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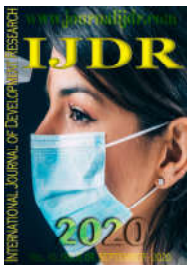

RESEARCH ARTICLE OPEN ACCESS

SOCIOECONOMIC EFFECTS OF COVID-19 AMONG BRAZILIAN DENTISTS AT THE BEGINNING OF THE PANDEMIC

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ABSTRACT

This study aimed to investigate possible socioeconomic impacts that COVID-19 would cause among Brazilian dentists. An opinion poll was conducted through an online questionnaire containing socioeconomic and demographic aspects of 1240 Brazilian dentists, in addition to questions about the risks of dental care and the practice of professionals during the second week of social isolation in most states in Brazil. A total of 78.1% of dentists considered the risk of contamination high during an appointment, 89.8% were in social isolation ($p < 0.001$), and dentists in the south (60.2%) were the ones who attended most during the visit. pandemic ($p = 0.006$). When compared to women, men were able to make a financial reserve to face such situations ($p < 0.001$), however, 75.8% estimated being without income between one month (44.6%) and two months (31.2%). Those between 6 and 10 years of graduation were those who said they can spend more time without income during the pandemic ($p = 0.026$). Professionals who have children, in addition to being primarily responsible for maintaining household expenses, are those whose private practice has employees ($p < 0.001$). It is concluded that, as most dental professionals are self-employed, their income was significantly compromised and few had the reserve to face the interruption of their activities for more than three months. The importance of dental services in health and the economy must be taken into account in the sense that public policies are directed towards the economic restoration of the category.

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INTRODUCTION

In December 2019, a new disease called COVID-19 was reported, which progressively spread from East Asia, being classified by the World Health Organization (WHO) as a pandemic[1]. Caused by the pathogen Coronavirus[2], it was initially reported in Hubei province, more precisely in the city of Wuhan, China. It is an acute respiratory disease, with a higher mortality rate than previously reported. It is a serious disease that causes lung damage and can lead to death from acute respiratory failure[2,3]. COVID-19 has a great genetic similarity to the Severe Acute Respiratory Syndrome (SARS), which caused the 2002 pandemic[4]. Due to the transmission potential of Coronavirus 2, it was predicted that, like the 2009 H1N1 influenza virus, it would spread throughout the world. As the fifth Coronavirus to affect humans, its manifestation varies widely among people with the possibility that some individuals may not develop any symptoms while others may develop the most severe form of the disease and even die, especially those with risk factors related to certain comorbidities[5,6]. Because the virus appeared to coincide with Chunyun, a 40-days period from the 15 days before and 25 after the lunar new year during which the number of trips through China increases considerably, transmission occurred more quickly among travelers[1]. As the COVID-19 pandemic spread, scientists around the world tried to understand its characteristics, especially its forms of contagion. In January 2020, control measures began to be taken associated with a

change in the population's behavior, seeking medical attention and adopting individual protection measures such as the use of masks, facial protectors, social distance and self-isolation when contaminated. It is estimated that, after adopting the prevention of personal contact and a more protective behavior, the documented cases decreased by more than 50% among the Chinese, proving the effectiveness of these measures[1,7]. The blockade in the province of Hubei prevented further progression in the country, representing a 70.4% reduction in incidence compared to a supposed situation if these measures had not occurred[8]. However, the delay in information and attitudes that prevented COVID-19 from advancing to other regions has caused almost all countries in the world to register cases and policies of isolation or confinement of the population, affecting labor relations and, consequently, the economy. Due to their proximity to contaminated people during visits, health professionals are at the greatest risk of spreading the disease. The production of aerosols during the care of patients with COVID-19 makes dental treatment a high-risk procedure to which dentists are directly exposed[9,10]. Dentistsworking in hospitals, emergency care units (UPAs) and basic health units (UBSs) had to adapt to the new forms of protection and care determined by the high transmissibility of the disease. Those whose work in a private clinic will also have to reformulate their care routine after being allowed to return to professional activity. Thus, the social isolation enacted in Brazil has generated an impact on the category. Thus, the present study aims to investigate the socioeconomic impact in Brazilian dentists in the current situation of COVID-19.

MATERIALS AND METHODS

This is a cross-sectional study. Ethical approval for this study was obtained from Ethics Committee on Research with Human Beings at University of Fortaleza under number 3.997.229. It was carried out with brazilian dentists through a social application using smartphones, by which the participants were able to answer the questions.The sample was a total of 1240 questionnaires correctly answered by dentists. A questionnaire with closed questions was formulated through Google® Forms and the social network Whatsapp®, used as a dissemination tool. A pilot questionnaire was carried out among the researchers in order to identify possible flaws and dissemination, followed by the professional contacts of the researchers.The instrument was available for 48 hours, between April first and second, 2020, when the population had already been instructed to remain in a social isolation regime in their homes. The need for observation of the dental class occurred due to the divergence of the professionals' opinions regarding the isolation modality, the need to perform emergency and/or elective appointments, and the socioeconomic impacts that they could suffer.

Data Collection: The questionnaire was constructed from questions containing socioeconomic and demographic aspects, familial, comportamental and possible implications in their economic status due to social isolation. It was investigated: gender (female, male, female transgender, male transgender); children (Yes/No); time of graduation (up to 5 years, between 6 and 10 years, between 11 and 15 years, between 16 and 20 years and more than 20 years); State of residence (all states in Brazil were among the options). The questions asked were: Q1 - Are you in social isolation (with your family)? (Yes/No); Q2 - Is there an elderly person or person(s) considered to be at risk at your home? (Yes/No); Q3 - Which type of isolation are you in favor of? (horizontal; the entire population, vertical - only at-risk groups); Q4 - Are you primarily responsible for your household expenses? (Yes/No); Q5 - Do you attend a private practice and keep an employee(s)? (yes, and I keep employee(s), yes, but I don't keep employee(s), I only work in the public service); Q6 - Has the exercise of your profession allowed you to make a financial reserve to face situations like the one that is occurring? (Yes/No); Q7 - How long do you think you would be without income to face the pandemic? (1 month, 2 months, 3 months, and greater than 3 months); Q8 - How do you assess your risk of being contaminated with COVID-19 during an appointment? (High/medium/low); Q10 - Are you attending during the pandemic? (Yes/No).

Statistical Analysis

The data were tabulated in an Excel spreadsheet and analyzed using SPSS software version 24.0®. Absolute and relative frequencies of all study variables were calculated. The association between variables was verified using the Chi-square test. A significance level of 5% was adopted for inferential procedures.

RESULTS

A total of 1240 responses to the proposed questionnaire were obtained according inclusion criteria. Of these, the majority were female (67.1%). Regarding the time since graduation, those up to 5 years old (25%) and over 20 years old (28.2%) account for more than half of the sample. The Northeast was the Region that most answered questionnaires, with 646 responses (52.1%) and people who have children also represented the majority of participants (58.1%). Regarding the questions asked for the total group, 89.8% reported that they were fulfilling social isolation, following Federal and State guidelines and decrees. In contrast, only 64% is in favor of horizontal insulation. Almost half (49.4%) of the sample stated that they live with the elderly(s) or with someone considered to be at risk and 57.8% defined themselves as the main maintainer of their household expenses. A total of 78.1% considered the risk of being contaminated with COVID-19 during a service to be high. 57.4% of those surveyed attend a private practice and have at least 1 employee, 66.6% stated that the practice ofdentistrydid not allow making a financial reserve to face paralysis situations like the one that is occurring and 75.8% estimates without income between one month (44.6%) and two months (31.2%).

When comparing genders, women had more people in the risk group at home and were more in favor of vertical isolation than men ($p < 0.001$). The men were the main maintainers of the home, worked in a private practice and kept an employee and managed to make some financial reserve to face such situations ($p < 0.001$). Still, women considered the risk of contamination to be higher than men ($p = 0.004$) (Table 1). When comparing the time since graduation with the questions asked, an association was observed with practically all the variables studied. A significance of $p < 0.001$ was evidenced for greater social isolation, especially among those aged 15-20 years. The greater presence of people with risk factors at home ($p < 0.001$), a position in favor of horizontal isolation ($p < 0.001$) and an assessment that they are at a high risk of contamination ($p = 0.010$) was more significant among those with up to 5 years of graduation.

Table 1.Association between the responses to the questionnaire and the gender of the participants

Variables	Gender				Value
	Male		Female		
	n	%	n	%	
Are you in social isolation (with your family)?					0,450
- Yes	370	90,7	743	89,3	
- No	38	9,3	89	10,7	
Is there an elderly person or person(s) considered to be at risk at your home?					<0,001
-Yes	172	42,2	440	52,9	
- No	236	57,8	392	47,1	
In favor of which type of isolation?					<0,001
- Horizontal	229	56,1	564	67,8	
- Vertical	179	43,9	268	32,2	
Are you primarily responsible for your household expenses?					<0,001
- Yes	306	75,0	411	49,4	
- No	102	25,0	421	50,6	
Do you attend a private practice and keep an employee(s)?					<0,001
- Yes, but does not maintain	92	22,5	293	35,2	
- Yes, andkeepthem	278	68,1	434	52,2	
- Publicservice	38	9,3	105	12,6	
Has the exercise of your profession allowed you to make a financial reserve to face situations like the one that is occurring?					<0,001
- Yes	182	44,6	232	27,9	
- No	226	55,4	600	72,1	
How long do you think you would be without income to face the pandemic?					0,145
- 1 mounth	172	42,2	381	45,8	
- 2 mouths	125	30,6	262	31,5	
- 3 mouths	58	14,2	115	13,8	
- > 3 mouths	53	13,0	74	8,9	
How do you assess your risk of being contaminated with Covid-19 during an appointment?					0,004
- High	296	72,5	672	80,8	
- Medium	88	21,6	128	15,4	
- Low	24	5,9	32	3,8	
Are you attending during the pandemic?					0,131
- Yes	201	49,3	372	44,7	
- No	207	50,7	460	55,3	
Chi-squaretest					

Table 2. Association between the answers to the questionnaire and the time since graduation

Variables	Graduation time (in years)										Value
	Upuntil 5		6 to 10		11-15		15-20		> 20		
	n	%	n	%	n	%	n	%	n	%	
Are you in social isolation (with your family)?											<0,001
- Yes	255	82,3	207	88,5	148	88,6	173	96,6	330	94,3	
- No	55	17,7	27	11,5	19	11,4	6	3,4	20	5,7	
Is there an elderly person or person(s) considered to be at risk at your home?											<0,001
- Yes	177	57,1	118	50,4	71	42,5	60	33,5	186	53,1	
- No	133	42,9	116	49,6	96	57,5	119	66,5	164	46,9	
In favor of which type of isolation?											<0,001
- Horizontal	239	77,1	150	64,1	98	58,7	105	58,7	201	57,4	
- Vertical	71	22,9	84	35,9	69	41,3	74	41,3	149	42,6	
Are you primarily responsible for your household expenses?											<0,001
- Yes	110	35,5	127	54,3	104	62,3	132	73,7	244	69,7	
- No	200	64,5	107	45,7	63	37,7	47	26,3	106	30,3	
Do you attend a private practice and keep an employee(s)?											<0,001
- Yes, but does not keep them	164	52,9	75	32,1	42	25,1	27	15,1	77	22,0	
- Yes, andkeepthem	79	25,5	136	58,1	111	66,5	139	77,7	247	70,6	
- Public servisse	67	21,6	23	9,8	14	8,4	13	7,3	26	7,4	
Has the exercise of your profession allowed you to make a financial reserve to face situations like the one that is occurring?											<0,001
- Yes	74	23,9	99	42,3	68	40,7	50	27,9	123	35,1	
- No	236	76,1	135	57,7	99	59,3	129	72,1	227	64,9	
How long do you think you would be without income to face the pandemic?											0,026
- 1 mounth	136	43,9	93	39,7	76	45,5	91	50,8	157	44,9	
- 2 mouths	104	33,5	67	28,6	48	28,7	55	30,7	113	32,3	
- 3 mouths	48	15,5	33	14,1	25	15,0	21	11,7	46	13,1	
- > 3 mouths	22	7,1	41	17,5	18	10,8	12	6,7	34	9,7	
How do you assess your risk of being contaminated with Covid-19 during an appointment?											0,010
- High	263	84,8	185	79,1	125	74,9	139	77,7	256	73,1	
- Medium	38	12,3	40	17,1	35	21,0	35	19,6	68	19,4	
- Low	9	2,9	9	3,8	7	4,2	5	2,8	26	7,4	
Are you attending during the pandemic?											0,533
- Yes	134	43,2	117	50,0	78	46,7	87	48,6	157	44,9	
- No	176	56,8	117	50,0	89	53,3	92	51,4	193	55,1	
Chi-squaretest											

These are also not the main maintainers of the expenses of their homes (p <0.001) and are in the public service only or in an office with no employee maintenance (p <0.001). Those between 6 and 10 years of graduation are those who said they can spend more time without income to face the pandemic (p = 0.026) (Table 2).

With regard to the region in which they live, those from the North and Northeast Regions are the ones with the lowest number of social isolation (p <0.001). Northeasterners have someone with risk factors at home (p = 0.015), are the most favorable to horizontal isolation (p <0.001) and are the ones

Table 3. Association between the answers to the questionnaire and the Region where the dentists live

Variables	Regions										Value
	Northeast		North		Midwest		Southwest		South		
	n	%	n	%	n	%	n	%	n	%	
Are you in social isolation (with your family)?											<0,001
- Yes	558	86,4	38	86,4	43	95,6	389	94,4	85	91,4	
- No	88	13,6	6	13,6	2	4,4	23	5,6	8	8,6	
Is there an elderly person or person(s) considered to be at risk at your home?											0,015
- Yes	346	53,6	17	38,6	20	44,4	193	46,8	36	38,7	
- No	300	46,4	27	61,4	25	55,6	219	53,2	57	61,3	
In favor of which type of isolation?											<0,001
- Horizontal	468	72,4	30	68,2	22	48,9	232	56,3	41	44,1	
- Vertical	178	27,6	14	31,8	23	51,1	180	43,7	52	55,9	
Are you primarily responsible for your household expenses?											<0,001
- Yes	330	51,1	26	59,1	31	68,9	273	66,3	57	61,3	
- No	316	48,9	18	40,9	14	31,1	139	33,7	36	38,7	
Do you attend a private practice and keep an employee(s)?											<0,001
- Yes, but does not keep them	191	29,6	15	34,1	13	28,9	128	31,1	38	40,9	
- Yes, andkeepthem	349	54,0	23	52,3	29	64,4	260	63,1	51	54,8	
- Public servisse	106	16,4	6	13,6	3	6,7	24	5,8	4	4,3	
Has the exercise of your profession allowed you to make a financial reserve to face situations like the one that is occurring?											0,922
- Yes	211	32,7	15	34,1	15	33,3	138	33,5	35	37,6	
- No	435	67,3	29	65,9	30	66,7	274	66,5	58	62,4	
How long do you think you would be without income to face the pandemic?											0,932
- 1 mounth	279	43,2	18	40,9	19	42,2	193	46,8	44	47,3	
- 2 mouths	203	31,4	15	34,1	15	33,3	122	29,6	32	34,4	
- 3 mouths	91	14,1	6	13,6	8	17,8	59	14,3	9	9,7	
- > 3 mouths	73	11,3	5	11,4	3	6,7	38	9,2	8	8,6	
How do you assess your risk of being contaminated with Covid-19 during an appointment?											0,009
- High	524	81,1	31	70,5	30	66,7	315	76,5	68	73,1	
- Medium	98	15,2	11	25,0	8	17,8	79	19,2	20	21,5	
- Low	24	3,7	2	4,5	7	15,6	18	4,4	5	5,4	
Are you attending during the pandemic?											0,006
- Yes	271	42,0	24	54,5	22	48,9	200	48,5	56	60,2	
- No	375	58,0	20	45,5	23	51,1	212	51,5	37	39,8	

Table 4. Association between the responses to the questionnaire and the presence of children

Variables	Havechildren				Value
	Yes		No		
	n	%	n	%	
Are you in social isolation (with your family)?					0,062
- Yes	657	91,1	456	87,9	
- No	64	8,9	63	12,1	
Is there an elderly person or person(s) considered to be at risk at your home?					<0,001
- Yes	325	45,1	287	55,3	
- No	396	54,9	232	44,7	
In favor of which type of isolation?					<0,001
- Horizontal	424	58,8	369	71,1	
- Vertical	297	41,2	150	28,9	
Are you primarily responsible for your household expenses?					<0,001
- Yes	500	69,3	217	41,8	
- No	221	30,7	302	58,2	
Do you attend a private practice and keep an employee(s)?					<0,001
- Yes, but does not keep them	143	19,8	242	46,6	
- Yes, andkeepthem	520	72,1	192	37,0	
- Public servisse	58	8,0	85	16,4	
Has the exercise of your profession allowed you to make a financial reserve to face situations like the one that is occurring?					0,930
- Yes	240	33,3	174	33,5	
- No	481	66,7	345	66,5	
How long do you think you would be without income to face the pandemic?					0,097
- 1 mounth	341	47,3	212	40,8	
- 2 mouths	214	29,7	173	33,3	
- 3 mouths	91	12,6	82	15,8	
- > 3 mouths	75	10,4	52	10,0	
How do you assess your risk of being contaminated with Covid-19 during an appointment?					<0,001
- High	535	74,2	433	83,4	
- Medium	144	20,0	72	13,9	
- Low	42	5,8	14	2,7	
Are you attending during the pandemic?					0,833
- Yes	335	46,5	238	45,9	
- No	386	53,5	281	54,1	

who most consider the risk of contamination to be high (p = 0.009). Southern dentists are the ones who are attending the most during the pandemic (p = 0.006) and are the ones who work most in a private practice without maintaining employees (p <0.001). Those in the Midwest are the main maintainers of the home (p <0.001) (Table 3). Correlating the studied variables with the fact of having children or not, a significance ofp <0.001 was observed among those whose do not have children and whose have an elderly person or person(s) considered to be at risk at home. Those whose have no children are also more favorable to horizontal isolation and consider the risk of contamination with COVID-19 to be higher (p <0.001). Those with children, on the other hand, are the main maintainers of household expenses and with a private office keeping employees (p <0.001) (Table 4).

DISCUSSIONS

The World Health Organization (WHO) declared on January thirtieth, 2020 the outbreak of COVID-19 as an international health emergency[11]. International data updated until April eleventh, 2020 confirmed 1.741.807 cases of COVID-19 with 106,694 deaths. The United States of America led the number of cases (508,575) at that time, with Brazil in the 14th position in the number of confirmed cases and in the 12th in the number of deaths in the world[12]. Infections that show mild symptoms or none at all and therefore are not reported can expose a much larger portion of the population to the virus[1,8,13]. Similar to pneumonia of viral origin, patients with COVID-19 may present with fever, cough, runny nose, body aches, fatigue, dyspnoea and even diarrhea, the latter being less common than the others[5,10,14,15]. The general population is susceptible to contracting the virus, but health professionals, due to their proximity to infected people, are more vulnerable. In the initial stage of the disease, part of the patients admitted to hospitals that received people infected with COVID-19 with mild or asymptomatic symptoms developed the disease. At the beginning of the epidemic in Wuhan, China, 29% of health workers were infected with COVID-19. As of February fourteenth, a total of 1,716 health professionals had been infected and represented 3.8% of all infected in the country[16]. When the virus arrived in Singapore, among the 25 cases transmitted locally, 17 (68%) were related to probable occupational exposure[17]. With mortality rates reaching 10%, especially in elderly patients with comorbidities (associated diseases), it is estimated that 20% to 30% of all infected patients require mechanical ventilation during hospitalization and among these are many healthcare professionals[5].

According to the epidemiological bulletin of the Ministry of Health[12] from the same period in which the collection of this study was performed, most cases were concentrated in the Southeast (62.5%), followed by the Northeast (15.4%), South (10.8%), Midwest (6.6%) and North (4.7%). São Paulo had the highest number of confirmed cases of the disease (44.7%), followed by Rio de Janeiro (11.9%), Ceará (6.9%), Distrito Federal (4.4%) and Minas Gerais (4.4%). The highest lethality rates were in the Southeast (4.9% or 276 deaths in 5,658 cases), followed by Northeast (3.7% or 51 / 1,399 cases), North (2.1% or 9/427), Central West (1.5% or 9/594) and South (1.4% or 14/978). Although greater adherence to social isolation was observed among dentists in the South, Southeast and Midwest regions with rates above 90% (p <0.001), southern dentists are the most favorable to vertical isolation (p <0.001) and those whose work hardest during the pandemic (p = 0.006). This may be due to the fact that work and/or emergency activities are not considered to be relaxing from social isolation. Among professionals in the Northeast region, most have elderly people at home or someone from the risk group (53.6%) and are also the most favorable to horizontal isolation with 72.4% (p <0.001), although these are the least fulfilled the governmental determination.

With regard to dental care, it is considered that the usual disease prevention measures in the routine of dental care are not sufficient to prevent the transmission of COVID-19, as the virus spreads very easily and the generation of droplets and aerosols in the environment during care can lead to cross contamination[16]. Due to the high degree of infectivity, the authors recommend that additional biosafety measures should be implemented. According to the study, more than 700 patients have been seen since January twenty-fourth, registering no contamination by COVID-19 among the team after implementing a strict care protocol. It was observed in the present study that 46.2% of Brazilian dentists continue to attend, mainly, urgent/emergency, especially those living in the South of the country (p <0.0010). It is important that dental professionals are familiar with the way the virus spreads, with the identification of infected patients and what protective measures should be adopted in clinical practice to prevent contamination and spread of COVID-19[14]. According to the American Dental Association[18], in times of a pandemic, dental procedures should be restricted to emergency (with risk of death) such as: hemorrhage; cellulite, intra-oral or extra-oral infection, with swelling that potentially compromises the airways; and trauma involving facial bones, with involvement of the patient's airways. Only urgent/emergency care is being provided by 80.3% of those whose claimed to be working during this period. The nature of dental care due to proximity and frequent exposure to saliva, blood and other body fluids, in addition to the handling of sharped instruments, exposes dentists to pathogens such as viruses and bacteria that can enter the mouth and respiratory tract, as well as SARS-CoV2[14]. The dental team's exposure goes beyond direct contact with a patient infected with COVID-19. Devices such as the triple syringe and the high-speed pen generate aerosols that, mixed with the patient's saliva droplets, stay in the room for hours, which can be inhaled, contaminating people whose pass by in that room. In addition, there is interpersonal transmission through coughing, sneezing and even conversations without protective masks. All preventive and protective measures must be taken to prevent the spread of COVID-19 in the routine interaction of the dental environment[14,16]. Studies show that the SARS-CoV2 virus remains potentially contaminating for a period of 2 to 9 days depending on the relative humidity of the environment and the type of surface. Thus, keeping the office clean and dry would help reduce the survival of the virus in the environment (14). An anterior coronavirus (SARS-CoV) is sensitive to 0.1% sodium hypochlorite or 70% ethanol, significantly reducing its infectivity. The same is expected of the virus that causes COVID-19 (SARS-CoV-2) when exposed to at least one minute, especially on surfaces[17]. This situation generates an awareness among professionals among those participating in this study, where 78.1% consider the risk of contamination to be high. We can also verify that professional practice will undergo profound changes in care after being released for work, which will incur additional costs. This is a cause for greater concern if we consider that 66.6% of those investigated have a financial reserve to face situations such as the one

caused by the pandemic and 75.8% stated that they can remain up to 2 months without income from stopped activities. Those between 6 and 10 years of graduation are those who said they can spend more time without income to face the pandemic (p = 0.026). The brazilian dentistrypanorama has not been promising for some time. In 2007 Brazil had one general dentist for 2880 inhabitants, in 2014 this proportion dropped to one dentist for every 1065 inhabitants and in 2018 the number of dentists per inhabitant was already much higher than the average recommended by the Ministry of Health, which is one for every 3000 inhabitants. The public sector continues to be the aspiration of many dentists in the search for the long-awaited financial stability, since in the private sector, drenched by the number of trained professionals and with so many dental plans, profits in clinical practice are getting smaller[19].

The projections made by Porsse et al.[20] on the economic impacts of COVID-19 in Brazil showed two different scenarios. The first, milder, predicted only a decrease in the labor supply due to the morbidity and mortality caused by the disease with a basic number of disease reproduction of 3 (each contaminated would have the potential to contaminate another 3, which would contaminate 9 and so on), 75% rate of social isolation causing a reduction in economic activity for a period of 2 months and with 23% of the population contracting the virus. This first scenario was already sufficient to generate a great impact on the dental category because of the vast majority (75.8%) who support only 2 months without their work activities. A global economic impact generated by COVID-19 is already expected. The closure of China's productive sector, one of the main manufacturing centers in the world, representing today 1/5 of world production, caused a collapse in global supply. Pharmaceutical production, for example, was affected, impacting other countries and leading to an increase in the prices of essential medicines due to a lack of Chinese raw materials. In the same way, it happened with the Individual Protection Equipment (IPE), extremely important in the dental routine. Only this detail of dental care will generate extra costs and overburden the category that is already financially affected. In addition to the economic impact, the outbreak of COVID-19 will leave a major psychosocial impact on the general population, including health professionals[11,21]. The lack of available data makes it difficult for economists to assess. Such data could be fostered by the global health community, reinforcing government incentives and the effectiveness of public policies to mitigate social and economic impacts in the various productive sectors, which include health services such as dentistry[22]. We must keep in mind, supported by the data from this study, that most professionals in the dental class are self-employed, microentrepreneurs who are not oriented, do not know and do not make the necessary provisions to act in unexpected moments of crisis as observed in the present study. Financial education is much more than saving, cutting expenses and accumulating money. It is knowing how to deal with money as a synonym for quality of life. Unfortunately, most Brazilians in general are not instructed to do financial planning, organize themselves, know how to prepare budgets, plan, save and invest correctly. We must also take into account the high tax rate to which we are subjected, being one of the highest in the world, Brazil currently has one of the highest tax burdens in the world, reaching almost 40% of the Gross Domestic Product (GDP) and causing the cost products and services produced here is high[23]. Planning must take into account the now and the future, seeking material security and quality of life, with personal and professional fulfillment[24]. Up to the present moment, there has been no indication from the federal government in taking any type of measure to protect the dental category from economic problems in view of the paralysis of activities.

Conclusion

It is concluded that dentists observed the moment of social isolation and since the beginning of the pandemic, they had already feared for a socioeconomic crisis in the category. As most dental professionals are self-employed, their income would be significantly compromised and few had financial reserves to face the interruption of their activities for more than three months. The importance of dental services in health and the economy must be taken into account and public policies should be directed towards the economic restoration of the category.

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