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A survey of contact lens preference with respect to the number of years in practice in Southern California

Abstract

The contact lens preference with respect to the number of years in practice among Southern California optometrists was surveyed. The optometrists surveyed had been licensed to practice in California since 1970. Previous contact lens surveys are discussed and summarized. The survey questions were defined in terms of years in practice to preferences of contact lens types and brands. While the percentage of contact lens related patients was directly related to the number of years in practice, it did not have a bearing on the brand of contact lens preference. Soft contact lenses were the most preferred type of contact lens; and Polycon was the most preferred brand of hard gas permeable lens.

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A Survey of
Contact Lens Preference,
with Respect to the
Number of Years in Practice
in Southern California

A Thesis Presented to the Faculty of
Pacific University, College of Optometry
for the Degree of
Doctor of Optometry
May, 1987

By Stanton S. Kim
Advisor: James Peterson, O.D..

A THESIS SUBMITTED BY

Stanton S. Kim

ACCEPTED BY

James Peterson, O.D.

I
dedicate this thesis to
the only love
of my life:
Linda

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KEY WORDS

- 1) Contact lens survey
- 2) Southern California Optometrists
- 3) Practice Mode

ABSTRACT

The contact lens preference with respect to the number of years in practice among Southern California optometrists was surveyed. The optometrists surveyed had been licensed to practice in California since 1970.

Previous contact lens surveys are discussed and summarized.

The survey questions were defined in terms of years in practice to preferences of contact lens types and brands.

While the percentage of contact lens related patients was directly related to the number of years in practice, it did not have a bearing on the brand of contact lens preference. Soft contact lenses were the most preferred type of contact lens, and Polycon was the most preferred brand of hard gas permeable lens.

INTRODUCTION

Contact lenses have become a specialty of optometric practice in the past few decades. With the advance of technology, new types of hard and soft contact lens materials are being continually developed, affording the public and the optometrist a wide variety of choices in better vision care.

In a survey of optometrists in Hawaii, Dr. Jay Honda (PUCO, 1984) concluded that there are three major preferences in contact lenses: (1) Soft contact lenses are the lenses of choice among optometrist in Hawaii, (2) the most preferred brand of soft lenses is Bausch and Lomb, and (3) the most preferred brand of hard gas permeable contact lenses is Polycon.

In a similar survey of optometrists in Wyoming, Dr. Clark Jensen (PUCO, 1984) stated that there is a continued enthusiasm for soft contact lenses. He reported that the major advantages for hard contact lenses were acuity and durability, whereas, the major advantage of soft contact lenses was comfort. Dr. Jensen confirmed that Bausch and Lomb was the most preferred soft contact lens brand, and he also agreed that Polycon was the most utilized gas permeable lens by the optometrists surveyed in his study.

The purpose of this survey is to study the contact lens trend among the Southern California optometrists. The survey consists of the following questions: The types of contact lens being utilized the most, the advantages of the preferred contact lens type, the percentage of practitioners who modify contact lens in the office, the number of successful bifocal and extended wear contact lenses, and the preferred brands of each contact lens type.

METHODOLOGY

One hundred Southern California optometrists were selected from the 1985 Blue Book of Optometrists, who listed their specialty as Contact Lens. All were licensed to practice in Southern California after 1970.

The Southern California counties selected for this study are as following: San Luis Obispo, Kern, Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, Orange, San Diego, and Imperial.

The survey questionnaire consisted of nine questions ranging from general to specific information regarding percentage of contact lens patient load to brand preference of different types of contact lenses.

The questionnaire (See Exhibit "A") was enclosed with a cover letter, along with a self-addressed, stamped envelope for prompt return.

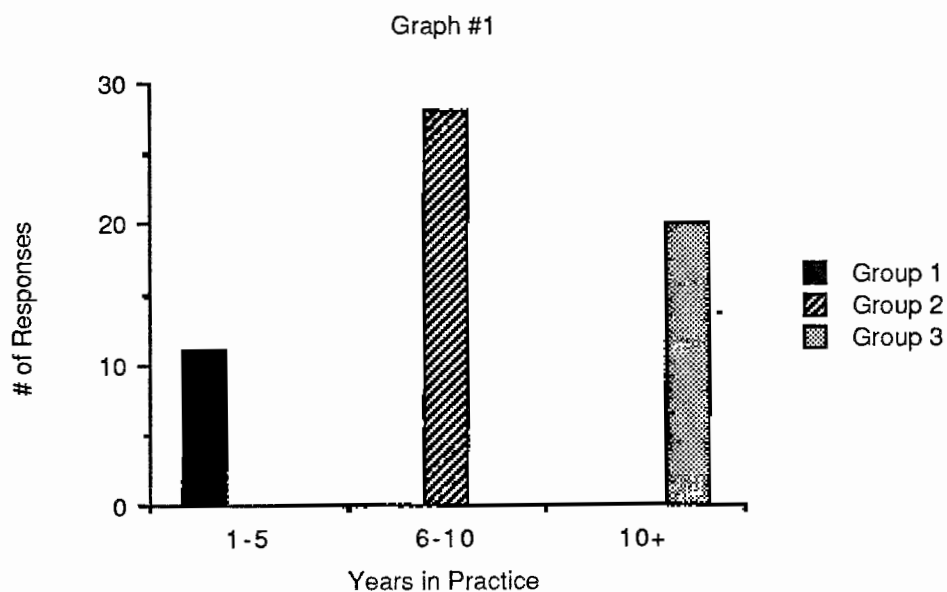
The questions were formulated with multiple choice answers. For the purpose of consistency in analysis of the response results, the responses for each question were converted to % of responses.

RESULT/DISCUSSION

One Hundred questionnaires were sent out and 59 responses were received. This resulted in a 59 % return rate. Four surveys were returned because of the post office's inability to forward the survey.

Since the goal of the survey was to study contact lens trends among practitioners according to the number of years in practice, the responses were divided into three groups.

| | <u># of yrs. in Practice</u> | <u># of Total Responses</u> |
|-----------|------------------------------|-----------------------------|
| Group 1 = | 1-5 years | 11 |
| Group 2 = | 6-10 years | 28 |
| Group 3 = | 10+ | 20 |



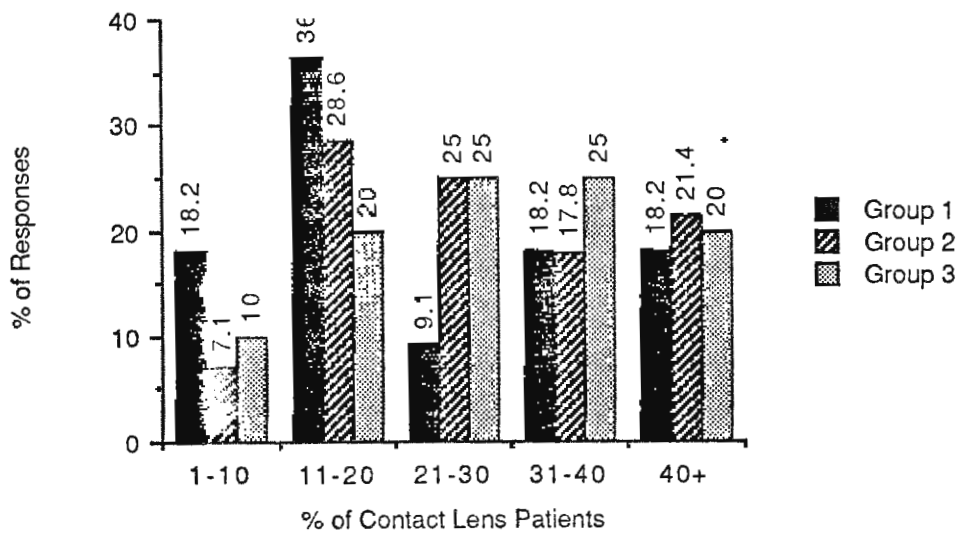
With respect to the percentage of patients, the results show that the number of years in practice is directly related to the percentage of contact lens related patients. The greatest concentration (>50%) within each of the three groups were derived from adding the two largest percentages adjacent to each other.

- Group I (54.6%) = 1-20% contact lens patients
- Group II (53.6%) = 11-30% contact lens patients
- Group III (50%) = 21-40% contact lens patients

54.6% of Group I practitioners responded that they have 1-20% contact lens patients. 53.6% of Group II practitioners responded that they have 11-30% contact lens patients. 50% of Group III practitioners responded that they have 21-40% contact lens patients.

Therefore, it is evident that the longer the optometrists have been in practice, the higher the percentage of contact lens related patients they are likely to have.

Graph #2



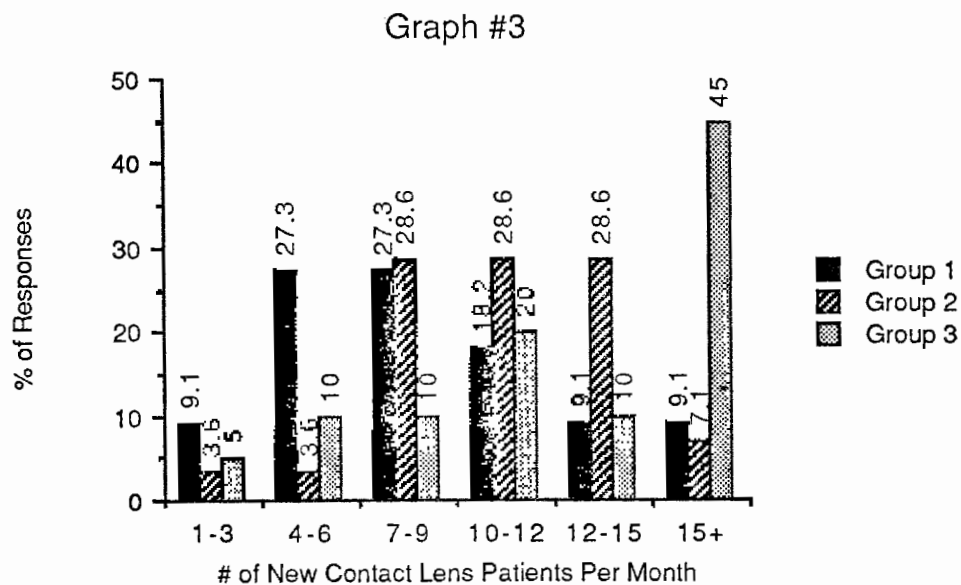
The number of new contact lens fits per month is also directly related to the number of years in practice. 54.6% of Group I practitioners responded that they fit 4 to 9 new contact lens patients per month. 85.8% of Group II practitioners reported that they fit 7 to 15 new contact lens per month. 45% of Group III practitioners reported that they fit 15+ new contact lens patients per month.

Group I 54.6% = 4-6 & 7-9 contact lens patients / month

Group II 85.8% = 7-9 & 10-12 & 12-15 contact lens patients / month

Group III 45% = 15+ contact lens patients / month

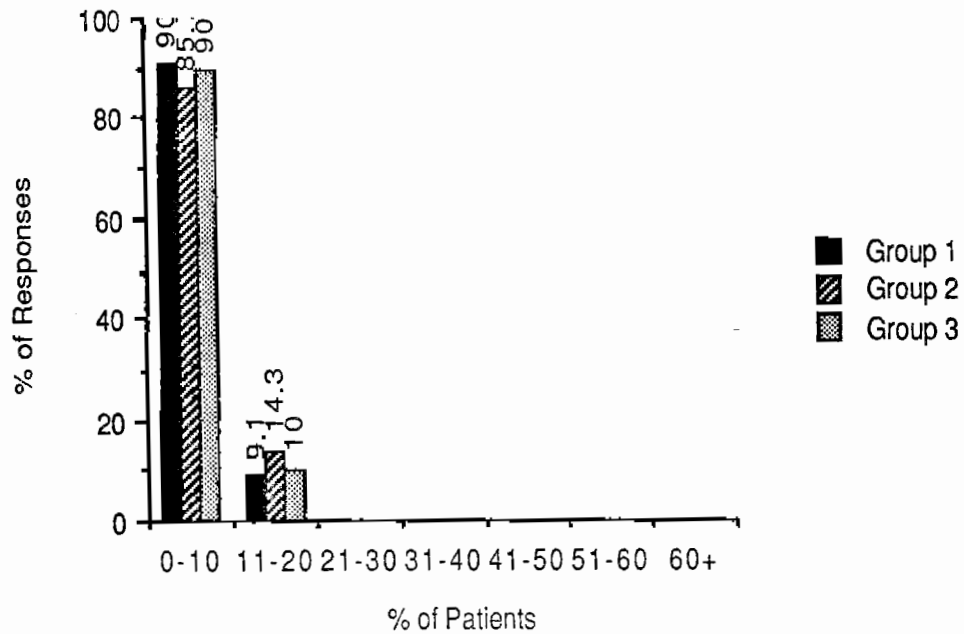
Therefore, the result shows a trend that the longer the optometrists have been in practice, the more likely that they will have a larger number of new contact lens fits per month.



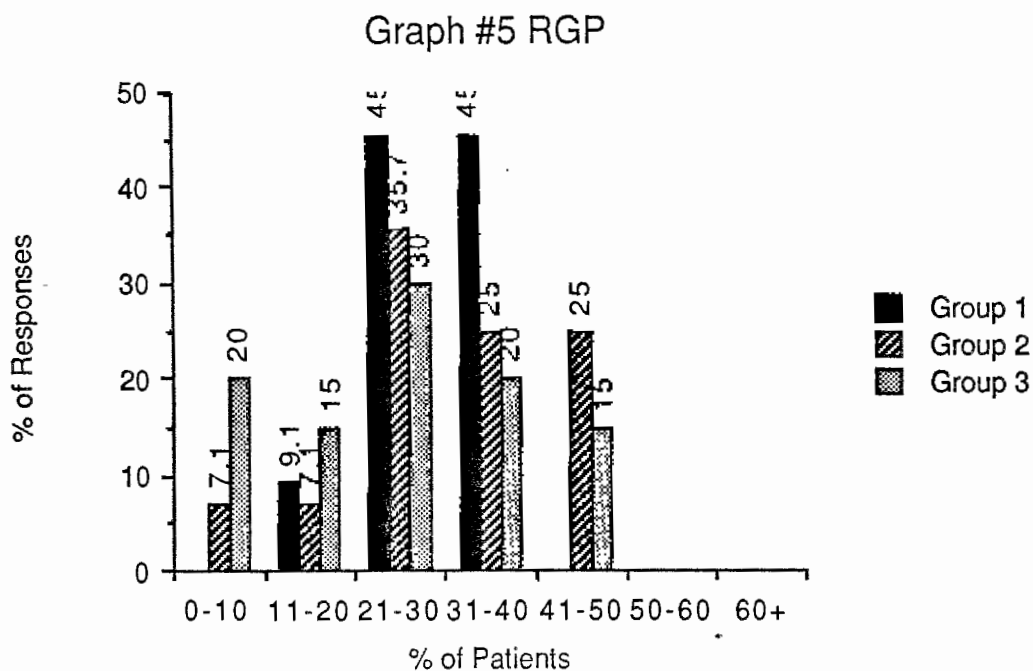
Regarding percentage of PMMA contact lens patients, the result of Question #4 shows that fewer patients in each of the three groups of practitioners wore PMMA.

90.9% of Group I, 85.7 % of Group II, and 90% of Group III responded that they fit only 0-10 percent of their patients with PMMA contact lens.

Graph #4:PMMA

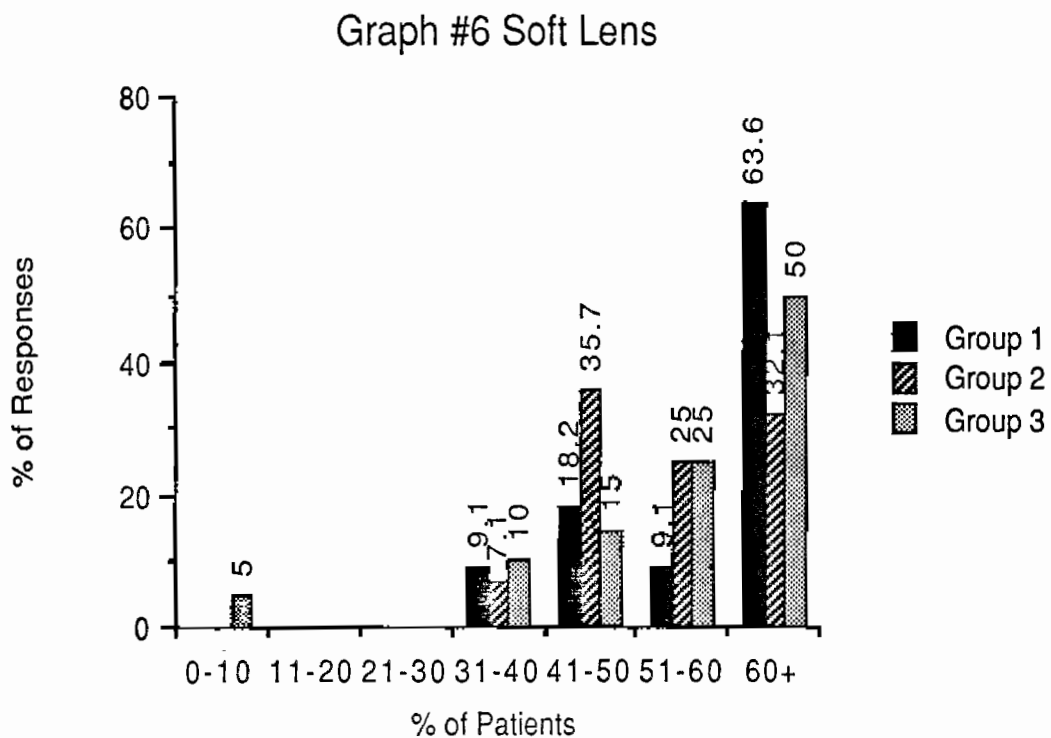


The number of years in practice is directly related to the RGP preference. Group I shows a high concentration (91%) of RGP at 21-40% of total contact lens wearers. Group II shows less of a concentration (85.7%) of RGP preference spread over 21-50% of total contact lens wearers. Group III shows leveling of RGP preference ranging from 0-50% of total contact lens wearers.



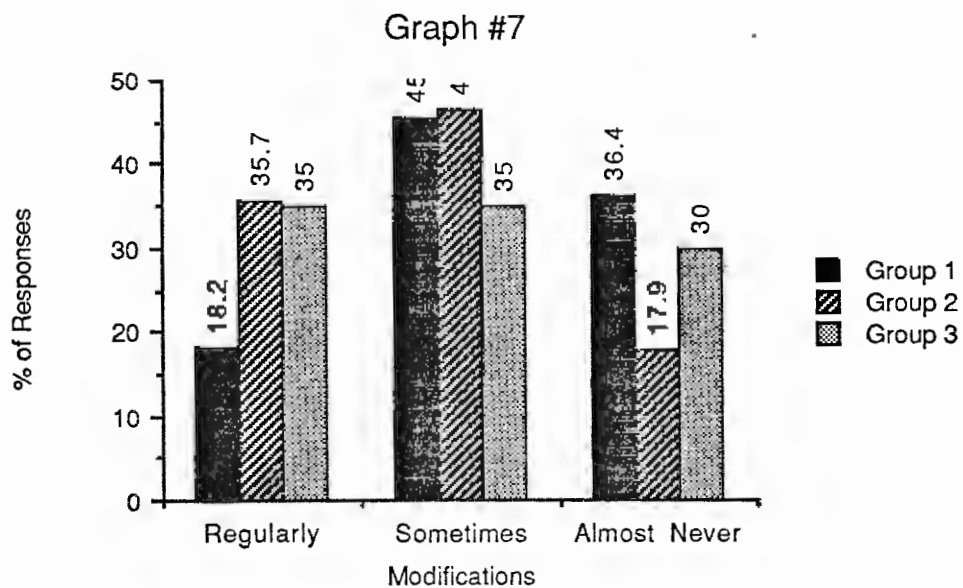
Regardless of the number of years in practice, Graph #6 shows that there is a consistency of soft contact lens preference (range of 31-60+%) in all three groups.

Furthermore, 63.6% of Group I and 50% of Group III reported that more than 60% of their patients wore soft contact lens. However, 35.7% of Group II practitioners reported that 41-50% of their patients wore soft contact lens.



With respect to survey question #5, no definite conclusion can be drawn due to the ambiguous question format and the corresponding inconsistencies in answers. However, it could safely be deduced that many practitioners successfully fitted extended wear soft lenses regardless of the number of years in practice. In addition, it could also be deduced that most practitioners, regardless of the number of year in practice, have successfully fitted soft-bifocals more often than hard-bifocals.

With respect to Graph #7, regardless of the number of years in practice, rigid contact lens are sometimes modified at least 35% of the time and regularly modified at least 18% of the time in optometric offices.



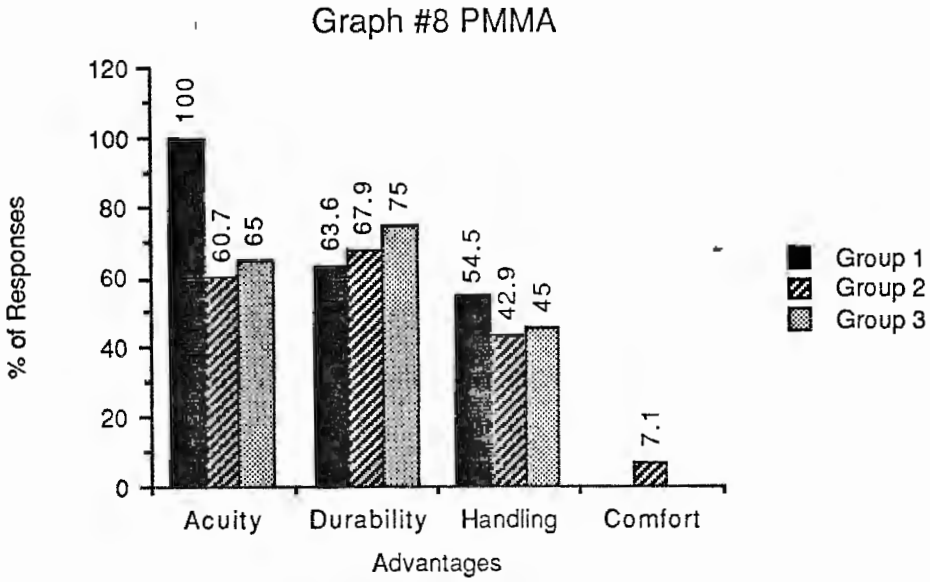
The result of the question regarding the advantages of different types of contact lens shows that, regardless of the number of years in practice, PMMA is most preferred for its acuity followed by durability and handling.

100% of Group I preferred PMMA for acuity while only 60.7% of Group II and 65% of Group III preferred it for the same reason. Furthermore, a similar percentage of all three groups preferred PMMA for durability. 63.6% of Group I, 67.9% of Group II, and 75% of Group III.

Handling was rated third of the advantages of PMMA by Groups I, II and III with 54.5%, 42.9% and 45% preferences, respectively.

Of the three groups, only a small percentage (7.1%) of Group II preferred PMMA for its comfort.

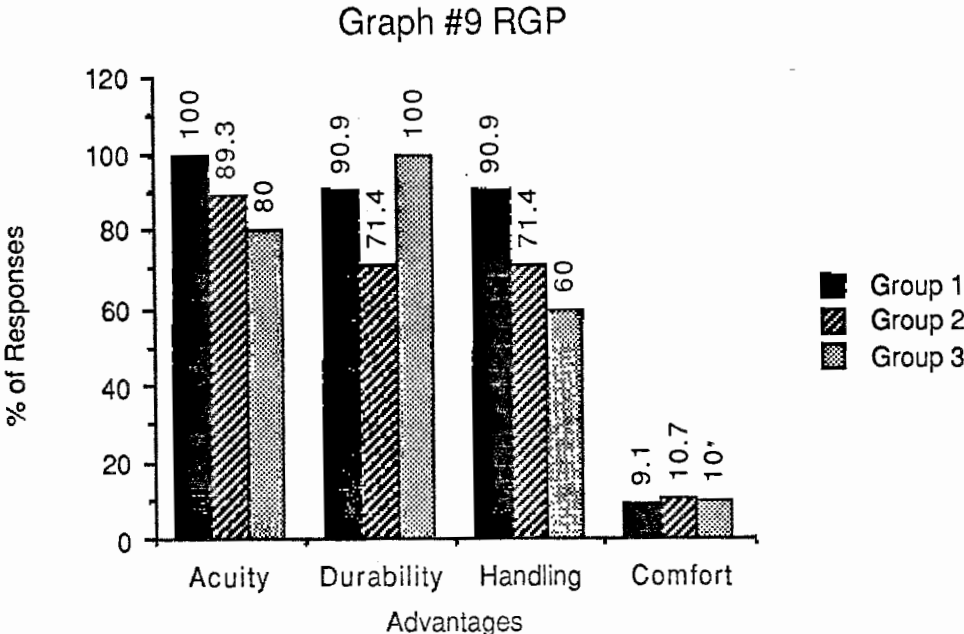
In addition, there were responses for other advantages of PMMA: better wetability than RGP (2 responses), deposit resistance (2 responses), myopia control, and dimensional stability.



The overall RGP preference trend by all three groups of optometrists is similar to the results seen in the PMMA preference; however, there was a higher percentage of responses in each of the four categories of advantages. The reasons for their preference are in the following order: acuity, durability, handling and comfort.

As also noted in the PMMA result, only a small percentage (<10.7%) of all three groups of practitioners preferred RGP for its comfort.

Other advantages for RGP preferences were: myopia control (4 responses), corneal health (3 responses), lens life (2 responses), ease of insertion and removal, long-term comfort, long wearing time, physiological response, and reduced Giant Papillary Conjunctivitis.



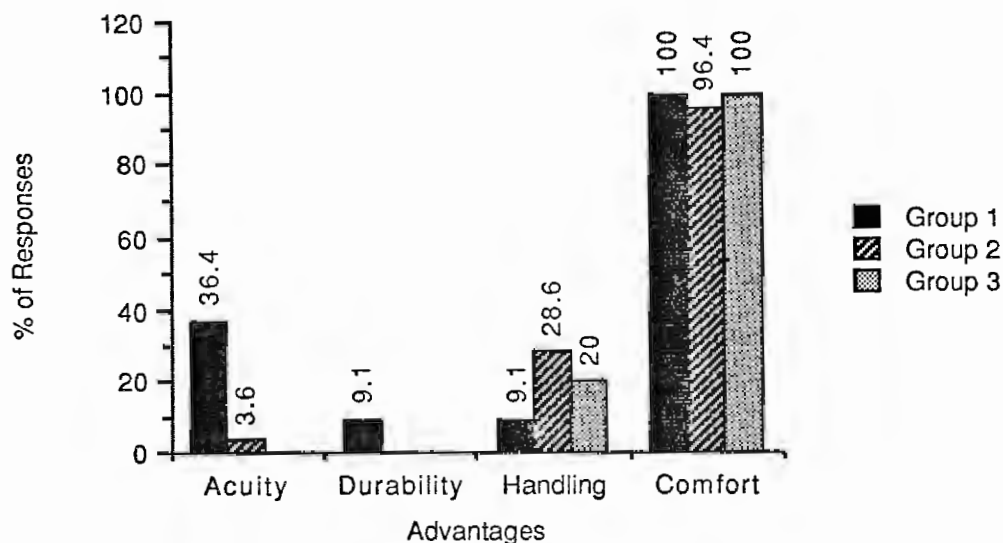
Contrary to RGP and PMMA, soft lenses are overwhelmingly preferred for comfort in all three groups. 100% of both Groups I and III optometrists preferred soft contact lenses for comfort and 96.4% of Group II optometrists preferred soft contact lenses for comfort.

However, acuity and durability are sacrificed for comfort in Groups II and III. Unexpectedly, a large percentage (36.4%) of Group I optometrists preferred soft lenses for acuity.

Only a small percentage of Group I (9.1%) practitioners preferred soft lenses for durability, while none of the practitioners in Group II and III preferred soft contact lenses for durability.

Some optometrists listed other advantages for soft contact lens selection: initial comfort, bifocal designs, lack of foreign bodies in wind, good for wearing during contact sports and occasional wear, patients desires, and long wearing time.

Graph #10 Soft Contact Lens



For spherical soft contact lenses brand preference, CIBA was most preferred by optometrists in Group I (54.5%) and Group II(32.1%). However, 40% of Group III optometrists preferred both B/L and CIBA equally as their first choices.

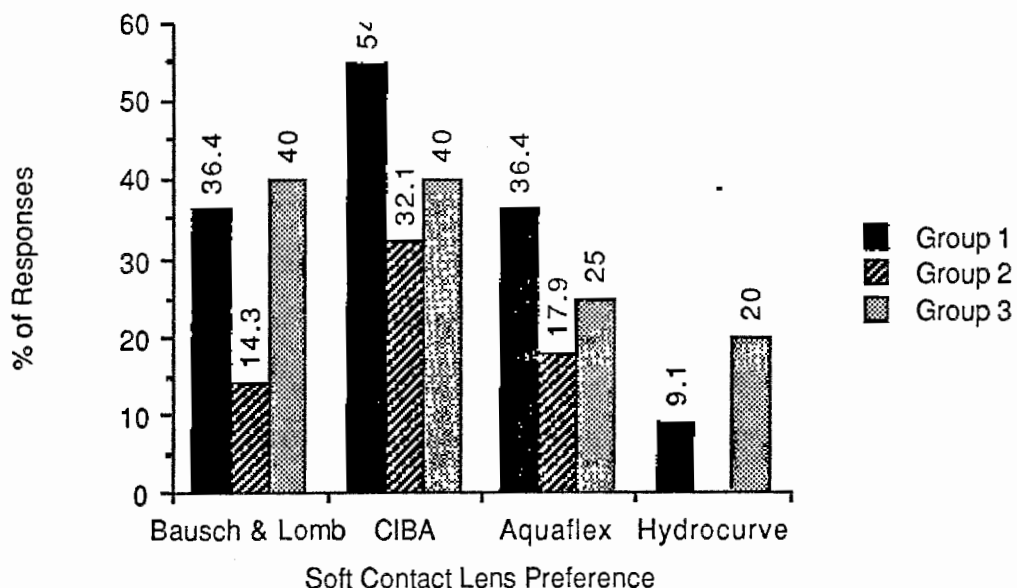
36.4% of Group I preferred B/L and Aquaflex equally as their second choice of spherical soft contact lens brand. 17.9% of Group II optometrists preferred Aquaflex as their second choice over other brands.

Hydrocurve was the least preferred by all three groups of optometrists of the four brands surveyed -- While none of the Group II optometrists preferred spherical Hydrocurve soft contact lenses, only 9.1% of Group I and 20% of Group III preferred it.

A surprisingly high number of optometrists listed other brands as their preferences, such as CSI (9 responses), American Hydron (6 responses), Wesley and Jessen (5 responses), and Permafex (1 response).

Some optometrists responded that they preferred more than one brand of the soft spherical contact lenses, thereby, the percentages do not add up to 100% in each of the results.

Graph #11 Spherical



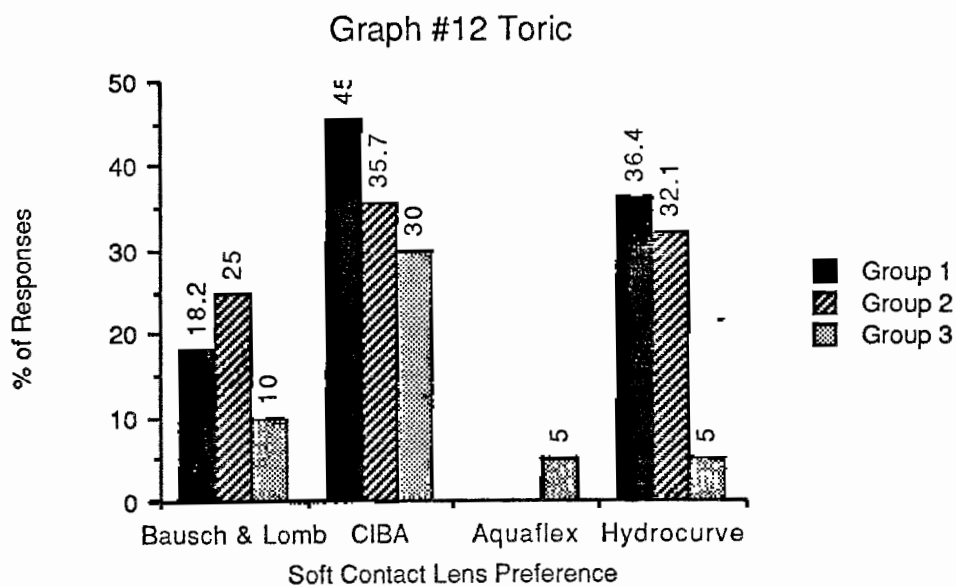
For soft toric contact lenses, CIBA was the most preferred brand in all three groups: Group I 45.5%, Group II 35.7%, and Group III 30%.

As a second brand preference, Hydrocurve was preferred by both Groups I and II practitioners (36.4% and 32.1% respectively) over other brands. However, in Group III practitioners chose B/L (10%) as a second choice over other brands.

Aquaflex was the least preferred soft toric contact lenses brand in each of the three groups with only 5% of Group III optometrists preferring it.

Other brand preferences were: Vistakon (9 responses), American Hydron (2 responses), Wesley Jessen (2 responses), Permafex (1 response), and Biocurve (1 response).

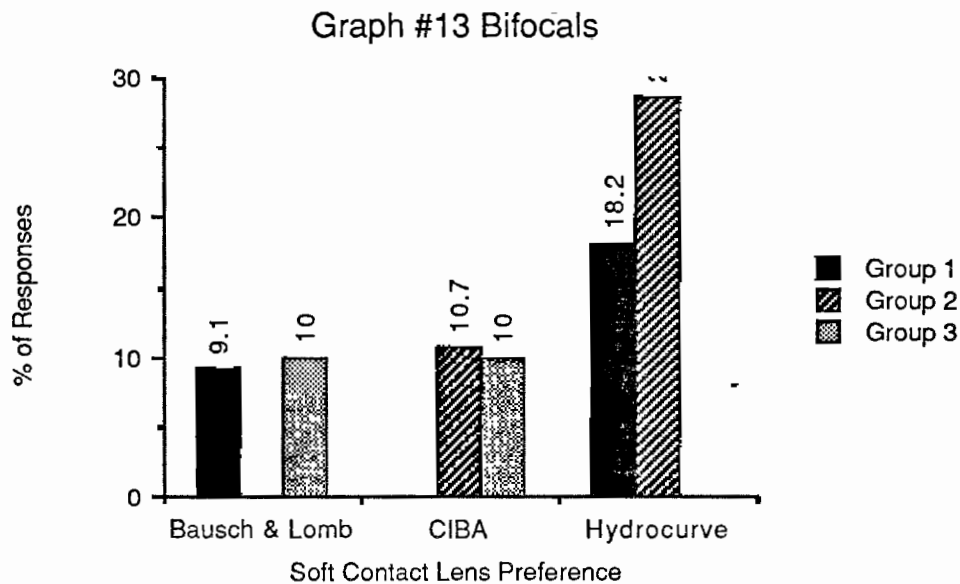
One optometrist in Group III responded that he preferred Aquaflex toric contact lenses, however, it may have been an error in completing the survey as Aquaflex does not make a toric.



None of the four soft bifocal contact lens brands was consistently preferred by all three groups.

Hydrocurve was the most popular brand of soft-bifocal contact lenses in Group I (18.2%) and Group II (28.6%); while Group III optometrists did not prefer it at all. B/L was preferred by both Group I (9.1%) and Group III (10%) -- Group II did not prefer it at all. CIBA was preferred by Group II (10.7%) and Group III (10%), while none of the Group I optometrists preferred it.

There were other soft bifocal contact lens brands chosen by all three groups of optometrists: Alges (5 responses), and Wesley-Jessen. One optometrist responded that he utilizes monovision as a means of presbyopia treatment.



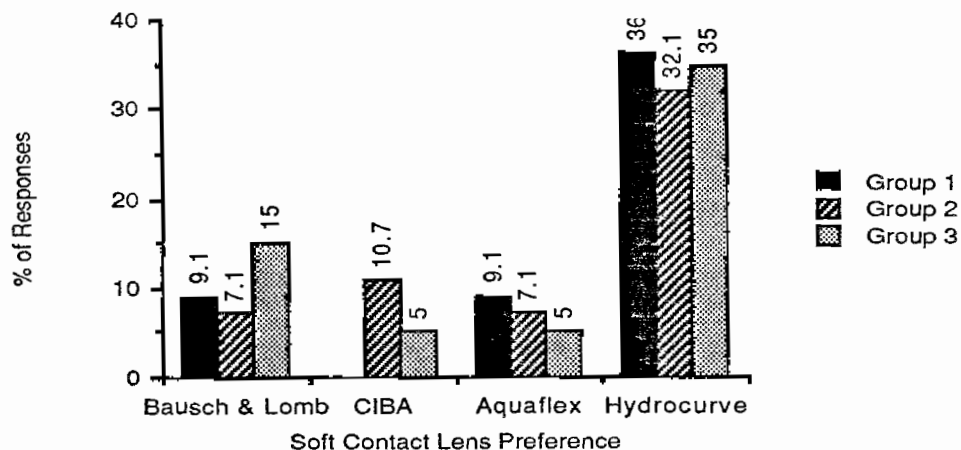
In spite of the number of years in practice, Hydrocurve was clearly the most popular brand for extended wear contact lenses, with a similar percentage of responses in all three groups: Group I 36.4%, Group II 32.1% and Group III 35%.

Bausch & Lomb and Aquaflex ranked second in brand preference by Group I (9.1%). According to the Tyler's Quarterly, there is no Aquaflex extended wear lenses, however, some optometrists responded that they preferred it. And in Group III, 15% of the optometrists preferred B/L for second brand choice. However, 10.7% of Group II optometrists chose CIBA as a second preference.

None of the optometrists in Group I preferred CIBA extended wear soft contact lenses. While Bausch & Lomb and Aquaflex extended wear lenses were least preferred by Group II (7.1%), CIBA and Aquaflex were least preferred by Group III (5%).

However, a large number of responses indicate a preference for other brand. Most notable was the Wesley-Jessen extended wear soft contact lens with 17 responses, CSI (5 responses), Vistakon (4 responses), Cooper (2 responses), American Hydron (2 responses), Permafex (2 responses), and Biocurve (1 response).

Graph #14 Extended Wear

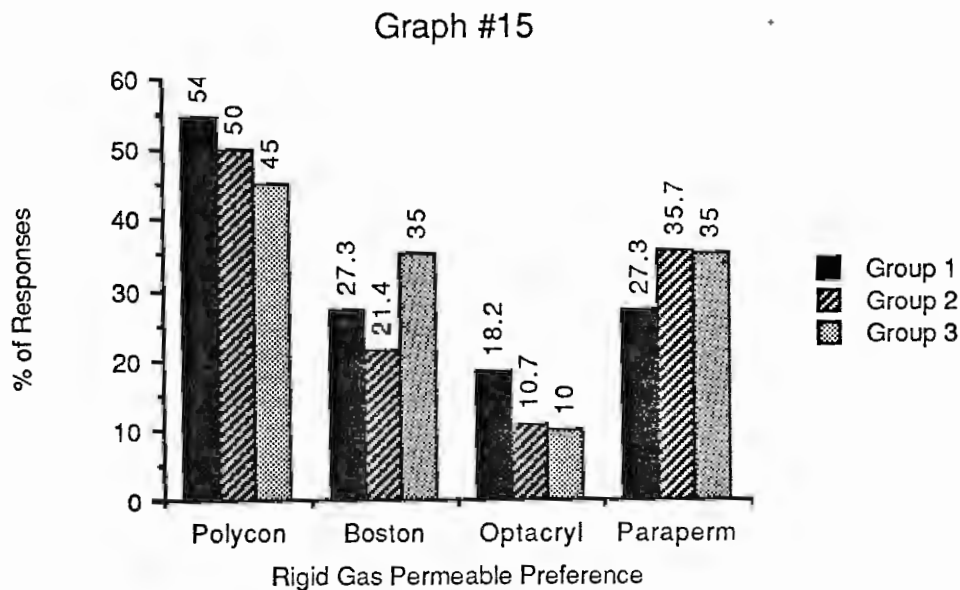


The order of preference of RGP in Group I was Polycon (54.5%), Paraperm (27.3%), Boston (27.3%), and Optacryl (18.2%). In Group II, the order of preference was as follows: Polycon (50%), Paraperm (35.7%), Boston (21.4%), and Optacryl (10.7%). Lastly, Group III preferred RGP in the following order: Polycon (45%), Paraperm (35%), Boston (35%), and Optacryl (10%).

Clearly, all three groups of optometrists preferred Polycon. However, there were some variations of preferences with Paraperm and Boston. Although within Group I and Group III Boston and Paraperm were preferred equally as their second choices, Group II preferred Paraperm as a second choice over Boston.

There were other responses regarding RGP contact lenses brand preference: Contex (2 responses), GpII (2 responses), Oxyflow 39 (1 response), Bioxycon (1 response), and Perma 92 (1 response).

Some of the optometrists responded that they preferred more than one brand of RGP lenses, therefore, the sum of the percentages do not equal 100%.



CONCLUSION

The primary goal of this survey was to study the trend of contact lens preference in respect to the years the optometrists were in practice. However, the results from the questions did not show a clear indication of any possible contact lens preference trend with respect to the years in practice.

With respect to the percentage of contact lenses patients, it is evident that the longer the optometrist has been in practice, the larger the percentage of contact lens patients likely to be seen.

Similarly, the longer the optometrist has been in practice, the more new contact lens patients will be fit each month.

Regardless of the years the optometrist has been in practice, soft contact lenses were the most preferred type, followed by RGP lenses, and PMMA lenses.

A high percentage of practitioners in all three groups stated that they either "regularly" or "sometimes" modify hard contact lenses in their offices.

The optometrists in all three groups preferred PMMA and RGP lenses for acuity, durability and handling, while they preferred soft contact lenses for comfort.

The most preferred soft contact lens brands in each of the lens types were as follows: CIBA (Spherical), CIBA (Toric), Hydrocurve (Bifocals), and Hydrocurve (Extended Wear). In addition, a large number of optometrists preferred CSI spherical lenses, Vistakon toric lenses, Alges bifocal lenses, and Wesley-Jessen extended wear lenses.

Polycon was the most preferred RGP brand by the optometrists in all three groups.

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Jensen, Clark: Contact Lens Trends Among Wyoming Optometrists. Pacific University, College of Optometry. February, 1984.