

Pacific University

CommonKnowledge

College of Optometry

Theses, Dissertations and Capstone Projects

5-1996

Perceived standard of care by practitioners in different optometric settings

Zoey K. Loomis
Pacific University

Karen A. Olson
Pacific University

Recommended Citation

Loomis, Zoey K. and Olson, Karen A., "Perceived standard of care by practitioners in different optometric settings" (1996). *College of Optometry*. 1014.
<https://commons.pacificu.edu/opt/1014>

This Thesis is brought to you for free and open access by the Theses, Dissertations and Capstone Projects at CommonKnowledge. It has been accepted for inclusion in College of Optometry by an authorized administrator of CommonKnowledge. For more information, please contact CommonKnowledge@pacificu.edu.

Perceived standard of care by practitioners in different optometric settings

Abstract

Optometry is a diverse profession with many modes of practice. The setting in which the Optometrist practices is perceived by many practitioners to influence the type of examination and specific procedures performed on each patient. This research project surveys optometrists in the following modes of practice: Health Maintenance Organization, Private Practice, Military, Retail/Commercial, and Academia. The goal was to examine specific procedures done on patients to determine if there was a significant difference in examination "thoroughness" between modes of practice. Surveys consisting of three common practice scenarios listing specific procedures were distributed to 100 optometrists in the above modes across the United States. Results were tabulated and analyzed revealing both similarities and differences between each of the individual modes of practice. Although slight differences were found, they were more in the area of emphasis of examination, rather than in standard of care. Thus, in all likelihood, with individual exceptions, the standard of care is roughly equal in all modes of optometry practice.

Degree Type

Thesis

Degree Name

Master of Science in Vision Science

Committee Chair

Katherine A. Hinshaw

Subject Categories

Optometry

Copyright and terms of use

If you have downloaded this document directly from the web or from CommonKnowledge, see the "Rights" section on the previous page for the terms of use.

If you have received this document through an interlibrary loan/document delivery service, the following terms of use apply:

Copyright in this work is held by the author(s). You may download or print any portion of this document for personal use only, or for any use that is allowed by fair use (Title 17, §107 U.S.C.). Except for personal or fair use, you or your borrowing library may not reproduce, remix, republish, post, transmit, or distribute this document, or any portion thereof, without the permission of the copyright owner. [Note: If this document is licensed under a Creative Commons license (see "Rights" on the previous page) which allows broader usage rights, your use is governed by the terms of that license.]

Inquiries regarding further use of these materials should be addressed to: CommonKnowledge Rights, Pacific University Library, 2043 College Way, Forest Grove, OR 97116, (503) 352-7209. Email inquiries may be directed to: copyright@pacificu.edu

PERCEIVED STANDARD OF CARE
BY PRACTITIONERS IN DIFFERENT
OPTOMETRIC SETTINGS

By

ZOEY K. LOOMIS
KAREN A. OLSON


A thesis submitted to the faculty of the
College of Optometry
Pacific University
Forest Grove, Oregon
for the degree of
Doctor of Optometry
May, 1996


Advisor:

Katherine A. Hinshaw, O.D.

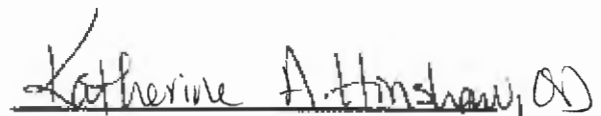
PERCEIVED STANDARD OF CARE
BY PRACTITIONERS IN DIFFERENT
OPTOMETRIC SETTINGS

Authors:


Zoey K. Loomis


Karen A. Olson

Advisor:


Katherine A. Hinshaw, O.D.

May, 1996

ACKNOWLEDGMENTS

The authors would like to thank the many people who have contributed to our success at Pacific University and in our future careers.

- Katherine A. Hinshaw, O.D. ~ thesis advisor ~ for her ideas and feedback
- Barbara Dirks, O.D. and Andy J. Ruder, O.D. ~ mentors ~ for their inspiration, knowledge and guidance of our professional careers
- The families of Zoey and Karen ~ for their support (emotional and financial)

Zoey K. Loomis

Zoey K. Loomis was born and raised in Loveland, Colorado. She graduated from Loveland High School in June, 1989. She attended Colorado State University gearing her education toward pre-optometry and biological sciences. In 1992, she began her optometric studies at Pacific University and obtained her Bachelor's of Science degree in Visual Science in December of 1993. Zoey is a candidate for the Doctor of Optometry degree in May, 1996.

Zoey was a student member of several optometric organizations and received honors in her third year clinical experience while at Pacific. She was also a member of the Curriculum Committee for the 1994-95 academic year.

After graduation, Zoey plans to return to Colorado and spend one last summer as a raft guide on the Poudre River prior to licensure. She would like to work as an associate in optometric practice, possibly specializing in vision therapy in the future.

Karen A. Olson

Karen A. Olson was born and raised near Wing, North Dakota. She graduated as valedictorian from Wing High School in May, 1989, and attended North Dakota State University in Fargo, North Dakota for three years prior to commencing her optometric studies at Pacific University. In December of 1993, she received her Bachelor's of Science degree in Visual Science from Pacific University.

While at Pacific, Karen received honors in her third year clinical experience and served as Student Optometry Association president for the 1994-95 academic year. She was also a member of Phi Theta Upsilon as well as many other professional organizations. Currently, she is a candidate for the Doctor of Optometry degree from Pacific University College of Optometry in May, 1996.

After graduation, Karen plans to continue pursuing her passion for free-fall sky-diving before embarking upon a hospital-based optometry residency. Eventually, she would like to practice primary care and sports vision within a private practice or multi-disciplinary setting in the Midwest.

ABSTRACT

Optometry is a diverse profession with many modes of practice. The setting in which the Optometrist practices is perceived by many practitioners to influence the type of examination and specific procedures performed on each patient. This research project surveys optometrists in the following modes of practice: Health Maintenance Organization, Private Practice, Military, Retail/Commercial, and Academia. The goal was to examine specific procedures done on patients to determine if there was a significant difference in examination "thoroughness" between modes of practice. Surveys consisting of three common practice scenarios listing specific procedures were distributed to 100 optometrists in the above modes across the United States. Results were tabulated and analyzed revealing both similarities and differences between each of the individual modes of practice. Although slight differences were found, they were more in the area of emphasis of examination, rather than in standard of care. Thus, in all likelihood, with individual exceptions, the standard of care is roughly equal in all modes of optometry practice.

INTRODUCTION

Optometry has evolved, both in the eyes of patients and within our profession. With the improvement of optometric education and legislative changes, there has been a large increase in the opportunities and specialties within practice. For example, in the past, private practice was the primary mode of optometric care. However, with the advent of managed care, insurance changes, and incentives for competition, optometry has expanded into other modes of care.

Some would argue that with this increase in opportunities, there have been some negative consequences. Many, in the profession and out, believe that the standard of care given to patients is being compromised by time pressures placed upon the doctor. Related to this, there is a perception among some practitioners that fewer procedures performed equates with an inferior quality examination.

METHODS

A cover letter and survey were prepared for distribution and mailed to 100 optometrists listed in the 1995 Blue Book of optometry. An effort was made to choose survey recipients equally from each of the following five practice modes: retail, health maintenance organization, military, academic, and free-standing private practice.

Three common patient scenarios were presented in the survey. Respondents were asked to choose which procedures, from a list provided, would be performed in his/her practice, in each scenario. Procedures could be done by the optometrist or by a technician. Responses were kept anonymous; in addition to the three scenarios, information was requested regarding practice mode, therapeutic certification, college and year of graduation, to aid in the statistical analysis.

SCENARIO ONE

The first scenario was that of a new patient, presenting for a routine exam, with no visual complaints or significant case history. Procedures from

which the respondents chose were organized in the following areas: entrance testing, distance refractive tests, near refractive tests, ocular health, and auxiliary tests. An area was also available for the practitioner to indicate any procedures he or she would perform which were not listed.

SCENARIO TWO

Scenario two was similarly organized. It involved the patient from scenario #1 returning in one week for a contact lens fit. Soft spherical lenses were indicated as the lens of choice. Additional procedures, as well as fitting and ordering methods, were listed from which to choose. Once again, an area was included to indicate procedures that were not among the list provided.

SCENARIO THREE

Scenario three involved a walk-in patient presenting with a "red eye". A tentative diagnosis of bacterial conjunctivitis was established. Procedures performed were to be checked from the list provided with treatment and referral options listed. Finally, an area was again provided for any procedures not included on the list.

RESULTS

Of the 100 surveys mailed to optometrists, 62 were returned within a time span of two weeks from the initial mailing, for a response rate of 62%. Fifteen optometry schools were represented; respondents' years of graduation ranged from 1949 to 1994. 56 of the 62 practitioners were TPA certified (90%). All five modes of practice were represented: retail (11.3%), HMO (14.5%), military (22.6%), academic (12.9%), and private practice (38.7%). For a complete list of results, see appendix C.

SCENARIO ONE

Similarities

There were many procedures in which all five practice modes showed similar response rates. 100% of clinicians in all modes of practice performed

distance visual acuities. However, a slight decrease was noted for near visual acuities in all modes except retail (100%). In decreasing order, HMO indicated 89%, academic 88%, military 86%, and private practice 83%. Also, for this procedure, nearly all respondents did some method of extra ocular muscle assessment: 79% of private practitioners performed ocular motilities, while 100% of the other four modes indicated it. A high percentage of all practitioners surveyed indicated pupillary assessment. HMO, military, and academic practitioners responded 100%, while 96% of private practitioners and 86% of retail practitioners would perform this procedure. In regard to distance vergence ranges, very few practitioners in all modes of practice performed these tests (base out, base in and vertical). However, within this area, academic clinicians were the most likely to do these tests (50%, 50%, and 38%). Conversely, nearly equal percentages of practitioners in all five modes performed distance lateral phorias (retail - 86%, private practice and HMO - 67%, military and academic - 50%).

Nearly all practitioners performed a slit lamp examination as well as a retinal evaluation, either by direct ophthalmoscopy, monocular indirect, binocular indirect, high plus, or some combination. Similarly, 100% in all five areas performed an intraocular pressure test either by non-contact tonometry or Goldmann applanation tonometry. Interestingly enough, 0% in all modes responded that corneal mapping would be done on a routine basis.

Differences

Just as there were procedures which doctors in nearly all modes of practice performed, there were also tests in which significant differences between the different modes of practice were evident. Overall, autoperimetry was not routinely done by retail, HMO, and military practitioners (each 0%). Also, only 12% of private practitioners indicated autoperimetry would be done. However, 50% of academic practitioners chose to utilize autoperimetry. Cover test elicited a varied response. While 100% of HMO and academic practitioners indicated the test and 93% of military practitioners, only 71% of private practitioners and 57% of retail practitioners indicated that they would do a cover test.

Also of interest is the binocular best visual acuity (refraction) test in which no single mode responded 100%. Military optometrists were the

highest (93%), followed by academic (88%), retail (86%), private practitioners (79%) and HMO (78%). Generally, base out and base in ranges at near were not done, with the academic mode of practice indicating this being highest at 50%. Also, binocular positive relative accommodation and negative relative accommodation were done by approximately 50% of all modes except retail, which was significantly lower at 14%.

Although all practitioners perform an IOP test (either NCT or GAT), many checked both tests. NCT was the preferred test for retail and military; Goldmann was preferred by HMO and academic, while private practice was approximately equal between the two. All academic clinicians indicated Goldmann tonometry as their method of choice.

In regard to auxiliary testing, HMO, academic, and private practitioners (44%, 50%, and 38%) performed blood pressure and fundus photos. However, 0% of retail and only 7% of military practitioners indicated these tests would be done.

Extra tests included by practitioners which were not listed on the survey were monocular subjective to best visual acuity, near subjective, scleral depression, angle estimation via shadow method, and a gross external exam. Each of the procedures was indicated by a single practitioner, each in a different mode of practice.

SCENARIO TWO

Similarities

In this scenario we found very few testing differences between modes of practice. All modes indicated a preference of a diagnostic method of fitting over an empirical fit. Also, instructions in insertion and removal were indicated as a standard procedure to be completed on a contact lens fit by all clinicians in all modes of practice. Similarly, an over refraction (either spherical or sphero-cylinder) would be done in each mode of practice. However, the retail mode of practice showed the lowest response with 57% spherical and 14% sphero-cylinder. Finally, no practitioner in any mode indicated a need to do corneal mapping as part of this "standard" contact lens fit.

Differences

Academic practitioners responded lower than the other four modes in keratometry and slit lamp examination (50% and 38% respectively), while the other modes were all greater than 50% for each of these two tests. Conversely, 75% of academic practitioners would do tear break-up time, with the other four modes performing this procedure significantly less often (retail, 14%; HMO, 56%; military, 43%; and private practice, 46%). Finally, rose bengal staining would not be done by any but those in academia (25%).

No tests were listed in the "other" section by any respondent in any of the five modes of practice.

SCENARIO THREE

Similarities

In the final scenario there were again many tests done by nearly all of the respondents, including distance visual acuity and slit lamp examination. More than 75% of all practitioners indicated fluorescein staining would be performed, while fewer than 15% of practitioners in all five modes of practice indicated rose bengal staining. Finally, fewer than 30% of all practitioners in all modes would take near visual acuities on a patient such as this.

Differences

There was a wide variety in whether tonometry (either non-contact or Goldmann) would be performed in this situation ranging from a high of 100% (military) to a low of 58% (retail). Also, culturing would be done by 43% of military respondents, 38% of academic clinicians, and by none of the private practitioners. Most clinicians would manage this patient without ophthalmological consultation or referral except in retail (14% referral, 0% consultation) and academia (12% referral, 38% consultation). Related to this was the response in regard to treatment with topical drugs. Treatment with topicals in academia was lowest at 62%; 85% of clinicians in other modes of practice would treat this patient.

Additional tests not listed in the survey, but added by practitioners, were: direct ophthalmoscopy (1 HMO, 1 Military and 1 Private Practitioner); use of oral medications; and pupil assessment. One military doctor indicated

extra ocular muscle evaluation, and one private practitioner would do an expanded case history.

DISCUSSION

Most people familiar with the recent expansion of optometric science and education would expect to find differences in procedures routinely performed between various modes of practice. This expectation leads many practitioners to equate the mode of practice to the perceived level of care. The purpose of this survey was to see if this perception is accurate and/or appropriate.

Although there were some significant differences, the results of this study indicate that there seems to be a basic "core" of procedures which are done by almost all clinicians in all modes of practice. Many of these "core" tests fulfill legal obligations for a standard comprehensive visual examination and provide information essential for proper patient management. Yet, there are procedures outside of this core battery which did reveal variation among the different modes of practice.

SCENARIO ONE

Scenario one featured a standard comprehensive visual examination. There were some inconsistencies in the responses. For example, there were two entrance tests which private practitioners did not perform as often as would be expected by common perceptions. Private practitioners had the lowest response rate in near visual acuity and ocular motilities. From traditional beliefs about standard of care, one might expect private practitioners to incorporate these entrance tests more often than, or equal to, other practitioners in other modes of practice.

Along the same lines, other modes of practice are not meeting the basic requirements of a comprehensive examination. Visual field testing of some method is required by law for all complete exams. However, the only mode in which 100% indicating some sort of visual field testing was academia. This could be due to a variety of reasons, among them a misunderstanding of instructions by respondents. If this is in fact a true representation of the

standard procedures in our profession, legal obligations are not being fulfilled in this area, which is possibly a compromise of patient care. Also, autoperimetry is widely recognized as being more accurate than confrontational fields. However, the survey results indicated very few modes except academia performing autoperimetry. This could be due to the time and expense of autoperimetry, while confrontational fields are faster and less expensive for the private practitioner to use as a screening tool.

Another legal obligation of a complete visual examination is an assessment of intraocular pressure. Respondents in all modes of practice indicated this would be done either by non contact tonometry or Goldmann applanation tonometry. However, those in retail and military modes preferred NCT over GAT. Again, we believe this may be related to the quickness of the test and utilization of technical support in these two modes. Academia only indicated Goldmann would be used to obtain pressure readings. This is most likely due to student educational purposes and lack of technical support in the academic environment. Also, in all modes except academia, there was a greater than 100% response rate when summing the NCT and GAT responses. It is hard to believe practitioners are taking two different IOP measurements on a patient as described in our scenario. Again, this could be from the respondents misunderstanding the survey directions; another possible explanation indicated by one respondent is a tendency for a practitioner to be not entirely truthful in his/her responses.

SCENARIO TWO

Scenario two was a simple and straightforward contact lens fit. The survey revealed few differences, as all practitioners in modes of practice handled the case similarly. One unexpected inconsistency was the low percentage of academic respondents indicating keratometry and slit lamp examination. Traditionally it is believed that academic clinicians perform a more detailed examination; we believe a design flaw in the survey may be the reason for this inconsistency. That is, respondents may have been confused as to whether to check the procedures on scenario two again if the same test had already been indicated in scenario one.

SCENARIO THREE

A "red eye" patient was the basis of scenario three, which revealed some interesting differences among the modes of practice. As a general rule, doctors indicated a preference for using topical drugs to treat this case. However, those in academia had the lowest use of topical drugs. Related to this, academic practitioners also had the highest percentage of responses acquiring ophthalmological consultations. This seems unusual, given that an integral part of today's optometric curriculum involves treatment and management of ocular disease. However, the few states which remain unable to use therapeutic pharmaceuticals are also locations of optometric schools (for example, California - two schools, New York and Pennsylvania). Thus, those academic clinicians who responded they would utilize an ophthalmological consultation were perhaps legally unable to treat the patient on their own, due to the lack of therapeutic privileges in their state.

Also, a trend on the utilization of conjunctival culturing was noted. Military and academic modes showed a significantly higher usage of culturing than their private and retail counterparts. A possible explanation is that these practitioners have better access to these methods of testing; also, those practitioners within these modes incur little or no additional cost to themselves or to their patients by requesting these additional tests.

Related to all three scenarios was the option of the respondent to add procedures not already listed on the survey. Very few tests were listed; when completing a survey, many practitioners may not consider tests not listed. If other procedures had been included in the survey listing, the response rate may have been higher for those procedures. The low percentage of additional testing indicated by respondents may not be indicative of the importance of these tests, or the number of practitioners actually performing them.

SUMMARY

The information elicited from the survey gave a good indication of the most used current procedures in three common practice scenarios. Because of continual advancements in technology and expanding practice opportunities, we expect the procedures done in optometric practice to expand as well.

The survey did reveal that the number of procedures done does not necessarily relate to a higher quality of care once the basic "core" of tests has been met. However, if these basic tests, as defined by legal obligations and current optometric standards, are not performed, then fewer tests performed may negatively impact the standard of care. A more viable measure of standard of care probably involves other variables including practitioner knowledge, experience, and case analysis, which are much more difficult to quantify. Another variable may be that a larger number of new graduates are practicing in retail, military, and HMO situations and, as such, are more likely to use their more recent training.

There seem to be fewer differences between modes of practice in optometry than expected or than perceived by most of us. Rather than a variance in the standard of care, there appears to be more of a variance in the emphasis of care. Whereas military and retail modes of practice seem more dependent upon utilization of technical support and the speed of the examination, academia thrives upon a thorough learning process. Thus, the setting in which an optometrist practices may influence the specific procedures performed. But, with individual exceptions, standard of care as measured by the procedures performed in a given situation, seems to be about equal in all these modes of optometry.

More optometric clinicians in private practice returned this survey, (24) than any other group of practitioners. Results of this survey probably therefore give a more complete "view" of private practitioners' choices than those in other modes of practice. However, while the number of respondents in ANY category is probably not statistically significant, we do feel that the responses received reveal at least a general picture of how optometry is practiced across the country and in various practice situations.

APPENDIX A

PACIFIC
UNIVERSITY



COLLEGE OF
OPTOMETRY

UC Box 1996
2043 College Way
Forest Grove, OR 97116

March 1, 1995

Dear Optometric Practitioner:

Hello! Our names are Karen Olson and Zoey Loomis, and we are currently third-year students at Pacific University College of Optometry in Forest Grove, Oregon.

There seems to be a perception by optometrists (and others) that different practice settings provide differing levels of care. We are interested in what optometrists in practice perceive as the "standard of care" in common optometric situations. We wish to compare perceptions across several different settings, including free-standing private practice, HMO, military, retail private practice, and academic (college of optometry clinics).

Enclosed you will find a brief questionnaire containing three patient cases that commonly present to optometric offices. We ask that you simply indicate whether you would or would not routinely perform the listed testing in this specific case. Completing this survey should take no longer than five minutes, and all responses will be kept completely confidential. A self-addressed stamped envelope is enclosed for your convenience.

If you have any questions or concerns in regard to this study, please contact us at (503) 359-2243. Thank you in advance for your time and participation!

Sincerely,

Karen A. Olson
Optometric Student

Zoey K. Loomis
Optometric Student

Katherine A. Hinshaw, OD
Project Advisor

APPENDIX B

Scenario 1:

A 30 year old male, new patient presents for a comprehensive vision exam. He has no visual complaints. He is in good physical health with an unremarkable personal and family history, medical or ocular. This patient is not taking any medication and does not have any know allergies. The following tests would be performed on this patient by either the doctor or the technician.

- | | |
|---|---|
| <input type="checkbox"/> visual acuity @ distance | <input type="checkbox"/> visual acuity @ near |
| <input type="checkbox"/> auto refraction | <input type="checkbox"/> cover test |
| <input type="checkbox"/> extra ocular motility | <input type="checkbox"/> pupil testing |
| <input type="checkbox"/> stereo acuity | <input type="checkbox"/> color testing |
| <input type="checkbox"/> dominant eye | <input type="checkbox"/> near point of convergence |
| <input type="checkbox"/> Donder's amplitude of accommodation | <input type="checkbox"/> pupillary distance |
| <input type="checkbox"/> physiological diplopia | <input type="checkbox"/> keratometry |
| <input type="checkbox"/> habitual phoria | <input type="checkbox"/> retinoscopy |
| <input type="checkbox"/> dynamic retinoscopy | <input type="checkbox"/> clock dial or paraboline |
| <input type="checkbox"/> red/ green | <input type="checkbox"/> distance equalization |
| <input type="checkbox"/> Jackson cross cylinder | <input type="checkbox"/> binocular BVA |
| <input type="checkbox"/> induced lateral phoria | <input type="checkbox"/> induced vertical phoria |
| <input type="checkbox"/> BO ranges at distance | <input type="checkbox"/> BO ranges at near |
| <input type="checkbox"/> BI ranges at distance | <input type="checkbox"/> BI ranges at near |
| <input type="checkbox"/> vertical ranges at distance | <input type="checkbox"/> vertical ranges at near |
| <input type="checkbox"/> associated phoria | <input type="checkbox"/> fixation disparity |
| <input type="checkbox"/> dissociated cross cylinder and phoria | |
| <input type="checkbox"/> associated cross cylinder and phoria | |
| Positive relative accommodation: monocular__ binocular__ both__ | |
| negative relative accommodation: monocular__ binocular__ both__ | |
| <input type="checkbox"/> slit lamp exam | <input type="checkbox"/> lid eversion |
| <input type="checkbox"/> Rose Bengal staining | <input type="checkbox"/> fluorescein staining |
| <input type="checkbox"/> Goldmann tonometry | <input type="checkbox"/> non contact tonometry |
| <input type="checkbox"/> gonioscopy | <input type="checkbox"/> blood pressure |
| <input type="checkbox"/> glucose test | <input type="checkbox"/> fundus photos |
| <input type="checkbox"/> direct ophthalmoscopy | <input type="checkbox"/> indirect ophthalmoscopy |
| <input type="checkbox"/> monocular indirect ophthalmoscopy | <input type="checkbox"/> high plus ophthalmoscopy |
| <input type="checkbox"/> visual fields: autoperimetry | <input type="checkbox"/> visual fields: confrontation |
| <input type="checkbox"/> trail frame | <input type="checkbox"/> corneal mapping |
| <input type="checkbox"/> other _____ | |
| _____ | |
| _____ | |
| _____ | |
| _____ | |

Scenario 2:

One week later the same patient described in scenario one decides contact lenses would better suit his life style. Assume a soft spherical lens fit is indicated. What tests in addition to those checked above would you or your technician perform?

- keratometry
 - slit lamp exam
 - fluorescein
 - lid eversion
 - diagnostic fit
 - order according to lab specifications
 - insertion and removal instructions
 - spherical over-refraction
 - other _____
 - corneal mapping
 - tear break up time
 - Rose Bengal
 - recheck subjective
 - empirical fit
 - fit from stock
 - sph-cyl over-refraction
-
-
-
-

Scenario 3:

A 25 year old female presents to your office with a red eye of unknown etiology. This patient is on no medication and has no known allergies. A bacterial conjunctivitis of moderate severity is highly suspected. Which of the following would you do for this patient?

- visual acuity at far
 - slit lamp exam
 - fluorescein staining
 - Goldmann tonometry
 - culture
 - refer to ophthalmology
 - refer to other health care professional:
please specify _____
 - other _____
 - visual acuity at near
 - Rose Bengal staining
 - lid eversion
 - non contact tonometry
 - ophthalmology consult
 - treat using topical drugs
-
-
-
-

To complete the survey, please answer the following questions. We really appreciate your time participating in this project. Your results will be kept confidential.

Please indicate which type of practice you work in.

- free-standing private practice
- health maintenance organization
- military
- retail private practice
- academic (college or school of optometry clinic)

Where did you graduate from optometry school? _____

What year did you graduate? _____

Does your state have therapeutic privileges? _____

Are you certified to use therapeutic drugs? _____

APPENDIX C

Overview of Results

Total Responses: 62

Practice Mode:

Free-standing Private Practice:	24
Military:	14
Health Maintenance Organization:	9
Academic:	8
Retail Private Practice:	7

Year of Optometry School Graduation:

1990-current:	14
1980-1989:	25
1970-1979:	14
1960-1969:	4
1950-1959:	3
1940-1949:	2

Practicing within a state allowing therapeutic privileges:

Yes:	56
No:	6

Certified to use therapeutic drugs:

Yes:	56
No:	6

Scenario One										
	Retail		HMO		Military		Academic		Private Practice	
Test Name	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage
Entrance Testing										
Dist VA	7	100%	9	100%	14	100%	8	100%	24	100%
Near VA	7	100%	8	89%	12	86%	7	88%	20	83%
Auto Refraction	1	14%	5	56%	9	64%	1	13%	10	42%
Cover Test	4	57%	9	100%	13	93%	8	100%	17	71%
Pupil Testing	6	86%	9	100%	14	100%	8	100%	23	96%
Color Testing	3	43%	7	78%	3	21%	5	63%	9	38%
Extra Ocular Motility	7	100%	9	100%	14	100%	8	100%	19	79%
Stereo Acuity	2	29%	2	22%	3	21%	4	50%	9	38%
Dominant Eye	0	0%	1	11%	1	7%	2	25%	4	17%
NPC	2	29%	7	78%	11	79%	5	63%	11	46%
Donder's Accom. Amplitude	2	29%	0	0%	2	14%	3	38%	5	21%
Pupillary Distance	5	71%	5	56%	13	93%	5	63%	16	67%
Physiological Diplopia	0	0%	2	22%	0	0%	1	13%	4	17%
Shadow Test	0	0%	0	0%	0	0%	1	13%	0	0%
Gross External Exam	0	0%	0	0%	0	0%	1	13%	0	0%

Scenario One										
	Retail		HMO		Military		Academic		Private Practice	
Test Name	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage
Refractive Testing										
Keratometry	4	57%	1	11%	3	21%	6	75%	9	38%
Habitual Phoria	4	57%	4	44%	9	64%	5	63%	12	50%
Retinoscopy	6	86%	7	78%	11	79%	7	88%	18	75%
Dynamic Retinoscopy	2	29%	2	22%	2	14%	1	13%	4	17%
Clock Dial/ Paraboline	0	0%	0	0%	0	0%	1	13%	1	4%
Red/ Green	2	29%	2	22%	1	7%	2	25%	4	17%
Distance Equalization	4	57%	5	56%	11	79%	6	75%	19	79%
Jackson Cross Cylinder	6	86%	9	100%	14	100%	7	88%	19	79%
Binocular BVA	6	86%	7	78%	13	93%	7	88%	19	79%
Induced Lateral Phoria	6	86%	6	67%	7	50%	4	50%	16	67%
Induced Vertical Phoria	5	71%	6	67%	5	36%	3	38%	9	38%
BO Ranges: Dist.	0	0%	0	0%	1	7%	4	50%	3	13%
BO Ranges: Near	0	0%	0	0%	2	14%	4	50%	3	13%
BI Ranges: Dist.	0	0%	0	0%	1	7%	4	50%	3	13%
BI Ranges: Near	0	0%	0	0%	2	14%	4	50%	3	13%
Vertical Ranges: Dist.	0	0%	4	44%	2	14%	3	38%	2	8%
Vertical Ranges: Near	2	29%	0	0%	2	14%	1	13%	0	0%
Associated Phoria	0	0%	5	56%	3	21%	3	38%	8	33%
Fixation Disparity	0	0%	0	0%	0	0%	0	0%	2	8%
Dissociated Cross Cyl. & Phoria	0	0%	0	0%	1	7%	1	13%	2	8%
Associated Cross Cyl & Phoria	3	43%	4	44%	3	21%	2	25%	2	8%
PRA: Monocular	1	14%	0	0%	0	0%	0	0%	0	0%
PRA: Binocular	1	14%	5	56%	7	50%	4	50%	9	38%
PRA: Monocular & Binocular	0	0%	1	11%	0	0%	0	0%	2	8%
NRA: Monocular	1	14%	0	0%	0	0%	0	0%	0	0%
NRA: Binocular	1	14%	5	56%	7	50%	3	38%	10	42%
NRA: Monocular & Binocular	0	0%	1	11%	0	0%	1	13%	1	4%
MSBVA	1	14%	0	0%	0	0%	0	0%	0	0%
Binocular Subjective: Near	1	14%	0	0%	0	0%	0	0%	0	0%

Scenario One										
	Retail		HMO		Military		Academic		Private Practice	
Test Name	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage
Ocular Health Testing										
Slit Lamp Exam	6	86%	9	100%	13	93%	8	100%	24	100%
Lid Eversion	0	0%	3	33%	3	21%	3	38%	1	4%
Rose Bengal Staining	0	0%	0	0%	0	0%	0	0%	0	0%
Fluouoscein Staining	1	14%	3	33%	1	7%	2	25%	5	21%
Goldmann Tonometry	3	43%	6	67%	4	29%	8	100%	12	50%
Non Contact Tonometry	5	71%	4	44%	12	86%	0	0%	13	54%
Gonioscopy	0	0%	0	0%	0	0%	1	13%	1	4%
Blood Pressure	0	0%	4	44%	1	7%	4	50%	9	38%
Glucose Test	0	0%	0	0%	0	0%	0	0%	0	0%
Fundus Photos	0	0%	0	0%	1	7%	1	13%	1	4%
Direct Ophthalmoscopy	7	100%	7	78%	11	79%	6	75%	17	71%
Indirect Ophthalmoscopy	4	57%	7	78%	10	71%	8	100%	13	54%
Monocular Indirect Ophthalmoscopy	0	0%	1	11%	2	14%	0	0%	2	8%
High Plus Ophthalmoscopy	0	0%	3	33%	3	21%	3	38%	6	25%
Visual Fields: Autoperimetry	0	0%	0	0%	0	0%	4	50%	3	13%
Visual Fields: Confrontational	5	71%	5	56%	8	57%	4	50%	13	54%
Trial Frame	0	0%	2	22%	5	36%	3	38%	4	17%
Corneal Mapping	0	0%	0	0%	0	0%	0	0%	0	0%
Scleral Depression	0	0%	1	11%	0	0%	0	0%	0	0%

Scenario Two										
	Retail		HMO		Military		Academic		Private	Practice
Test Name	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage
Keratometry	5	71%	8	89%	11	79%	4	50%	20	83%
Slit Lamp Exam	5	71%	5	56%	10	71%	3	38%	14	58%
Fluorescein Staining	1	14%	3	33%	4	29%	4	50%	10	42%
Tear Break Up Time	1	14%	5	56%	6	43%	6	75%	11	46%
Rose Bengal Staining	0	0%	0	0%	0	0%	2	25%	0	0%
Lid Eversion	1	14%	4	44%	10	71%	4	50%	11	46%
Diagnostic Fit	6	86%	8	89%	12	86%	8	100%	21	88%
Empirical Fit	1	14%	0	0%	1	7%	1	13%	3	13%
Order via Lab Specification	0	0%	0	0%	2	14%	1	13%	3	13%
Fit from Stock	4	57%	5	56%	3	21%	5	63%	19	79%
I&R Instructions	6	86%	8	89%	10	71%	6	75%	23	96%
Recheck Subjective	1	14%	1	11%	1	7%	1	13%	7	29%
Spherical Over-Refraction	4	57%	5	56%	11	79%	5	63%	21	88%
Sph-Cyl Over-Refraction	1	14%	4	44%	3	21%	5	63%	4	17%
Corneal mapping	0	0%	0	0%	1	7%	0	0%	0	0%

Scenario Three	Retail		HMO		Military		Academic		Private Practice	
	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage	Raw Data	Percentage
	VA at Far	5	71%	9	100%	14	100%	8	100%	24
VA at Near	2	29%	0	0%	2	14%	2	25%	5	21%
Slit Lamp Exam	7	100%	9	100%	14	100%	8	100%	24	100%
Rose Bengal Staining	1	14%	1	11%	1	7%	0	0%	0	0%
Fluorescein Staining	6	86%	9	100%	14	100%	6	75%	20	83%
Lid Eversion	3	43%	6	67%	9	64%	7	88%	14	58%
Goldmann Tonometry	2	29%	6	67%	2	14%	2	25%	4	17%
Non Contact Tonometry	2	29%	2	22%	12	86%	3	38%	11	46%
Culture	1	14%	2	22%	6	43%	3	38%	0	0%
Ophthalmology Consult	0	0%	0	0%	0	0%	3	38%	0	0%
Refer to Ophthalmology	1	14%	0	0%	0	0%	1	13%	1	4%
Refer to Therapeutic OD	0	0%	0	0%	0	0%	0	0%	1	4%
Treat Using Topical Drugs	6	86%	9	100%	14	100%	5	63%	22	92%
Direct Ophthalmoscopy	0	0%	1	11%	1	7%	0	0%	1	4%
Oral Antibiotics	0	0%	0	0%	1	7%	0	0%	0	0%
Pupil Testing	0	0%	0	0%	1	7%	0	0%	0	0%
Extra Ocular Muscle Testing	0	0%	0	0%	1	7%	0	0%	0	0%
Expanded Case History	0	0%	0	0%	0	0%	0	0%	1	4%