

SHORT PAPER

COVID-19 in school settings: webinar aimed at both teachers and educators

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Key words: SARS-CoV-2, primary school, children, satisfaction, teachers and educators, webinar
Parole chiave: SARS-CoV-2, scuola primaria, gradimento, insegnanti ed educatori, webinar

Abstract

Background. In the COVID-19 era, we designed the webinar “COVID-19: instructions for use” with the aim of providing clear and actionable information to school staff about the characteristics of the disease, the preventive measures to adopt and the path for early detection and control of COVID-19 in primary schools of Modena province.

Methods. We performed a cross-sectional survey using a 7-item closed-ended satisfaction questionnaire self-administered to webinar participants among school staff of the Modena Municipality and neighbouring.

Results. A total of 103 out of 152 (68%) participants delivered the questionnaires. The participating staff came from 29 schools. Most of respondents (83.5%) were primary school teachers followed by kindergarten teachers and educators. The overall webinar assessment index was “very good” for 51% of attendees and “good” for the remaining. Nevertheless, 25.2% highlighted the need to have more time dedicated to the discussion.

Conclusions. Our project promotes a virtuous circle between school-family and community; so that the benefits can be sustained and enhanced. This may improve the effectiveness of the preventive measures in terms of transmission of SARS-CoV-2 and other virus.

Introduction

In December 2019 the epidemic of Coronavirus disease 2019 (COVID-19) due to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) broke out in

Wuhan, China and rapidly spread all over the world. On 11 of March 2020, World Health Organization (WHO) has declared COVID-19 as a pandemic (1). In Europe, Italy was the first country heavily hit by SARS-CoV-2 infection (2). In order to mitigate the spread

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of this coronavirus, Italy implemented non-pharmaceutical interventions, including school closures. The school closure during the first wave could have had negative impact on children education as well as their social life and their physical and mental health. Physical, nutritional, and psychosocial factors could promote obesity in children due to increasing screen time, unhealthy dietary habits and irregular sleep patterns (3). Moreover, children aged from 2 to 10 years old develop peer relationships at school which provides a unique context for learning a range of critical social emotional skills, such as empathy, cooperation, and problem-solving strategies. The school setting also helps students to develop personality traits and sense of identity (4). Ferger et al. reported that children experiencing quarantine have shown an increased risk of developing post-traumatic stress disorder, fear and additional problems, such as depression, low mood, irritability, anger, insomnia and emotional exhaustion (5).

In autumn 2020 in Italy, even though the second wave of COVID-19 broke out, the policy makers have decided to maintain open the primary schools and kindergarten, taking into account psychological, educational and social consequences for children and their families. In this context, it was mandatory to put in place adequately preventive measures, such as physical distance, hand hygiene, provision of appropriate sanitization of spaces, furniture and toys, together with the prompt identification of cases in the school environment and their tracing.

In this context, we designed the webinar (*web-based seminar*) “COVID-19: instructions for use” with the aim of providing clear and actionable information to school staff about the characteristics of the disease, the preventive measures to adopt and the path for early detection and control of COVID-19 in primary schools of Modena province. Moreover, we provided different tools to teachers and educators for promoting

the preventive measures with students. This article presents the results of the satisfaction questionnaire self-administered to webinar participants among school staff of the Modena Municipality and neighbouring.

Methods

Webinar structure

In November 2020, webinar for primary school staff “COVID-19: instructions for use” was performed to provide information and tools useful for the challenging task of teachers and educators which are frontline of tackling this pandemic in the school settings. Webinar covered different topics regard to COVID-19 in schools: description of coronavirus SARS-CoV-2 and vaccines in development, epidemiology, management of positive cases by the local health authority (AUSL Modena), preventive measures and approaches to explain the pandemic to students. Furthermore, we provided different tools such as: the cartoon video “Leo e Giulia - Noi come voi!” that explains the ongoing pandemic to the children through the dialogue between the sister Giulia and the little brother Leo; the books “The little creature who always wore a crown”, a fairy tale about coronavirus, presented as an annoying little creature that has upset the lives of children and adults; “Coronavirus – A book for children” explaining the pandemic in a simple and direct way by answering the questions and fears of the children; and on the online platform the game memory “COVID-19 School Education UNIMORE-MUSA” that reports on each card a preventive measure to adopt. At the end of the webinar a discussion was held based on the participants’ questions or remarks.

Data Collection

We performed a cross-sectional survey using a 7-item closed-ended questionnaire

self-administered at the end of the webinar to assess satisfaction of participants. We asked them their profession and own school. Satisfaction questionnaire was regard to usefulness of covered topics, quality of experts and shared tools, time dedicated to questions, event delivery mode, general event organization, overall webinar assessment and free notes on webinar. The responses were collected using a four-point Likert scale for five questions and a two-point for the remaining two. Moreover, we collected the participants' questions and remarks carried out during discussion.

Data Analysis

Stata Statistical Software Release 15 (StataCorp., College Station, TX, USA) was used to describe the data collected from satisfaction questionnaire. Categorical data was summarized by frequency distribution.

Results

A total of 152 people attended the webinar. The questionnaires were delivered by 103 out of 152 (68%) participants. The participating staff came from 29 schools. Table 1 shows that most of respondents (83.5%) were primary school teachers following by kindergarten teachers and educators. Among primary school teachers, 5 (5.8%) were COVID-19 referents for their school. Table 1 shows the data collected from satisfaction questionnaire. The results highlighted that 100% of webinar attendees considered the covered topics to be at least "useful", of which 67% "very useful". As for the quality of experts, all respondents found at least "good" quality and 64% "very good". Most of participants (94.2%) found the quality of shared tools "very good" or "good" to support them for spreading adequate information about COVID-19. A total of 77 (74.8%) attendees evaluated that time for questions was enough. All the

respondents considered adequate the event delivery mode. The question on general event organization showed that 99% of participants were satisfied replying "very

Table 1 - Results from satisfaction questionnaire self-administered to participants

	School staff (respondents: n = 103) n (%)
Profession	
primary school teachers	86 (83.4)
kindergarten teachers	7 (6.8)
educators	5 (4.9)
other school staff	5 (4.9)
Topics covered in the webinar	
very useful	69 (67.0)
useful	34 (33.0)
of little use	0 (0)
useless	0 (0)
Experts quality	
very good	66 (64.0)
good	37 (36.0)
sufficient	0 (0)
low	0 (0)
Tools quality	
very good	36 (35.0)
good	61 (59.2)
sufficient	6 (5.8)
low	0 (0)
Enough time for questions	
yes	77 (74.8)
no	26 (25.2)
Adequate event delivery mode	
yes	103 (100)
no	0 (0)
General event organization	
very good	55 (53.4)
good	47 (45.6)
sufficient	1 (1.0)
low	0 (0)
Overall webinar assessment	
very good	52 (50.5)
good	51 (49.5)
sufficient	0 (0)
low	0 (0)

good” or “good”. Finally, the overall webinar assessment index was “very good” for 51% of attendees and “good” for the remaining. None of the school staff participants in the webinar indicated dissatisfaction. By the registration of free notes (n. 16) from questionnaire, the respondents showed a general satisfaction about webinar and seven out of 16 highlighted the need to have more time dedicated to the discussion.

Discussion and conclusions

This education experience aimed to encourage teachers and educators to become advocates for disease prevention and control in school, at home, and in their community by talking to others mainly to students about how to prevent the spread of viruses. As reported by both the questionnaire and the final discussion, the participants resulted satisfied with the overall webinar, but some responders emphasized the limited time devoted to the questions making explicit their need for discussion with experts with different skills on the current pandemic. The findings derived from our questionnaire underline the importance of planning training and information meetings for teachers and school staff who are at the forefront of tackling this pandemic in the school settings.

Thanks to the teachers and educators, children should understand basic, age-appropriate information about coronavirus disease (COVID-19), including symptoms, complications, transmission and prevention. The teachers should be informed about COVID-19 through reputable sources such as WHO, ECDC, National Institute of Health and National Health Ministry advisories. Maintaining safe school operations or reopening schools after a closure requires many considerations but, if done well, can promote public health (4). Therefore, it is important to balance advantages and

disadvantages of the school opening strategy, also taking into account socio-economic disparities and inequalities which could be amplified by school closure (6). Environment and living conditions have been considered crucial factors determining health conditions and some urban features can be identified as specific risk factors for pandemic spreading (7, 8). The family and school context and the interaction of several factors such as culture, education, income, family structure, home and work environment, play important roles in instilling healthy behaviours in children and their families (9). WHO underlines that education settings should continue to be welcoming, respectful, inclusive, and supportive environments to all. Measures taken by schools can prevent the entry and spread of COVID-19 by students and staff who may have been exposed to the virus, while minimizing disruption and protecting students and staff from discrimination (10).

In the COVID-19 era, several educational institution and scientific societies have decided to offer webinars for providing updated and quality content on the pandemic development and other issues. In this context we delivered our webinar with the advantage of allowing the participation of greater number of teachers and educators. Although the participants reported a general satisfaction of this educational experience, a limitation of the study was that we did not evaluate their knowledge increasing or their attitudes modification after it. Furthermore, our questionnaire was not validated, as it is challenging to perform survey validation as a psychometric analysis tool in such short time. As such, the results should be considered as more descriptive than inferential. Important strengths consisted in the collaboration between the University, the Municipality and the AUSL of Modena and in the wide dissemination of the materials and tools available to the whole community.

Indeed, our educational experience was shared among schools and the local

community stimulating the adoption of adequate behaviours in school staff, children, families and citizens and promote a virtuous circle between school-family and community; so that the benefits can be sustained and enhanced. This may improve the effectiveness of the preventive measures in terms of transmission of SARS-CoV-2 and other virus.

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Conflict of interest: None declared.

Riassunto

COVID-19 in ambiente scolastico: webinar per insegnanti ed educatori

Background. Durante l'attuale pandemia di COVID-19, è stato ideato e tenuto il *webinar* "COVID-19: istruzioni per l'uso" con l'obiettivo di fornire informazioni chiare e utili al personale scolastico sulle caratteristiche della malattia, le misure preventive da adottare e il percorso per la diagnosi precoce e il controllo di COVID-19 nelle scuole primarie della provincia di Modena.

Metodi. È stata eseguita un'indagine trasversale tra il personale scolastico del Comune di Modena e limitrofi

utilizzando un questionario a 7 *item* a risposta chiusa, autosomministrato ai partecipanti al termine del *webinar* per valutarne il gradimento.

Risultati. Un totale di 103 partecipanti su 152 (68%) hanno risposto al questionario. I rispondenti provenivano da 29 scuole. La maggior parte degli intervistati (83,5%) erano insegnanti di scuola primaria seguiti da maestri d'asilo ed educatori. La valutazione complessiva del *webinar* è stata "molto buona" per il 51% dei partecipanti e "buona" per i restanti. Tuttavia, il 25,2% ha evidenziato la necessità di avere più tempo da dedicare alla discussione.

Conclusioni. Il nostro progetto promuove un circolo virtuoso tra scuola-famiglia e comunità in modo che i benefici derivanti da questa esperienza educativa possano essere sostenuti e intensificati nel tempo. Ciò può migliorare l'efficacia delle misure preventive in termini di trasmissione di SARS-CoV-2 e di altri virus.

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