

Evaluation of Communication Quality through Dental Laboratory work Authorization between Dentists & Dental Technicians for Fabrication of Fixed Dental Prostheses in Aljabal Alakhdar Region, Libya

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ABSTRACT:

Background: Construction of a clinically successful fixed prosthodontic restoration needs clear & perfect communication between fixed prosthodontists & dental laboratory technicians. Appropriate completion of dental laboratory work authorization by fixed prosthodontists gives a means for improved professional quality assurance and satisfaction in dental prosthesis. The aim of this study was to evaluate the quality of communication between dentists and dental technicians via work authorization for fixed dental prosthesis in Aljabal Alakhdar region, Libya. Communication between dentists and dental laboratories helps ensure that the patient receives high-quality care and optimal dental work results. The laboratory must clearly understand the dentist's instructions and needs to produce a product that meets them. The fixed prosthodontist, meanwhile, must have confidence that their instructions are being understood & followed correctly in order to avoid compromise the patient's health or wellbeing. The dentist and the technician should work together in proper sequence to develop restorations that are biologically and mechanically sound and to produce fixed dental prostheses that reflect continuous progress in prosthetic dentistry. The use of the work authorization order is essential for good dentist-laboratory communication. A questionnaire was distributed to dental laboratory technicians to assess the level of communication between fixed prosthodontists and dental laboratory technicians in specific areas of the dental laboratory work authorization forms for the construction of fixed dental restorations. **Materials and Methods:** In Aljabal Alakhdar region, a randomized sample of private dental laboratory technicians was chosen. A thirty questionnaires were distributed, and twenty-one were received (response rate 70%). The questionnaire was distributed to the laboratory technicians for a total of 30 dental laboratory technicians. The survey asked questions pertaining to the following areas of work authorization: legibility and thoroughness, clarity & accuracy of instructions, patient information, type of prosthesis, choice of materials for the prosthesis, design of the prosthesis, and shade description. For all the questions, the number of responses received was tabulated and converted to a percentage. Data were collected and analyzed statistically with (SPSS) version 16 software and Pearson's Chi-square test p value < 0.05 was considered as statistically significant. **Results:** Of the thirty dental laboratory technicians surveyed, 21 (70%) responded to the questionnaire. Results from this study reveal that there is inadequate of communication between fixed prosthodontists & dental laboratory technicians via dental laboratory work authorization forms regarding type of porcelain to be used, selection of dental casting metal alloy and choice of the proper finish line margin, and pontic design for the fixed dental restoration. Thirty-eight of the participating dental technicians had to seek clarification from the dentist concerning the written instructions which reveal inadequate prescription. **Conclusions:** Inadequate communication between fixed prosthodontists & dental technicians was observed, as the many of the prosthesis design decisions were left to the dental laboratory technicians. Therefore, communication between dentists and dental technicians should be improved by conducting combined workshops for the successful construction of fixed dental prostheses.

Keywords: *Communication, Dental technician, Dentist, Fixed prosthodontics, Work authorization form.*

INTRODUCTION:

The construction of a durable and successful fixed dental restoration is considered a reflection of the excellent skills of both the fixed prosthodontist & dental

laboratory technician, and proper communication through detailed dental laboratory work authorization is central to this process. Any laboratory task requested by the dental operator must be successfully completed in

accordance with the work permission. As a result, the dental office and dental laboratory must efficiently and clearly communicate a thorough relevant design and the material details. A carefully completed work authorization enables the dental workers to improve the quality of the definitive fixed restoration, avoid delays, improve treatment efficiency, and most importantly enhance the outcome of treatment [4]. In contrast, poor method, material, and design communication leads to a restoration that is built without much consideration for important clinical or biological information. Furthermore, there is a considerable risk of tissue damage and treatment failure from a poorly built prosthesis [5]. The successful communication of the material & design instructions to the laboratory personnel is one of the fixed prosthodontist's ethical duties, and work permission is essential to this procedure [6]. On the other hand, it is the dental laboratory technician's obligation to adhere to all the fixed prosthodontist's directions for prompt and accurate fixed dental restoration construction [7].

A study of fixed prosthodontic laboratories showed that dental laboratory technicians were often dissatisfied with the information provided in dental laboratory work authorizations by the fixed prosthodontists [14]. In addition, a study done by Afsharzand et al. [15] showed that there is a lack of communication concerning the proper choice of the dental casting metal alloy, type of veneering porcelain, choice of the finish line margin, and pontic design for the fixed dental restoration. Dental schools train recent graduates to interact with dental laboratories effectively [16]. The American College of Prosthodontists [16] just released revised recommendations to strengthen the bond between the dentist and laboratory technician. These guidelines not only advance the communication between the technicians & fixed prosthodontists but also the efficiency and the quality of care for the dental patient.

The proper communication between the fixed prosthodontists and dental laboratory technicians via dental laboratory work authorizations is critical to a properly constructed & executed fixed dental restoration. Through dental laboratory work authorization forms, dental laboratories are able to see whether the communication is effective in permitting them to proceed with the fabrication of the fixed dental prosthesis. [17]. As in Aljabal Alakhdar region, there is no clear stipulation that outlines the dentist's responsibility in authorizing the fabrication of any dental prostheses. A study assessing the quality of appropriate communication between fixed prosthodontists & laboratory technicians will give valuable informations, indicating the need for improvements in fixed prosthodontist-technician communication. Therefore,

the purpose of this study was to assess the communication between dentists and dental technicians through work authorizations for the fabrication of fixed prostheses.

All work submitted to a dental laboratory by a dentist should be accompanied by written instructions. If the work authorization is used correctly, it represents an excellent line of communication between the dentist & the laboratory. The dentist should supply the laboratory with as much information, clearly phrased, as the technician will need to produce the required prosthesis. The laboratory should never hesitate to contact the submitting dentist if the instructions are open to question or if further information is needed. Once this two-way avenue of communication is established, the quality of work, both that submitted by the dentist & that returned by the laboratory, can be significantly improved.

The written instructions sent to commercial laboratories are termed laboratory procedure authorizations or laboratory procedure orders, or more commonly, work authorizations.

Contents of the Work Authorization:

The laboratory procedure authorization should contain the following information 1) Name & address of the dental laboratory to which the work is sent. 2) Name & address of the dentist delegating the laboratory work. 3) The date of the work authorization. 4) The patient name or identification number. 5) Written instructions specifying what is to be done by laboratory technicians. 6) What metal alloy material is to be used (metal alloy & type of porcelain). 7) Diagram or space to illustrate & special instructions. 8) The date of the dentist would like the work returned to his office. 9) Personal signature of the dentist. 10) The registered license number of the dentist. 11) Pontic design for the fixed prosthesis.

MATERIALS & METHODS:

A self-administered questionnaire was constructed & distributed to the dental laboratories in Aljabal Alakhdar region (Fig. 1) In a face-to-face interview, technicians with training in fixed prosthesis work responded to the questionnaire. Information was gathered regarding the standard of the work authorization form's written instructions and the degree of interaction between dental professionals and dental technicians. Responses were tabulated & converted into percentage using statistical package for the social sciences (SPSS) version 16.

Fig. 1: Questionnaire for assessing the completeness & clarity of laboratory procedures authorization in fixed prosthodontics.

Section I: Consent Statement:

I would be grateful if you could complete this form regarding the Detailed written directions for laboratory procedures for fabrication of fixed dental restorations by laboratory technicians. If you are willing to participate in this study kindly fill in the following information. This form will hardly take 5 minutes.

Section II : Demographics:

Demographic characteristics of participating dental laboratory technicians (N = 21).

Section III : Fixed Dental Prostheses :

Thanks for response regarding this, now please fill in the form regarding design specification instruction for fixed dental restorations .

Questionnaire for assessing the completeness & clarity of dental laboratory work authorization in fixed prosthodontics .

Do the following instructions are included in the dental laboratory work authorization ?

1. Does it include the signature & license number of the dentist ?
 - a) Yes .
 - b) No .
2. Does it include the name, address, & telephone number of the dentist ?
 - a) Yes .
 - b) No .
3. Does it include the date the authorization was signed ?
 - a) Yes .
 - b) No .
4. Does it include the date of the next scheduled patient appointment & the stage of completion required by then ?

- a) Yes .
 - b) No .
5. Does it include the name, gender, & address of the patient ?
 - a) Yes .
 - b) No .
 6. Does it include the name of the dental laboratory & its address ?
 - a) Yes .
 - b) No .
 7. Does it include the type of fixed prosthesis requested ?
 - a) Yes .
 - b) No .
 8. Does it include an indication of the missing teeth that are to be replaced by fixed dental prosthesis ?
 - a) Yes .
 - b) No .
 9. Does it include the type of dental casting alloy to be used in metal framework construction?
 - a) Yes .
 - b) No .
 10. Does it indicate the surfaces to be covered with metal only ?
 - a) Yes .
 - b) No .
 11. Does it include request for metal framework try-in ?
 - a) Yes .
 - b) No .

12. Do the desired porcelain type, shade selection for esthetic restorations & the shade guide that was used, are specified ?
- a) Yes .
 - b) No .
13. Does it specify the type of porcelain glaze ?
- a) Yes .
 - b) No .
14. Does the dentist supply the laboratory with as much information, clearly phrased, as the technician will need to produce the requested fixed prosthesis ?
- a) Yes .
 - b) No .
15. Is it legible (clear enough to be read easily) ?
- a) Yes .
 - b) No .
16. Is it concise (giving a lot of information in a few words) ?
- a) Yes .
 - b) No .
17. Is it written in clear understandable fashion ?
- a) Yes .
 - b) No .
18. The specification of the occlusal scheme ?
- a) Yes .
 - b) No .
19. The specification of the margin design ?
- a) Yes .
 - b) No .
20. Does the submitting dentist communicate with you directly ?
- a) Yes .
 - b) No .
21. Does it include an indication whether the impression has been disinfected or not ?
- a) Yes .
 - b) No .
22. Does it contain the number & desired pontic design including the material specification for tissue contact ?
- a) Yes .
 - b) No .
23. Does it includes the connector design for fixed dental prostheses ?
- a) Yes .
 - b) No .
24. Is the work authorization form designate the location of the occlusal contacts whether they are to be on metal or porcelain ?
- a) Yes .
 - b) No .
25. Does it include the design of metal substructure for metal-ceramic restorations ?
- a) Yes .
 - b) No .
26. Does it contain a remarks & special instructions section ?
- a) Yes .
 - b) No .
27. Does it include a staining diagram of the requested fixed prosthesis ?

a) Yes .

d) No .

b) No .

1. Does it include the design of the fixed dental prosthesis ?

a) Yes .

b) No .

2. Will you need to contact the dentist for clarification of the design prior to making the fixed dental prosthesis ?

a) Yes .

b) No .

3. Will you need to contact the dentist for clarification of the design prior to making the fixed dental prosthesis ?

c) Yes .

Thanks for your precious time. Your sincere response will definitely play an important part in this study. In order for all participants to fully grasp the study's purpose and the consent statement for voluntary participation, both were included in the questionnaire. Two sections of the questionnaire were dedicated to the various categories of work authorization. Demographics, which comprised gender, age, and years of experience, made up the first component. There were 29 questions about fixed prosthesis in the second section.

Thirty dental laboratory technicians working in Aljabal Alakhdar region were approached to obtain their consent if they were interested in participating in the study. Out of those, 21 dental technicians agreed to participate, and questionnaires were sent to them. The responses (The data) were collected & subjected to statistical analysis.

RESULTS:

In this cross-sectional study, a total of 21 completed questionnaires were received from the participants. Out of 21 responses, there were 19 (90.4%) males and 2 (9.6%) females, The major age group of participants was (21-45 years) who work in private dental laboratories with less than 15 years of experience, as presented in Table 1.

Table 1. Demographic characteristics of participating dental laboratory technicians (N = 21).

Gender	Male	19 (90.4%)
	Female	2 (9.6%)
Age	21-45 years .	
Years of experience	Less than 15 years .	

Table 2: Questionnaire responses for assessing the completeness & clarity of dental laboratory work authorization in fixed prosthodontics.

1	The signature & license number of the dentist.	19 (90.4%)	2 (9.6%)
2	The name, address, telephone number of the dentist.	19 (90.4%)	2 (9.6%)
3	The date the authorization was signed.	21 (100%)	0 (0%)
4	The date of the next scheduled patient appointment & the stage of completion required by then.	18 (85.7%)	3 (14.3%)
5	The name, gender, & address of the patient.	21 (100%)	0 (0%)
6	The name of the dental laboratory & its address.	21 (100%)	0 (0%)
7	The type of fixed dental prosthesis requested.	21 (100%)	0 (0%)
8	The indication of the missing teeth that are to be replaced by fixed dental prosthesis.	21 (100%)	0 (0%)

9	The type of the dental casting alloy to be used in metal framework construction.	4 (19.1%)	17 (80.9%)
10	The indication of the surfaces to be covered with metal only.	7 (33.3%)	14 (66.6%)
11	The request for metal framework try-in.	20 (95.2%)	1 (4.8%)
12	Specification of the porcelain type, desired shade selection for esthetic restorations & the shade guide that was used.	6 (28.5%)	15 (71.5%)
13	The type of the porcelain glaze.	3 (14.3%)	18 (85.7%)
14	Supplying the lab with as much information as the technician will need to produce the desired fixed dental prostheses.	13 (61.9%)	8 (38.1%)
15	The legibility (clear enough to be read easily).	13 (61.9%)	8 (38.1%)
16	Is it concise (giving a lot of information in a few words).	16 (76.1%)	5 (23.9%)
17	Is it written in clear understandable fashion.	13 (61.9%)	8 (38.1%)
18	The specification of occlusal scheme.	4 (19.1%)	17 (80.9%)
19	The specification of margin design.	6 (28.5%)	15 (71.5%)
20	Does the submitting dentist communicate with you directly.	18 (85.7%)	3 (14.3%)
21	Does it include an indication whether the impression has been disinfected or not.	5 (23.8%)	16 (76.2%)
22	The number & the desired pontic design including the material specification for tissue contact.	7 (33.3%)	14 (66.6%)
23	The connector design for fixed dental prosthesis.	0 (0%)	21 (100%)
24	Designating the location of the occlusal contacts whether they are to be on metal or porcelain.	0 (0%)	21 (100%)
25	The design of metal substructure for metal-ceramic restorations.	3 (14.3%)	18 (85.7%)
26	Remarks & special instructions section.	14 (66.6%)	7 (33.3%)
27	The staining diagram of the requested fixed dental prosthesis.	3 (14.3%)	18 (85.7%)
28	The design of the dental fixed prosthesis.	7 (33.3%)	17 (66.6%)
29	Will you need to contact the dentist for clarification of the design prior to making the fixed dental prosthesis ?	8 (38.1%)	13 (61.9%)

Thirty questionnaires were distributed. Twenty-one questionnaires were completed & returned with a response rate of 70%. Of the total respondents, 19 were males (90.4%) and 2 were females (9.6%). The major age group of participants was (21-45 years) who work in a private dental laboratory with less than 15 years of

experience. Concerning the design specifications for fixed dental prostheses (FDPs) by the participants, the minority of the (28.5%) dentists indicated the design of the margins. In addition, 33.3% of the participants mentioned the number of pontics included in the FDP. Sixty-six percent of the dentists failed to mention the

number of surfaces covered with metal for the FDP, but only 33.3% provided this information. The minority of the dentists (19.1%) chose the occlusal scheme for FDPs; however, 80.9% did not specify the occlusal scheme. Surprisingly, only 28.5% of the participants selected the shade of the teeth for the FDPs, while 71.5% did not select the tooth shade. The ceramo-metal coping design was specified by 14.3% of the participants, and 85.7% failed to mention it. With regard to the design of the fixed dental prosthesis, 33.3% of the dentists left this to the dental technicians, while 66.6% designing the prostheses themselves. Only 19.1% of the dentists mentioned the type of metal alloy for FDP fabrication, as presented in Table 2.

For effective communication with dental technicians, nearly 85.7% of the dentists did not draw the restoration design on the work authorization. However, only 14.3% drew it on a paper. The majority 95.2% requested a metal trial from the dental technicians, with 4.8% failing to mention this. The date of the next scheduled patient appointment (return date) was indicated in 85.5% of the cases. The findings of this study showed that 38.1% of the participating dental technicians had to seek clarification from the dentist concerning the written instructions which reveal inadequate prescription.

DISCUSSION:

To construct satisfactory fixed dental restorations the technician must have clear instructions & specifications. He is not a mind reader & should not have to be. The easiest & best way to avoid costly mistakes is to send the technician a properly executed work authorization. Improving communication between dental office and dental laboratory will save time, effort and, improve the quality of the final prosthesis. The present study aimed to evaluate the quality of communication between dentists and dental technicians via work authorization for fixed dental prostheses in Aljabal Alakhdar region, Libya . The questionnaires used in the survey were designed by using binary scales rather than traditionally employed ordinal multi-category answer formats. This was performed to decrease respondent fatigue and enhance the response rate and data quality by designing the questionnaires concise, precise, and reader-friendly [18]. Communication between fixed prosthodontists & dental laboratory technicians is of paramount importance, as the successful fixed prosthodontic treatment depends on it. Fixed prosthodontists are equipped with the awareness & skills to direct dental laboratory technicians regarding the patient's functional habits and aesthetics to get an optimal fixed dental prosthesis for the patient. The design of a fixed dental prosthesis also has an essential role in the health& integrity of the dental and supporting periodontal tissues

[19,20]. Hence, it is the responsibility of the dentists to guide the dental technician in the design and construction of a fixed dental prosthesis without delegating their responsibilities to the technicians.

In the present study, the majority of the dentists (66.6%) left the designing of the fixed dental prosthesis to the technician. The dentist, however, is the expert when it comes to pathological processes, biological factors, and potential mechanical effects on the masticatory system. Additionally, the dentist has the power to alter the oral environment to improve the success of a fixed dental prosthesis procedure (for example, by tooth preparation, periodontal therapy, or orthodontics). The findings of this study suggest either a lack of knowledge and ability from the dentist in designing fixed partial dentures or their dependency on the technicians.

Furthermore, the choice of prosthesis material, including metal alloy, which is used for a fixed dental prosthesis, has its effect on the patient, dentist, and technician with respect to allergic reactions, cost, corrosion resistance, castability, and personal choice. The American Dental Association states that the type of dental casting alloy that is used has its ethical and legal implications on the prosthodontist [25]. In this study, about 19.1% of the dentists did choose a specific material for the construction of FDPs, but 80.9% of the dentists did not.

The number and design of the pontics for fixed dental restorations is critical for the gingival health and ability to be cleaned by the patients. In the present study, 33.3% of the dentists selected the number and design of the pontics for the FDPs. However, previous reports from dental laboratories have showed that some fixed prosthodontists fail to indicate the information about the number and design of the pontics for fixed dental prostheses [27]. In the present study, all the dentists (100%) left the designing of the fixed dental prosthesis connectors to the technician. The work authorization form should specify which connectors are to be cast, which are to be pre-ceramic soldered, & which are to be post-ceramic soldered. If non-rigid connectors are requested, the desired type of connector & path of placement should be specified.

In this study, we found that about 28.5% of the dentists did select the type of margins for a fixed partial denture, but 71.5% of the dentists did not. The significance of the appropriate margin design has been emphasized in order to maintain good oral hygiene and the periodontal health of the patient. Improper margin design of an FDP might lead to the creation of a favorable environment for the deposition of plaque, development of caries, and periodontal diseases [28].

In the present study, 33.3% of the dentists instructed the dental technicians about the surface of the FDPs to be covered with metal, but 66.6% of the dentists did not.

Metal alloys are known to be vital for the construction of FDPs, as the presence of metal increases the fracture resistance, leading to an increase in the life of the prosthesis [29]. Furthermore, the presence of metal alloys provides FDPs the strength to resist occlusal forces and durable occlusal contact [29]. Additionally, the choice of metal alloy in the building of FDPs is crucial since, in comparison to base metals, precious metals offer a considerably better fit at the margins and adaption in addition to having variable metal costs. In our study, 80.9% of the dentists said they didn't choose the metal alloy for their FPDs, however 19.1% of the dentists said they did. Cobalt chromium is reportedly the most widely utilized metal alloy in FDPs, according to various research in the literature, primarily because it is stronger, more affordable, and lighter than noble metals [30]. In addition, it was discovered in this study that while 71.5% of dentists overlooked this, 28.5% of them chose the shade for FDPs. A mismatch in the color of the permanent dental restoration increases patient unhappiness since many patients are concerned about the beautiful shade of their teeth, which may even cause the patient to completely reject the fixed prosthodontic treatment [31].

It is pertinent to state that dental laboratory technicians are an essential & fundamental part involved in the fabrication of fixed dental restoration, but they are not trained to manage and diagnose a patient, and therefore they must be provided all the relevant information for fixed dental restoration design [2]. Ceramics, as part of metal-ceramic FDPs, coat the outermost layer of an FDP that imparts the aesthetic requirements of the patient. In this survey, only 14.3% of the dentists instructed the dental technician for the ceramo-metal coping design. On the other hand, 85.7% did not. It is very necessary that fixed prosthodontists recognize their ethical and legal responsibilities. Fixed prosthodontists have the knowledge and authority to delegate dental laboratory procedures based on patients' functional and aesthetical demands. Therefore, it is the responsibility of the fixed prosthodontist to design the definitive fixed prosthesis without seeking assistance from the dental technician. The responsibility of the dental technician is to fabricate the fixed dental restoration as prescribed on the dental laboratory work authorization form. Communication between fixed prosthodontists & technicians primarily occurs by using dental laboratory authorization forms. Typically, the forms serve as the foundation upon which the complete appliance is built. Therefore, the dental clinic must successfully and clearly communicate pertinent design information to the laboratory. The type of porcelain for the prosthesis is not specified by about 28% of permanent prosthodontists. A lack of technical expertise, ignorance of the dental restorative materials

that are available, or the belief that the dental laboratory would employ standard restorative materials may all contribute to omitting this important information. Ceramics, despite being visually appealing, might break while being used by the patient, largely because of shoddy metal framework design [32]. Therefore, leaving design to the technician could result in ceramic debonding and fractures. Additionally, clear directions given verbally and in writing to the dental laboratory personnel regarding the case's design can be a useful communication tool. For the dental laboratory workers to better comprehend and provide direction for the fabrication of the fixed dental restoration, several fixed prosthodontists in the current study have drawn the design of the prosthesis. A design illustration along with written and verbal instructions emphasizes the need for accurate & appropriate communication, and such information, when given to the dental laboratory technicians, can act as a legal document [33]. Getting the right shade to the technician is another difficult communication task. The most used reference point for describing tooth color is still shade guidelines. More than just emailing the dental ceramist a "shade number" is involved in transferring the shade. It should provide specific details about the shade characteristics (such as enamel fracture, hypocalcified areas, incisal translucency, incisal halo, etc.), color, tooth surface texture, stains, and other factors. Drawing an outline for the tooth and dividing it to vertical and horizontal sections to prescribe the color and all shade characteristic clearly may help to improve the result of shade matching. Including a staining diagram in the dental laboratory work authorization forms is very important in the production of a fixed prosthesis that matches the characteristics of the patient's teeth. 85.7% of participating laboratories received forms without a staining diagram.

The last step in a fixed prosthesis fabrication is surface treatment, which is performed by one of the following techniques: autoglaze, overglaze, or polishing. 14.3% of the laboratories showed that dentists do not indicate the type of glaze, which might be because of autoglazing being the most widely used technique for porcelain glazing rather than the two other methods.

Perhaps the most important portion of the work authorization order is the Remarks & Special Instruction section. It is in this section that instructions that separate the fixed dental prosthesis designed to serve the special biological conditions of each patient from more routine fixed dental prosthesis patient be included. Any portion of the design that deviates from the norm should be listed in this section. The type of metal alloy to be used in framework is included in remarks section.

Although this study showed some aspects of communication between dental practitioners & dental technicians, but there was a lack of communication between them through work authorization forms regarding the following : the indication whether the impression has been disinfected or not, choice of metal alloy marginal design, pontic design including the material specification for tissue contact, the indication of the surfaces to be covered with metal only, the connector design for fixed dental prosthesis, the design of metal substructure for metal-ceramic restorations, the location of the occlusal contacts whether they are to be on metal or porcelain, the specification of occlusal scheme, staining diagram, type of porcelain to be used, & glaze needed for the prosthesis .

CONCLUSIONS:

Quality of the written instructions for fabrication of fixed dental prostheses in this study was inadequate. The findings of the present study suggest that, the design of fixed dental prostheses was mostly left to the dental technicians. The fixed prosthodontists failed to give enough information about all the components needed for the successful fabrication of fixed dental restorations on work authorization orders. As a result of that, there was a lack of satisfaction among fixed prosthodontists regarding the accuracy of the restorations received from dental laboratories. The results of this study show that for the precise production of dental prosthesis, there is a requirement for effective and direct communication between dentists and dental technicians.

All dental team members must be aware of what they may realistically expect from one another in order to create a high-quality fixed dental prosthesis. Mutual understanding of one other's limitations is essential. When prescribing and assigning dental laboratory operations, the fixed prosthodontist is at a significant disadvantage if they do not comprehend and respect the difficulties confronted by the dental laboratory worker. Without established communication lines and a mutual understanding of the needed requirements, dental laboratories and fixed prosthodontists would not be able to provide patients with the successful fixed prosthodontic treatments.

The following **recommendations** are essential to improve the level of communication:

1. Dental students should be educated early in their preclinical courses and later in their clinical years about proper dental laboratory work authorization form writing.
2. Dental technicians have to understand their role in prosthesis fabrication and be able to refuse

work authorization forms that lack standard information regarding prosthesis fabrication.

3. Standard guidelines for the required information in the work authorization form should be established and generalized in all dental laboratories in Aljabal Alakhdar region to improve the quality of service.

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