and patients in Brittany, France. Recruitment took place from January to October 2021 until data saturation. Two independent investigators performed an open and thematic coding and then discussed their results with a consensus procedure.

Results: Thirteen GPs and 11 patients were included. It appears that wearing masks complicates consultations by creating distance, impairing communication, mainly non-verbal and altering relationship quality. However, GPs and patients believed relationships were preserved, especially those with a solid foundation prior to the pandemic. GPs described having to adapt to maintain relationship. Patients worried about misunderstandings or diagnostic errors but saw the mask as a protective factor. GPs and patients described similar populations requiring vigilance, including geriatric and paediatric populations, and people with hearing impairments or learning difficulties. According to GPs, possible adaptations include speaking clearly, exaggerating non-verbal communication, temporarily removing mask while maintaining safe distance and identifying patients who need increased vigilance.

Conclusion: Wearing masks makes the doctor–patient relationship more complex. GPs adjusted their practice to compensate.

ARTICLE HISTORY

Received 14 June 2022
Revised 18 February 2023
Accepted 24 February 2023

KEYWORDS

Primary care; physician–patient relationship; mask; empathy

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Introduction

Communication and empathy are the pillars of solid physician–patient relationships [1,2]. Communication includes verbal and non-verbal communication, such as facial expressions, posture, voice, gaze and gestures [3]. Strong physician–patient relationships and physician non-verbal communication skills beneficially impact clinical outcomes and quality of care, including patient satisfaction and adherence [4,5].

Since the start of the Covid-19 pandemic in March 2020, health authorities have recommended the generalised wearing of surgical masks over the mouth and nose in enclosed spaces to limit virus transmission [6,7]. Therefore, physicians and patients have been wearing masks during consultations. The uncertainty surrounding the course of the pandemic means wearing masks could become part of daily practice in general medicine [8,9]. Unfortunately, masks conceal parts of the face making speech less intelligible, lip-reading impossible and deciphering certain facial expressions difficult [10–12].

In 2013, a quantitative study in Hong Kong revealed that wearing masks in primary care consultations negatively influenced physician–patient relationships, with patients feeling that physicians appeared less empathetic when wearing masks [13]. However, prior to the Covid-19 pandemic, no European data existed regarding the possible influence of wearing masks during consultations.

Since the pandemic began in 2020, interest in the relational impact of wearing masks has grown, including the negative effect on empathy, trust and physician–patient relationships, particularly when physicians and patients wear masks [14]. In France, the French Health Authority (HAS) warned about the consequences of Covid-19 prevention and control measures on physician–patient relationships and encouraged physicians to reflect on how wearing masks can affect communication [15].

This study assesses how general practitioners (GP) and patients feel about wearing masks during a consultation and its influences on physician–patient relationships. It also seeks to evaluate methods health professionals can use to adapt their practice and attitude to compensate for wearing masks during a consultation.

Methods

Study design

This qualitative study uses a grounded theory design to explore patient and GPs opinions about wearing

masks influence physician–patient relationship. We conducted semi-structured interviews with GPs and patients from Brittany, France, in 2021. The study was approved by the research ethics committee at Rennes University Hospital, dated 23/11/2020 (20.139).

Recruitment of general practitioners and patients

First, GPs were recruited from the departmental physician register of Brittany and contacted by email. Second, due to insufficient responses, additional GPs were contacted using a snowball technique.

Each interviewed GP was then invited to recruit one or two patients from their practice. Posters explaining the study were placed in the participating GP waiting rooms so that the interested patients could contact the investigators directly. Willing and able adult patients living in Brittany were included. It was decided to exclude patients with special communication needs. All potential participants (GPs and the patients) were informed about the study, data collection and processing and consented. None refused to participate, and none withdrew the consent.

Diversity of opinion was sought through maximum variation in socio-demographic, geographic and professional criteria for both populations.

Interview guides

The GP interview guide (Appendix 1) and patient interview guide (Appendix 2) followed the same construction with originally seven open-ended questions but were adapted to the studied population. They were designed based on bibliographic data [16,17]. They were not pilot tested. However, after four interviews with doctors, and two with patients, we added an eighth question to dig deeper into the data.

Interviews

A male GP with no previous interview experience and who did not know the interviewees, conducted and audio-recorded the semi-structured interviews with GPs between 29 January 2021 and 3 May 2021. The first six interviews were conducted by videoconference by the Covid-19 control and prevention measures in force in France at the time of the survey. The following seven were conducted face-to-face at the participating GPs' homes or offices.

A different male GP with no previous interview experience and who did not know the interviewees, conducted and audio-recorded the semi-structured interviews with patients between 28 April 2021 and 27 October 2021. All interviews were conducted face-to-face in the patients' homes with Covid-19 control and prevention measures.

Data processing and analysis

All interviews were recorded, anonymised and transcribed verbatim with notes of non-verbal elements. Recordings were then deleted. Transcriptions were not shown to the participants for confirmation or correction.

The two investigators analysed the verbatim in a parallel process. Each investigator analysed the data from both populations independently to bring out open codes inductively, which were grouped to develop themes. Then investigators discussed their results to reach consensus codes and themes to allow for grounded theory modelling.

Results

GPs' and patients' opinion are presented separately.

Part 1 – General practitioners

GP population characteristics. GP population characteristics are shown in Table 1.

The relationship according to GPs. The GPs defined the care relationship as one based on trust, listening and appropriate communication:

'For me, it is a relationship of trust, a relationship in which the patient is at ease with the doctor' (GP9), 'It involves listening to the person in front of you. You must understand them first, understand how they work, know what is going on in their head' (GP2), 'We must adapt our discourse to the person in front of us' (GP1).

The consequences of wearing masks during a consultation. All interviewed GPs felt that wearing masks changed the dynamics of the physician–patient relationship. The GPs agreed that the most remarkable change was the effect on verbal and non-verbal communication. On a verbal level, the mask can filter sound requiring *'effort to raise your voice'* (GP4) and can result in time loss *'because things have to be repeated'* (GP5). Wearing masks is a barrier to non-verbal expression, generating difficulties during consultations. It can change the appearance of the patient's face, creating opportunities for misinterpretation:

'you think the patient is tired but when they remove their mask, they look completely different' (GP10).

Emotions become harder to read meaning the GP can wrongly perceive how the patient is feeling:

'the relationship is still there but you no longer have the usual clues to read the patient's emotions' (GP5).

These elements can make discourse more difficult and lead to misunderstandings:

'It is much harder to convey non-verbal cues to the patient, such as reassurance' (GP11).

Most GPs felt distanced from the patient with a loss of compassion:

'it creates a sort of physical barrier to the relationship' (GP5), 'the mask is a bit dehumanising' (GP4), 'it interferes with the consultation' (GP1).

Furthermore, GPs and patients alike could be *'irritated'* or *'annoyed'* by the mask (GP11).

Some GPs felt that wearing a mask was uncomfortable:

'I can't wait to do without it because it's so uncomfortable' (GP3).

However, most GPs found that the physician–patient relationship was not impaired and

Table 1. GP population characteristics.

GPs	Gender	Age	Type of Medical Practice setting	Installation area	Specificities and skills
M1	W.	31–40	Group practice	Semi-rural	Paediatrics
M2	M.	51–60	Group practice	Semi-rural	Psychology, psychiatry, child psychiatry
M3	M.	41–50	Group practice	Semi-rural	Geriatrics, rheumatology, dermatology
M4	M.	31–40	Group practice	Rural	Motivational interviewing, hypnosis
M5	M.	31–40	Group practice	Urban	Paediatrics
M6	W.	31–40	Health centre	Semi-rural	Palliative care, paediatrics, family follow-up
M7	M.	31–40	Health centre	Semi-rural	Paediatrics, sports medicine
M8	M.	51–60	Health centre	Semi-rural	Homoeopathy, hypnosis
M9	W.	41–50	Health centre	Semi-rural	Paediatrics
M10	W.	31–40	Group practice	Urban	Paediatrics, gynaecology
M11	W.	41–50	Health centre	Rural	Therapeutic education
M12	M.	51–60	Health centre	Rural	Therapeutic education Rheumatology
M13	W.	31–40	Group practice	Rural	Paediatrics

'you need to think how to approach people' (GP12). Others felt that 'these are small additional difficulties we can overcome' (GP9).

Suggested adaptations to improve communication and support the relationship.

The GPs discussed different solutions to overcome the obstacles that wearing masks creates. Most GPs described adapting their verbal and non-verbal communication to ensure mutual understanding between them and their patients (Table 2). In addition, most GPs stated that they adapted their practice. For example, several doctors described removing their mask at the beginning of the consultation, from a safe distance, to introduce themselves:

'I remove my mask at the beginning of the consultation so that the patient can see my whole face' (GP9).

Some GPs wondered about using transparent masks (GP7, GP9, GP13) and one GP wondered about performing the consultation in two stages:

'during discussions, we could use a clear screen like they have behind some shop counters, so the mask can be

completely removed. The mask can be put back on during examinations' (GP13).

In general, many GPs said that when wearing masks,

'you have to make exceptions' (GP7)

as is often the case in medicine.

Situations requiring vigilance. Between the GPs they highlighted six situations where extra care is needed to support the physician–patient relationship:

- **Hearing impairments:** *'patients with hearing impairments can be problematic'* (GP1). The patient may not say they do not hear well and consequently feel more isolated.
- **Paediatric patients:** the physicians were concerned about *'future developmental problems'* (GP7) and the difficulty reassuring children (GP13), especially new-borns and infants.

Table 2. GP suggestions for adaptations to maintain the relationship.

VERBAL		<i>'More use of speech to compensate for non-verbal exchanges that are no longer the same'</i> (M11)
NON VERBAL	Words 	<i>'We can convey emotions with our eyes. A smile can be seen in a look too.'</i> (M6) <i>'The mask forces us to focus on the eyes, there is more eye contact'</i> (M2)
	Look 	<i>'I feel like I'm exaggerating my expressions'</i> (M9) <i>'We mimic and make do without the lower part of the face'</i> (M1)
	Facial expression 	<i>'You must make an effort with the volume of your voice. I speak louder than before, and I am careful to articulate more clearly'</i> (M4)
	Voice 	<i>'We can express ourselves through posture and contact'</i> (M6)
	Posture 	<i>'What I used to do with a smile, I now do through hand gestures'</i> (M13)
	Gestures	

- Elderly patients: relationships with cognitively impaired patients are complex and have become even more so with mask wearing.
'In case of patients with Alzheimer's disease or similar, I felt that I could no longer convey what I had been able to convey somewhat unconsciously before' (GP11).
- Palliative care: in end-of-life or palliative care situations, particularly at home, most GPs felt that the mask could be problematic and would often decide not to use it.
'I couldn't force them to wear a mask in these situations, I would have felt like I was adding an extra burden on them' (GP6).
- Mental health issues: wearing masks can result in misunderstanding
'the real problem, particularly when it is psychological' (GP5). Furthermore, *'it can be much more difficult to evaluate the patient on a psychological level'* (GP13).
- New patients: many GPs reported significant difficulties communicating with new patients, for example with comments that were *'badly perceived by a new patient'* (GP6).

Part 2 – Patients

Patient population characteristics. Patient characteristics are shown in Table 3.

The relationship according to patients. Most patients believed that trust and communication were central to the physician–patient relationship:

'the ideal relationship is one based on trust' (P7), *'the GP knows how to communicate well enough so that things are clear between us'* (P11).

Furthermore, the physician had to be able to

'adapt to each patient's personal space and ensure they maintain a safe distance' (P4).

The consequences of wearing masks during a consultation. All patients felt that wearing masks changes their relationship with their GP. Most patients agreed that wearing masks during consultations creates a new barrier and increases the feeling of distance between the GP and patient:

'there is already a physical distance, with the GP behind their desk, and this only accentuates that distance' (P4).

Most patients felt that a major consequence of wearing masks is the risk of misunderstanding. Verbally, patients felt it was

'difficult to understand what people say when wearing a mask, speech is less intelligible' (P8).

Non-verbally, it was thought that wearing masks could

'interfere with all aspects of non-verbal communication expressed by the face' (P3).

These difficulties in reading GP emotions could be an unjustified source of anxiety for patients:

'There was something missing that would have indicated to me that he wasn't worried' (P10).

Most patients described changes to discussions:

'the GP is obliged to ask more questions' (P7), *'this can put a premature end to discussions that should go further or could lead to misunderstandings'* (P4).

The discussion quality also appeared to have changed:

'eyes alone are not enough for me to get an idea about the person; there are missing emotions' (P9).

Some patients felt that these changes harmed the physician–patient relationship due to a

'weakened bond' (P7).

Furthermore, some patients worried that their GP would make diagnostic errors if they presented a

Table 3. Patient population characteristics.

Patient	Gender	Age	Duration of GPs follow-up	Frequency of GPs follow-up ^a	Sector	Professional status
P1	F.	51–60	2 years	Punctual	Urban	Teacher
P2	F.	51–60	30 years	Casual	Rural	Computer technician
P3	H.	61–70	15 years	Regular	Semi-rural	Retired
P4	F.	31–40	3 years	Regular	Urban	Communication manager
P5	F.	71–80	6 months	Regular	Urban	Retired
P6	H.	71–80	10 years	Casual	Semi-rural	Retired
P7	F.	61–70	10 years	Regular	Semi-rural	Retired
P8	H.	61–70	22 years	Regular	Urban	Airline pilot
P9	F.	61–70	10–15 years	Punctual	Urban	Medical secretary
P10	F.	21–30	4–5 years	Regular	Urban	Sports coach
P11	H.	71–80	15 years	Regular	Rural	Retired

^aRegular: > 4 times a year; Casual: 2 to 4 times a year; Punctual: < 2 times a year.

symptom or clinical sign on their face hidden by the mask leading to missed or wrong diagnoses (P9).

Most patients perceived wearing masks as being physically uncomfortable, describing it as

'hot, it's unpleasant' (P8).

However, besides these negative consequences, most patients highlighted the importance of wearing masks, stating that

'the protective element is the most important factor' (P2).

In addition, some patients felt that the GP was demonstrating his moral values by wearing a mask to protect himself and his patients from the risk of infection.

'It's a mark of professionalism' in an individual with a 'duty to set an example' (P1).

This mask requirement seemed to help patients overcome the relationship changes.

Consequences of wearing masks depend on the previously established physician–patient relationship. For patients who had known their GP for a long time and had a solid physician–patient relationship, mask wearing did not appear to change the relationship:

'we've always had a good relationship, I know how he works, and he knows me, I can easily understand what is going on under his mask' (P11).

However, the consequences were more mixed for patients who did not know their GP well. With a GP who was empathetic and had good communication and adaptation skills, a solid relationship could be established:

'I didn't feel awkward, the expression in his eyes was enough for me' (P4), *'little by little the relationship was established. [...] she was able to adapt quickly'* (P9).

However, some found establishing a relationship harder:

'I felt like I couldn't interact with him because I didn't know if he was worried or upset' (P10).

Therefore, getting to know a masked stranger proved to be a test of the GP's interpersonal skills and ability to adapt.

Suggested adaptations to improve communication and support the relationship. Patients presented a range of possible adaptations. To limit the risk of misunderstanding, most patients indicated that verbal communication should

'take over from non-verbal communication that cannot be properly expressed' (P3) by being *'more precise'* (P8),

'going into more detail' (P10) and *'making sure the patient understands'* (P5).

Some patients also felt it was important to

'articulate more clearly' (P8) and *'adjust intonations'* (P10).

Some patients suggested paying particular attention to non-verbal communication, including

'making an effort to smile with your eyes' (P6), *'replacing smiles with gestures like a nod'* (P4) and *'sitting next to one another'* (P4).

Like the GPs, most patients commented on using transparent masks (P2, P3, P4, P5, P8, P9, P10) or a transparent visor (P2, P4, P11), and consulting behind

'plexiglass so the GP can remove their mask' (P4).

Interestingly, time seemed to be beneficial for the relationship with patients feeling the consequences of wearing masks

'gradually faded as time went on' (P6).

Situations requiring vigilance. Patients identified conditions in which GPs must pay more attention to their communication:

- Hearing impairments: patients with hearing impairments rely on *'reading lips'* (P3) and *'facial reactions and expressions are very important'* (P10)
- Speech disorders: *'my son has a speech disorder [...] the mask doesn't help, so the doctor doesn't always understand'* (P9).
- Learning difficulties: *'it's difficult to adapt to the Covid-19 control and prevention measures, so if they can't see people anymore, that makes it even more complicated'* (P10).
- Elderly patients: Elderly people may *'have difficulty describing their symptoms [...], and a poorer quality of expression and understanding'* (P3).
- Paediatric patients: Some patients felt that for children, mask wearing *'complicates things'* (P8), but others found that *'children got used to the mask very well'* (P3).

Discussion

Main findings

GPs and patients felt that wearing masks impaired communication, particularly non-verbal, and was likely to alter relationship quality, and agreed that wearing a mask is uncomfortable and makes them feel more distant from

one another. Nevertheless, GPs and patients had the impression that relationships were preserved, particularly those with a solid foundation prior to the pandemic. In addition, both populations identified relatively similar situations requiring vigilance.

GPs saw masks as an additional constraint to clinical practice and described adapting to maintain the quality of their physician–patient relationships. Additionally, patients felt wearing a mask reduced the quality of care due to potential misunderstandings or diagnostic errors. However, patients saw masks as a positive, protective factor, a sign of professionalism, reinforcing the GP–patient bond.

Those patients who had already built a relationship with their GP, felt that wearing masks had a limited influence. However, new patients emphasised the importance of interpersonal skills and adaptability to establish relationships.

According to both populations, GPs must adapt their practice to accommodate mask wearing. Similarly, patients with limited coping skills should be identified as a higher risk situation.

Figure 1 summarises how wearing masks can influence the physician–patient relationship.

Strengths and limitations

To our knowledge, this is the first study to evaluate wearing masks in primary care in France.

This study’s greatest strength is that both GPs and patients have been included providing a more complete understanding of how wearing masks can affect the physician–patient relationship. Furthermore, the qualitative methodology enables us to better understand the practical effect of wearing masks in daily general practice.

The interviews were conducted quite late in relation to the pandemic’s beginning, which may have limited what respondents remembered since they were already used to wearing masks. However, this delay may have facilitated the collection of adaptation suggestions in response to wearing masks, which remains part of primary care consultations. Finally, we chose a homogeneous population of typical patients. Unsurprisingly, participants identified patients requiring special vigilance that fall outside this study population. It would therefore be interesting to perform dedicated studies in these various populations to assess this appropriately.

Comparison with literature

Prior to the Covid-19 pandemic, there was little literature on how wearing masks could impact the physician–patient relationship. However, since the appearance of Covid-19, studies on mask wearing have increased. Although most of these studies were

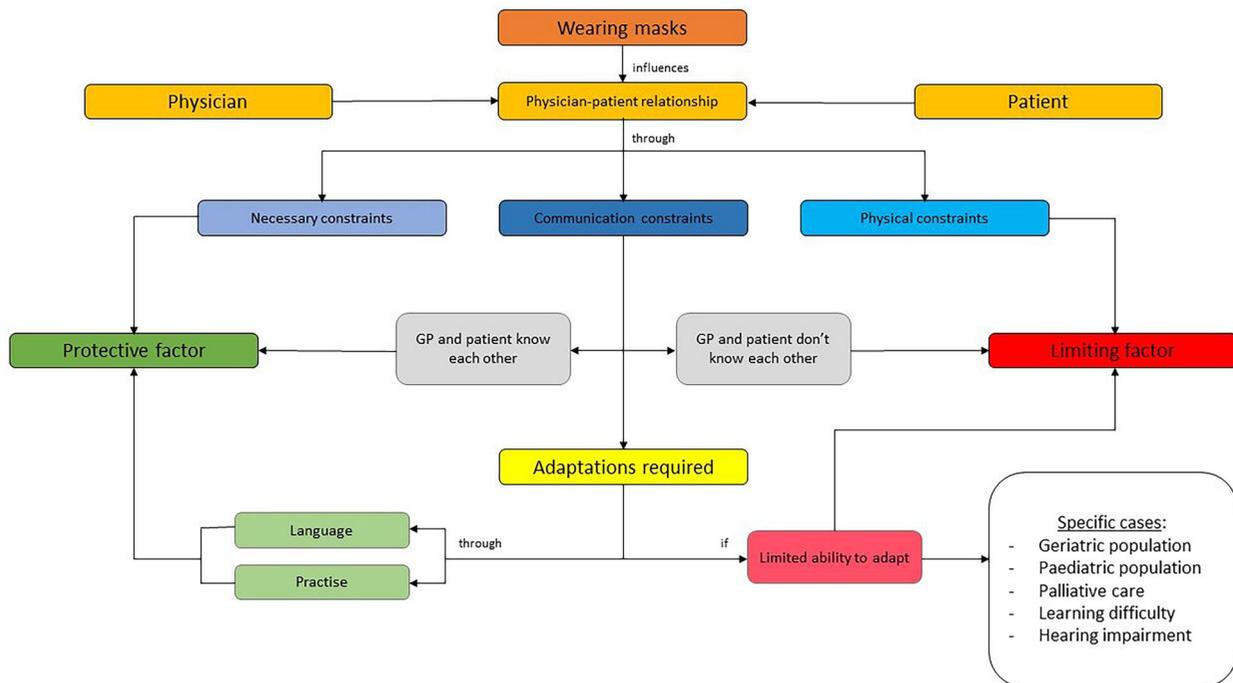


Figure 1. Summary of how mask-wearing influences physician–patient relationships.

conducted in hospitals, the results remain comparable to ours [18–20].

The situations requiring vigilance in this study are similar to those reported in the literature. Specifically, new patients [13], patients with learning difficulties and patients with hearing impairments [21]. Participants in our study had different views about the influence of mask wearing on children and literature results are also discordant. One study revealed that facial recognition and perception in school-age children is altered when processing a partially occluded face, which could significantly influence their social interactions and relationships with peers and educators [22]. In contrast, it has also been shown that despite the challenges faced by children when people wear masks, contextual clues mean masks should not influence social interactions [23]. Furthermore, children appear to wear their masks better than what parents think, despite reported inconveniences [24]. In psychiatric consultations, mask wearing is reported to have negative influences including difficulty capturing clinical signs or symptoms, altered physician–patient interactions and false inference consistent with our findings [25]. However, wearing masks appears to increase perceived self-protection and social solidarity, thereby improving mental wellbeing [26].

Implications

Based on our results and the international literature [18–20], there are four key methods GPs could use to adapt their practice and attitude in response to wearing masks during consultations:

- Speak in a clear, distinct voice, which can be heard easily and provide a calm and reassuring environment.
- Offer to temporarily remove the mask to get to know the patient while maintaining a safe distance.
- Identify patients who may be particularly affected by wearing masks such as those with a hearing impairment or learning difficulty.
- Ensure non-verbal communication is exaggerated and increase the amount of verbal communication to ensure information is clear and understood.

Conclusion

Wearing masks seems to create a communication barrier making verbal and non-verbal communication more complex in a physician–patient relationship. GPs, therefore, may need to adjust their practice to compensate. Specific training for GPs on non-verbal

communication may be beneficial because wearing masks has become part of the daily lives of GPs and patients and is changing our social relationships.

Acknowledgements

The authors thank Speak the Speech Consulting for their assistance in editing the manuscript. This article is supported by the French network of University Hospitals HUGO ('Hôpitaux Universitaires du Grand Ouest').

Disclosure statement

No potential conflict of interest was reported by the author(s).

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References

- [1] Mercer SW, Reynolds WJ. Empathy and quality of care. *Br J Gen Pract J R Coll Gen Pract.* 2002; 52(Suppl):S9–S12.
- [2] Lelorain S, Sultan S, Zenasni F, et al. Empathic concern and professional characteristics associated with clinical empathy in french general practitioners. *Eur J Gen Pract.* 2013;19(1):23–28.
- [3] Riess H, Kraft-Todd G. E.M.P.A.T.H.Y.: a tool to enhance nonverbal communication between clinicians and their patients. *Acad Med.* 2014;89(8):1108–1112.
- [4] Griffith CH, Wilson JF, Langer S, et al. House staff non-verbal communication skills and standardized patient satisfaction. *J Gen Intern Med.* 2003;18(3):170–174.
- [5] Roter DL, Frankel RM, Hall JA, et al. The expression of emotion through nonverbal behavior in medical visits. Mechanisms and outcomes. *J Gen Intern Med.* 2006; 21Suppl1:(S1):S28–S34.
- [6] HCSP. Coronavirus SARS-CoV-2 : recommandations relatives au port de masque dans les lieux collectifs clos [Internet]. Rapp. HCSP. Paris: Haut Conseil de la Santé Publique 2020. <https://www.hcsp.fr/explore.cgi/avisrapportsdomaine?clefr=902>
- [7] Décret n° 2020-860 du 10 juillet 2020 prescrivant les mesures générales nécessaires pour faire face à l'épidémie de covid-19 dans les territoires sortis de l'état d'urgence sanitaire et dans ceux où il a été prorogé - Légifrance. 2022. <https://www.legifrance.gouv.fr/loda/id/JORFTEXT000042105897/2020-09-27/>
- [8] A.Moore K, Lipsitch M, M.Barry J, et al. COVID-19: the CIDRAP viewpoint. 2020.
- [9] Andronico A, Bosetti P, Tran Kiem C, et al. Evaluation de l'impact du COVID-19 en France métropolitaine durant l'automne-hiver 2021-2022 en prenant en compte l'effet du climat, de la vaccination et des mesures de contrôle. Institut Pasteur. 2021. https://modelisation-covid19.pasteur.fr/scenarios/InstitutPasteur_scenariosCOVID19AutomneHiver_2021.pdf

- [10] Samuel RA, Lisa Lucks M, Wesley JB, et al. The effect of conventional and transparent surgical masks on speech understanding in individuals with and without hearing loss. *J Am Acad Audiol*. 2017;28:58–67.
- [11] Palmiero AJ, Symons D, Morgan JW, et al. Speech intelligibility assessment of protective facemasks and air-purifying respirators. *J Occup Environ Hyg*. 2016; 13(12):960–968.
- [12] Padhy SK, Rina K, Sarkar S. Smile, grimace or grin? Recalibrating psychiatrist-patient interaction in the era of face masks. *Asian J Psychiatr*. 2020;53:102389.
- [13] Wong CKM, Yip BHK, Mercer S, et al. Effect of face-masks on empathy and relational continuity: a randomised controlled trial in primary care. *BMC Fam Pract*. 2013;14(1):200.
- [14] Ghosh A, Sharma K, Choudhury S. COVID-19 and physician-patient relationship: potential effects of “masking”, “distancing” and “others. *Fam Pract*. 2021; 38:193–194.
- [15] Haute Autorité de Santé. Les Mesures Barrières Et La Qualité Du Lien Dans Le Secteur Social Et Médico-Social. 2020. https://www.has-sante.fr/upload/docs/application/pdf/2020-05/2020_05_07_mesures_barrieres.pdf
- [16] Kivits J, Balard F, Fournier C, et al. Les recherches qualitatives en santé. Armand colin; 2016 coll. U: sociologie. 2016.
- [17] Frappé P, Frappé P, Druais P-L, et al. Initiation à la recherche. 2ème édition. GM Santé/CNGE Productions; 2018. https://www.cnge.fr/les_publications_scientifiques/initiation_la_recherche_2eme_edition/.
- [18] Wu M-S, Watson R, Hayat F, et al. What do people hospitalised with COVID-19 think about their care? Results of a satisfaction survey during the first wave of COVID-19 in liverpool. *Future Healthc J*. 2021;8(1): e70–e75.
- [19] Kratzke IM, Rosenbaum ME, Cox C, et al. Effect of clear vs standard covered masks on communication with patients during surgical clinic encounters: a randomized clinical trial. *JAMA Surg*. 2021;156(4):372–378.
- [20] Schlögl M, Singler K, Martinez-Velilla N, et al. Communication during the COVID-19 pandemic: evaluation study on self-perceived competences and views of health care professionals. *Eur Geriatr Med*. 2021;12(6):1181–1190.
- [21] Marler H, Ditton A. “I’m smiling back at you”: exploring the impact of mask wearing on communication in healthcare. *Int J Lang Commun Disord*. 2021;56(1): 205–214.
- [22] Stajduhar A, Ganel T, Avidan G, et al. Face masks disrupt holistic processing and face perception in school-age children. *Cogn Res Princ Implic*. 2022;7:9.
- [23] Ruba AL, Pollak SD. Children’s emotion inferences from masked faces: implications for social interactions during COVID-19. *PLoS One*. 2020;15(12):e0243708.
- [24] Assathiany R, Salinier C, Béchet S, et al. Face masks in young children during the COVID-19 pandemic: parents’ and pediatricians. *Point of View. Front Pediatr*. 2021;9:676718.
- [25] Dondé C, Pouchon A, Pelluet A, et al. The impact of wearing a face mask on the psychiatric interview: a national survey during the COVID-19 pandemic. *Psychiatr Q*. 2022;93(2):435–442.
- [26] Szczesniak D, Ciulkowicz M, Maciaszek J, et al. Psychopathological responses and face mask restrictions during the COVID-19 outbreak: results from a nationwide survey. *Brain Behav Immun*. 2020;87:161–162.

Appendix 1

General practitioner interview guide

1. Presentation of the interview framework
2. Handing out and reading the information note
3. Semi-structured interview: (in bold, eight main questions; in italics, possible follow-up questions)
 - **First, can you introduce yourself and your practice in a few sentences?**
(Age, gender, type of practice (solo, group practice), practice area, medical or non-medical training, participation in peer groups/training/conferences especially related to patient communication)
 - **According to you, what makes an excellent physician–patient relationship?**
(What do you do to have a good relationship with your patients?)
 - **What is your experience of wearing a mask in consultations?**
 - **Tell me about a consultation (or moments from a consultation) with a patient you have known for a long time where you both wore a mask.**
(What did you think? What did you feel?)
(How did you feel about the relationship with this patient?)
 - **Now tell me about a consultation (or moments from a consultation) with a patient you had never seen before where you were both wearing masks.**
(What did you think? What did you feel?)
(How did you feel about the relationship with this patient?)
 - **What difficulties and obstacles, if any, have you encountered during consultations when masks were worn?**
 - **In your opinion, how do you adapt to wearing a mask in a consultation?**
(Or how did you adapt?)
(Adaptations by you and the patient?)
4. Closing the interview: **Are there any topics we have not covered that you would like to address before we finish?**
5. Thank the participant

Appendix 2

Patient interview guide

1. Presentation of the interview framework
2. Handing out and reading the information note

3. Semi-structured interview: (in bold, eight main questions; in italics, possible follow-up questions):
- **First, can you introduce yourself in a few sentences?**
(age, gender, occupation, department and area of residence, duration and frequency of consultations with treating physician)
 - **According to you, what would be the ideal relationship with your GP?**
*What about your GP?
What do you think facilitates or limits your relationship with him/her?*
 - **What is your experience of wearing a mask during a consultation?**
If too vague for the interviewee: before the pandemic?
 - **Think about a consultation (or consultation moments) with your GP, when you were both wearing masks.**
(What did you think? What did you feel?)
- (How did you feel about the relationship with this GP?)*
- **Now try to think of a consultation with a GP you had never (or rarely) seen before, where you both wore masks.**
*(What did you think? What did you feel?)
(How did you feel about the relationship with this GP?)
Or tell me about the first visit with your doctor where you both wore masks.*
 - **What difficulties and obstacles, if any, did you encounter during the consultation when masks were worn?**
 - **In your opinion, how do you adapt to wearing a mask in a consultation?**
(Adaptations made by you and the GP?)
4. Closing the interview: **Are there any topics we have not covered that you would like to address before we finish?**
5. Thank the participant