

Original Article

**A Survey on the Quality Of Communication Between General Dentists/ Prosthodontists
And Dental Laboratories In The State Of Rajasthan**

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ARTICLE INFO



Keywords:

Dentist, Communication, Dental
Laboratory Technicians, Survey, Work
Authorization Forms, fixed Partial
Dentures.

ABSTRACT

A questionnaire were sent to the laboratory technicians through online generated Google forms to determine the level of communication between general dentists, Prosthodontists and dental labs in specific areas of the work authorization forms for Prosthodontic work. Twenty five dental laboratories were randomly chosen from the State of Rajasthan. Two similar questionnaires of 15 questions each, one for general dentist and other for prosthodontist as mention in the form, were mailed to the laboratory directors of respective labs. The questions focussed on: whether work authorization forms were provided by the lab, thoroughness of prescriptions, patient information, choice of materials for the prosthesis, design of the prosthesis and shade description. For each question, comparative evaluation was done for the level of communication between general practitioners and Prosthodontists to the dental labs.

Results- 84.02% of prosthodontists and 63.17% of general dentists having better communication with dental labs. It was concluded that, Work authorization forms need to contain specific informations requested by the laboratory, so better communication can occur between the members of the team. Additional stress on teaching the significance of work authorization at the undergraduate programmes.

Introduction

A clear and an effective communication of design features of the prosthodontist between clinician and the dental technicians has long been recognized as one of the main factor that contributes to the production of high quality of the prosthesis.^[1]

Prosthodontic treatment requires the fabrication of a clinically acceptable prosthesis. Proper communication between the dentist and the dental technician leads to a well-designed prosthesis, a satisfied dentist, and a comfortable professional

working relationship between the dentist and the dental laboratory technician.^[2-3]

Insufficient design information to the technician results in a prosthesis that is constructed with an inadequate consideration to important clinical and biological factors and this may cause tissue damage. The problems of inadequate designs information, or inadequately communicated designs, are not new to dentistry.^[4-5]

The dentist's responsibilities are not only to provide accurate impressions to the dental laboratory

but also to deliver clear written instructions to the technician. As inadequate communication leads to unnecessary repetition and dissatisfaction for patients.

A 1991 survey of dental laboratories identified consistent complaints from dental technicians of inadequacies in the quality of clinical products they received, as well as insufficient information on the work authorization.^[6]

In 1990, Goodacre offered specific recommendations for dental educators to address the ramifications and responsibilities of future dental practitioners with regard to the dental laboratory.^[7]

In 1994, a program was developed to improve the quality of laboratory submissions and the returned product, facilitating laboratory communication.^[8] Recently, the American Dental Association has issued updated guidelines to improve the relationship between the dentist and the laboratory technician. These guidelines not only advance the communication between the laboratory and the dentist, but also the efficiency and the quality of care for the patient.

There have been no previous studies conducted to evaluate the quality of communication between the dental practitioners, prosthodontist and dental laboratory technicians in the state of Rajasthan. The purpose of this study was to assess the quality of communication for the same.

MATERIAL AND METHOD

A questionnaire were mailed to the laboratory technicians through online generated Google forms to determine the level of communication between general dentists, Prosthodontists and dental labs in specific areas of the work authorization forms for Prosthodontic work. Twenty five dental laboratories were randomly chosen from the State of Rajasthan.

Out of which only twenty labs responded. Two similar questionnaires of 15 questions each, one for general dentist and other for prosthodontist as mention in the form, were mailed to the laboratory directors of respective labs.

Format of the questionnaires are as follows:-

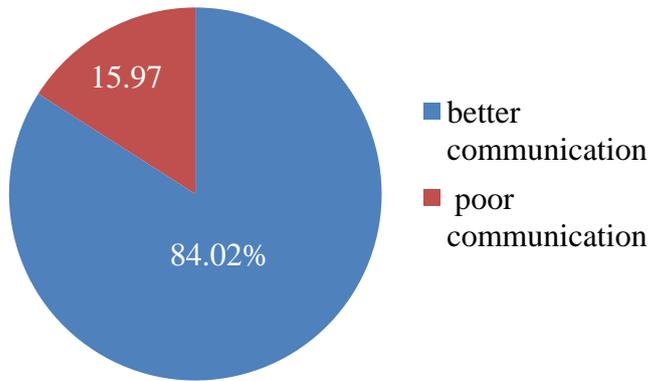
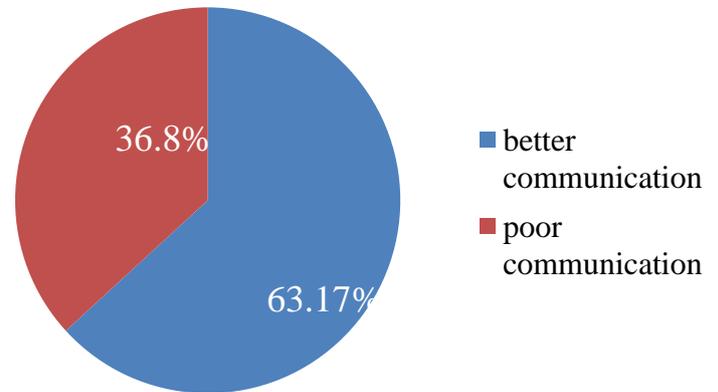
- 1 Do you assist them for the design of final implant prosthesis ?
- 2 Is work authorisation form provided by dental practioners?
- 3 Are you provided with any digital communication (eg: photographs) by dentist for esthetic purpose?
- 4 Is the Occlusal scheme indicated?
- 5 Has the dentist specify which surface area to be covered by metal margin only?
- 6 Indicate the shade guide use?
- 7 Is the shade type provided by dental practioner is compatible with your lab shade guide?
- 8 Indicate the type of porcelain?
- 9 Provide a diagram for staining?
- 10 Indicate the type of pontic design?
- 11 Is the Occlusal scheme indicated?
- 12 Indicate the preferred margin design?
- 13 Indicate the choice of metal alloy?
- 14 Indicate the specific type of prosthesis (i.e., Porcelain Fused to Metal Crown, All Ceramic Crown, Telescopic Coping, Full Metal Crown etc.)?
- 15 Indicate the patient's age and gender?

Each questions are mcq type with YES/NO type of options.

RESULTS

Results of the study has been presented in the following tables:-

		General Dentists		Prosthodontist	
		YES (%)	NO (%)	YES (%)	NO (%)
1	Do you assist them for the design of final implant prosthesis?	75	25	79.3	20.7
2	Is work authorisation form provided by dental practioners?	59.3	40.7	89.7	10.3
3	Are you provided with any digital communication (eg: photographs) by general dentist for esthetic purpose?	63	37	100	0
4	Is the Occlusal scheme indicated?	59.3	40.7	96.6	3.4
5	Has the general dentist specify which surface area to be covered by metal margin only?	63	37	96.6	3.4
6	Indicate the shade guide use?	100	0	100	00
7	Is the shade type provided by dental practioner is compatible with your lab shade guide?	93.8	6.3	100	0
8	Indicate the type of porcelain?	55.6	44.4	76.5	23.5
9	Provide a diagram for staining?	33.3	66.7	94.1	5.9
10	Indicate the type of pontic design?	61.1	38.9	100	0
11	Indicate the preferred margin design?	55.6	44.4	93.1	6.9
12	Indicate the choice of metal alloy?	40.7	59.3	75.9	24.1
13	Indicate the specific type of prosthesis (i.e., Porcelain Fused to Metal Crown, All Ceramic Crown, Telescopic Coping, Full Metal Crown etc.)?	88.5	11.5	93.1	6.9
14	Indicate the patient's age and gender?	61.5	38.5	79.3	20.7

PROSTHODONTIST**GENERAL DENTIST****COMMUNICATION WITH DENTAL LABS****DISCUSSION**

Laboratory work authorizations have been called the most frequently used form of communication between the dentist and the laboratory technician. This study showed that the finer details of a work authorization form (such as choice of metal, finish line, pontic design, staining, and type of occlusion) usually provided by general dentists was poorer as compare to prosthodontist. The lack of details provided could be due to dentists' assumption that the laboratory will use certain materials or design the prosthesis in a specific manner. The dental practitioners have the clinical, legal and an ethical responsibilities to design, and communicate design features adequately for good quality prostheses that will not cause harm to oral structures. Notwithstanding this, the results of this study were comparable, if not slightly better than that observed in other studies^[2-9]

Unlike other studies^[10-15] which showed that the majority of the prosthesis were designed by the dental

technician, this study showed that 59.3% of the fixed partial denture (FPD) cases were designed by the dental practitioners through their personal work authorization forms. However, some of important parameters in Fixed restoration such as type of occlusal scheme, only 40.7% by general dentists gave information, 37% of general dentist did not specified area to be covered by metal margin only as compared to only 3.4% prosthodontist, 63% general dentist did not provide diagram for staining, 40.7% general dentist depended on technicians for pontic design, 63% general dentist communicated through digital means, 55.6% general dentist specified type of porcelain used.

However, these dependence on dental technicians to design the dental prosthesis which is not an acceptable

practice. The design of any prosthesis involves mechanical and biological principles, and the technicians usually lack the information about these aspects which might lead to a faulty design of the prosthesis.^[13,15] . The study revealed that the communication was better with prosthodontist.

The results of this study can be a base for further studies which can be conducted to revealed more detailed information about the quality of communication between dental technicians and dentists in other parts of the country.

ACKNOWLEDGEMENT

I would like to thanks the Dental labs of Bikaner, Jaipur, Shri Ganganagar, Udaipur And Jodhpur. I would also like to thanks to faculties, colleagues and lab technicians of my college to make this survey successfully.

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Source of support: Nil Conflict of Interest: None

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