

Financial, Supplies, and Human Resource Preparedness in Management of Covid-19 Pandemic Among Dental Facilities in Nairobi County Kenya

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The presence of *other departments* within the dental facility proved significant in predicting readiness with 4.5 times likelihood to be ready for a pandemic (aOR = 4.591; $p = 0.009$).

BACKGROUND

Dental professionals are at the greatest risk of contracting the disease due to working in the mouth where the USA's Occupational Safety and Health Administration agency listed them among the highest risk category for exposure to the SARS-CoV-2 virus. The increased risk of contracting COVID-19 disease among dentists led to the assumption that they could have the highest mortality among healthcare professionals. Anxiety and the phobia associated with COVID-19 in public and private settings facilities compelled 71.2% of dentists to suspend their practice willingly. The purpose of this study was to determine financial, supplies, and human resource preparedness in COVID-19 pandemic management among dental facilities in Nairobi County, Kenya.

METHODS

- An analytical cross-sectional design study was carried out using the mixed method approach among 183 dental facilities in Nairobi County using a KoboCollect toolbox administered questionnaire.
- The dental facilities readiness was assessed using the ReadyScore Criteria.
- Quantitative data was analyzed using MS Excel and SPSS version 26.
- Qualitative data was collected using one and one interviews with target key informants and analyzed thematically.

RESULTS

- The findings showed that all the dental facilities had less than 20 staff members and only 26 facilities (14.2%) having over 10 staff.
- 59% of the facilities indicated that they had adequate staff to allow flexibility in the time of medical emergencies.
- Over two thirds of the facilities (76%) had IPC guidelines.
- Less than half had an infection control committee (48.6%) and emergency response team (49.7%).

Table 1. Pandemic Preparedness percentage score

		Frequency	%
Staff adequacy to allow flexibility in time of emergencies	No	75	41.0
	Yes	108	59.0
Facility has IPC guidelines	No	44	24.0
	Yes	139	76.0
Infection control committee	No	94	51.4
	Yes	89	48.6
Emergency response team	No	92	50.3
	Yes	91	49.7

- Regression analysis showed the presence of other departments among the dental facilities increased readiness for a pandemic by 4.5 times (aOR = 4.591; 95% CI:1.471 - 14.327, $p = 0.009$).

RESULTS CONTINUED

Table 2. Regression analysis association between resource preparedness and readiness for the pandemic

Variables	Category	aOR	95% CI	p
Type of facility	Public dental facilities vs Others	0.363	0.092 - 1.436	0.149
Period of operation	Upto 10 years	1.806	0.778 - 4.194	0.169
Facility level	Primary level vs Others	7.407	0.613 - 89.45	0.115
	Secondary level vs Others	3.016	0.246 - 36.98	0.388
Presence of other departments	Yes	4.591	1.471 - 14.32	0.009

CONCLUSIONS

- The study concluded that there exist a significant association between dental health system readiness and financial, supply, and human resource preparedness.
- Therefore, there is need for
 - Adequate staffing in all levels of facilities to ensure flexibility.
 - Adequate training and delegated responsibilities to coordinate COVID-19 management activities.
 - Creating a safe working environment for staff including provision of PPE.

ADDITIONAL KEY INFORMATION

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Conflicts of Interest

None