

# Evaluation of Communication between the Dental Practitioners and Laboratory Technicians

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## ABSTRACT

**Background:** The dentist and technician should work in well-organized sequence to establish restorations that are biologically and mechanically blare to produce the prosthesis which reflects continuous advance in prosthetic dentistry revealing the furtive of success in dentistry. **Aims and Objectives:** The aim of the present study was to evaluate the extent of communication between the dental practitioners and laboratory technicians to attain clinically acceptable prosthesis and to reduce the obstacle with an assistance of well-completed work authorization forms. **Methods:** Laboratory technicians were provided with a questionnaire related to gratification of work authorization forms and focused on areas related to patient details, doctor details, type of prosthesis to be fabricated, material required, design and shade of the prosthesis, any characterization to be used, date of submission, expected date of delivery, and special instructions. **Results:** The questionnaire was answered by 85 out of 100 laboratory technicians. All the forms provided to the technicians were provided with patient's information (age and gender) which was ranging from 80 to 90%. Information pertaining to dentist details, type of appliance, stage of treatment, material of the prosthesis, date of submission, and expected date of delivery was ranging from 60 to 70%. Information pertaining to design, shade, and characterization of the prosthesis, photographs provided were on the lower side of percentage range 40–50%. Results showed that there is lack of communication between dentists and laboratory technicians and there is a need to improve regarding the information related to design, shade, and characterization of the prosthesis. **Conclusion:** The study emphasizes on the necessity of providing complete and reliable information regarding the fabrication of the prosthesis to the technician to attain a clinically, esthetically, and functionally acceptable prosthesis.


**Key words:** Communication, dentist, dental laboratory technicians, work authorization forms

## INTRODUCTION

The dentist and technician should work in well-organized sequence to establish restorations that are biologically and mechanically blare to produce the prosthesis which reflects continuous advance in prosthetic dentistry revealing the furtive of success in dentistry. To promote a close working

relationship between the dentist and technician, there is obligation to figure out the lacunae with regard to the communication status.

Work approval structures bear the cost of a powerful methods for correspondence and are vital for appropriately executed prosthesis.<sup>[1]</sup> Core values were given by American dental relationship so as to set up an ad libbed connection among dental specialist and the dental technician.<sup>[2]</sup> In 1990, Goodacre had proposed certain proposals to address the obligations of dental specialists regarding laboratory for dental educators.<sup>[3]</sup> With the expanded mindfulness by the patients toward the advances in dentistry as of late, there is a need to fulfill by giving them a solid and top notch prosthesis

Quick Response Code	Article Info:
	doi: 10.5866/2021.12.10001
	Received: 20-11-2020
	Revised: 02-01-2021
	Accepted: 12-02-2021
	Available Online: 08-04-2021, (www.nacd.in) © NAD, 2021 - All rights reserved

which can be gotten by appropriate correspondence between the dental specialist and the technician.<sup>[4]</sup> The manufacture of the adequate prosthesis thinks about the aptitudes of both the dental specialist and the technician.<sup>[1]</sup>

The motivation behind the investigation was to assess the degree of correspondence between the dental specialists and laboratory professionals so as to achieve sanely satisfactory prosthesis and to decrease the deterrents with a guide of all around achieved work approval structures.

**MATERIALS AND METHODS**

A self-administered questionnaire was distributed among the laboratory technicians covering specific instructions mentioned in the work authorization forms for the survey. The questions which were included in the questionnaire indicated the percentage of answered questions by the dentists in work authorization forms received by the laboratory technician regarding the information related to legibility of the form, patient’s general information (age and gender), doctor details, laboratory technician details, dental appliance to be fabricated, stage of treatment, material required, design of the prosthesis, shade of the prosthesis, any characterization to be used, date of submission, expected date of delivery, and additional details related to photographs [Table 1].

**Table 1:** Questionnaire sent to the laboratory technicians

Please provide the information submitted to the laboratory by the practitioner during initial submission.

Does the work authorization form provide the following information? Please circle.

1. Patient details:	Name:	Y	N
	Age:	Y	N
	Gender:	Y	N
2. Doctor details:		Y	N
3. Laboratory technician details:		Y	N
4. Type of the prosthesis:		Y	N
5. Material to be used:		Y	N
6. Design of the prosthesis:		Y	N
7. Shade of the prosthesis:		Y	
8. Characterization required:		Y	N
9. Stage of the treatment:		Y	N
10. Date of submission:		Y	N
11. Expected date of delivery:		Y	N
12. Additional information (like photographs):		Y	N

Another evaluation was concerned with respect to the nature of data got by the work approval structures. This was evaluated as complete, acceptable, unacceptable, and none as follows:

**Complete**

The guidelines gave were finished and there was no compelling reason to speak with the dental specialists for planning the prosthesis.

**Satisfactory**

Minor changes are required for the prosthesis, which have been left to the specialist and correspondence was made with dental specialist.

**Unacceptable**

Significant changes are required for the prosthesis, which have been left to the expert and correspondence was made with dental specialist.

**None**

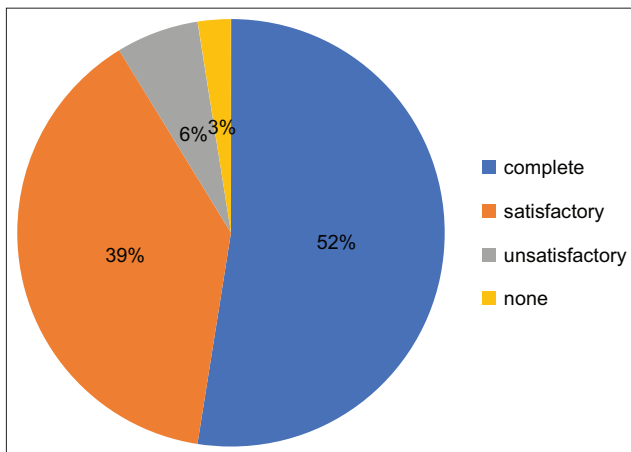
No data were given with respect to plan of the prosthesis.

A total of 100 laboratory technicians were provided with the questionnaire out of which 85 responded to the survey. The questionnaire was sent to the desired laboratory technicians and the responses were classified and changed over to the rate.

**RESULTS**

The survey was replied by 85 out of 100 technicians with a yielding pace of 85%. Practically, all the structures furnished to the experts were furnished with patient’s data (age and sexual orientation) which was going from 80 to 90%. Data relating to dental specialist subtleties, sort of apparatus, phase of treatment, material of the prosthesis, date of accommodation, and expected date of conveyance were going from 60 to 70%. Data relating to configuration, shade, and portrayal of the prosthesis, photos gave were on the lower side of rate going from 40 to 50%. Results indicated that there is absence of correspondence among dental specialists and laboratory experts and there is a need to improve the data identified with configuration, conceal, and portrayal of the prosthesis.

The quality of information provided was evaluated by 80 out of 100 respondents. They reported that 52 % (n = 42) were complete, 39% (n = 31) were satisfactory, and minor changes were left to the technician, 6% (n = 5) were unsatisfactory and major changes were left to the technician, 3%



**Graph 1:** Graph shows 52 % ( $n = 42$ ) were complete, 39% ( $n = 31$ ) were satisfactory, and minor changes were left to the technician, 6% ( $n = 5$ ) were unsatisfactory and major changes were left to the technician, 3% ( $n = 2$ ) were none and no information was provided regarding design of the prosthesis.

( $n = 2$ ) were none and no information was provided regarding design of the prosthesis [Graph 1].

## DISCUSSION

Work authorization forms are the foremost unremarkably used form of communication between the dental practitioners and laboratory technicians.<sup>[5]</sup> From the above conducted survey, it had been noted that information regarding patient's and dentist's information was satisfactory and there is a need to improve the communication regarding the details related to design of the prosthesis to maintain proper tissue health, esthetics, and cleansability.<sup>[6]</sup> Design refers to pontic as well as margin in relation to fixed prosthesis that plays a crucial role in maintaining the gingival health, in a whole periodontium.<sup>[7]</sup> Tooth shade and characterization of the prosthesis information were provided to a lesser extent that was important for the esthetics of individual.<sup>[1,8]</sup> If mentioned, it had been solely single shade not with the diagram of multiple shades of the tooth.

In 1990, Goodacre had projected bound recommendations to address the responsibilities of dentists with relevance to laboratory for dental educators.<sup>[3]</sup> Guiding principles were issued by American Dental Association so as to ascertain an improvised relationship between dentist and the dental technician.<sup>[2]</sup> The rules specify on the efficacy and quality of care for the patient beside communication between dentist and laboratory technicians.

Lynch and Allen focused on the rules concerning the duty of the practitioner for designing fixed and removable partial dentures, the crown, and bridgework that require written instructions throughout.<sup>[9,10]</sup> Not only the rules, however, it's the responsibility of the dental practitioner to design, and communicate a similar for a biologically acceptable prostheses which will not cause any harm to oral structures.<sup>[11,12]</sup> Comparable word ought to be used by both the dental expert and research center specialist to have higher correspondence. Computerized solutions ought to be finished cautiously to improve the nature of the last prosthesis by dodging pointless postponements and revamps by conceivably sparing time and exertion for the dental specialist, expert, and above all the patient.<sup>[13]</sup> In instances of removable dental prosthesis for clear headings, shading coding ought to be demonstrated while planning various parts of the prosthesis relying on reason and material of the segment fabricated.<sup>[14]</sup>

For planning and designing any prosthesis, bound biological and mechanical principles are concerned. The laboratory technicians lack the data concerning the biological principles that ultimately lead to faulty design of the prosthesis.<sup>[9,10,15]</sup> One more important aspect to concentrate is provision of an accurate impression to design a good prosthesis.

The laboratory technicians are important members of the dental health team. The interaction has been termed a "love hate relationship," and the work authorization has been referred to as the most frequently used form of communication between them.<sup>[5]</sup> Christensen suggested the following concepts for dentist and technician to improve dentist-technician integration and communication and, ultimately, to improve patient care:

1. Attending continuing education courses together.
2. Holding private meetings.
3. Increasing the quality and scope of communication in laboratory orders.
4. Incorporating technicians into dental practices or buildings.
5. Making post-operative telephone calls to technicians.
6. Initiating or joining study clubs or joining dental organizations that include both dentists and technicians.
7. Promoting integrated education of dental and laboratory technology students.

The communication is considered to be the keystone for a better relationship between the dentist and technician.<sup>[16]</sup> Digital technology (i.e., photography, email, digital models, digital prescriptions, and collaboration software) can greatly enhance the outcome of treatment and provides high level of communication.<sup>[17]</sup> It imparts an opportunity to make decisions quickly and concisely before, during, and after treatment. Digital technologies will continue to evolve at a rapid pace resulting in previously unimaginable results and efficiencies of the entire dental treatment.

### CONCLUSION

The investigation underscores on the need of giving total and solid data with respect to the manufacture of the prosthesis to the specialist so as to achieve a clinically adequate prosthesis. The correspondence is the most significant rules, and nowadays, computerized innovation assumes a critical function in settling on choices rapidly and impeccably by limiting the blunders in manufacture of prosthesis.

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