

Original Research

Assessment of knowledge of general dental practitioners toward the immediate loading protocol of dental implants

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ABSTRACT:

Background: The one-stage protocol offers instant rehabilitation in addition to better esthetics and self-confidence. The present study was conducted to assess knowledge of general dental practitioners toward the immediate loading protocol of dental implants. **Materials & Methods:** 140 general dental practitioners who had 5 years of working experience were given a self-administered, pretested questionnaire was used to collect data regarding their knowledge of immediate loading of implants. **Results:** Out of 140 subjects, males were 80 and females were 60. 45% were aware of immediate implant loading, adequate primary implant stability of at least 35 Ncm torque is fundamental requisite for immediate loading replied correct by 30% only, 40% replied correct that primary implant stability and surgical technique influence the surgeons' decision to load dental implants immediately, 58% replied that bone quality and quantity influence the decision to perform the immediate loading, implant design/configuration, implant surface coating, and 35% subjects replied that implant characteristics influence the decision to perform the immediate loading. **Conclusion:** General dental practitioners had poor knowledge toward the immediate loading protocol of dental implants.

Key words: General dental practitioners, knowledge, Implant.

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INTRODUCTION

Dental implantology is fast becoming a specialty in the field of dentistry. Within the last few decades, dentistry appears to have recorded its most significant advancement in the field of dental implantology.¹ The purpose of dentistry is to respond to the patients needs and desires i.e. to restore the patients oral health to normal contour, function, comfort, esthetics & speech. With dental implants it becomes much more easy to achieve this goal as compared to traditional dentistry.² Endo-osseous, osseointegrated dental implants are artificial tooth roots inserted into the jaw bones to

support either a prosthetic tooth or other restorations such as conventional bridges, complete dentures, and maxillofacial prostheses. There is no doubt that this rehabilitative treatment modality is becoming increasingly important and popular among dentists and patients alike. In fact, majority of the patients with high dental awareness opt for dental implant/implant-supported therapy from the onset of dental visitation.^{3,4} The one-stage protocol offers instant rehabilitation in addition to better esthetics and self-confidence, factors known to influence clinical success and longevity of the implants and implant restorations include overall health

status of the patient, site of implant placement, type of superstructure to be employed, implant biomechanical considerations and occlusal loads and oral hygiene maintenance, which may mean that the protocol is not suitable for all implant therapy patients.⁵ The present study was conducted to assess knowledge of general dental practitioners toward the immediate loading protocol of dental implants.

MATERIALS & METHODS

The present study comprised of 140 general dental practitioners of both gender. All had 5 years of working experience. The enrollment was done after obtaining their written consent.

Data such as name, age, gender etc. was recorded. A self-administered, pretested questionnaire was used to collect data regarding their knowledge of immediate loading of implants. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant (P< 0.05).

RESULTS

Table I Distribution of subjects

Total- 140		
Gender	Males	Females
Number	80	60

Table I shows that out of 140 subjects, males were 80 and females were 60.

Graph I Distribution of subjects

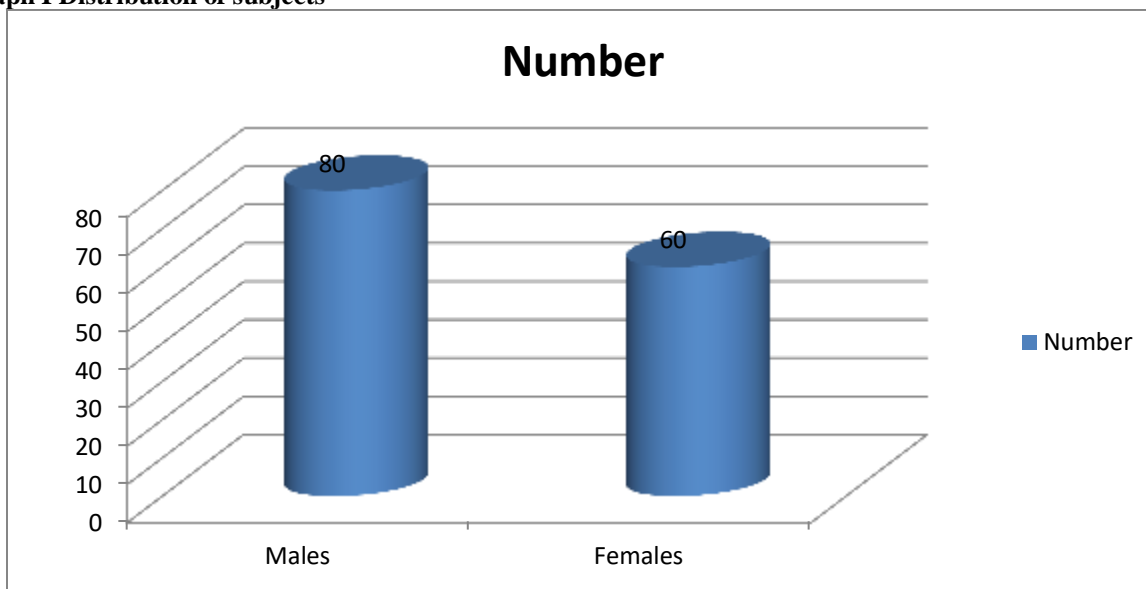


Table II Assessment of knowledge

Questionnaire	Response	Number	P value
Aware of immediate implant loading	Yes	45%	0.91
	No	55%	
Fundamental requisite for immediate loading is adequate primary implant stability of at least 35 Ncm torque	Yes	30%	0.02
	No	70%	
Primary implant stability and surgical technique influence the surgeons' decision to load dental implants immediately	Yes	40%	0.05
	No	60%	
Bone quality and quantity influence the decision to perform the immediate loading	Yes	58%	0.91
	No	42%	
Implant design/configuration, implant surface coating, and implant characteristics influence the decision to perform the immediate loading	Yes	35%	0.09
	No	65%	

Table II shows that 45% were aware of immediate implant loading while 55% not, adequate primary implant stability of at least 35 Ncm torque is fundamental requisite for immediate loading replied correct by 30% only, 40% replied correct that primary implant stability and surgical technique influence the surgeons' decision to load dental implants immediately, 58% replied that bone quality and quantity influence the decision to perform the immediate loading, implant design/configuration, implant surface coating, and implant characteristics influence the decision to perform the immediate loading replied correct by 35% subjects. The difference was non- significant ($P > 0.05$).

DISCUSSION

Replacement of missing teeth with dental implants is considered as an optimal treatment modality due to its high success rate even with challenging restorative cases.⁶ Dental implant restoration has a high success rate edentulous ridge even in complex cases like maxillary sinus lift and lateral ridge augmentation.⁷ It is hypothesized that the immediate placement and loading protocol is quite uncommon in the sub-Saharan Africa and as general dentists have been reported to be the primary providers of information regarding dental implant treatment modality and stages to patients, there is a need to first determine their current knowledge and attitude toward the immediate loading of osseointegrated dental implants.^{8,9} The present study was conducted to assess knowledge of general dental practitioners toward the immediate loading protocol of dental implants.

In present study, out of 140 subjects, males were 80 and females were 60. Obagbemiro et al¹⁰ evaluated the current level of knowledge and attitude of Nigerian general dental practitioners toward the immediate loading protocol of dental implants. A total of 237 dentists completely filled the questionnaires. Nearly 46% of the participants had good knowledge on the procedure and advantages offered by the immediately loading dental implants with provisional restorations, whereas 81% had negative reservations toward implant placement using the protocol. In addition, this study found a statistically significant association ($P < 0.05$) between the knowledge and attitude of the dental practitioners regarding the protocol.

We observed that 45% were aware of immediate implant loading, 30% replied correct that adequate primary implant stability of at least 35 Ncm torque is fundamental requisite for immediate loading, 40% replied correct that primary implant stability and surgical technique influence the surgeons' decision to load dental implants immediately, 58% replied that bone quality and quantity influence the decision to perform the immediate loading, implant

design/configuration, implant surface coating, and 35% subjects replied that implant characteristics influence the decision to perform the immediate loading protocol. Lang-Hua et al¹¹ in a study involving 246 general dental practitioners in Hong Kong where 80% and 67% of the dental practitioners regarded the protocol as being superior in posterior and anterior tooth replacement, respectively. This may be attributed to the standard of dental training in the Nigeria as a whole, when compared to Hong Kong, a special administrative region of China where dental practitioners are mostly trained by a single university's dental faculty widely acclaimed as a top training institution globally. Rathod et al¹² assessed the number of Private Dental Practitioners (PDPs) practicing and not practicing dental implantology and to evaluate their knowledge, awareness and practice about implant dentistry. Out of 200 PDPs 45% were Bachelor of Dental Surgery(BDS) and most of them were not practicing implant dentistry due to lack of skills, while 55% were Master of Dental Surgery (MDS) in various fields and were practicing implant dentistry by themselves. High cost of implant dentistry and fear of surgery was the main hindrance in convincing the patients for dental implants. Most of the PDPs would like to update their knowledge regarding implant dentistry through Continuing Dental Education (CDE) programs. Though dental implants have changed the outlook of dentistry in last few decades, the knowledge and practice of dental implants by PDPs is still limited. Various courses and CDE programs can help PDPs to update their knowledge and skill regarding implant dentistry.

CONCLUSION

Authors found that general dental practitioners had poor knowledge toward the immediate loading protocol of dental implants.

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