

**The State Of Working Relations Between Optometrists and
Ophthalmologists**

A Survey of Eye Care Practitioners in Michigan and Ohio

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Abstract

Vital to the maintenance of an efficient health care system is the presence of comfortable and productive working relations among its numerous participants. This study explores the opinions of the two groups of eye and vision care providers on this issue, and strives to determine if they have changed as a result of the increasing scope of practice of one of the groups. A survey was used to gather information from Doctors of optometry and ophthalmology in the states of Michigan and Ohio. These states were chosen because optometrists are allowed to use therapeutic pharmaceutical agents (TPA's) in Ohio and not in Michigan. Results indicate that the opinions of optometrists and ophthalmologists differ on most questions included in the survey, including those related to comanagement and management of certain ocular diseases and post-operative conditions. There was no statistically significant difference between opinions of practitioners in either state surveyed. These results suggest a lack of ideal professional relations among the two main providers of eye and vision care. Also, they indicate that optometrists have not been able to gain recognition as key entry-level providers despite legislation supporting increased scope of practice. Improvement in both these areas is required if optometrists and ophthalmologists are to make full use of their respective positions to provide full-scope and efficient eye and vision care.

Introduction

Optometry's increasing expansion into the treatment and management of ocular disease has led to changes in public perception of the profession's role in health care delivery. The changes affect not only the ways in which consumers make use of eye and vision care services, but also the ways in which various health care providers interact. When considering the impact brought about by alterations in the scope of practice of a single group of health care providers, it becomes necessary to evaluate how such changes affect other members of the health care community. In the case of optometry, the shifting of much of the burden of eye and vision care towards this group has started a trend towards reshaping and refining the way in which such care is delivered.

The majority of eye and vision care in the United States is provided by optometrists and ophthalmologists, two groups that have a long history of working closely together. The scope of practice of these two groups has always tended to overlap, and the distinction has become even less clear with the recent introduction of therapeutic drug (TPA) legislation for optometrists. Diagnostic pharmaceuticals are legally utilized by optometrists in all 50 states, and in 37 states optometrists may also prescribe therapeutics, to varying extents. We wish to closely examine the working relationships of optometrists and ophthalmologists in two different settings; one in which TPA use by

optometrists is a reality, and the other in which optometrists have not yet been certified to use TPA's. The purpose of this comparison is to answer two general questions: 1) What is the quality of the professional relations between optometrists and ophthalmologists in both settings? 2) Does a difference in opinion exist between the two settings? A survey was employed to address these issues. Opinions on professional relations were gathered both directly and indirectly by including questions on management and comanagement of certain ocular conditions.

In the interests of developing and maintaining a smooth and efficient health care delivery system, the benefits of a good working relationship between interacting providers are obvious. Equally as obvious are the benefits involved in allowing optometrists to use TPA's, primarily in the areas of cost containment and accessibility of care.¹ A prime focus of this study is to measure how successful optometry has been in attaining one of these goals without sacrificing the other. It may prove beneficial in bringing attention to obstacles which prevent optometrists from becoming fully integrated and recognized as active members of the health care community

Methods

An opinion survey was distributed to 200 practitioners of ophthalmology and optometry. In order to compare the effect of TPA legislation for optometrists on the professional relations of these two groups, the surveys were distributed equally between two states; Michigan, a non-TPA state, and Ohio, where optometrists are currently licensed for TPA use. Fifty members were chosen from each group (MI optometrists, MI ophthalmologists, OH optometrists, OH ophthalmologists) to form the population base for our study. The members were selected at random from the "Blue Book of Optometrists"(1992-93) and the "Red Book of Ophthalmologists"(1992-93). Practitioners graduating prior to 1970 were not chosen to ensure that the formal education received by most participants was more or less up to date.

The survey was divided into two parts. In the first part each respondent was asked to indicate his or her current mode of practice and then respond to questions about the effect of TPA legislation on referral levels to each eye care group. Direct questions were also asked about the impact of TPA legislation on professional and interpersonal relations, and whether optometrists have adequate training to use TPA's according to state legislation. The second part of the survey dealt with the comanagement of certain ocular conditions. Common ocular diseases and post-operative conditions were listed, and respondents were asked to rate their comfort level in comanaging each situation. Also, opinions were requested on who could successfully manage certain anterior segment disorders by responding "OD," "MD" or "either" for each

condition. Specific ocular diseases and trauma conditions were chosen which are frequently managed by both groups. Finally, a yes or no response question was asked as to whether the respondent supports the use of TPA's by optometrists. When compiling results from each completed survey question, those respondents who chose multiple or incompatible answers, or those who left answers blank, were excluded from the final count.

A total of 109 completed surveys were returned for an overall response rate of 55 percent. As a group, optometrists had the highest response rate, returning 80 percent and 70 percent of the surveys sent to Michigan and Ohio respectively. Michigan ophthalmologists returned 18 completed surveys for a group response rate of 36 percent, and ophthalmologists from Ohio returned 16 surveys for a group response rate of 32 percent.

Results

For the purposes of drawing comparisons we used the Chi square test for qualitative data. If a significant difference in opinion exists, the statement is followed by the significance level found for its particular set of data, at the appropriate degrees of freedom. We arbitrarily set the cutoff level at $p < 0.05$. Secondly, since the response rates for each group were unequal, the data were converted to percentages for graphical illustration. The third point worth mentioning is that the response rate for ophthalmologists as a whole was much lower than that for optometrists, resulting in a lower overall group representation.

The most frequent mode of practice of optometrists who responded to our study was solo practice (41 percent) with no large difference between states. Ophthalmologists surveyed in Michigan were concentrated in multi-modal (28 percent) and group (29 percent) practice settings. Participating Ohio ophthalmologists indicated solo practice (25 percent) as the most frequent mode chosen. ^{fig 1.}

All groups surveyed tended to believe that referrals to ophthalmologists would not increase as a result of TPA legislation for optometrists. ^{fig 2.} When asked the same question regarding referrals to optometrists, a difference of opinion was found ($p < 0.001$). Most optometrists (77 percent) believed their referrals would increase, versus only 50 percent of ophthalmologists who felt the same way. ^{fig 3.} No difference in opinion was found between states.

Sixty-three out of 74 optometrists felt they had adequate training to use therapeutics according to state legislation. Five chose not to respond to the question. Ophthalmologists surveyed felt just the opposite, agreeing with optometrists in only 4 out of 33 (12 percent) surveys received, with one choosing not to respond. ^{fig 4.} Practitioners in both states responded similarly.

Over half the optometrists in Ohio believed their use of TPA's had positively influenced their professional relations with ophthalmologists. This is in contrast with Michigan's optometrists ($p < 0.05$), who tended to feel these relations would remain unchanged. A small percentage of optometrists (about 10 percent) from both states felt that professional relations would actually decay as a result of TPA legislation. Ophthalmologists disagreed with optometrists on this issue ($p < 0.001$) and 58 percent believed relations would worsen, with no significant difference in opinion between states.^{fig 5.} (Note that the graph depicts more Ohio ophthalmologists responding under the "same" category than those under "worsen". However, this does not show statistically because of the small sample size of this group).

Opinions on TPA legislation's effect on interpersonal relations between optometrists and ophthalmologists show a similar distribution. Of the three possible categories, the ones chosen by most Michigan and Ohio optometrists were "improve" or "same." Again ophthalmologists differed from optometrists in their opinions ($p < 0.001$), tending to believe interpersonal relations would either worsen or remain the same. No significant difference in opinion between states was found for either group.^{fig 6.}

When questioned about the level of comfort each practitioner had with specific comanagement situations, ophthalmologists and optometrists disagreed in every instance without exception ($p < 0.001$).^{fig 7.} The majority of ophthalmologists surveyed would rather not comanage any of the listed conditions, while most optometrists are decidedly more comfortable as a group with most of the mentioned comanagement topics. Optometrists from both states correlated in their opinions in all conditions except for proliferative diabetic retinopathy, with which more Ohio optometrists (37 percent) were comfortable than Michigan optometrists (18 percent) ($p < 0.05$). Statistically, opinions of ophthalmologists tended to be cohesive between the two states. There were four conditions which the majority of optometrists were comfortable with comanaging, namely status post cataract extraction (82 percent), background diabetic retinopathy (83 percent), dry age-related macular degeneration (74 percent) and chronic open angle glaucoma (63 percent). The percentage of ophthalmologists who responded "comfortable" on these conditions are as follows: s/p cataract extraction (15 percent), BDR (18 percent), dry AMD (30 percent) and COAG (14 percent). Dry age-related macular degeneration was the one condition which ophthalmologists chose most frequently (felt the least uncomfortable comanaging).

A number of commonly encountered anterior segment disorders were listed and practitioners were asked to indicate the provider who could manage each one successfully. Specific conditions were chosen which frequently require intervention in the form of therapeutic drugs. At least 60 percent of all

optometrists surveyed chose "either OD or MD" for all conditions except hyphema, chemical corneal burn, conjunctival laceration, scleritis and corneal ulcer. ^{fig 8}. No significant difference was found between Ohio and Michigan for any of the conditions listed. Ophthalmologists surveyed differed in opinion from optometrists on all listed conditions ($p < 0.001$), choosing "either OD or MD" a much smaller percentage of the time. ^{fig 9}. For all listed conditions except hyphema and UV corneal burn, Ohio ophthalmologists chose "either OD or MD" an average of 20 percent more than Michigan ophthalmologists. This difference is statistically significant for three conditions, namely bacterial conjunctivitis ($p < 0.01$), episcleritis ($p < 0.04$) and thermal corneal burn ($p < 0.05$).

The final survey question asked whether TPA privileges should be granted to optometrists. Seventy-three out of 74 optometrists (99 percent) support TPA laws for optometrists in contrast with only 7 out of 34 ophthalmologists (21 percent). One optometrist chose not to respond. No significant difference between Michigan and Ohio was found for either group. ^{fig 10}.

Discussion

During the process of analyzing our results it was necessary to incorporate very small frequencies in most of our data sets. This posed two specific problems. First, the small sample sizes present in certain groups made the results less likely to be representative of the opinions of the entire population. Secondly, the Chi-square test for qualitative data is less valid and reliable for sets containing extreme frequencies (too high or too low). ² These issues were of highest concern as we dealt with the population of ophthalmologists in the study, whose response rate was less than fifty percent that of optometrists. Since ophthalmologists were seldom equally divided in opinion, this resulted in small frequencies in most data sets. To avoid making false generalizations, indications have been made whenever a trend is noted in graphical illustration but is not supported statistically.

Most of the ophthalmologists who participated in this study (82 percent) were concentrated in solo, group, partnership, or multi-modal practice. A minority (12 percent) worked in OD/MD settings. Roughly the same percentage of optometrists (85 percent) were distributed in the same manner, which ensured that responding practitioners from each eye care group had similar types of working relations with each other. Clearly, there exists a certain degree of bias in not having all modes of practice equally represented for both optometrists and ophthalmologists.

Results of the survey show that optometrists and ophthalmologists have conflicting opinions on most issues requiring interaction of vision and eye care professionals. There was no evidence that this trend differed between

practitioners in Michigan versus those in Ohio. However, certain graphical trends suggest that Ohio ophthalmologists may be more optimistic about their working relationship with optometrists than those in Michigan. For example, more Ohio ophthalmologists felt that professional and interpersonal relations had remained the same than those who believed they had worsened. In Michigan, more ophthalmologists believed their relations would worsen with the introduction of a TPA law for optometrists. When comparing Michigan and Ohio, opinions on who can manage certain anterior segment conditions showed Ohio ophthalmologists choosing "either OD or MD" a greater percentage of the time. It is important to note that we were not able to support these conclusions statistically due to the small number of ophthalmologists who responded to the survey. As previously mentioned, generalizations about the opinions of this group are consequently difficult.

Optometrists and ophthalmologists tended to be quite opposite in their opinions on "TPA training for Optometrists" as well as comanagement issues. No difference in opinion was found between states surveyed. It is interesting to note that while most ophthalmologists do not support TPA legislation for optometrists, the majority of Ohio ophthalmologists chose "either OD or MD" for all forms of conjunctivitis and corneal abrasion, conditions which frequently require therapeutic intervention.

It becomes evident that optometry's current level of competence in the area of ocular disease diagnosis, treatment, and management is frequently underestimated by many consumers and providers of health care. It is certainly one of the major contributing factors toward the absence of adequate professional relations in many cases. This non-recognition results in an under-utilization of optometry as the gatekeeper of primary vision care, a notion that was supported in a recent survey of Oklahoma medical and optometric practitioners.³ Here it was shown that members of the state's health care providers do not refer to optometrists as many times as to ophthalmologists for ocular conditions. The mentioned referrals included those for refractive error as well as for conditions requiring therapeutic intervention. Ironically, this is in a state where optometrists have attained legislation for one of the widest scope therapeutic bills in the country.

The expansion of the scope of practice of optometry has proven to be inadequate in securing its deserved place as a major provider of quality eye and vision care. Optometrists must continue to demonstrate competency, strengthen referral relationships and show a dedication to all aspects of health care in order to fully achieve this recognition. As we have suggested in this report, supportive legislation is not enough.

References

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2. Witte, Robert S. *Statistics Second Ed.* CBS College Publishing (Holt, Rinehart, and Winston), New York, 1985, p. 271.
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Figure 1

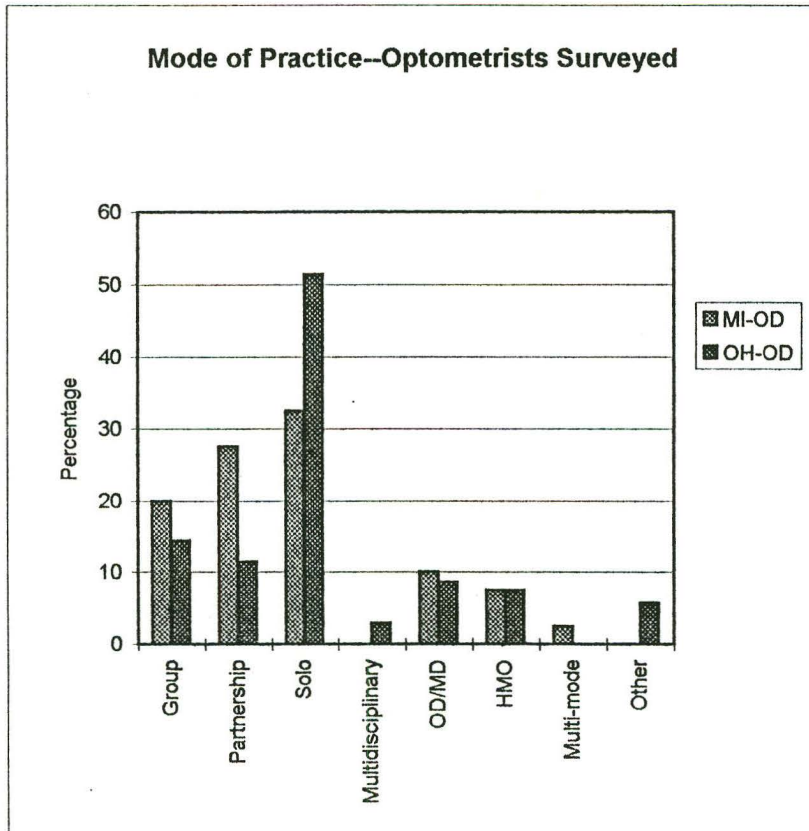
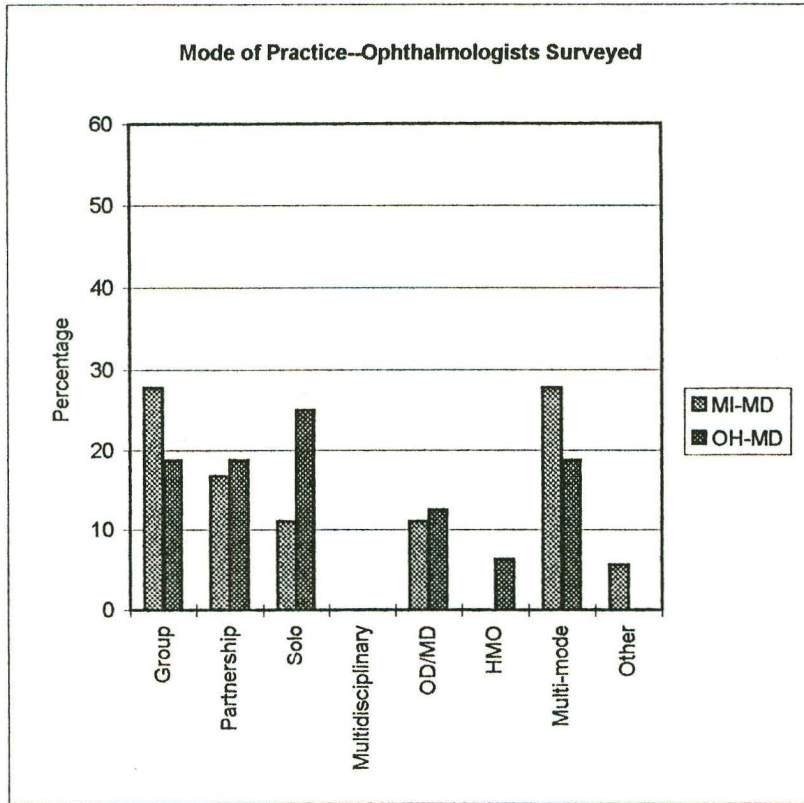


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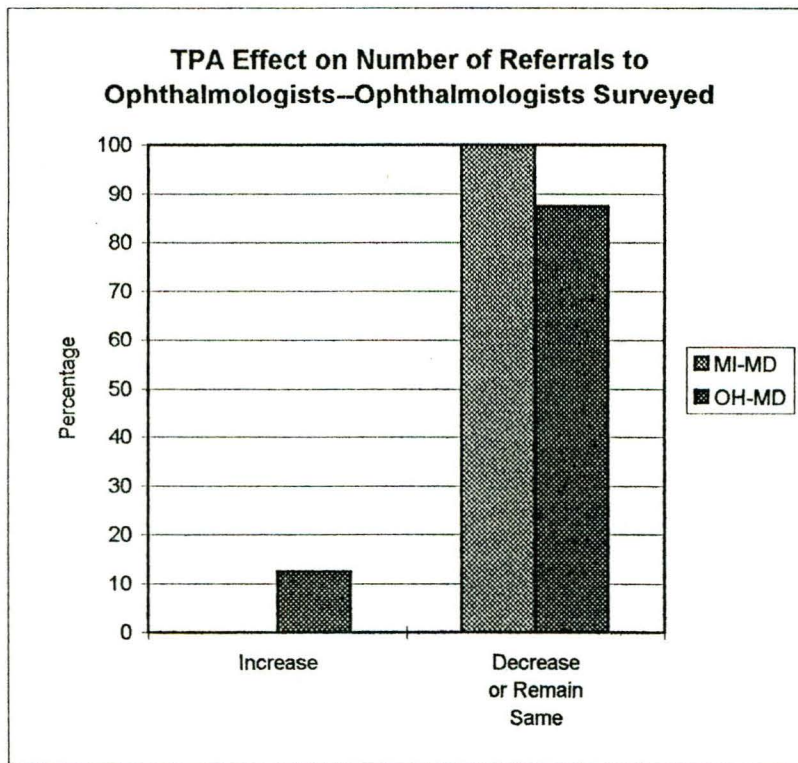
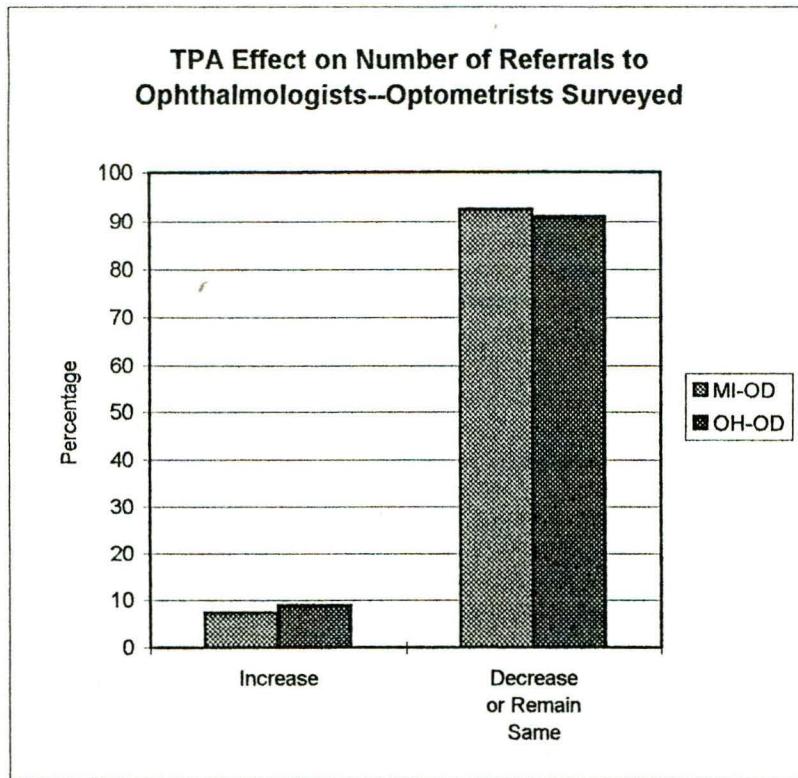


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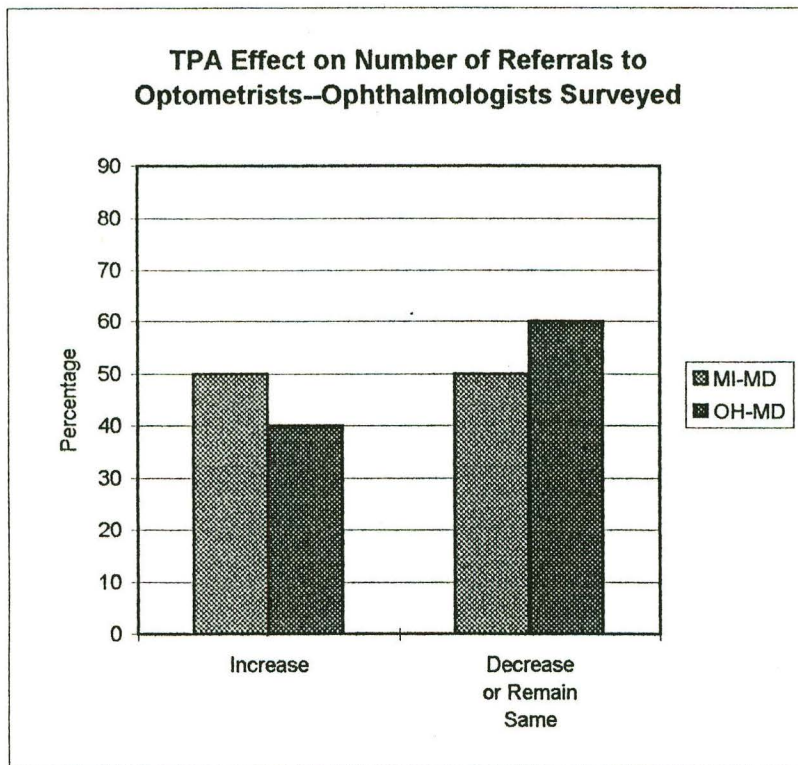
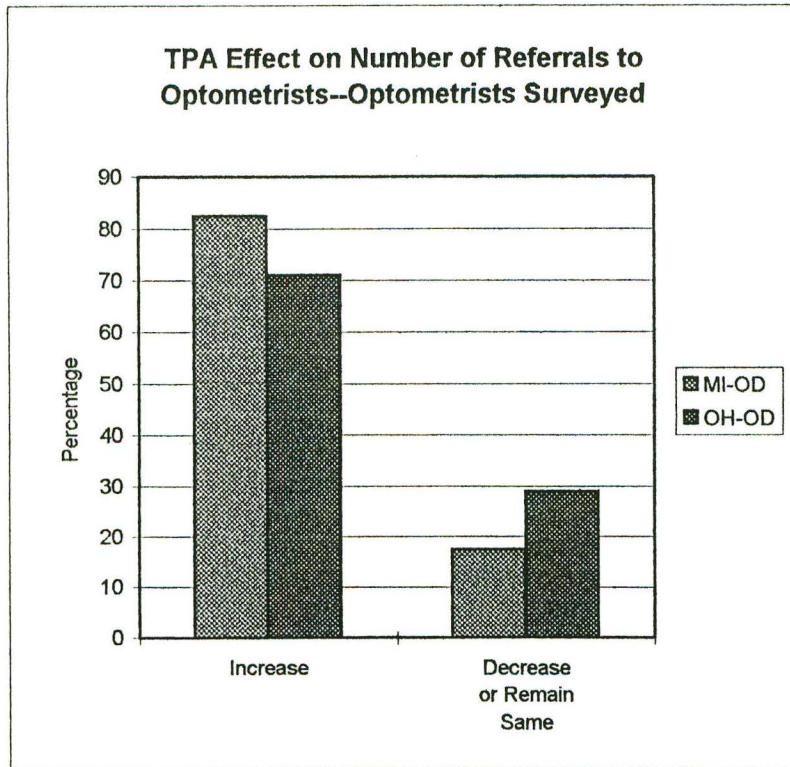


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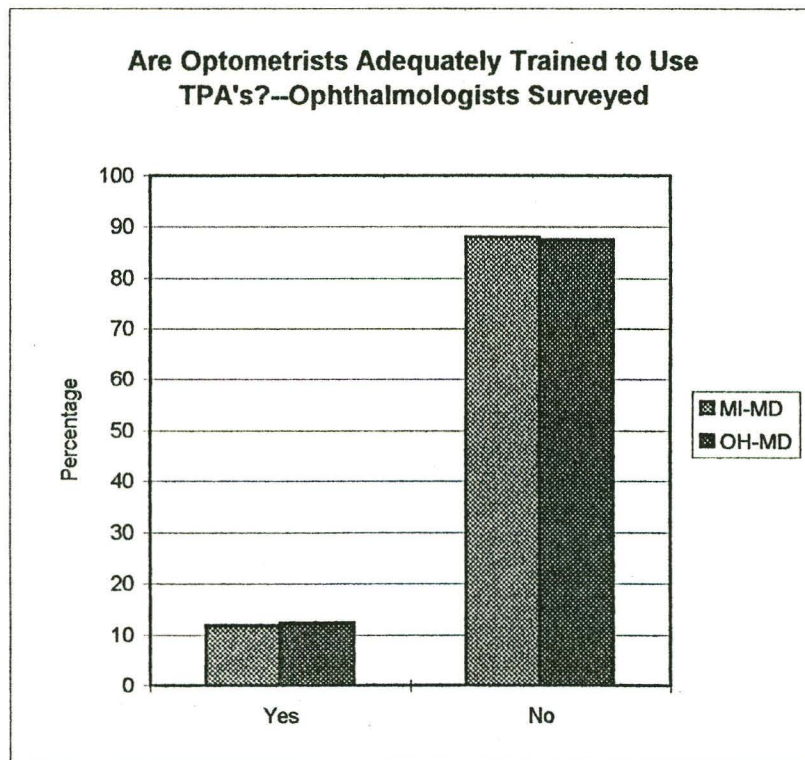
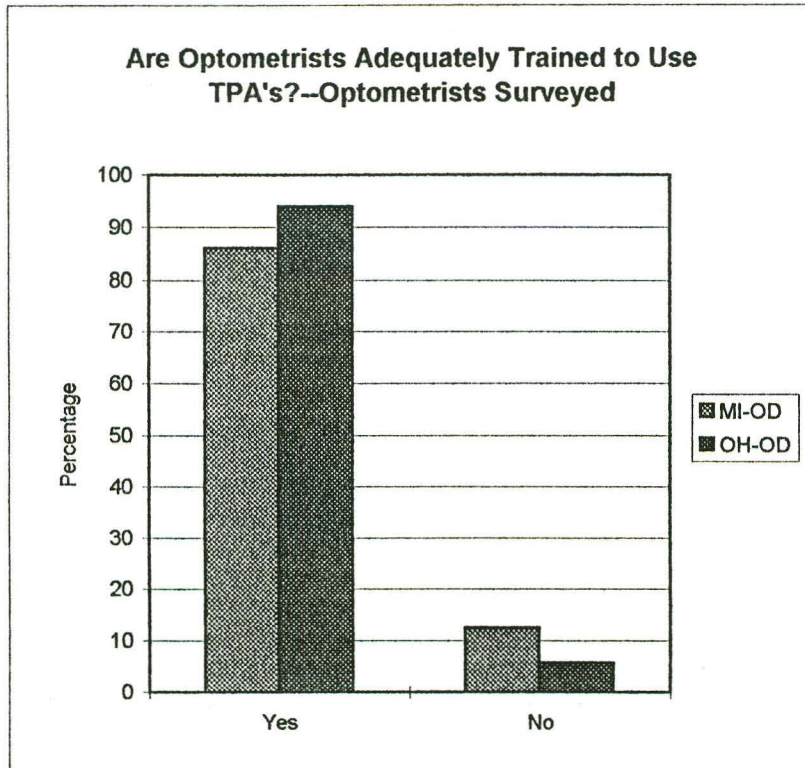


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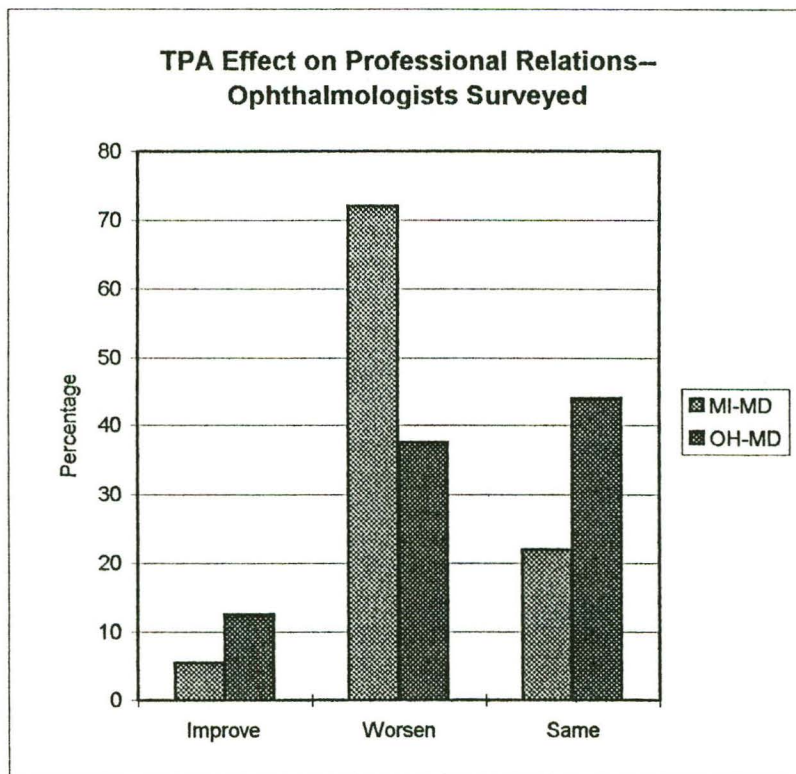
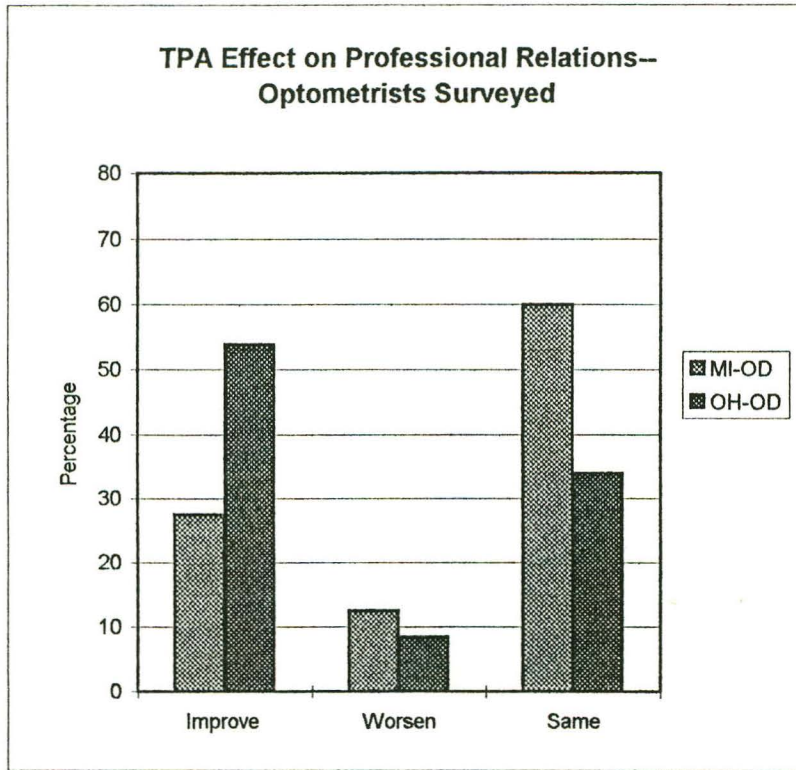


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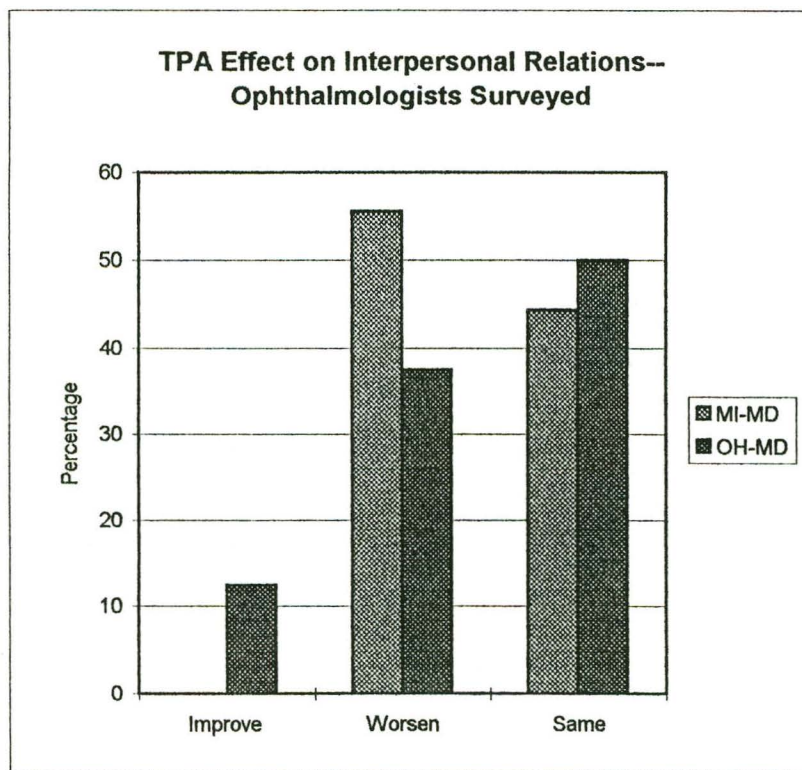
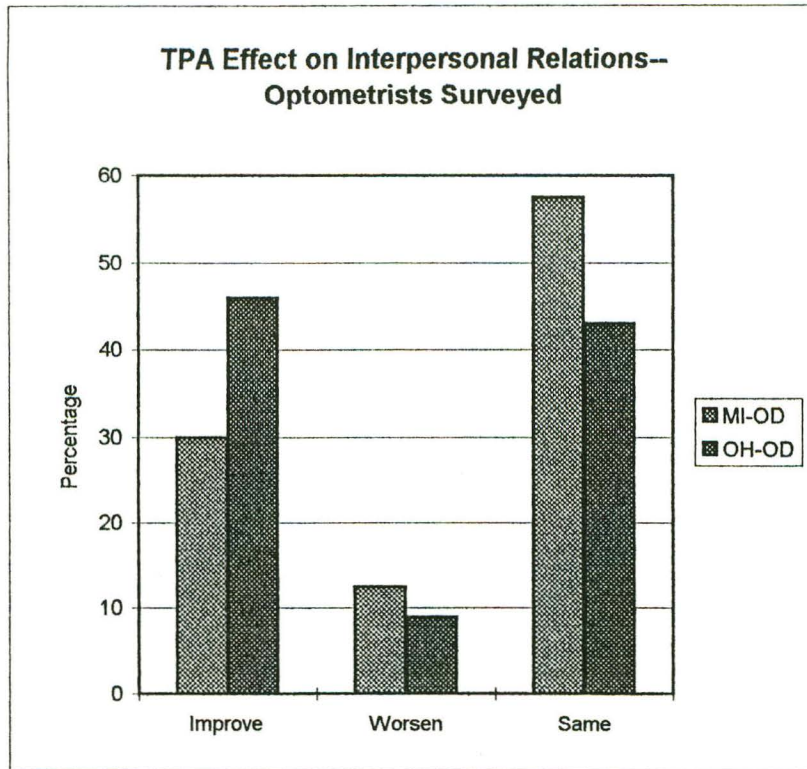


Figure 7

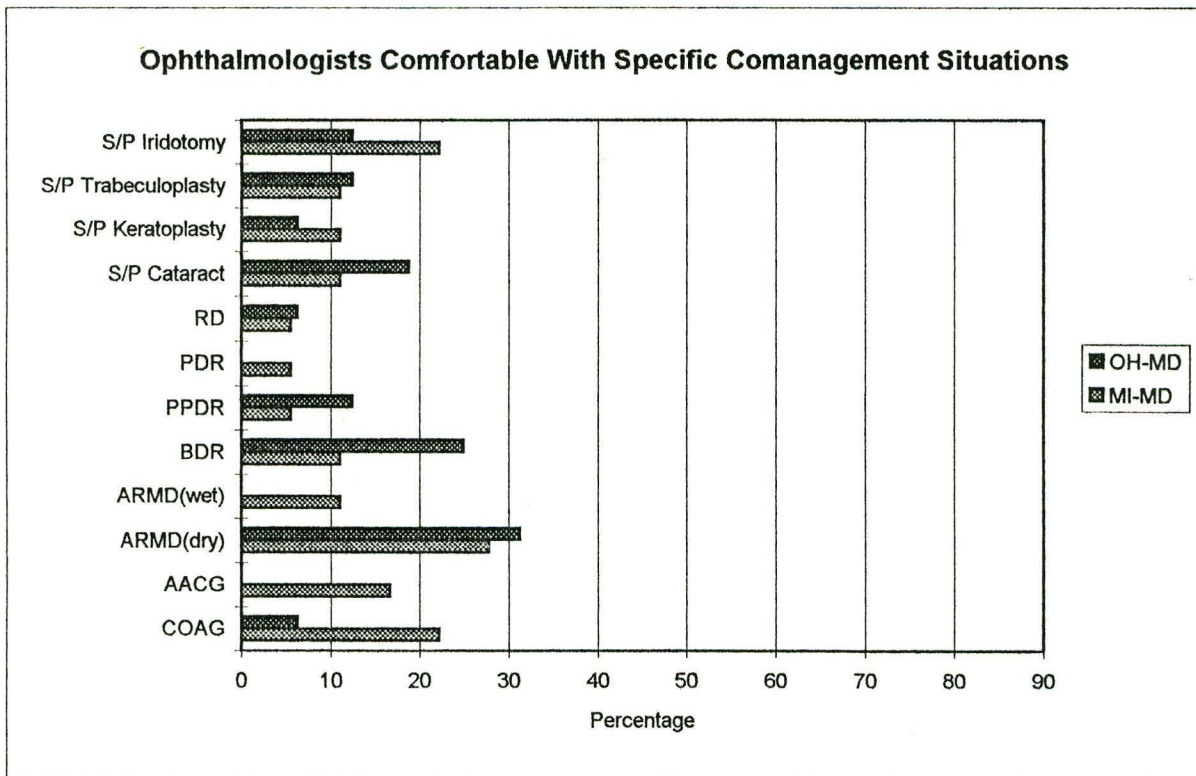
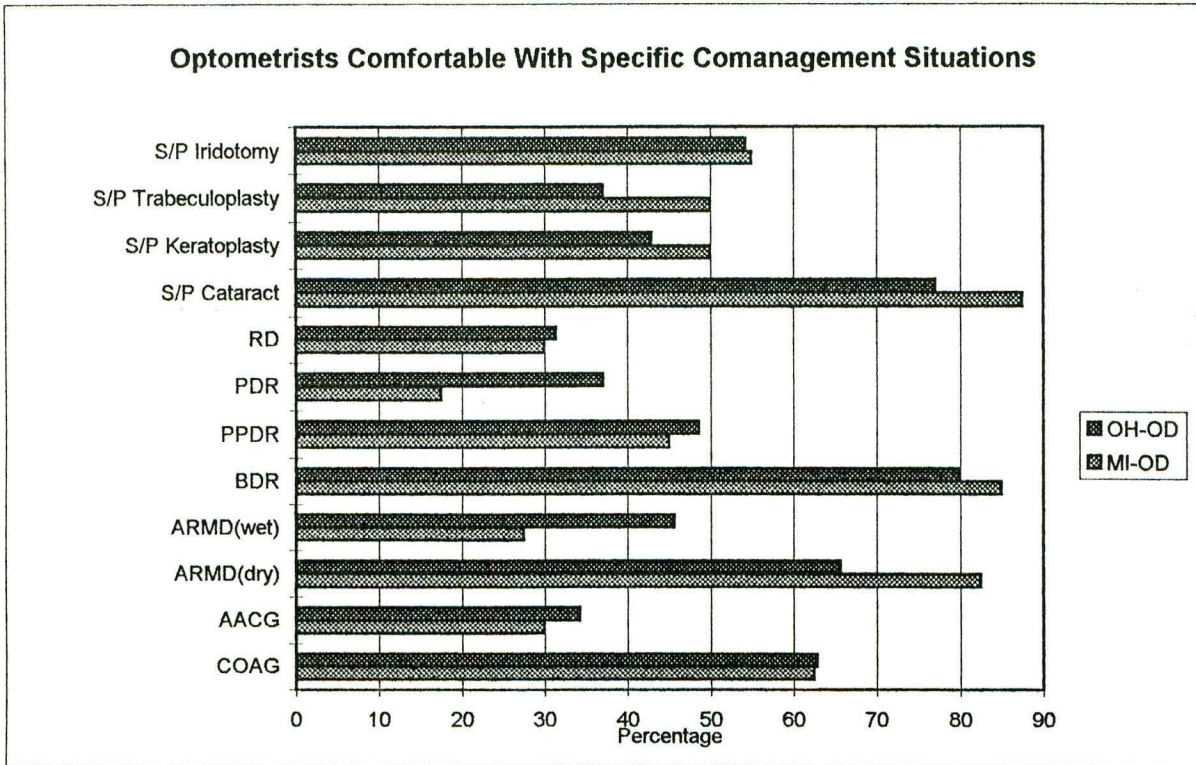


Figure 8

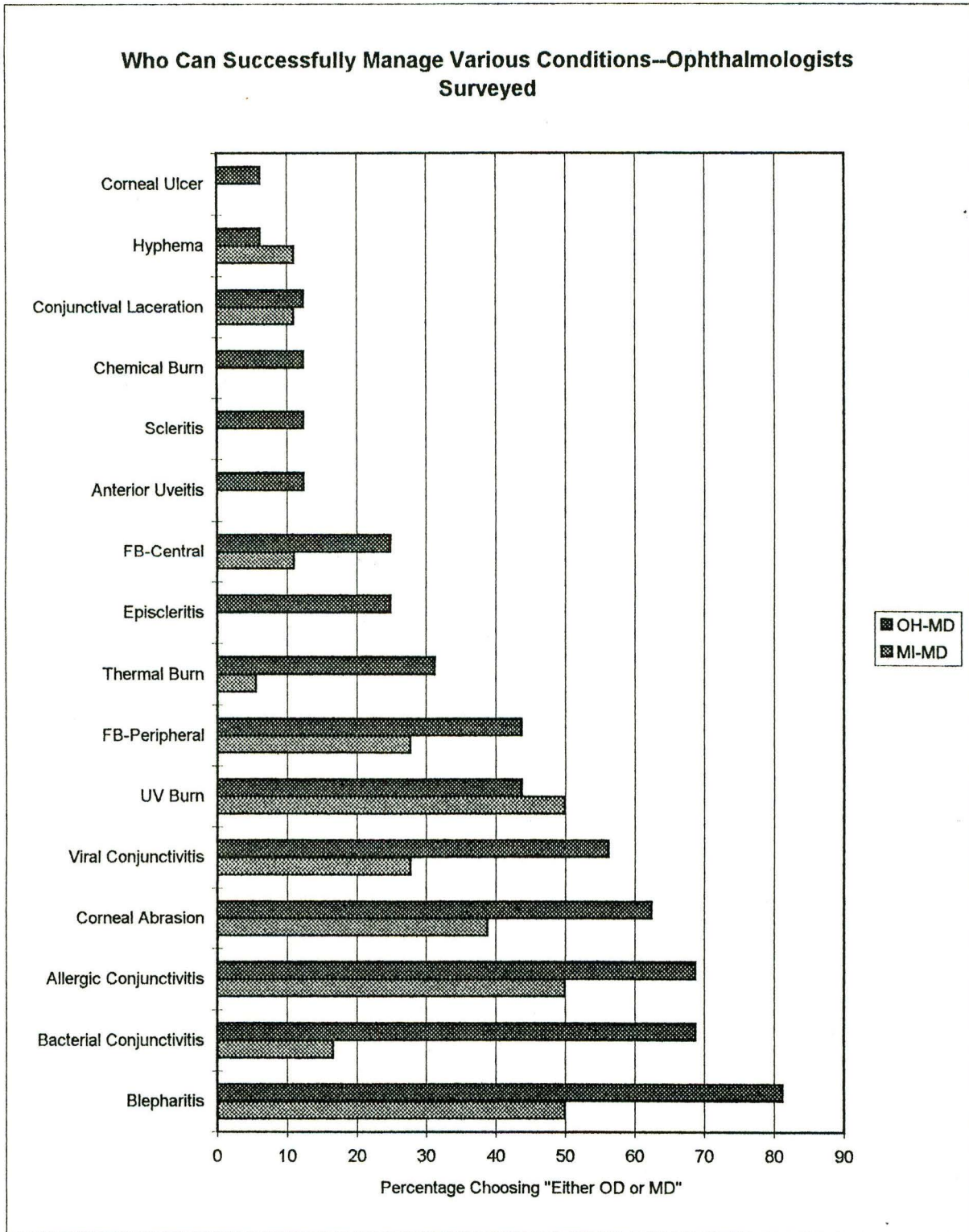


Figure 9

Who Can Successfully Manage Various Conditions—Optometrists Surveyed

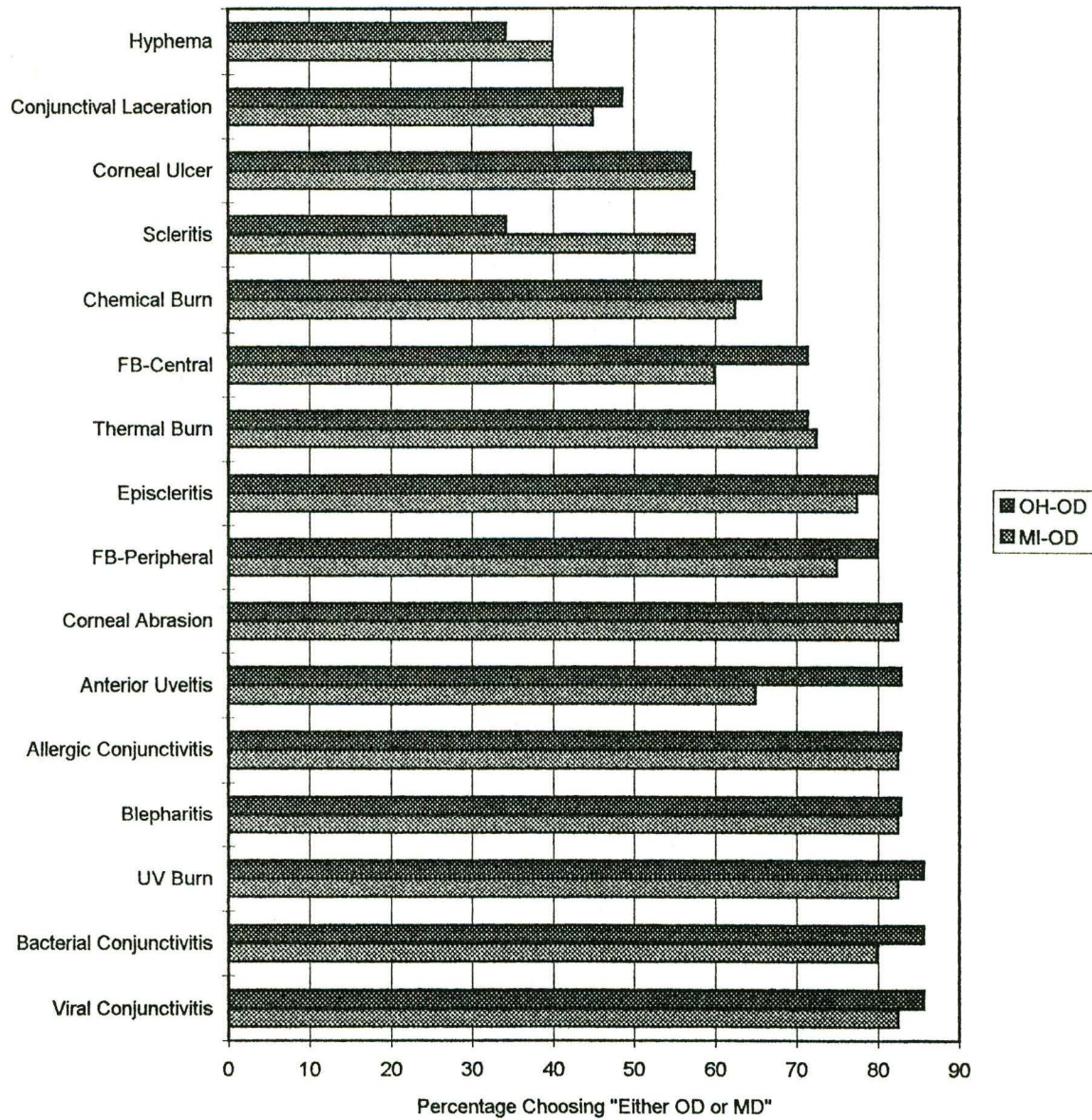


Figure 10

