A Survey of U.S. Prosthodontists and Dental Schools on the Current Materials and Methods for Final Impressions for Complete Denture Prosthodontics

Cynthia S. Petrie, DDS, MS;[1] Mary P. Walker, DDS, PhD;[2] and Karen Williams, PhD[3]

Purpose: **The purpose of this study was to survey members of The American College of Prosthodontists (ACP) to evaluate current materials and methods for final impressions for complete denture prosthodontics in the United States. In addition, those methods were compared with methods and materials taught in U.S. dental schools via a second survey sent to the chairpersons of prosthodontic/restorative departments.**

Materials and Methods: **An anonymous questionnaire was mailed to all 1762 active ACP members in the United States in 2003. A slightly modified questionnaire was also distributed to chairpersons of prosthodontic/restorative departments in the 54 U.S. dental schools. Data analysis was performed via frequency distribution and chi-square statistics.**

Results: **Nine hundred and forty-five questionnaires were returned by members of the ACP (54% return rate) and 42 questionnaires were returned by the U.S. dental schools (78% return rate). The majority of the reporting prosthodontists (88%) and dental schools (98%) use a border-molded custom tray for final impressions for complete denture prosthodontics. The most popular material for border molding was plastic modeling compound (67% of reporting ACP members, and 95% of the responding dental schools). Variability of the materials used for final impressions was observed, with the most popular materials being polyvinylsiloxane for the ACP members (36%) and polysulfide for the dental schools (64%). Statistically significant differences were found in the materials used for border molding by prosthodontists based on the time elapsed since completion of prosthodontic training. No differences were found in the materials used for impression of edentulous arches based on years of experience. Geographic location did not influence the materials and methods used by prosthodontists for complete denture final impressions.**

Conclusions: **There was variability of the materials and techniques used for final impressions by ACP members and dental schools; however, overall there was an agreement on the materials and techniques used by prosthodontists and dental schools. Distinct trends for increasing use of polyvinylsiloxane and polyether for border molding procedures and impressions of edentulous arches were observed both in members of the ACP and in the U.S. dental schools.**

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[1]*Assistant Professor, Department of Restorative Dentistry, School of Dentistry, University of Missouri-Kansas City, Kansas City.*

[2]*Associate Professor, Director of Dental Biomaterials, Department of Restorative Dentistry, School of Dentistry, University of Missouri-Kansas City, Kansas City.*

[3]*Professor, Director of Clinical Research Center, Department of Behavioral Sciences, School of Dentistry, University of Missouri-Kansas City, Kansas City.*

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Correspondence to: Dr. Cynthia S. Petrie, Department of Restorative Dentistry, UMKC School of Dentistry, 650 E. 25th Street, Kansas City, MO 64108. E-mail: petriec@umkc.edu

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IN COMPLETE denture prosthodontics, the final impression stage is of critical importance to the success of a complete denture. The accurate reproduction of the edentulous arch is necessary for the stability, fit, and esthetics of the removable prosthesis.[1-3] The final impression procedure for a complete denture entails capturing the vestibule through border molding procedures and then making an impression of the edentulous arch.[1-5] The border molding procedures promote close adaptation of a custom tray to the vestibule to ensure proper flange extension.[1-7]

Through the years, different materials have been used for border molding procedures and for making impressions of edentulous arches. The recommended material for border molding has traditionally been modeling compound;[1-5] however, recently, elastomeric impression materials such as polyvinylsiloxane and polyether have also been considered appropriate for border molding procedures.[1-5] For the impression of the edentulous arch, numerous materials have been reported suitable, including irreversible hydrocolloid, metallic oxide impression paste, polysulfide, polyether, and polyvinylsiloxane.[1-5] In the last decade, several investigators have recommended using newer elastomeric materials such as polyvinylsiloxane and polyether for final impressions to replace older and more traditional materials.[2,5-7] The rationale for using newer elastomeric materials for final impressions is the materials' improved physical and mechanical properties.[8-11] These properties include improved dimensional accuracy and stability, excellent elastic recovery, ease of handling, ability to produce multiple casts from one impression, and superior detail reproducibility.[8-11]

Several surveys have been conducted regarding the materials and techniques used for final impressions in complete denture prosthodontics. These surveys can be divided into those conducted about techniques and materials taught in U.S. dental schools[12-16] and those regarding the materials and techniques used by prosthodontists and/or general dentists in practice.[17-19] The surveys conducted on U.S. dental schools have shown that the majority of dental students are taught to use a custom tray, border molded with modeling compound;[12-16] however, in the last three decades, the curricula in U.S. dental schools appear to have changed concerning the most popular material for final impressions. Older surveys reported that metallic oxide impression paste was the most popular material, versus polysulfide in the more recent ones.[12-16] In contrast to the surveys on dental schools, there are no recent surveys of prosthodontists or general dentists in practice regarding current trends of materials and techniques used for final denture impressions. The previously conducted surveys present data on the methods and materials used up to 1984 in the United States[17] and up to 1999 in the United Kingdom.[19]

As mentioned previously, there is a recent trend in the dental clinical practice for use of polyether and polyvinylsiloxane impression materials for complete denture prosthodontics. Since there has been no recent investigation regarding the materials and techniques currently used by prosthodontists in practice, the purpose of this study was to survey active members of The American College of Prosthodontists (ACP) in the United States, regarding the methods and techniques used for making final impressions for complete denture fabrication. In addition, those methods were compared with methods and materials taught in U.S. dental schools via a second survey sent to the chairpersons of prosthodontic/restorative departments.

Materials and Methods

Approval by the Institutional Review Board, Social Sciences, University of Missouri-Kansas City was granted before the beginning of the study.

In the summer of 2003, an anonymous questionnaire was sent to all 1762 active ACP members in the United States. The members of the ACP were chosen because they represent the specialty that focuses on removable prosthodontic care, and they have had additional training in removable prosthodontics. A slightly modified questionnaire was also distributed to the chairpersons of prosthodontic/restorative departments in the 54 U.S. dental schools to investigate whether what is taught in the curriculum is in accordance with clinical practice. Each participant received the same questionnaire and a pre-addressed and prestamped envelope to return the completed survey. The participants were not asked to identify themselves.

A preliminary version of the questionnaire was distributed to eight prosthodontists affiliated with the School of Dentistry, University of Missouri-Kansas City, to assess clarity and

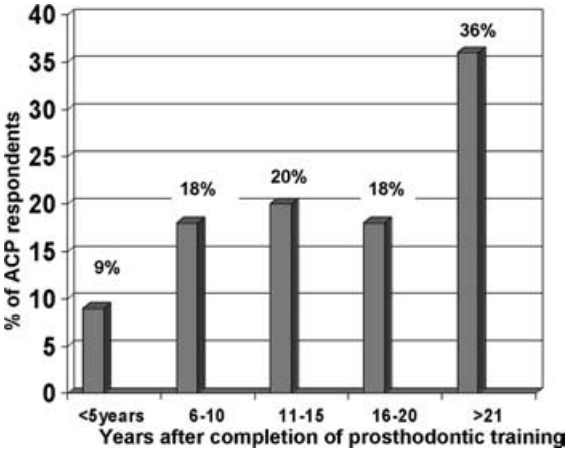

Figure 1. Percent distribution of ACP member respondents according to years after completion of prosthodontic training.

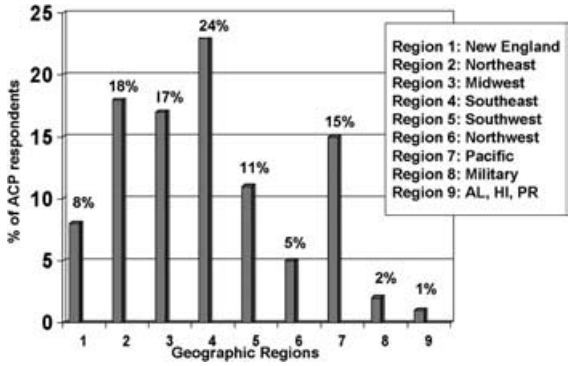

Figure 2. Percent distribution of ACP member respondents according to geographic location.

importance of the questions. Based on the feedback related to the preliminary version, a final version of the questionnaire was written. The questionnaire sent to the active members of the ACP is shown in the Appendix. The questionnaire focused on the use of custom tray, the material used for capturing the borders for a complete denture impression, and the different materials used for making the final impressions.

Data were imported to SPSS for Windows computer program (v. 12.0.1, SPSS Inc., Chicago, IL). Frequency distributions and chi-square statistics were used to analyze the results.

Results

Of the 1762 surveys sent to active ACP members in the United States, 945 were returned, for a 54% response rate. Nine hundred and twenty-eight (98%) of the prosthodontists reported practicing complete denture prosthodontics.

The prosthodontists who returned the questionnaires were divided into five groups according to how long it had been since they had completed their prosthodontic training: within the last 5 years; 6 to 10 years ago; 11 to 15 years; 16 to 20 years; and over 21 years. The distribution of prosthodontists in each experience group is displayed in Figure 1. The majority of respondents (36%) had more than 21 years of experience as prosthodontists, with only 9% reporting 5 or less years of experience.

Figure 2 shows the geographic distribution of respondents based on nine regions (New England, Northeast, Midwest, Southeast, Southwest, Northwest, Pacific, non-contiguous United States, and military). The regional representation used was the same regional mapping used by the NHANES studies on the Oral Health of U.S. adults (NIDR 1985).[20] In addition, two more regions were added to include areas in the U.S. that were not accounted for in the previous publication: U.S. military, and the non-contiguous regions of Alaska, Hawaii, and Puerto Rico. The area with the greatest number of respondents was the Southeast, representing 24% of all prosthodontists responding. Non-contiguous U.S. respondents accounted for only 1% of the total respondents.

With regard to techniques used when fabricating complete dentures, of the 945 respondents, 873 (92%) reported performing both preliminary and final impressions, whereas 45 (5%) reported performing both impressions for only some cases. Only 10 (1%) reported that they do not perform both preliminary and final impressions. Similar responses were found for using a custom tray for the final impressions. Eight hundred and sixty-nine (92%) of the prosthodontists reported using a custom tray for the final impressions and 45 (4.8%) reported using a custom tray sometimes. Only 9 (1%) reported not using a custom tray.

Respondents were queried about their techniques for capturing the vestibule using border molding techniques for complete dentures. Of the 945 respondents, 833 (88%) reported they perform border molding techniques prior to final impressions, whereas 71 (8%) answered "not

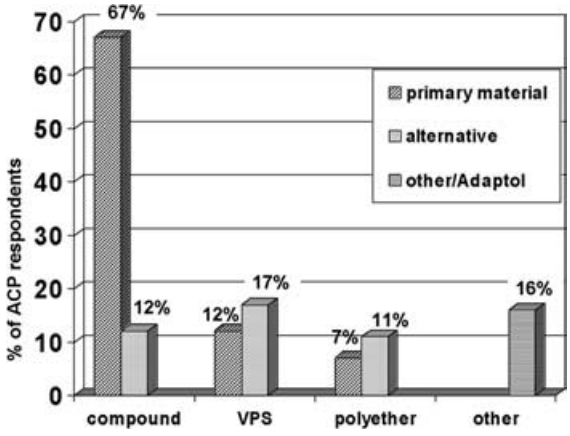

Figure 3. Primary and alternative use of materials for border molding, as reported by the ACP members.

always," and only 19 (2%) reported not performing border bolding techniques.

When asked about the materials most frequently used for border molding, 634 (67%) of the 945 respondents reported using modeling plastic impression compound as the primary material for border molding, whereas 111 (12%) use polyvinylsiloxane (VPS in the figure), 68 (7%) use polyether, and 16% use other materials as the primary material for border molding (Fig 3). However, 156 (17%) reported using polyvinylsiloxane as alternative material for border molding (VPS in the figure) and 107 (11%) reported using polyether as alternative material. The majority of the prosthodontists, however, reported that they do not use polyvinylsiloxane (72%) or polyether (82%) for border molding procedures. Sixteen percent of the respondents (n = 147) reported using materials other than those described above for border molding procedures. Of these, Adaptol (Jelenko International), a thermoplastic impression material, was the most popular (6%).

Table 1 displays the percentage of the 945 respondents who reported using the more contemporary materials for border molding (polyvinylsiloxane or polyether) and those who reported not using contemporary materials as a function of years of experience. When prosthodontic experience was dichotomized to reflect the respondents who had less than 10 years experience and more than 11 years, there was a statistically significant difference in the distribution of materials used for border molding as a function of years of prosthodontic experience ($\chi^2 = 16.2$, $p = 0.001$). Table 2 shows that prosthodontists who completed their training more recently (<10 years) were more likely to use as not use the contemporary border molding materials; whereas those who completed training more than 21 years ago were more likely not to use these materials.

A similar analysis was conducted in which the use of contemporary border molding materials was evaluated as a function of geographic region. This analysis showed there was no statistically significant difference among geographic regions in use or non-use of contemporary materials ($p = 0.126$).

Results for the question regarding which primary and alternative materials are used to make the final impression for complete dentures are shown in Figure 4. These results showed that 97 (10%) of respondents use metallic oxide impression paste as the primary material for final impressions, 10 (1%) irreversible hydrocolloid (alginate), 317 (34%) polysulfide, 343 (36%) polyvinylsiloxane (VPS in the figure), and 151 (16%) polyether. Results for which materials are used as alternatives for obtaining a final impression showed that 144 (15%) of the respondents use polysulfide and 249 (26%) use polyvinylsiloxane (VPS in the figure) as alternative materials. The percentages for alternative use of metallic oxide impression paste, alginate, and polyether were much smaller (15%, 10%, and 14%, respectively). With respect to materials not used for obtaining final denture impressions, 704 (75%) of the prosthodontists reported they do not use metallic oxide paste, and 838 (89%) do not use irreversible hydrocolloid. Interestingly

Table 1. Percent of ACP Respondents Who Use Contemporary Materials (Polyvinylsiloxane and Polyether) for Border Molding Procedures, as a Function of Years of Experience as Prosthodontist

Material Use Group	*< 5 years*	*6 to 10 years*	*11 to 15 years*	*16 to 20 years*	*> 21 years*	*Total Number*
Use contemporary materials	52%	50%	39%	40%	33%	563
Don't use contemporary materials	48%	50%	62%	60%	67%	378
Total number	80	165	192	166	338	941

Table 2. Relationship of Prosthodontic Experience and Contemporary Materials Use for Border Molding Procedures

Material Use Group	*0 to 10 Years*	*11 to > 21 Years*	*Total Number*
Use contemporary materials	51%	36%	563
Don't use contemporary materials	49%	64%	378

Statistical significance $p < 0.001$.

enough, 484 (51%) do not use polysulfide, and 664 (70%) do not use polyether for final impressions. Only 6% reported using other materials than the ones mentioned above for final impressions, with the most popular being tissue conditioners (1%), functional waxes (1%), and impression plaster (1%). Results were also analyzed to assess the use of more contemporary materials (polyvinylsiloxane and polyether) for final impressions, as a function of years of prosthodontic experience (Table 3). When prosthodontic experience was dichotomized to reflect respondents who had less than 10 years and more than 11 years prosthodontic experience, the distributions were not significantly different (Table 4). The vast majority of prosthodontists reported using the more contemporary materials for final impressions (Table 4, $\chi^2 = 3.26$, $p = 0.071$).

A similar analysis was conducted in which the use of more contemporary materials for final impressions for complete dentures was compared as a function of geographic region. This analysis also showed there was no statistically significant difference among geographic regions in use or non-use of contemporary materials ($p = 0.099$).

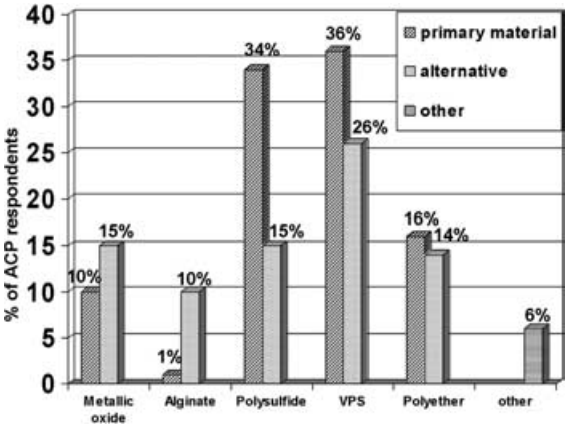

Figure 4. Primary and alternative use of materials for final impressions of edentulous arches, as reported by the ACP members.

Dental Schools

Of the 54 surveys sent to the U.S. dental schools, 42 were returned (78%). All dental schools that returned the questionnaire reported teaching complete denture prosthodontics in their curricula. Only one school (2%) reported that only preliminary impressions are made for complete dentures, and another school (2%) reported that final impressions are not always made for complete denture prosthodontics. Table 5 displays the percent use of the various materials for border molding by U.S. dental schools. Forty U.S. dental schools (95%) reported using modeling compound as the material of choice for border molding. Only 2% of the schools use polyvinylsiloxane or polyether as the primary material for border molding; however, 15 (36%) of the schools use polyvinylsiloxane and 6 (14%) use polyether as alternative materials for border molding.

For the final impressions, 27 (64%) of the dental schools use polysulfide primarily, 11 (26%) use polyvinylsiloxane, and only 2 (5%) use polyether. Again, it should be mentioned that a relatively large percentage, 16 schools (38%), use polyvinylsiloxane, and 6 (14%) use polyether as alternative materials for final impressions (Table 6).

Discussion

The results of this survey indicate variability in materials and techniques used by prosthodontists for final impressions for the fabrication of complete dentures. The vast majority of prosthodontists performs both preliminary and final impressions for complete dentures (92%) and uses a border-molded custom tray for these procedures (88%); however, there was great variance in the materials used for border molding and final impressions. For border molding procedures, the majority of prosthodontists primarily use modeling plastic impression compound (67%); however, some prosthodontists are using elastomeric materials such as polyvinylsiloxane (12% use it primarily and 17% alternatively) and polyether (7% use it primarily and 11% alternatively) as a

Table 3. Percent of ACP Respondents Who Use Contemporary Materials (Polyvinylsiloxane and Polyether) for Final Denture Impressions as a Function of Years of Experience as a Prosthodontist

Material Use	*< 5 Years*	*6 to 10 Years*	*11 to 15 Years*	*16 to 20 Years*	*> 21 Years*	*Total Number*
Use contemporary materials	85%	79%	78%	78%	72%	721
Don't use contemporary materials	15%	21%	22%	22%	28%	220
Total number	80	165	192	166	338	941

border molding material. For the impression of the edentulous arches, the most popular materials were polyvinylsiloxane (36% use it primarily and 26% alternatively), polysulfide (34% use it primarily and 15% alternatively), and polyether (16% use it primarily and 14% alternatively). A smaller percentage of prosthodontists use metallic oxide impression paste (10% use it primarily and 15% alternatively) and irreversible hydrocolloid (1% use it primarily and 10% alternatively). Only 6% of the prosthodontists reported using materials other than the ones mentioned above for final impressions. Of these the most popular were tissue conditioners (1%), functional waxes (1%), and impression plaster (1%). Overall, it appears that there is much more variance related to the materials used for the impression of the edentulous arches than any other aspect of the final impression procedures.

The results of this survey indicate that there are noticeable differences between the materials and methods currently used by prosthodontists for final impressions for complete denture prosthodontics as compared with earlier reports of similar surveys. A 1977 survey reported that zinc oxide/eugenol paste was the most popular material for final impressions for complete dentures, followed by polysulfide, for both general dentists and prosthodontists in practice.[18] Another survey, in 1984, showed that only 30% of restorative dentists collectively (general dentists and prosthodontists) used a border-molded custom tray, 30% used a custom tray without border molding, and 30% used alginate in a stock tray for final impressions.[17] A 1999 survey in the United Kingdom showed that 95% of general dentistry practitioners provided complete denture treatment and of those, 75% used a custom tray for the final impression procedures and over 90% used alginate as the final impression material.[19] The results of the current survey showed that 98% of the reporting prosthodontists practice complete denture prosthodontics and of these, 88% use a border-molded custom tray for the final impression. In addition, the present survey showed that the majority uses a non-aqueous elastomeric impression material with only a very small percentage using zinc oxide/eugenol (10%) or alginate (1%).

The prosthodontists who returned the questionnaires were divided into five groups based on their years of practice experience as prosthodontists (Fig 1). While there was no statistically significant difference in the material used for the final impression of the edentulous arches, there was a statistically significant difference in the selection of border molding material based on years of experience. Prosthodontists who completed their training more recently (<10 years) were more likely to use the more contemporary materials (polyvinylsiloxane and polyether); similarly, those who completed training more than 21 years ago were more likely not to use these materials.

The U.S. prosthodontists who returned the survey were also divided according to nine geographic locations based on the state in which

Table 4. Relationship of Prosthodontic Experience and Contemporary Materials Use for Final Denture Impressions

Material Use	*0 to 10 Years*	*11 to >21 Years*	*Total Number*
Use contemporary materials	81%	75%	721
Don't use contemporary materials	19%	25%	220

Statistical significance $p > 0.001$.

Table 5. Percent of U.S. Dental Schools Using Various Materials as Primary or Alternative Materials for Border Molding Procedures

Material	*Most Often*	*Alternative*	*Not at All*
Impression compound	95%	2%	2%
Polyvinylsiloxane	2%	36%	62%
Polyether	2%	14%	83%
Other	2%		

Table 6. Percent of U.S. Dental Schools Using Various Materials as Primary and Alternative Materials for Complete Denture Final Impressions

Material	*Most Often*	*Alternative*	*Not at All*
Metallic oxide paste	5%	14%	81%
Irreversible Hydrocolloid	0%	5%	95%
Polysulfide	64%	17%	19%
Polyvinylsiloxane	26%	38%	36%
Polyether	5%	14%	81%
Other	0%		

they practice. Of the reporting prosthodontists, the majority were located in the Southeast (24%), followed by Northeast (18%), Midwest (17%), and Pacific (15%). There were no statistically significant differences in the materials and methods for final impressions for complete dentures used by prosthodontists as a function of geographic location.

The reported elastomeric impression materials used by prosthodontists for complete denture impression techniques were polysulfide, polyvinylsiloxane, and polyether. With these materials, the dimensional accuracy is usually time dependent, i.e. the material may display great dimensional accuracy soon after its polymerization is complete, but dependent on the material, varying degrees of accuracy have been reported after the impressions have been stored for a period of time.[9,11,21,22] In general, polyvinylsiloxane and polyether impression materials remain dimensionally accurate for a prolonged period of time (up to 1 week).[9,11] In contrast, polysulfide impression materials have acceptable dimensional accuracy only if poured within approximately 1 to 2 hours after the impression is made.[9,11] In the dental practice, pouring of the impression is often delayed due to time constraints, or is even delegated to a dental laboratory. It has been shown that dental practitioners may delay pouring impressions up to 72 hours.[23] Therefore, practitioners should be aware of the tolerable time delay for which the selected impression material will remain dimensionally accurate.

There are also definite differences in the hydrophilic behavior of the most popular elastomeric materials used by prosthodontists for final impressions for complete dentures (36% polyvinylsiloxane, 34% polysulfide, and 16% polyether). A severe limitation of the polyvinylsiloxane impression materials is their hydrophobic nature.[9,10,24-27] The hydrophobicity can be explained by the material's chemical structure, which contains hydrophobic, aliphatic hydrocarbon groups surrounding the siloxane bond.[11,28] In contrast, polyether and polysulfide impression materials are more hydrophilic due to chemical structures containing available functional groups that attract and interact with water molecules through hydrogen bonding.[28,29] The hydrophilic structures present in polyether impression material are represented by carbonyl (C = O) and ether (C-O-C) groups, while polysulfide impression material contains hydrophilic disulfide (-S-S-) and mercaptan groups (-S-H).[11,21,28] The hydrophobic nature of polyvinylsiloxane impression materials has been shown to have an adverse effect on the surface quality of the polymerized impressions.[26,30-33] The presence of moisture has been reported to result in impressions with voided and/or pitted surfaces and inferior detail reproduction, even with the newer "hydrophilic" polyvinylsiloxane presently available on the market.[26,30-33] While these "hydrophilic" polyvinylsiloxane impression materials are associated with improved wettability of the polymerized impression with dental gypsum slurries,[8,24] these materials produce impressions with clinically acceptable surface characteristics only under dry conditions.[32] These observations would suggest that when using polyvinylsiloxanes, moisture control remains a critical factor for the predictable success of the clinical impression. Because oral mucosal tissues contain both major and minor salivary glands, it is very difficult to attain or maintain a dry field when making impressions to capture the mucosal details of the edentulous arches; however, polysulfide and polyether impression materials, because of their more hydrophilic nature, should be more compatible with the inherent moisture of the edentulous arch mucosal tissues.

The results from the current survey completed by the chairpersons of U.S. dental schools showed that the vast majority of the dental schools (98%) teach a border molded custom tray technique for final impressions in complete denture prosthodontics. This finding coincided with the findings from a recent dental school survey,[14] as well as earlier surveys of dental schools.[12,13,15] In previous surveys, modeling plastic compound has been reported as the most popular material for border molding material used by U.S. dental schools throughout the years.[13,14,16] There are

several advantageous features of modeling plastic compound including low cost, dimensional stability, little material waste, and long shelf life;[34-36] however, in the present survey, it is interesting to note that when compared with earlier surveys,[12,13,16] increasing numbers of U.S. dental schools are using elastomeric impression materials as alternative materials for border molding. This trend follows the trend also reported by practicing prosthodontists. For the final impression, there is variance in the materials used by the U.S. dental schools. Of the principal impression materials used, polysulfide impression material was the most popular (64%), followed by polyvinylsiloxane (26%), and polyether (5%). The favorable features of polysulfide include low cost, long shelf life, elastomeric nature, and a reasonably hydrophilic structure.[34] Again, it should be mentioned that there is a trend for increasing use of the newer elastomeric materials polyvinylsiloxane and polyether for impressions of the edentulous arches. Several schools reported using polyvinylsiloxane (38%) and polyether (14%) as alternative final impression materials for complete denture prosthodontics. This is also in agreement with the results from the prosthodontists' survey.

Today it is necessary for dental schools to teach "evidence-based" techniques and procedures.[37] That means there should be a close accordance between what is taught in dental schools and what dentists perform in practice.[37] Prosthodontists were chosen as the most representative group to make the comparison between dental education and private practice complete denture final impression techniques, since prosthodontists have the most expertise in the discipline of removable prosthodontics. The results of this survey indicate that overall, the complete denture final impression materials and techniques taught in U.S. dental schools are similar to those used by prosthodontists in practice.

The present study revealed what materials are preferred by prosthodontists and dental schools for impression making for complete dentures. With an increasing trend for making final impressions and even border molding with polyvinylsiloxane materials, which tend to behave hydrophobically especially in the unpolymerized state,[10] a future study could assess whether there is a difference in the perceived fit and number of post-insertion adjustments of complete dentures as a function of the final impression material and technique. Since both prosthodontists and dental schools appear to use a variety of impression materials for complete denture procedures, practitioners and dental students should be familiar with the varying properties and behaviors of these materials to select the optimum material for the clinical situation.

Conclusions

Based on a 54% return rate on a survey taken by the active ACP members and on a 78% return rate on a survey taken by U.S. dental schools, the following conclusions can be drawn:

1. The majority of the reporting prosthodontists (88%) and dental schools (98%) use a border-molded custom tray for final impressions for complete denture prosthodontics.
2. The most popular material for border molding was plastic modeling compound (67% of reporting ACP members and 95% of the responding dental schools); however, there are distinct trends for increasing use of polyvinylsiloxane and polyether for border molding procedures by both members of the ACP and U.S. dental schools.
3. There is variability of the materials used for final impressions by ACP members and dental schools. The most popular materials were polyvinylsiloxane for the ACP members (36%) and polysulfide for the dental schools (64%); however, polyvinylsiloxane and polyether appear to be used quite frequently as alternative materials by both ACP members and dental schools.
4. Years of experience had a statistically significant effect on the materials used by prosthodontists for border molding procedures, but not for the materials used for the impression of edentulous arches.
5. Geographic location did not influence the materials and methods used by prosthodontists for complete denture final impressions.
6. Overall, there were comparable trends for the materials and techniques used by the members of the ACP and the U.S. dental schools for final impressions for complete denture prosthodontics.

Appendix: Questionnaire sent to all active members of ACP. Questionnaire for Final Impressions for Complete Denture Prosthodontics

1. When did you complete your prosthodontic training?

Year_____

2. In what state(s) do you practice?

State(s) _____

3. Do you practice complete denture prosthodontics?

Yes___ No___

*If you answered **no** to this question please **STOP** and return the questionnaire in the enclosed envelope.*

4. Do you perform both preliminary and final impressions for complete denture prosthodontics?

Yes___ No___ Not always_____

*If you answered **no** to this question please **STOP** and return the questionnaire in the enclosed envelope.*

5. Do you use a custom tray for the final impressions for complete denture prosthodontics?

Yes___ No___ Not always_____

6. Do you capture the vestibule through border molding technique for complete dentures before making the final impression?

Yes___ No___ Not always_____

*If you answered **yes**, what material do you use for border molding? Please use the number **1** besides the material you use most often, and number **2** for any alternate material You may use **2** more than once.*

a. modeling plastic impression compound ___

b. vinyl polysiloxane___

c. polyether___

d. other_____

(please list the material not listed above, as well as the 1 or 2)

7. What material do you use for the final impression? Please use the number **1** besides the material you use most often, and number **2** for any alternate material. You may use **2** more than once.

a. metallic oxide impression paste___

b. irreversible hydrocolloid___

c. polysulfide___

d. vinyl polysiloxane___

e. polyether___

f. other_____

(please list the material not listed above, as well as the 1 or 2)

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