
*Original Article*THE IMPACT OF COVID-19 LOCKDOWN ON TRAINING ON
OPHTHALMOLOGY TRAINEES IN EGYPT

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Received 5/9/2020

Accepted 12/11/2020

Abstract

Purpose: To evaluate the impact of severe acute respiratory syndrome (SARS-Co2) COVID-19 on training of ophthalmology trainees in Egypt and how they could overcome this effect. **Method:** An online based questionnaire was designed and distributed to a representative sample of ophthalmology trainees in Egypt; their answers were collected and analyzed. **Results:** A total of 574 participants completed questionnaires (61.5%) were residents and (38.5%) were specialists. A majority of the responders (82.1%) participated in COVID-19 control programs and (99.5%) got benefits from excessive infection control programs. Most of the responders experienced a negative effect of COVID-19 lockdown on their training on both surgical (57.3%) and academic (55.6%) levels, but surgical skills were more affected. (86.6%) of the participants thought this effect could be overcome. The most popular choices to overcome this negative effect were online courses (97.7%) and webinars (84.3%).

Keywords: Questionnaire, Trainee, Overcome, Online based.**1. Introduction**

Severe acute respiratory syndrome coronavirus 2 (SARS Co-V2) emerged as a global health catastrophe all over the world in at the end of the last year 2019 [1]. It was announced as pandemic by the World Health Organization WHO. During that pandemic, the lockdown either partially or fully was mandatory to control that emergency. COVID-19 affected all activities in all countries, including medical training [2]. Intensive ophthalmological training is needed for ophthalmologists to continue their progress, either academic or surgical, and most ophthalmological conditions are elective, and so they are suspended in the period

of lockdown. Hospitals and private practice clinics focused on the COVID-19 [3], some young ophthalmologists participated in the control of COVID-19 infection either in their hospitals or guarantee hospitals according to the policy of their countries. Training programs in many countries have been affected, and this needs to be rescheduled after the pandemic. Hong Kong and Toronto were the first countries to suspend training rotation in educational institutes during the SARS pandemic in 2003 [4,5]. Currently, during COVID-19, all countries suspended elective medical services, only emergencies, and ophthalm-

ology is one of the elective branches, except for trauma and few other conditions [6]. Also the ophthalmology training in Egypt was affected due to lockdown to stop spreading the infection. Webinars, seminars and simulators were some methods to continue medical training without risk; however, they were more academic than practical skill improvement [7-9]. Infection control measures lectures were available to educate both doctors and people on how to control the spread of infection. If you

are still working as an ophthalmologist, you have to take care as transmission of the virus through the tears and conjunctiva is possible [10-13]. The response of trainees to that lockdown is different according to different circumstances such as the conditions in their countries, the facilities available and the management policy for the crisis. The aim of this study is the assessment of COVID-19 impact on training of trainees in Egypt and how could they overcome that effect.

2. Methodology

A cross-sectional study was conducted among Egyptian ophthalmological trainees in June 2020. The survey included ophthalmology residents and some specialists from nearly all medical health orga-

nizations in Egypt. We designed an internet-based questionnaire survey addressing the issue in 9 separate questions. Ethical considerations were followed according to the Helsinki Declaration.

3. Results

The survey results are shown in tab. (1). A total of 574 participants completed questionnaires (61.5%) were residents and (38.5%) were specialists. A majority of the responders (82.1%) participated in COVID-19 control programs and (99.5%) got benefits from excessive infection control programs. Most of the participants had a

negative effect of lockdown on their training programs either surgical (57.3%) or academic (55.6%) levels, but surgical skills were more affected. (86.6%) of the participants thought this effect could be overcome. The most popular choices to overcome this negative effect were online courses (97.7%) and webinars (84.3%).

Table1: Survey results

Survey results				
1. Please specify your degree.	Resident	Specialist	-	-
	353 (61.5)	221 (38.5)	-	-
2. Did you participate in COVID-19 controlling programs?	Yes	No	-	-
	471 (82.1)	103 (17.9)	-	-
3. Did you get benefits from the excessive infection control programs?	Yes	No	-	-
	571 (99.5)	3 (0.5)	-	-
4. The effect of the lockdown on the progression of your surgical skills	Negatively affected	Not affected	-	-
	329 (57.3)	245 (42.7)	-	-
5. The effect of the lockdown on the progression of your academic skills	Negatively affected	Not affected	-	-
	319 (55.6)	255 (44.4)	-	-
6. Methods to overcome the lockdown impact*	Webinar	Simulators	Online courses	Self-study
	484 (84.3)	73 (12.7)	561 (97.7)	98 (17.1)
7. Do you think the impact of the lockdown on your career is	Permanent	Can be overcome	-	-
	77 (13.4)	497 (86.6)		

8. Your future plans?	Waiting for your hospital training program	Search for other alternatives	-	-
	497(86.6)	77 (13.4)	-	-
9. Do you think you need a concentrated training program?	Yes (especially surgical)	Yes (for all)	No	-
	337 (58.7)	236 (41.1)	1 (0.2)	-

Values are n (%), * Multiple responses are permitted to this question. Because of the multiple responses, the sum of the percentages of the responses in these specific questions adds up to more than 100%.

4. Discussion

Both trainees and specialists shared in the questionnaire, they negatively affected by the COVID-19 lockdown either due to the negative impact of lockdown on the elective surgical practice on the hospitals or their practice in COVID-19 fighting. Training authorities will have to compensate to conditions such as now when in-person didactics are inhibited, and the surgical activity is reduced [14] in this year (2020), most trainees, in all specialties, may not be able to fulfil their practical rotations, complete the required surgical skills and participate in patient care. The effect of those lacks of experiences will be greatest on trainees in their ultimate years of rotation [15]. However, they get benefit from infection control intensive measures [16], but their surgical and academic progress were affected negatively [17], most of them consider that effect is temporary and could be overcome and some are afraid that could be permanent Naser Moghadasi noted that Iranian medical trainees showed higher level of fear during the COVID-19 outbreak in Iran. It was noted that high level of anxiety

can reduce the individual's attention, which is very dangerous, especially for medical practitioners [18]. Most trainees are planning to get benefit from the lockdown to overcome its effects either by seminars, self-study, simulators or online courses [8,9]. The pandemic of COVID-19 has forced a lot of countries to invest more in the distant teaching methods. However the online teaching could not be very good at the medical level [19] institutes have rapidly created various courses and programs for online delivery [20]. Nevertheless, there is a chance that some institutes which are not well equipped will not be able to cope up with this new mode [21] Specialists with well-established surgical skills are less affected. Most of the participants needed intensive training courses after the lockdown, either surgical or both surgical and academic. Getting proficiency in surgical training will be difficult in present times due to limited number of surgeries. Residents can use virtual surgical simulators for basic cataract skills or vitreoretinal surgery training [22].

5. Conclusion

Most of participants got benefits from infection control measures either they shared in COVID-19 guarantee hospitals or not. The learning of young trainee is affected especially regarding surgical skills. The trainee needs intensive training courses after the end of that Pandemic to overcome the drawbacks of COVID-19 lowdown.

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