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Challenges for the Public and Private Healthcare systems in the fight against Covid-19 in São Paulo, SP, Brazil

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ABSTRACT

OBJECTIVE

To compare the difficulties faced by the public and private systems' healthcare systems professionals during the COVID-19 pandemic

METHODS

Through an online form, which was sent to healthcare professionals, it was asked what the main difficulties they had to face during the pandemic were, such as the lack of PPEs, beds, professionals, the large number of patients, as well as the proper training in both the public and private sectors.

RESULTS

There 389 forms received. Among the people who answered the form, 256 worked only at the public sector, while only 82 worked at the private sector, and 52 of them worked at both. It was possible to realize the disproportionality of the hardships faced by them in both sectors. Regarding the public workers, 42% of those who answered the form faced lack of PPEs, while this number is only 17.1% when it comes to the private sector. As for the number of infected professionals the public scope was also in disadvantage, 33.6% of them were infected, a larger number compared to the 20.7% that showed up in the private scope. The difference between the lack of beds, however, was not statistically relevant according to the chi-square test.

CONCLUSIONS

We concluded that in many ways, as expected, the members of the public system are in disadvantage when compared to the ones in the private one. Factors such as the lack of PPEs and number of infected professionals were extremely out of proportion between both sectors.

DESCRIPTORS

Coronavirus, Personal Protective Equipment PPEs, Healthcare Professionals.

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INTRODUCTION

The fight against the SARS-CoV-2 virus is currently happening in the Eastern and Western societies, thus the reason why the World Health Organization (WHO) declared a Public Health Emergency of International Concern (PHEIC) on the 30th of January, 2020[1].

The Coronavirus can be transmitted directly and indirectly. Direct transmission happens between two people when one of them is infected and transmits the virus to the other one by cough droplets, while indirect transmission happens through the contact with contaminated objects. The SARS-CoV-2 is a highly contagious virus, and its period of incubation is usually 5-6 days long. It may, however, linger 14 days. Both symptomatic and asymptomatic patients can transmit it[2]. Therefore, to prevent and control its dissemination, the Brazilian Ministry of Health recommends that healthcare professionals, while in contact with ill patients, are always adequately equipped with N95 masks or similar, caps, face shields or protection glasses, gloves, and gowns[3].

In Brazil, the pandemic was officially decreed on February third, 2020 and, during Brazilian Federal Council of Medicine (FCM), doctors reported many irregularities on their work's infrastructure in both the public and private sectors throughout the whole country. Among these irregularities, the lack of N95 masks or similar was listed alongside the lack of other equipment such as face shields, gloves, caps, aprons or gowns, isopropyl alcohol, and surgical masks. The lack of healthcare professionals, no specialized training for the correct management of COVID-19 infected patients and the hard access to ICU beds and hospitalization are also severe issues[4].

Therefore, since about 80% of the Brazilian healthcare demand is met by the Unified Health System (SUS), we questioned the healthcare professionals about the differences between the work infrastructure offered by the public and private health sectors during the COVID-19 pandemic. With the answers given, it was possible to identify the most crucial problems and the solutions to improve the healthcare system mainly during this pandemic, through a comparative analysis with the data collected in the state of São Paulo[5].

This research was not only made to uncover the difficulties faced by healthcare professionals during the SARS-CoV-2 pandemic, but also to clarify the differences faced by SUS and the private system of the state of São Paulo, SP, Brazil.

METHODS

The data used on this study was collected through an online survey, which was structured and conducted among the healthcare professionals who have been working during the COVID-19 pandemic. It is a qualitative, cross-sectioned research with a descriptive approach.

The gathering of information took place between October 24 and November 7 of 2020 through social media with three hundred and ninety-one healthcare professionals' participation. This survey was approved by the Ethics Committee of University of Santo Amaro under the number 4.417.901.

After the data had been collected it was put into an online spreadsheet. The analysis was elaborated and displayed on tables containing the values and percentages obtained. Through this information a data bank was created on Microsoft Excel. Then a descriptive statistic was made for the concretization of this research's goals and data was analysed with the Pearson's Chi-square test with a statistical significance set at 0.05.

RESULTS

Out of the 389 healthcare professionals who volunteered to answer the questionnaire, 37.8% (147/389) were identified as nurses, 35% (136/389) as doctors, 12.9% (50/389) as Technical/Auxiliary nurses, 2.3% (9/389) as dentists, 1.3% (5/389) as psychologists, 0.9% (3/389) as biomedical scientists and the other 9.8% (38/389) as managers, community health agents, pharmacists, speech therapists and elderly companions.

Among them, 66.06% (257/389) of the participants worked in public system only, 21.08% (82/389) of the participants in the private system only and 12.85% (50/389) of the participants worked in both the public and private system.

Specialized management training on the management of patients with Covid-19.

When asked if they had received proper training to handle COVID-19 infected patients, 46.1% of the public sector workers replied that they did, while 36.7% replied to have learned it through practice whilst having received no training, and 8.6% claimed not having received any training and not feeling prepared. The remaining 8.6% answered that after receiving training, they still did not feel prepared enough.

61.0% of the volunteers from the private sector replied having received training, whilst 30.5% (25/82) replied not having been trained but having learned the ropes during practice. 4.9% replied not having received any training and not feeling prepared. The remaining 3.7% answered that despite having been trained, they still did not feel prepared enough.

50% of the hybrid public/private sector claimed that although they have received no training, they learned the ropes through experience, while 41.7% answered having been trained and not feeling prepared and 8.3% said that they did not receive training and that they do not feel prepared.

Shortage of healthcare workers

When questioned about lack of healthcare workers, 13.3% of the public scope answered that there was not any. However, 26.2% answered having always noticed lack of professionals, 18% of which answered that this could be due to many them being infected, and 13.7% speculated that it was due to some of the workers being part of the high/medium risk groups. The remaining volunteers were split between "there has always been a lack of healthcare professionals, but it worsened during the pandemic" and "there has always been a lack of healthcare professionals, but it worsened due to the increased demand of professionals during the pandemic".

Regarding the private sector, 42.7% of their workers answered there was no shortage of healthcare professionals, whilst 18.3% of them stated that there was a lack of professionals due to the large number of infected people. 12.2% said that the lack was due to the increased demand, while the rest of the percentage was split between "there has always been a lack of healthcare professionals, but it worsened during the pandemic", and "it has always lacked, but due to the withdrawal of the high/medium risk group workers, it was aggravated."

16.7% of the professionals working both the public and private scopes claimed having noticed no lack of workers, while 19.4% reported a lack of professionals, supposedly due to their contamination at work, and 19.4% claimed they have always been lacking, but it got aggravated in the pandemic. The remaining people who noticed the lack of professionals were split between the scarcity being resulted by the increased demand and workers' leave.

Lack of Personal Protective Equipment (PPE) before the pandemic at the volunteers' workplaces

58.36% (150/257) of the public sector interviewees answered that there was no lack of personal protection equipment before the pandemic, and 49.02% (126/257) of the volunteers said that there had already been a shortage.

85.4% (70/82) of the private niche volunteers replied that there was no lack of PPE in their workplace before the pandemic, while 14.6% (12/82) of them reported that the lack of equipment already used to be a problem back then.

54% (27/50) of the public/private sector stated not noticing a lack of PPE before the pandemic, whilst 50% (25/50) reported to have experienced it in the past.

Lack of Personal Protective Equipment (PPE) during the pandemic at the interviewees' workplaces

When questioned about the lack of PPE during the pandemic, 58.9% (151/257) of the public sector's volunteers answered that there was no lack of equipment at their workplaces, while 40.9% (105/257) of them replied that there was a shortage of items such as N95 masks or similar products.

82.92% (68/82) of the private scope workers replied that there was no lack of PPE during the pandemic at their workplaces, while 17% (14/82) said there was a shortage of N95 masks and similar items.

54% (27/50) of the public/private volunteers claimed not having noticed a shortage of these materials at their workplaces (Figure 1).

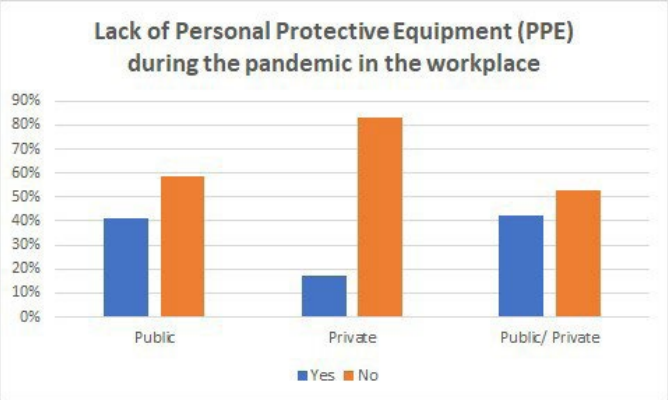

Figure 1. The public sector had lower access to PPE than the private one. P<0,001.

Thus, applying the Chi-square formula on the public and private sector's results, the number p<0,001 was obtained, as p< 0.05, which means that the niche in which the professionals work is directly related to the shortage of personal protection equipment.

Lack of beds at the interviewee's workplaces

The public health professionals were questioned about whether there was a lack of hospital beds at their workplaces or not. 24.12% (62/257) of them responded yes and 75.48% (194/257), no.

15.9% (13/82) of the private system's volunteers claimed to have noticed a lack of hospital beds, while 84.1% (69/82) of them replied not having noticed any shortage of hospital beds.

32% (16/50) of the public/private sector's volunteers stated having noticed a lack of hospital beds at their workplaces, whilst 69.4% (36/52) of them said they have not (Figure 2).

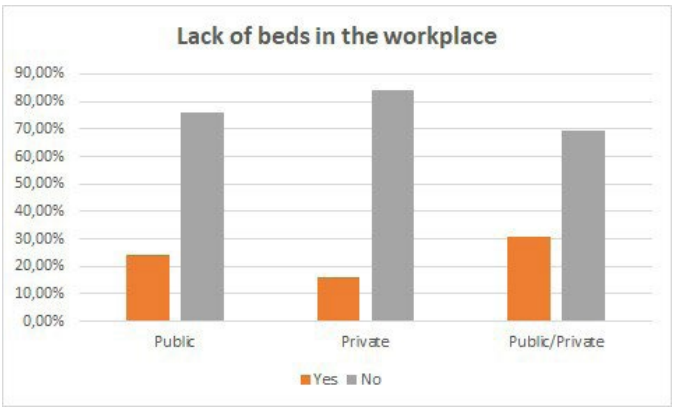

Figure 2. There was no statistical difference between public and private sector regarding to lack of beds.

Therefore, after obtaining these results and applying the Chi-square formula in the public and private sectors regarding the lack of beds, the value of p = 0.11 was obtained, as p >0.05, which means that the system in which the professionals work at is not related to the lack of hospital beds.

Having been infected or not

When asked if they had already been infected by the coronavirus, 33.46% (86/257) of the public sector workers replied that they had, while 66.5% (171/257) replied not having been infected by the virus yet.

20.7% (17/82) of the private system professionals responded that they had been infected, while 79.3% (65/82) answered not having been.

38% (19/50) of the public/private sector healthcare workers answered that they had been infected, and 66% (33/50) said they had not (Figure 3).

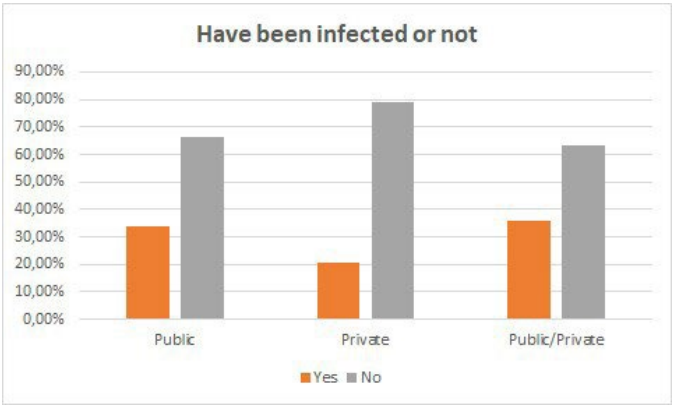

Figure 3. Public sector healthcare professionals had more infections than the private ones. P=0,03.

Hence, after applying the Chi-square formula in the public network and private network niche, the number of p=0.03 was obtained, as p< 0.05, meaning that the scope in which individuals work at is directly related to the number of infected professionals.

DISCUSSION

This research was essential to identify some important differences between healthcare workers from the private and public sectors during the COVID-19 pandemic, which showed a

greater disadvantage faced by the ones who work in the public system. This is shown when comparing the lack of PPE in both sectors, which is more common in the public sector rather than the private one. Therefore, it allows for a greater number of infections among those in the so-called "front line", as it leaves them more susceptible to the virus. The difference between the lack of hospital beds available in both sectors was not statistically significant.

During the pandemic we are living in, the Associação Paulista de Medicina highlights the importance of the use of personal protective equipment (PPE) by healthcare workers, and health units providing the material and favorable conditions for the teams to work with. According to the report published by the newspaper "O Globo", on March 17, the lack of materials has worried healthcare workers. The publication also shows complaints from doctors performing their services without the necessary protection.

Having collected the results obtained in the public and in the private sectors, regarding the lack of PPE during the pandemic, the Chi-square test was applied, with the null hypothesis defined. In addition, it was tested whether the lack of PPE was related or not to the type of network in which the healthcare worker was practicing. The value of p=0.000078 was obtained, showing that the network in which the individual works is related to the lack of personal protective equipment.

In the same way, to create a relation between the different groups and the susceptibility to COVID-19 contamination depending on the sector in which they work, the Chi-square test was applied, with the null hypothesis defined for its accomplishment. Thus, we tested whether the employee was contaminated or not due to the sector in which he/she works. The number of p=0.03 was obtained, showing that the network in which the individual works is related to the fact of having been contaminated or not.

Analyzing the results about the lack of hospital beds, the Chi-square method was applied in the same way as in the absence of PPE and in the contamination, testing whether this lack was related or not to the type of sector in which the healthcare worker was acting. The value of p = 0.11 was obtained, indicating that the sector in which each individual works is not related to the lack of hospital beds.

Our study had some limitations, such as the small number of volunteers who responded to the form, which was made available through social media, so not all healthcare workers had access to it. Also, the survey did not collected data about the city in which the healthcare professional works. So, it is not possible to know the location in which there was lack of equipment or greater healthcare professionals contamination by COVID-19.

Even so, this research is important, as the results enabled a better understanding of the existing differences in the private and public spheres during the COVID-19 pandemic.

It is not surprising that conditions in public health services are worse than the ones in the private sector. According to Dias et al, the administrative inadequacy is one of the factors. When the federal government send the funding to the municipal administration, sometimes it is required some sort of counterpart, the lack of this counterpart can limit new funding by the Ministry of Health. Also, the poor fiscalization by the municipal council of health and poor compliance are also reasons for the waste of resources. It is not possible to rule out the impact of corruption in the management of resources as a reason for the worse working condition for the public healthcare workers[6].

CONCLUSION

With this research, it was possible to conclude that healthcare workers, depending on the sector they worked in during the pandemic, go through different difficulties, which leads them to different relevant consequences that can result in infection.

It was concluded that the type of sector from each healthcare worker has a significant relevance for individuals who have been infected by COVID-19. Important factors such as the lack of PPE in both sectors and the contamination of healthcare professionals, showed the strong disadvantage of public sector professionals compared to the private sector, something not observed in the lack of hospital beds.

This study was conducted between October and November 2020 when the situation of the COVID-19 pandemic was declining after the first wave. In 2021, the spread of the P1 variant, also known as Manaus or Brazillian variant, made the pandemic much harder in Brazil, possibly leading to new challenges. New studies in 2021 should be conducted to compare the results.

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