Teachings After COVID-19 Outbreak From a Survey of Family Physicians

Marco Toselli, MD, Ignazio Palazzi, MD, Martina Lambertini, MD, Andrea Maurizzi, MD, Alberto Cereda, MD, Arif Khokhar, BM BCh, Stefano Landi, MD, Fabrizio Toscano, MD, and Giovanni Marasco, MD

Background: **Since December 2019, the dramatic escalation in coronavirus (COVID-19) cases worldwide has had a significant impact on health care systems. Family physicians (FPs) have played a critical role in the coordination of care.**

Materials and Methods: **In April 2020, we performed an online prospective survey to assess the impact of the pandemic on FPs' practices.**

Results: **Three hundred FPs were included. Mean age was 53.6 ± 13.5 years. Before the pandemic, 60.2% reported >75 outpatient visits/week, which reduced down to an average of <20/week for 79.8% of FPs; 24.2% of FPs discontinued home visits, while for 94.7% of FPs there was a >50% increase in the number of telephone consultations. Concern related to the risk of contagion was elevated (≥3/5 in 74.6%) and even higher to the risk of infecting relatives and patients (≥3/5 in 93.3%). The majority of FPs (87%) supported the role of telemedicine in the near future. Satisfaction regarding the network with hospitals/COVID-19-dedicated wards received a score ≤2/5 in 46.9% of cases.**

Conclusions: **The COVID-19 pandemic has had a significant impact on the working practices of FPs. A collaboration is needed with well-established networks between FPs and referral centers to provide new insights and opportunities to inform future working practices. (J Am Board Fam Med 2021;34:S222–S224.)**

Keywords: **COVID-19, Delivery of Health Care, Family Medicine, Pandemics, Personal Satisfaction, Physicians, Prospective Studies, Surveys and Questionnaires, Telemedicine**

The coronavirus disease (COVID-19) pandemic has significantly impacted health care systems.[1,2] Family physicians (FPs) faced significant challenges and demands to meet the clinical and logistic needs of the population[3] as well as to coordinate health care between patients and hospitals/new COVID-19 units. The impact on family physicians and their working practices has been poorly investigated.[4]

We performed an online prospective survey to assess the impact of the pandemic on FPs. It was delivered by the Local Association of Physicians of Forli-Cesena and Rimini, Emilia Romagna, Italy, from April 16 through 30, 2020, to all FPs of these districts; Forli-Cesena and Rimini districts belong to the Emilia-Romagna region, which is 1 of the 3 Northern Italy regions mostly affected by the COVID-19 pandemic. Italian FPs are part of the territorial primary care system and take care to up to 1500 patients for health issues not requiring a specialist consultation, with outpatients and home visits. The questionnaire consisted of 29 multiple-choice questions (Table 1). A scale from 0 (not satisfied at all) to 5 (extremely satisfied) was used.

This article was externally peer reviewed.
Submitted 31 May 2020; revised 13 June 2020; accepted 31 July 2020.

From the Interventional cardiology unit, GVM Care and Research, Maria Cecilia Hospital, Cotignola, Ravenna, Italy (MT, AC, AK); Primary Health Care Department, AUSL Romagna, Italy (IP); Dermatology unit, IRCCS di Policlinico Sant'Orsola, Via Massarenti 9, Bologna, Italy (ML); Dermatology unit, Department of Experimental, Diagnostic and Specialty Medicine, University of Bologna, Italy (ML); Primary Health Care Department, AUSL Bologna, Italy (AM); Gastroenterology and Interventional Endoscopy Unit, Local Health Authority of Bologna, Italy (SL); Department of Medicine, Albert Einstein College of Medicine and Montefiore Medical Center, Bronx, NY (FT); IRCCS Azienda Ospedaliero-Universitaria di Bologna, Bologna, Italy (GM).

Funding: None.
Conflicts of interest: None declared.

Corresponding author: Marco Toselli, MD, Maria Cecilia Hospital, Via Corriera, 1, 48033 Cotignola, Ravenna, Italy (E-mail: marco.toselli2@gmail.com).

J Am Board Fam Med: first published as 10.3122/jabfm.2021.S1.200267 on 23 February 2021. Downloaded from http://www.jabfm.org/ on 16 August 2021 by guest. Protected by copyright.

Table 1. Summary of Main Data of the Survey

Family physicians' demographics and professional information	Participants n = 300 n (%)
Gender—male	167 (55.9)
Age—years ± SD	53.6 ± 13.5
Work setting:	
Solo practitioners	143 (47.7)
Group practitioners	126 (42)
Multispecialty group	19 (6.3)
Other	12 (4)
Number of COVID-19 positive patients managed:	
<10	211 (70.3)
10 to 30	75 (25)
30 to 50	9 (3)
>50	5 (1.6)
Having at least one colleague (FP) diagnosed with COVID-19	253 (85.2)
Personally tested for COVID-19	83 (27.8)
Personally COVID-19 positive	9 (6.5)
Family physicians' perceived personal safety	
Received appropriate information about PPE:	
No	202 (67.3)
Yes, with local meetings	1 (0.3)
Yes, with courses	8 (2.7)
Yes, with protocols	89 (29.7)
Family physicians satisfied or very satisfied about the PPE information received	58 (18.7)
Family physicians feeling safe in the workplace during COVID-19 emergency	106 (35.3)
Availability of:	
Surgical masks	239 (79.7)
N95 masks	234 (78)
Disposable gowns	104 (34.7)
Goggles or screens	177 (59)
Gloves	262 (87.3)
Family physicians' activities, concerns and perspectives for the next 6 months	
Number of weekly outpatient visits before the COVID-19 outbreak:	
<50	58 (19.4)
50 to 75	61 (20.4)
75 to 100	92 (30.8)
>100	88 (29.4)
Number of weekly outpatient visits during the COVID-19 outbreak:	
<20	238 (79.8)
20 to 50	58 (19.5)
>50	2 (0.7)
Number of weekly in-house visits before the COVID-19 outbreak:	
<5	63 (21.1)
5 to 10	138 (46.5)
10 to 15	62 (20.9)
>15	34 (11.5)
Number of weekly in-house visits during the COVID-19 outbreak:	
None	72 (24.2)
<5	184 (61.7)
5 to 10	36 (12.1)
10 to 15	0
>15	2 (2)
>50% increase in phone calls (telemedicine)	287 (94.7)
Family physicians satisfied or very satisfied about the network created by local health authority	159 (53.1)
Family physicians not satisfied or a little satisfied about the distribution of the resources between hospitals and FPs during the COVID-19 emergency	259 (86.3)
Family physicians with a high or very high fear of getting infected	224 (74.6)
Family physicians with a high or very high fear of infecting relatives and patients	280 (93.3)
Family physicians who believe that elemedicine should be used more in the future	260 (87)

FP, family physician; PPE, personal protective equipment; SD, standard deviation.

Three hundred FPs were included (response rate 56%). All the participants expressed their consent for publication.

Demographics and Professional Information

The mean age was 53.6 ± 13.5 years, and 55.9% were males. The majority of FPs worked as solo practitioners (47.7%), followed by those working as group practitioners with other physicians (42%) and in multispecialty groups (6.5%). Only 27.8% of FPs were tested for COVID-19; 6.5% of them were positive.

Perceived Personal Safety

Of FPs, 67.3% felt they did not receive adequate information regarding the use of personal protective equipment (PPE). It is noteworthy that only 29.7% of participants were provided with official

J Am Board Fam Med: first published as 10.3122/jabfm.2021.S1.200267 on 23 February 2021. Downloaded from http://www.jabfm.org/ on 16 August 2021 by guest. Protected by copyright.

protocols and only 18.7% felt satisfied (score ≥3) with the information they received. The perception of safety was extremely low, with a reported score of 0 or 1 in 40.7%.

Activities, Concerns, and Perspectives for the Next 6 Months

The number of visits before the pandemic was >75/week in 60.2% cases, but 79.8% of the FPs reported a subsequent average of <20 patients/week. The usual home visits for the evaluation of older/fragile patients were discontinued by 24.2% of FPs, while in 94.7% of cases there was a >50% increase in the number of telephone consultations.

FPs' satisfaction regarding the network with hospitals/COVID-19-dedicated wards received a score ≥3 (satisfied) in 53.1% of the cases. Resource distribution was considered unequal by the vast majority of the participants; 86.3% were not or a little satisfied (score ≤2), of whom 41.4% of the participants were completely unsatisfied. Concern related to risk of contagious was elevated (≥3 in 74.6%), and concerns about infecting relatives and patients were even higher (score ≥3, high concern in 93.3%). Eighty-seven percent of the participants favored the use of telemedicine in the near future, including electronic/online prescriptions to avoid overcrowding.

This survey highlights some of the challenges that FPs have had to face during the pandemic. Clinical activity underwent a deep reorganization to balance the health care to patients with the lack of PPE and necessary information. Indeed, the decrease in the number of outpatient and home visits was mirrored by an increase in telephone consultations. Telemedicine has been the main modality to provide care assistance and will have a greater role in the future.[5] Finally, this survey highlighted the lack of specific training on the infective risk of COVID-19 and on the use of PPE, especially as FPs were faced with new unfamiliar tasks such as quarantine regulation and psychological support.

The limitations of this study are the small sample size and the data collection from only 2 Emilia-Romagna areas. However, this region was significantly affected by the pandemic, and our data confirms prior findings from another Italian report.[4]

Health systems are going to experience further changes: FPs will represent the first line of fight against the pandemic, being required to detect, isolate, and treat new cases. Improvements in the collaboration between FPs and hospitals/COVID-19-dedicated wards is needed. These institutions have the duty to provide physical/psychological protection to FPs, who represent the outpost of citizens' health.

To see this article online, please go to: http://jabfm.org/content/34/Supplement/S222.full.

References

1. Zhou F, Yu T, Du R, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. Lancet 2020;395:1054–62. doi: 10.1016/S0140-6736(20)30566-3.
2. Ahn D-G, Shin H-J, Kim M-H, et al. Current status of epidemiology, diagnosis, therapeutics, and vaccines for novel coronavirus disease 2019 (COVID-19). J Microbiol Biotechnol 2020;30:313–24. doi: 10.4014/jmb.2003.03011.
3. Thornton J. Covid-19: how coronavirus will change the face of general practice forever. BMJ. 2020;368:m1279. doi: 10.1136/bmj.m1279.
4. Fiorino G, Colombo M, Natale C, Azzolini E, Lagioia M, Danese S. Clinician education and adoption of preventive measures for COVID-19: a survey of a convenience sample of general practitioners in Lombardy, Italy. Ann Intern Med. 2020. Published online April 15. doi: 10.7326/M20-1447.
5. Ingravallo F. Death in the era of the COVID-19 pandemic. Lancet Public Health 2020;5:e258. doi: 10.1016/S2468-2667(20)30079-7.

J Am Board Fam Med: first published as 10.3122/jabfm.2021.S1.200267 on 23 February 2021. Downloaded from http://www.jabfm.org/ on 16 August 2021 by guest. Protected by copyright.