

# Health Economic Impact of COVID-19 among Private Dental Practitioners in Malaysia

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## Keywords:

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## ABSTRACT

Coronavirus disease 2019(Covid-19) has affected thousands of jobs worldwide. Dentistry in Malaysia is characterized by high practice costs but also high revenue and thus significantly contributes to the national health economy. The objective of this study is to measure the health economy impact towards private dental clinics in Malaysia and identify the revenue barriers. The data was obtained from 360 respondents of which comprised of registered general dental practitioners in Malaysia based on the duration of practices, clinic operating hours, clinic commitments, salary payments and estimated profit and losses. The results show that most of the clinics are indeed going on gradual losses. Loss of clinic productivity, with lesser patients coming in, lesser procedures in demand due to social distancing are among the barriers lead to revenue loss. These findings are extremely important for policy makers to make judgements and eventually to develop potential pre-emptive and sustainable economic strategies to enhance the health economy leading to national gross domestic product.

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## 1. INTRODUCTION

Coronavirus disease 2019, or Covid-19, as renamed by World Health Organization (WHO), is a communicable disease caused by infection by a novel coronavirus which started as a cluster of severe pneumonia cases [4]. The isolated causative agent was found to be a novel coronavirus of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). Commonly presents with fever, dry cough and myalgia, this borderless infection had spread internationally within 1 month since its identification [5], and today, to more than 200 countries. Hence, governments around the world are forced to impose a method of controlling the outbreak, and many of the countries had strategized a restricted movement order which resulted in impact towards big industries, mainly the world's economy. In Malaysia, more than 28000

people have been infected by Covid-19 with 238 fatalities as reported by the Ministry of Health Malaysia on 27<sup>th</sup> October 2020. The exponentially growing number of cases in Malaysia resulted in the government imposing multiple phases of Movement Control Order (MCO) nationwide on 18<sup>th</sup> March 2020, with exception towards essential services, in hopes that rate of infection is brought to a plateau. However, on the other side of the coin, businesses and services which are non-essentials were restricted and forced into idle. In addition, interstate travel was curtailed, and time curfews were amended. Eventually, health interest intersects with the need of economic maintenance and growth.

Essential services include general practice services, such as the government and private dental clinics. The Oral Health Programme of the Malaysian Ministry of Health issued the guidelines for dental clinic operations during the MCO on the 18th of May 2020. Expectedly, these guidelines require adaptations to the usual way of clinic operations and would require preparation of the physical facilities as well as behavioural modifications of dentists, support staff, patients and the public at large. During the first implementation of MCO, it was highly recommended that dental services would be limited to only urgent and emergency treatment. This factor alone, and in addition to the growing public anxiety and fear of the disease transmission taking place in the dental clinic had caused a decline in dental clinic attendance. Hence, the aim of this study was twofold 1) to measure the health economy impact towards private dental clinics in Malaysia and 2) to identify the revenue barriers during the Covid-19 pandemic period.

## **2. LITERATURE REVIEW**

In Malaysia, around 850,000 jobs are associated with the more than 50,000 Malaysian dental practices [1]. Each dental practice is privately run for profit with a mean of five or more employees per licensed practice [11]. Dentistry in Malaysia is characterized by high practice costs (mean more than RM330,000 per licensed dentists and year), but also high revenue (mean more than RM530,000). All dentists offer their patients services covered completely or partially by statutory, private, employed-based, or other insurance schemes. Patients can top-up these insured services or pay completely out-of-pocket if requesting a qualitatively higher alternative of care [11]. More than 175 countries worldwide have reported cases of COVID-19. As of 8th April 2020, nearly 1,405,000 cases have been reported, and more than 82,000 deaths (John Hopkins University 2020).

Governments have implemented strict policies to contain the pandemic, mainly by physical distancing including curfews [10]. In Malaysia, federal state governments have implemented a range of mitigation and suppression policies, which have reduced mobility significantly [9]. These policies will have a profound impact on dental practices: On the demand side, patients' services utilization is likely to contract short-term and shift towards public insurances as financial losses reduce the availability of disposable income for out-of-pocket spending. On the supply side, the pandemic may affect the availability of labor, impact on protocols to operate, alter the supply chain of materials and generate cash-ow problems [7]. Governments worldwide are not only aiming to reduce the spread of the pandemic, but to alleviate the economic burden of COVID-19. So far in Malaysia, dental practices have not been included in specific governmental support or protection schemes. Economic forecasts generally look for a very deep contraction in second quarter of 2020 (Q2). In regard to the projection by J.P. Morgan Securities Research, it is certain that the data will, in the coming months, be truly disastrous in terms of gross domestic product [6].

## **3. METHODS**

The sampling frame was made up of an estimated 2,500 general dental practices in Malaysia, with 74% of them being private dental clinics [1]. A questionnaire survey was designed to obtain information on the clinic operating hours, clinic commitments, salary payments and estimated profit and losses as well as clinic

practice backgrounds which are the state in which they are practicing and number of years in practice. This questionnaire was distributed online using social media platforms of the Islamic Dental Association of Malaysia. A total of 360 respondents had completed the survey, which met the minimum sample size of 334 as estimated using the Raosoft online sample size calculator with 5% margin of error and 95% confidence interval.

#### **4. RESULTS**

From this survey we can conclude that 96% (346/360) are owners and shareholder of a dental clinic or dental clinic group practice (Figure 1).

One third of majority chose not to operate during the MCO, and 38% (136/360) of the clinics are operating as usual despite the lower volume of patients, hence indicating a steep drop in their income (Figure 2).

On the other hand, 31% (112/360) clinics are only providing emergency dental treatment, which is concurrent to the MCO as imposed by the Malaysian government. However, 1% (3/360) of the respondents claimed to run their business as usual.

73% (264/360) of the clinic owners are paying full salary to all their staff (Figure 3).

Lower majority of 20% (79/360) clinic owners' hand in partial payment, namely the basic salary and some profit sharing,

It is poignant to know that 7% (23/360) of these clinic owners are not paying their employers.

46% (164) of the participating clinics are going on loss without gaining profit (Figure 4).

Approximate to the winning margin, 36% (129/360) of the clinics are losing a significant 80% of their profit.

However, about 2% (10/360) of the respondents are experiencing loss of 30% to none,

Figure 5 shows more than half of the respondents are tied to full commitments, despite the majority low income as discussed in the fourth topic.

The remaining part of the whole, amounting to 48% (171) is still paying other monthly commitments while profit is dropping.

Based on this survey, one third of the respondents are clinic owners from Selangor 34.21% (130), followed by Kuala Lumpur 18.68% (71). Rest of the states comprises below 10% of the total respondents (Figure 6).

A huge margin of 61% (228) respondents have been practicing for more than 10 years. 32% of them practiced for more than 2 years, while the remaining respondents have been running for less than 2 years (Figure 7).

#### **5. DISCUSSION**

The flu pandemic returned as an old, familiar enemy to the world, after over a decade long. The healthcare fraternity is slowly going on a crisis, dragging along the economics. To combat the war, economists and

leaders of the world must first equip themselves with the most vital weapon there is, the form of teamwork. It is time we work together in our best fields, to propagate solution out of the maze. This survey grounds its purpose to understand how the outbreak has affected the private dental practitioners in Malaysia. A collective response shows that majority of these clinics are indeed going on losses, if not now, then soon. This could be due to loss of clinic productivity, with lesser patients coming in, lesser procedures are in demand and most importantly due to social distancing. It is understandable how urgent it is to break the circuit of infection, but it is as equally important to protect the economy, in this context, of these dental practices. Majority of dental clinics chose not to operate during the MCO due to fear of Covid-19 infection, and the clinics which are operating reported patient flow dropped and lead to lower income. This occurrence probably resulted from public's awareness of social distancing, which brings a good cause to control the pandemic. 73% (264) of the clinic owners are paying full salary to all their staff. This can suggestively due to the Employment Act which is instated by the Ministry of Human Resource, whereby employers must pay all their employee full payment, notwithstanding loss encounters. Lower majority of 20% (79) clinic owners hands in partial payment, namely the basic salary and some profit sharing, which might be due to the initial agreement between the employers and his employees. It is sad to know that 7% (23) of these clinic owners are not paying their employees. However, this is probably because the employer and employee are of the same person, or the respondent is from a public dental clinic. Nevertheless, this particular section warrants more investigation to be conducted, as it reflects a dire impact to the clinic's economy as employers are a huge assets of a company.

46% (164) of the participating clinics are going on loss without gaining profit. This shows that most of the general dental practitioners are struggling with the economy during the outbreak. Such finding adds oil to fire, should they continue to compensate their employees, besides paying rent, utility and leasing fees. Approximate to the winning margin, 36% (129) of the clinics are losing a significant 80% of their profit. The huge disruption from their norm profit would devastatingly affect their revenues, and if dragged a little further, would bring about a huge loss. This domino effect will also slowly hit 16% (57) of the clinics which are barely surviving with 50% of their usual profit. However, about 2% (10) of the respondents are experiencing loss of 30% to none, which shows some businesses are still doing well despite the implementation of MCO. This suggests that very few businesses are ready for crisis and are able to mitigate their economy in the current downfall. An assumption can be made, that these business have been running for some time to enable them in keeping their balance stable. More than half of the respondents are tied to full commitments, despite the majority low income as discussed in the fourth topic. This indicate loss of revenues among general dental practitioners, and an effort needs to be initiated to halt or slow down this vicious process. The remaining part of the whole, amounting to 48% (171) are still paying other monthly commitments while profit is dropping. Further action is needed to salvage the economy for dental practitioners, as this particular response shows that a larger number of clinics still have to spend on full commitments.

Based on this survey, one third of the respondents are clinic owners from Selangor 34.21% (130), followed by Kuala Lumpur 18.68% (71). Rest of the states comprises below 10% of the total respondents. It is acknowledged that this survey requires a broader reach of Malaysia, but the looking at the main point, this section postulates that every states in Malaysia has its economy affected. Thus, we believe that to mitigate balanced economy solution, aid has to arrive regardless of location. However, it could also suggest that Selangor and Kuala Lumpur may be most affected due to the implementation of Enhanced Movement Control Order (EMCO) on certain districts. Nevertheless, it's important to reiterate that these data has to be compared evenly among all States.

A huge margin of 61% (228) respondents have been practicing for more than 10 years. 32% of them practiced for more than 2 years, while the remaining respondents have been running for less than 2 years. This clears all assumption that the economy instability affects the fresh starters. Instead, majority of senior practitioners are more at risk to succumb into economy downfall, as referred to previous discussions. It is to a great dismay that despite long practices in business, it does not guarantee an immunity towards the borderless economic crisis. The reason to this was generally explained in a study in by [8] in which mentioned how an economy's compensatory mechanisms would eventually fail if it undergoes echoes of crisis [8]. Similar to dental practices in Malaysia, and as described in the survey findings, most of the clinics are struggling to make profits, despite being in the industry for more than 10 years. Losing revenues could risk a company to lose their most important assets, their skilled labors. Furthermore, described the urgency of protecting financial risks as a measure to protect the economy against the Covid-19 crisis. It mainly directed such responsibility towards the government, due to rapidly decreasing demand within the private economy [8]. Therefore, this survey acts as an informational guidance towards the economic response among private dental practitioners during this novel coronavirus pandemic, to initiate economic recovery.

Based on the latest perspective of McKinsey & Company in their Covid-19: Briefing Note dated 30th March 2020, it takes companies these five stages to navigate through the pandemic crisis: Resolve, Resilience, Return, Reimagination and Reform [3]. We are currently in stages 1 and 2, in which we are still in the process of recognizing struggles and looking for solutions to mitigate the economic issue. This survey serves the purpose of identifying the challenges, particularly in the general dental practicing sector. We thus take this opportunity to recommend other fraternities to conduct a mutual study in order to apprehend the crisis further. It is important for the world to find an ethical balance between healthcare and economy, to allow growth or maintain normality of a nation. According to the gross domestic product impact of Covid-19 spread, public-health responses, and economic policies by McKinsey & Company, we may visualize our position based on the stages provided [3]. Those highlighted as Block A are ideal for every companies, as the virus is in control. However, we must also investigate the probability should the pandemic continue. This is displayed in Blocks of B. B4 and B5 shows how important it is to have an effective economic response. Although slowed down due to the outbreak, it is far more ideal than falling into bankruptcies and another banking crisis. Thus, the survey is conducted as a steppingstone in developing a progress of economic response.

## 6. CONCLUSION AND RECOMMENDATION

As mentioned, despite the chaos, the economy needs restoration. Among the focuses advised by McKinsey & Company are, 1) To support and protect employees; 2) Monitor leading indicators of how and where the pandemic is evolving and conduct scenario planning using both epidemiological and economic inputs; 3) Think about the next horizons of COVID-19 and lastly, 4) To evolve the nerve center to plan for the next phase.

We are going towards the first focus and are searching for channels that could aid the matter.

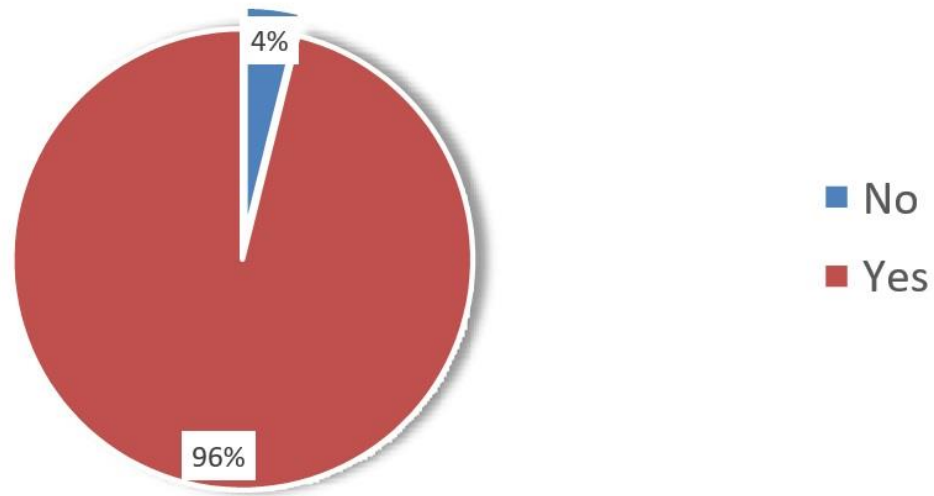
Thus, on account of this survey and analysis, we take great humility to appeal the Ministry to consider the following:

- a. Deferment or moratorium of hire purchase and leasing contracts without interest from leasing companies.
- b. Building owners to offer discounts on rental for a suggested period of 6 months.
- c. Government to address and monitor Personal Protective Equipment (PPE) supply chain to handle magnitude of demand and pricing, in regard to stocks running low in healthcare facilities.

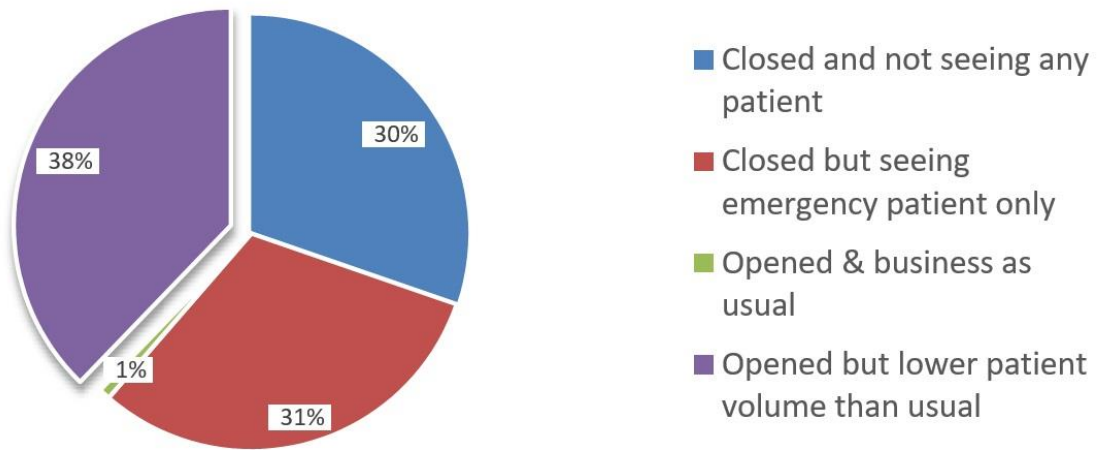
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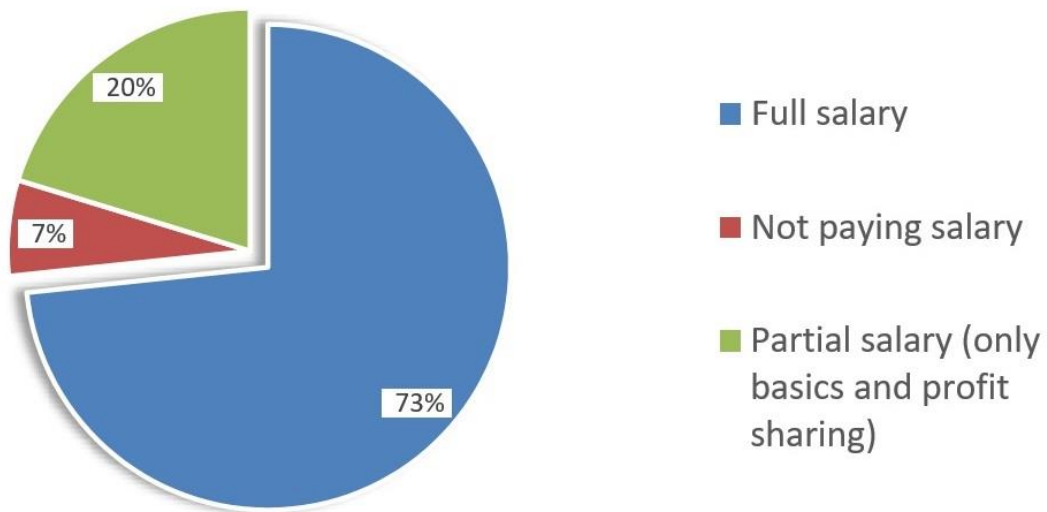
### Percentage of Private Dental Clinic Owners/Shareholders



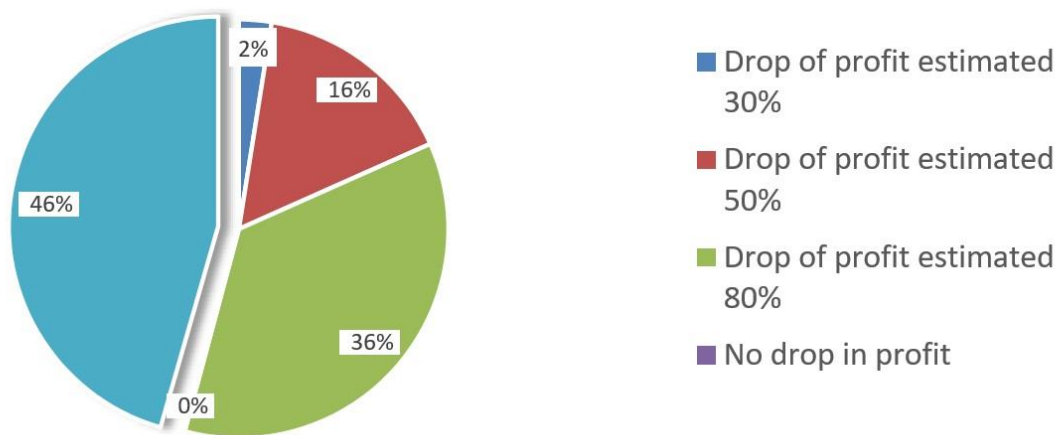
**Figure 1:** Percentage of Private Dental Clinic/ Shareholders



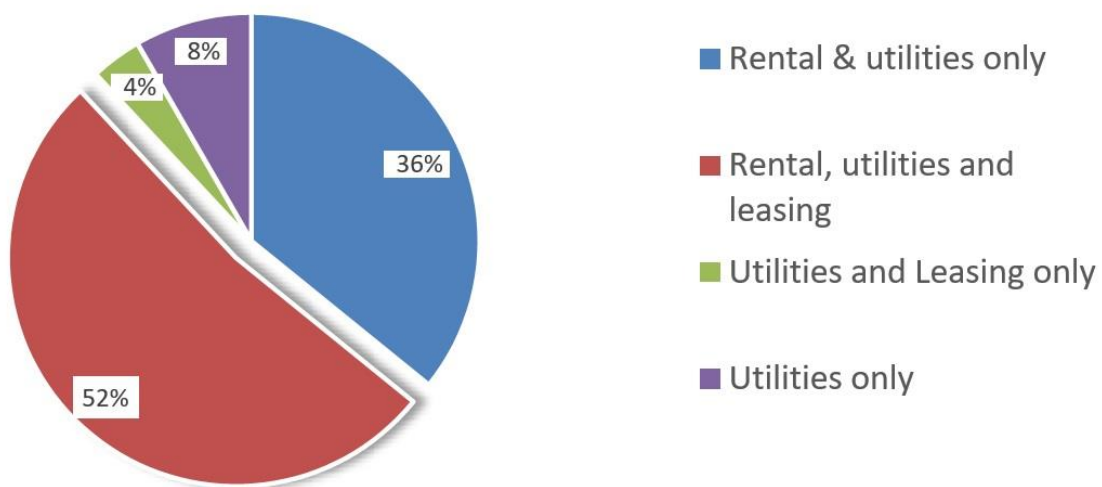
**Figure 2:** Operation Hours of Dental clinics in Malaysia



**Figure 3:** Employer Salary Payment

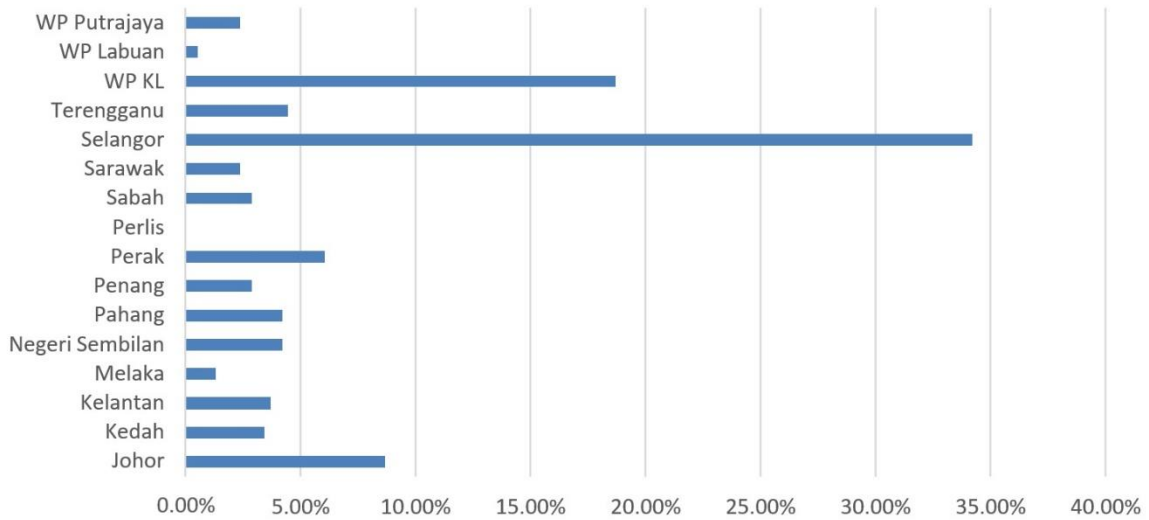


**Figure 4:** Estimated Profit and Loss for the Dental Clinics

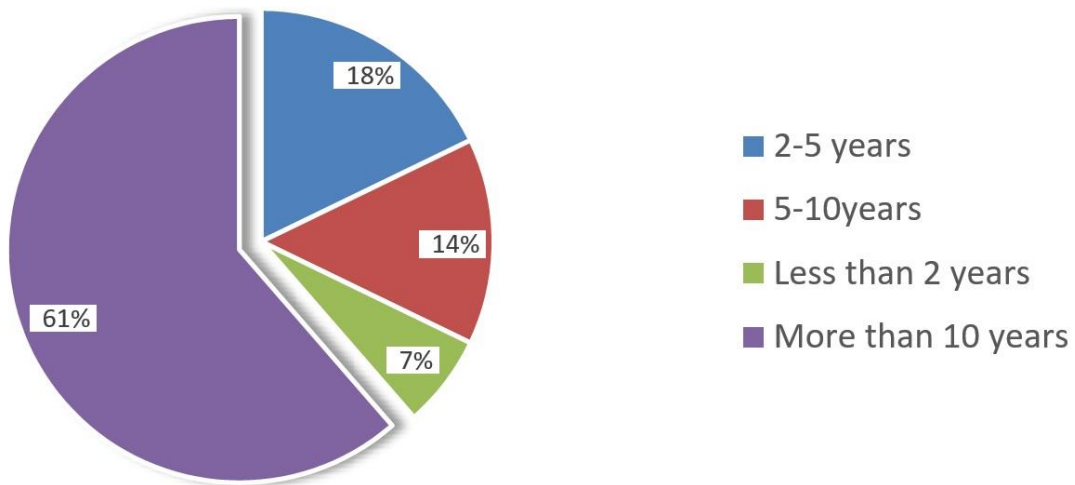


**Figure 5:** Commitments in Dental Clinic





**Figure 6: Respondents' Clinic States**



**Figure 7: Years of Dental Clinic Practice**