



BRIEF COMMUNICATION

Masked paediatricians during the COVID-19 pandemic and communication with children

Masked, I advance. (Descartes)

Extensive use of face masks during the COVID-19 pandemic¹ poses a challenge for paediatric clinicians who rely on facial expression to engage with patients and overcome fear or apprehension.² The only previous study to address this³ found that half of children aged 4–10 years preferred to be cared for by physicians wearing face shields as opposed to surgical masks; some cited fear of masked doctors. However, this study excluded younger children who may be the most fearful, did not compare to a control group and did not assess clinicians' perceptions.

We sought to assess the experience of paediatric health professionals on the effect of mask-wearing on engaging with patients, factors associated with increased difficulty and clinicians' ideas for overcoming this difficulty.

We created an anonymous online survey (Appendix S1, Supporting Information) and we distributed it through networks of paediatric health professionals in Israel during May 2020. Analysis included statistical tests (Wilcoxon-signed rank test for differences in difficulty engaging with children before and during the pandemic (masked), and chi-squared test for association between clinical experience and difficulty) and coding free-text responses for common themes. This study was granted an exemption for ethical approval by the local hospital ethics board.

Table 1 Demographic data

Category	n	%
Gender		
Female	203	57.0
Role		
MD	302	84.8
Nurse	49	13.8
Other [†]	5	1.4
Practice setting		
Community	138	38.8
General inpatient	81	22.8
Emergency	72	20.2
Intensive care unit	30	8.4
Hospital outpatient	27	7.6
Other [‡]	8	2.2
Clinical experience (years)		
<1	22	6.2
1–3	48	13.5
3–6	60	16.9
6–9	31	8.7
10+	195	54.8

[†]Other[†] role: two occupational therapists; three unspecified.
[‡]Other[‡] setting: combination of settings.

Table 2 Perceived difficulty assessing or treating patients in different age groups, by level of clinical experience[†]

Patient age	Routine practice prior to pandemic			Mask-wearing during COVID-19		
	6 months–2 years	2–5 years	5–10 years	6 months–2 years	2–5 years	5–10 years
Experience: all						
Difficult	4.0	3.7	4.0	20.1	19.9	12.2
Neutral	21.9	15.6	8.6	29.9	38.4	13.2
Easy	74.1	80.7	87.3	50.0	41.8	74.6
	n = 340			n = 349		
W	**	**	**	**	**	**
Experience: <1 year						
Difficult	4.5	14.3	0.0	36.4	36.4	14.3
Neutral	40.9	14.3	19.0	36.4	45.5	14.3
Easy	54.5	71.4	81.0	27.3	18.2	71.4
	n = 21			n = 21		
Experience: 1–3 years						
Difficult	6.4	0.0	2.4	18.8	25.5	18.8
Neutral	29.8	10.0	9.8	37.5	44.7	37.5
Easy	63.8	90.0	87.8	43.8	29.8	43.8
	n = 40			n = 47		
Experience: 4–6 years						
Difficult	5.0	8.3	5.1	20.0	26.7	10.0
Neutral	25.0	23.3	11.9	31.7	41.7	31.7
Easy	70.0	68.3	83.1	48.3	31.7	58.3
	n = 59			n = 60		
Experience: 7–9 years						
Difficult	3.2	3.3	0.0	25.8	13.3	6.5
Neutral	22.6	10.0	9.7	38.7	56.7	35.5
Easy	74.2	86.7	90.3	35.5	30.0	58.1
	n = 30			n = 30		
Experience: 10+ years						
Difficult	4.6	2.1	5.3	17.6	15.5	4.7
Neutral	16.4	14.2	6.3	25.4	32.1	17.8
Easy	79.0	83.7	88.4	57.0	52.3	77.5
	n = 190			n = 191		
χ^2		*			**	*

*P < 0.05.

**P < 0.005.

[†]All figures above are expressed as percentages of respondents. Level of difficulty was reported on a 5-point Likert scale; for analysis, responses were collapsed into three categories.

χ^2 , chi-squared tests: association between level of clinical experience and reported difficulty for each age group, before and during the pandemic. W, Wilcoxon-signed rank tests: difference in reported difficulty before versus during the pandemic, for each patient age group, irrespective of level of clinical experience.

Of 356 respondents (Table 1), 97% indicated that during the pandemic they always wear a face mask while working with patients. The majority agreed that mask-wearing interrupts their ability to interact with children (82%), and that children are more fearful of mask-wearing clinicians (63%). Over half experienced difficulty effectively assessing or treating patients while wearing a mask (59%). Situations in which 24% of clinicians reported they would examine or treat a child unmasked included interacting with a non-co-operative low-risk patient, a patient with special needs (including a hearing impairment), the neurological examination of a patient with a movement disorder and psychiatric patients, breaking bad news or in emergency situations.

We found significant differences in clinicians' reported difficulty in engaging with patients when comparing mask-wearing during the pandemic to previous routine practice (Wilcoxon-signed rank test, confidence interval = 95%, $P < 0.005$; Table 2). This effect was more pronounced at younger ages; for patients aged 6 months to 2 years, 20% of all clinicians reporting their experiences as 'difficult' or 'very difficult' with mask-wearing during the pandemic, as opposed to 4% during previous routine practice. In general, clinicians with more experience reported a relatively smaller increase in difficulty while mask-wearing, reflected in a significant association between clinical experience and level of difficulty with patients over 2 years (chi-squared tests, CI = confidence interval, $P < 0.05$).

When asked to select tools to most effectively compensate for the added difficulty posed by mask-wearing, the majority (57%) picked strategies focused on non-verbal communication, while 23% picked illustrated or clear masks. Additional suggestions given by respondents most commonly related to age-appropriate conversation, humour and tone of voice.

Limitations to this study include potential sampling bias, a single country study population and the lack of assessment of patients' or their guardians' perceptions.

In conclusion, we highlight the communication challenges posed by mask-wearing (particularly when treating infants), and a need for further research on compensatory strategies for paediatric clinicians.

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- 2 Krauss BA, Krauss BS. Managing the frightened child. *Ann. Emerg. Med.* 2019; **74**: 30–5.
- 3 Forgie SE, Reitsma J, Spady D, Wright B, Stobart K. The 'fear factor' for surgical masks and face shields, as perceived by children and their parents. *Pediatrics* 2009; **124**: e777–81.

Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's web-site:

Appendix S1. Supporting information.