The development & study of clinical efficacy of an optometric pre-case history form

Robert B. Kennedy
Pacific University

David L. McManis
Pacific University

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Abstract
This thesis involves the development and testing of clinical efficacy of an optometric pre-case history form. Subjectively and objectively, it was found that the recording of the adult patient's background information can be made more complete by the use of a standardized patient-completed pre-case history form, that takes four to five minutes to complete. Patient acceptance and intern attitudes toward this pre-case history form were found to be very positive.

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THE DEVELOPMENT & STUDY OF CLINICAL
EFFICACY OF AN OPTOMETRIC PRE-CASE
HISTORY FORM

PREPARED FOR THE FACULTY OF
THE COLLEGE OF OPTOMETRY, PACIFIC UNIVERSITY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DOCTOR OF OPTOMETRY DEGREE

BY:
Robert B. Kennedy
David L. McManis
Dr. James Peterson, advisor to research

Pacific University
College of Optometry, 1978
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# TABLE OF CONTENTS

ACKNOWLEDGEMENTS ................................................................. 1
ABSTRACT .................................................................................... 2
INTRODUCTION ............................................................................. 3
METHODS .................................................................................... 6
    Subjects
    Methods and Materials
RESULTS ....................................................................................... 12
    Objective
    Subjective
DISCUSSION AND LIMITATIONS .................................................. 14
SUMMARY AND CONCLUSION ...................................................... 20
APPENDICES ................................................................................ 23
    1. Pre-case history form
    2. Intern evaluation form
    3. Patient evaluation form
    4. Useful item display form
    5. Revised form
BIBLIOGRAPHY ............................................................................. 30
ACKNOWLEDGEMENTS

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ABSTRACT

This thesis involves the development and testing of clinical efficacy of an optometric pre-case history form. Subjectively and objectively, it was found that the recording of the adult patient's background information can be made more complete by the use of a standardized patient-completed pre-case history form, that takes four to five minutes to complete. Patient acceptance and intern attitudes toward this pre-case history form were found to be very positive.
INTRODUCTION

In a modern optometric practice, it is absolutely essential that complete and accurate records be maintained. The main purpose of keeping accurate and complete records is to assist in giving the best possible treatment to the patient. Keeping good records helps provide continuity of care and, without such a record, the doctor could not remember from one visit to the next, just exactly what he had found and just what he had prescribed in each case; nor would he be able to form an opinion about the progress of the patient. A complete patient history is probably the most important part of the examination, thus it is necessary to maintain a thorough and accurate compilation of this information. History recording is often the most useful element at arriving at a diagnosis. No detail should be omitted; significant clues may appear. To avoid omissions, it is necessary for the optometrist to adopt and practice a systematic method of procedure.

This procedure must be designed to assure an immediate response of trust and confidence in the practitioner by the patient. An orderly and logical progression should be directed toward securing the full cooperation of the patient. It may be very annoying or confusing to the patient who has a specific complaint, to be concerned with seemingly unrelated and illogical questions. Therefore, even in the initial phase of the interview, it is important that the patient be educated as to the purpose of the interrogation simultaneously to answering the questions.

Records are often used to evaluate the effectiveness of certain types of treatment or to determine the incidence of a given problem. Correlations of such statistical information may result in a new outlook
on some phase of practice. This leads to progress in terms of revised
techniques and treatment. The statistical data which can be gleaned from
records, are also valuable in the preparation of scientific papers, books,
and lectures,

An incidental purpose of complete records is their value in the
legal world. A patient may wish to substantiate his claims to an in-
surance company for damages resulting from an accident that required
treatment. It is even more important that clear complete records can be
furnished in court when a patient involves a practitioner in litigation.

Theoretically, the oral history should be as accurate and complete
as a written pre-case history form. We believe, and hope to show that
oral histories are not as complete as patient completed case history forms,
possible to due time factors and carelessness in recording. A complete
history should include many things; whether asked orally, or by a written
form.

The initial recordings on the patient completed form are not a pri-
mary concern of diagnosis and therapy. It should include a registration
which is usually taken and kept within the record. This obviously should
include the date, patient's name, age, sex, marital status, address,
phone number, business phone, employer, occupation, basis of referral,
and any other information that is needed to insure that transactions will
be made on a sound business basis. This routine information should then
be followed by the detailed informations of the patient in the following
categories:

- Job and hobby conditions
- Patient's medical and dental history, including drug use
- Family history
- Major complaint, in patient's own words
- Secondary complaints
- History of complaints—onset, severity, location, duration, relief
- Efforts to elicit further symptoms which, to the patient, may seem unrelated

It is our intent to design and develop a pre-case history form that will be a valuable instrument in an optometric practice. The integration between the patient-supplied background information, and the optometric practitioner's oral investigation of the patient's problem, and the optometric findings, will enable the clinician to reveal the true nature of the patient's problem and thus indicate the proper course of therapy.

All relevant sources allude to the benefits of a patient-completed pre-case history form, but their value and needed content remains remarkably vague throughout optometric literature. After developing a standardized pre-case history form, we will compare the written form to the orally taken case history to see which contained more significant information about the patient. Our analysis, like that of Elwin Marg with his computer assisted case history studies, will involve a count, mean, and standard deviation of the number of useful items, about a given patient, that the student clinician obtains and records in his usual oral interview. Our analysis also includes the count, mean, and standard deviation of the relevant items that our standardized form finds on the same patient. The difference between the number of items obtained or the number of items missed by subjective methods will be tabulated to demonstrate the potential of our pre-case history. The questionnaire completed by both the patient and intern, will be incorporated to subjectively evaluate the efficacy of our pre-case history form.
METHODS

There were two parts to our project. The first part involved the development and printing of our pre-case history form. Through an analysis of optometric literature, review of available case history forms presently used in the field, and by clinical experimentation with forms, we revised our pre-case history form. Please refer to appendix one for our form. The second part of our project was the experiment described below.

SUBJECTS

The subjects used in this experiment were patients numbering forty-three from Fitzsimons Army Medical Center, eighty-seven from Portland Optometric Center, and ninety-one from Pacific University Clinic. The patients were drawn from the normal population of patients who came to the clinics for the first time for full exams. People coming to the clinics for dispensing, contact lens checks, and V.T. visits were omitted from this experiment.

Furthermore, children were omitted except for those who could fill out the form themselves. For children, under age 12, or for children with known developmental problems, we feel that a separate developmental form should be used.

METHODS AND MATERIALS

Upon arrival at the clinic, each patient was asked to fill out our pre-case history form and, upon completion, return it to the desk. In eighty-two cases, these completed forms were made available to the
intern, to be used in conjunction with the examination. In one-hundred and twenty-seven cases, the completed forms were withheld from the interns. This created two distinct groups.

The first group, referred to as patient group A, the interns were allowed to use the patient completed pre-case history form. These interns were asked to compare our form against their own verbal patient history and evaluate various aspects of our form. We provided a standard questionnaire involving seven questions, and space for additional comments, for the intern to use in this evaluation. See appendix two for a sample of the intern evaluation form.

The second patient group B, also completed our pre-case history form. The completed forms of this group, however, were not available to interns to use in conjunction with the oral interview. This provided us the opportunity to compare the number of useful items that our form provided to the number of useful items found, and recorded by the intern in his usual oral questioning.

Patients from group A, were asked to fill out additional questionaire prior to the examination. This was done to survey their opinion of our written pre-case history form. On this questionnaire, there were six questions relevant to our pre-case history form, and in addition, room for comments were provided. See appendix three for a sample of the patient evaluation form.

OBJECTIVE MEASURE OF EFFICACY: USEFUL ITEMS OF INFORMATION

The criteria for useful items of information was established as follows; all information on our form is considered to be useful to a clinician, however, not all items were counted as significant in this
study. Most "no" responses on our form would not be normally recorded from the oral interview. In some circumstances, a "no" response would be considered a useful response and thus used as a significant item in the final tabulation. See appendix four for a complete display of useful items. This criteria was established to get a fair comparison of our form to the recordings of the oral interview with the same patient.

If an area, that is circled on the display page, was checked by the patient, it counted as one response for the written interview. If it was also noted, in any manner, in the records of the same patient, it was considered a useful item in the count of items found in the oral interview. Any notation on the patient's record regarding past history, symptoms, conditions, or other possible significant information that was found was also considered as an item and used in the final tabulations.

Redundancies were counted only once on either form. For example, if a patient wrote something on "the specific problem" area and also checked a corresponding box in a later section, it would count only once.

SUBJECTIVE MEASURE OF EFFICACY: QUESTIONNAIRES

The number of yes's and no's on the patient's evaluation forms and intern's evaluation forms were tabulated to provide a subjective gauge of the effectiveness of various aspects of our pre-case history form. See appendix three for example of the patient evaluation form, and appendix two for example of the intern evaluation form.
RESULTS

OBJECTIVE RESULTS

The pre-case history form as a whole showed a mean number of useful items of information, as found by the criteria explained on page 7 and demonstrated in appendix 4, of 27.44 items per pre-case history form. A standard deviation of 6.97 and a range of 14 to 43 were also found. The mean number of useful items found on the recordings of the oral case history is 16.38 items per record. The standard deviation was found to be 6.05 and the range, 7 to 38. The t value, for comparison, was found to be 9.47. This is significant to a level greater than .001. The difference of the means is 11.06 items, showing more useful information available on our patient completed form, than on the usual recordings of the oral interview.

The number of subjects in the group is 105. The time involved in completion of a pre-case history form was usually 4 to 5 minutes.

A more detailed look at these results is needed to understand the full impact and implications of these data. Breaking our case history form into six subdivisions will allow a closer look. The discussion will follow, using these subdivisions.
<table>
<thead>
<tr>
<th>Category</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reads Lots</td>
<td>0.71</td>
<td>0.37</td>
<td>0.34</td>
</tr>
<tr>
<td>Reads Near, Far</td>
<td>0.57</td>
<td>0.09</td>
<td>0.48</td>
</tr>
<tr>
<td>Check For Reading</td>
<td>1.40</td>
<td>0.40</td>
<td>1.00</td>
</tr>
<tr>
<td>Check General Visual</td>
<td>2.20</td>
<td>1.26</td>
<td>0.94</td>
</tr>
<tr>
<td>Health Condition</td>
<td>0.97</td>
<td>0.97</td>
<td>0.00</td>
</tr>
<tr>
<td>Date of Medical</td>
<td>0.71</td>
<td>0.37</td>
<td>0.34</td>
</tr>
<tr>
<td>Date of Dental</td>
<td>0.77</td>
<td>0.31</td>
<td>0.46</td>
</tr>
<tr>
<td>Medications</td>
<td>0.91</td>
<td>0.91</td>
<td>0.00</td>
</tr>
<tr>
<td>Allergies</td>
<td>0.86</td>
<td>0.57</td>
<td>0.29</td>
</tr>
<tr>
<td>Name of Doctor</td>
<td>0.69</td>
<td>0.20</td>
<td>0.49</td>
</tr>
<tr>
<td>Check Health</td>
<td>0.17</td>
<td>0.71</td>
<td>0.54</td>
</tr>
<tr>
<td>Have Had</td>
<td>1.74</td>
<td>0.11</td>
<td>1.63</td>
</tr>
<tr>
<td>Family History</td>
<td>9.09</td>
<td>0.29</td>
<td>9.20</td>
</tr>
<tr>
<td>Written</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE OF DATA

The following table is an expression of our raw data converted into the rate of response per item, and the difference of response rate, written versus oral. Numbers are rounded to the nearest .01, or the equivalent of 1%. Items listed correspond to the significant items as explained earlier.

<table>
<thead>
<tr>
<th>ITEMIZED RATE OF RESPONSES</th>
<th>WRITTEN</th>
<th>ORAL</th>
<th>DIFFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE</td>
<td>0.97</td>
<td>0.97</td>
<td>0.00</td>
</tr>
<tr>
<td>NAME</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>BIRTHDATE</td>
<td>0.97</td>
<td>0.97</td>
<td>0.00</td>
</tr>
<tr>
<td>ADDRESS</td>
<td>1.00</td>
<td>0.86</td>
<td>0.14</td>
</tr>
<tr>
<td>PHONE NUMBERS</td>
<td>1.40</td>
<td>1.17</td>
<td>0.23</td>
</tr>
<tr>
<td>SPOUSE'S NAME</td>
<td>0.86</td>
<td>0.05</td>
<td>0.81</td>
</tr>
<tr>
<td>EMPLOYER</td>
<td>0.63</td>
<td>0.23</td>
<td>0.40</td>
</tr>
<tr>
<td>TYPE OF WORK</td>
<td>0.54</td>
<td>0.34</td>
<td>0.20</td>
</tr>
<tr>
<td>REFERRAL</td>
<td>0.63</td>
<td>0.29</td>
<td>0.34</td>
</tr>
<tr>
<td>REASON FOR EXAM</td>
<td>0.74</td>
<td>0.71</td>
<td>0.03</td>
</tr>
<tr>
<td>DURATION</td>
<td>0.28</td>
<td>0.11</td>
<td>0.17</td>
</tr>
<tr>
<td>DATE OF LAST EXAM</td>
<td>0.83</td>
<td>0.75</td>
<td>0.08</td>
</tr>
<tr>
<td>EYE DOCTOR'S NAME</td>
<td>0.42</td>
<td>0.20</td>
<td>0.22</td>
</tr>
<tr>
<td>RX WORN</td>
<td>0.97</td>
<td>0.74</td>
<td>0.23</td>
</tr>
<tr>
<td>DURATION</td>
<td>0.69</td>
<td>0.29</td>
<td>0.40</td>
</tr>
<tr>
<td>CL WORN</td>
<td>0.09</td>
<td>0.06</td>
<td>0.03</td>
</tr>
<tr>
<td>FAR RX</td>
<td>0.57</td>
<td>0.46</td>
<td>0.11</td>
</tr>
<tr>
<td>NEAR RX</td>
<td>0.48</td>
<td>0.29</td>
<td>0.19</td>
</tr>
<tr>
<td>SATISFIED</td>
<td>0.63</td>
<td>0.34</td>
<td>0.29</td>
</tr>
</tbody>
</table>

REGISTRATION

VISUAL INFORMATION
SUBJECTIVE RESULTS

In the presentation of this data, we are showing our results in percentages. This allows an easier comparison of one section to another. Not all questions were answered on each questionnaire. Results given in percentages do not interfere with the comparison of data as would results given in raw numbers when the number of responses varies from question to question.

INTERN EVALUATION

The evaluation of our pre-case history form, by the interns using it in conjunction with their exams, was as follows:

n=58

1) Do you feel the case history form is too long? .................100% no
2) Are there any parts that are unclear? ..................100% no
3) Do you feel that this case history form makes your exam too impersonal? ..................100% no
4) Do you feel that such a form helps provide a more thorough eye examination? ..................75% yes
5) Do you feel the background information obtained by this form is an adequate summary of the information about the patient who completed it? ..................85% yes
6) Do you feel this form provides a more USEFUL and DETAILED patient history that your recording of your usual verbal interview? ..................71% yes
7) Would you consider using a written form in your own practice? ..................100% yes

*note: percentages were rounded off to the nearest percent.
PATIENT EVALUATION

The evaluations of our pre-case history form, by the patients, was found as follows:

n=116

1) Did you object to the filling out of this history form? ........ 98% no
2) Do you feel the case history form was too long? ........ 90% no
3) Are there any parts that are unclear? ........ 94% no
4) Do you feel the background information obtained by this form is a complete summary of your medical and visual history? ........ 95% yes
5) Do you feel that such a form helps provide a more thorough eye examination? ........ 95% yes
6) Do you feel that this case history form makes your examination too impersonal? ........ 90% no

*note: percentages were rounded off to the nearest percent.*
DISCUSSION AND LIMITATIONS

DISCUSSION OF OUR PRE-CASE HISTORY FORM

It was our intent to develop a pre-case history form that would provide the maximum optometric information about the patient, while minimizing time to complete this form by the patient. We feel that we have designed a format that meets these requirements. In general, we feel that our format is superior to other similar forms that were explored in the development phase of our thesis.

Many pre-case history forms utilize written phrases by the patient throughout the form; whereas we have attempted to minimize patient writing by employing check boxes. We believe this is a more rapid method of data collection, also a more concise, understandable format for the patient to follow. Through the use of several subdivisions we are able to include many valuable items of information while limiting the length to both sides of one page. Almost all other pre-case history forms that we found to be comprehensive enough for practical clinical use, were two, three or four pages in length. In addition, we have included more specific general health conditions pertinent to optometric health care management than were found on other forms explored. Finally, we feel that our format affords the clinician an easier and more rapid inspection of the background information than do other pre-case history forms.
DISCUSSION OF THE OBJECTIVE DATA

As done previously, the form will be discussed in sections.

REGISTRATION:

The most significant items provided by our pre-case history form in this section were; (1) source of referral, (2) spouse or parent's name, (3) employer and type of work the patient is involved in. The date, address, and patient name was found to be a standard item on both forms, thus exhibiting approximately the same high frequency of response on both types of case histories - interns recording of oral interview and our patient completed pre-case history form. We feel the difference in number of responses on the address is not significant, as the patient's address is usually kept on the ledger. However, it should be recognized as an important cross-check with ledger for billing and communication purposes. In addition, our form elicited more specifically the patient's chief reason for the visual examination.

Source of referral is an important factor for inter-professional liaison, namely referral and follow up study of the patient. The name of the patient's spouse or parent can be important in communication concerning the patient's health as well as billing the patient. The type of work and the name of the patient's employer are important considerations in prescribing for the patient's visual needs and contacting the patient.

VISUAL INFORMATION

The recording of whether the patient had glasses on or not, and the initial satisfaction with them was the most significant information in
this category, provided by our form that was not usually recorded on the oral interview by the intern. This is essential information for analysis and determination of present refractive status that needs to be included in the record. Several patients who wore contact lenses were not revealed in the recordings of the oral interview, but were found by our patient completed pre-case history form. In addition, whether the patient had a prescription for reading was shown more significantly by our form. Apparently, some interns were not aware that the patient being examined presently wore glasses.

READING INFORMATION

In this section about reading, we feel it is important to know how much a person reads. This reading may be a part of a hobby or a job. This information is important in determining the visual demands of the patient. Our form provided this information significantly more often than the oral recordings.

The reading distance is also a very significant finding of our pre-case history form. If the patient feels that he or she is reading at an intermediate distance, that is fine. But, if the patient feels that he or she reads at arm's length or closer, this should be investigated more thoroughly by the examiner.

The check-off area elicited many problems in reading and/or near work. These were often not the main problem or concern of the patient, but again, should be investigated by the practitioner. In some cases, these checked items were a more explicit description of the primary problem as found in an earlier section of the form.

The most significant trend appears to be the lack of information
about the patient's reading demands and habits, either not asked about, or not recorded by the intern who takes the case history orally. This implies that a standard approach to gaining this information would be of value.

GENERAL VISUAL INFORMATION (SYMPTOMS)

Our pre-case history form elicited many symptoms by the check-off boxes that were not found otherwise. These symptoms should provide a pathway for the examiner to determine the correct solution to the problem, which was stated earlier by the patient. In addition, the checked symptoms may be indications of other problems not elicited previously. One ramification is that these may be important symptoms of a problem the patient did not consider significant.

GENERAL HEALTH

We feel the most significant information provided by our form that differed from the oral recordings were the specific health problems furnished in the check-off section, e.g. the elicitation of thyroid problems, diabetes, the high blood pressure. The general statement of health and the taking of medications were found to be answered as frequently on both the oral records and the written form. These are apparently items that were important enough to be recorded regularly in the oral interview. The name of the family physician was recorded on our form far more frequently that by the oral interview. This would be valuable for interprofessional referrals, and/or monitoring of the patient. This can be valuable in potential emergency situations also.

The check-off area of previous health conditions also manifested
a much larger array of visually related conditions than the oral form. We feel the importance of this section is the possible relationship between present health condition etiology and past health problems, which may seem unrelated to the patient.

FAMILY HISTORY

We found many people had a family history of diabetes, hypertension, cataracts, or other conditions not noted on the records of the oral interview. This information is very important to the practitioner in following a given patient's health. All items in the family history check-off area, are known to have incidence factors related to the incidence in family members. A checked item in this area should alert the practitioner to be aware of possible genetically related ocular changes.

OVERALL DISCUSSION OF OBJECTIVE RESULTS

Our patient-completed pre-case history form showed on the average, a significant increase in the number of items recorded about the patient. This demonstrates that our form provides a much more comprehensive recording of a patient's history than the intern's oral interview recording. This implies that such a form could be a valuable adjunct to normal optometric case history.

LIMITATIONS

The results could have had a different significance if a student population had not been used. That is, if a population of practicing optometrists had been used instead, possibly more information would have been recorded from the oral interview. But, according to Elmstrom
who quotes a study by Marg, the optometrist spends an average of three minutes on an oral case history. In light of this statistic, the written record by the optometrist may not be as good as the typical student might have recorded.

The results could possibly have been even more significant if certain sections of the pre-case history form had been revised and further investigation completed. Using suggestions received in the subjective evaluations and information gleaned directly from the use of the form, we propose a few specific changes on the form. Please refer to appendix five for the form as revised.

The major area that has been changed is the visual information section. This was done to hopefully eliminate the apparent confusion on the part of a few patients.

On the second page, a few additions and deletions were made to provide more information to the practitioner who uses it. These changes were made in both the "Check any that apply to your eyes" and "Check any that you have had" sections. We feel these changes somewhat improve the informational value of these sections.

DISCUSSION OF SUBJECTIVE RESULTS

PATIENTS

It must be remembered that the patients evaluated our pre-case history form before meeting with the examiner. This could possibly account for the 10% of the patients responding that the form makes the exam too impersonal. Up to this point, the patient has had only brief contact with the staff person at the reception desk. Therefore, there
is potential for the exam to become more personal. As the examiner becomes more familiar with the use of the form, he should find more time to deal with the patient's specific problems and discussing them, rather than recording information.

There were also 10% of the patients that felt the form was too long. It must be brought to one's attention that the patient had just completed a thorough personal registration form used routinely in Pacific University clinics. This redundancy would not exist in situations other than investigative circumstances. We suggest that the combination of these two forms increased the number of patients that felt that the case history was too long. Also, 5% felt that the visual and medical history was not complete. A few changes, as previously mentioned, have been made by incorporating the suggestions given by the patients and interns, to make the form more complete, but not longer.

It is important that the majority of patients feel that such a form helps provide a more thorough exam as was the case in our study. The patient's attitudes should be considered in all phases of practice.

INTERNS

The majority of interns also felt that the form was not too long, impersonal, or unclear. A larger proportion than in the patient group, although still a minority, felt that information was not a complete summary of patient information. Although only 71% of the interns felt that the pre-case history form provided more useful and detailed information than the oral history, our statistics show 97% of the written forms contained more information that the oral recordings. Comments by interns, in general, referred to our form as a good supplement, making the patient history more rapid and leading to a more thorough eye
examination. In addition, as cited earlier, the role of our optometric pre-case history form is to be an initial investigative tool, revealing information that is to be followed up in the clinician's oral interview. This implies that interns feel such a form is a valuable and highly accepted addition to the optometric examination. Virtually all clinicians said that they would consider using a written form in their own practices.
SUMMARY

This study found that the recording of the adult patient's background information can be made more complete by the use of our pre-case history form. The form was developed from optometric literature and from clinical investigation. The patient acceptance and intern attitudes toward this pre-case history form were very positive. We conclude that clinically, our written pre-case history form is an effective adjunct to the optometric examination.
APPENDICES
Appendix I

<table>
<thead>
<tr>
<th>Last</th>
<th>First</th>
<th>Middle</th>
<th>Birth Date</th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Miss</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</table>

Address

<table>
<thead>
<tr>
<th>Street</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
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Phone

<table>
<thead>
<tr>
<th>Home</th>
<th>Work</th>
<th>Name of Spouse or Parent</th>
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Employer

<table>
<thead>
<tr>
<th></th>
<th>Type of work</th>
</tr>
</thead>
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Who referred you to our office?

Chief reasons for today's eye examination?

How long has this been present?

VISUAL INFORMATION

<table>
<thead>
<tr>
<th>Date of last visual examination</th>
<th>Eye doctor</th>
</tr>
</thead>
</table>

Do you wear glasses?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>How long?</th>
</tr>
</thead>
</table>

Do you wear contact lenses?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>How long?</th>
</tr>
</thead>
</table>

Do you wear lenses for seeing at far?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Do you wear lenses for seeing at near?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Were you initially satisfied with them?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Do you use special glasses for work?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Have you ever had any visual training?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Have you had any accidents or surgery to your eyes?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Do you do a lot of reading?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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</table>

Where do you hold your reading material?

<table>
<thead>
<tr>
<th>Close</th>
<th>Intermediate</th>
<th>Arms length</th>
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</thead>
</table>

CHECK ANY THAT APPLY TO YOUR READING OR NEAR WORK

<table>
<thead>
<tr>
<th>Frown</th>
<th>Fatigue</th>
<th>Eyes sore, red, pull</th>
</tr>
</thead>
<tbody>
<tr>
<td>Squint</td>
<td>Daydream</td>
<td>Lose place easily</td>
</tr>
<tr>
<td>Glare</td>
<td>Headaches</td>
<td>Poor comprehension</td>
</tr>
</tbody>
</table>

Others: explain

PLEASE COMPLETE BOTH SIDES
CHECK ANY THAT APPLY TO YOUR EYES

☐ pain  ☐ burning  ☐ spots  ☐ blur at far with lenses
☐ dryness  ☐ itching  ☐ styes  ☐ blur at near with lenses
☐ swelling  ☐ pulling  ☐ feel tired  ☐ foggy vision
☐ redness  ☐ ache  ☐ headaches  ☐ double vision
☐ sensitive to light  ☐ feeling of pressure  ☐ momentary loss of vision
☐ excessive blinking  ☐ halos around lights  ☐ distortion of shapes
☐ excessive tearing  ☐ flashes of light  ☐ color changes
☐ poor night vision  ☐ discharge or secretion  ☐ small areas of no vision
☐ feeling of tiredness  ☐ color blindness

Others: explain

GENERAL HEALTH INFORMATION

How is your general health? ☐ good ☐ fair ☐ poor specific problems

☐ anemia  ☐ diabetes  ☐ thyroid disorder  ☐ dizziness
☐ diabetes mellitus  ☐ asthma  ☐ skin disorder  ☐ pregnancy
☐ allergy  ☐ glaucoma  ☐ heart disorder  ☐ hypoglycemia
☐ ulcers  ☐ lung disorder  ☐ sinusitis  ☐ high/low blood pressure

Are you taking any medication ☐ What? ☐ Why?

Do you have any drug allergies? ☐ Which drug(s)?

Name of family physician

CHECK ANY THAT APPLY TO YOUR HEALTH

☑ anemia  ☐ neurologic/psychiatric disorder
☐ diabetes  ☐ thyroid disorder  ☐ tuberculosis
☐ asthma  ☐ skin disorder  ☐ whooping cough
☐ allergy  ☐ heart disorder  ☐ rheumatism
☐ glaucoma  ☐ lung disorder  ☐ serious head injury
☐ ulcers  ☐ sinusitis  ☐ migrane headaches

Others: explain

CHECK ANY THAT YOU HAVE HAD

☐ mumps  ☐ arthritis  ☐ tuberculosis
☐ measles  ☐ diphtheria  ☐ whooping cough
☐ goiter  ☐ meningitis  ☐ rheumatism
☐ scarlet fever  ☐ polio  ☐ serious head injury

Others: explain

CHECK ANY THAT APPLY TO YOUR FAMILY HISTORY

☐ diabetes  ☐ cataracts  ☐ color blindness
☐ allergies  ☐ glaucoma  ☐ crossed eyes
☐ hypertension  ☐ blindness

Others: explain

THANK YOU
APPENDIX II

Pacific University College of Optometry
Case History Research Evaluation Form
(Intern Completion)

1) Do you feel the case history form is too long? □ yes □ no

2) Are there any parts that are unclear? Where? ________________________________ □ yes □ no

3) Do you feel that this case history form makes your exam too impersonal? □ yes □ no

4) Do you feel that such a form helps provide a more thorough eye examination? □ yes □ no

5) Do you feel the background information obtained by this form is a adequate summary of the information about the patient who completed it? □ yes □ no

6) Do you feel this form provides a more USEFUL and DETAILED patient history than you recording of your usual verbal interview. □ yes □ no

7) Would you consider using a written form in your own practice? □ yes □ no

8) Additional comments ________________________________

THANK YOU FOR YOUR PARTICIPATION
Pacific University College of Optometry
Case History Research Evaluation Form
(Optional Patient participation)

1) Did you object to the filling out of the history form? If yes, why?  
   □ yes  □ no

2) Do you feel the case history form was too long?  
   □ yes  □ no

3) Are there any parts that are unclear?  
   □ yes  □ no

4) Do you feel the background information obtained by this form is a complete summary of your medical and visual history? If no, why not?  
   □ yes  □ no

5) Do you feel that such a form helps provide a more thorough eye examination?  
   □ yes  □ no

6) Do you feel that this case history form makes your examination too impersonal?  
   □ yes  □ no

7) Additional comments

   __________________________________________

THANK YOU FOR YOUR PARTICIPATION
## Confidential Case History Research Form

(Participation optional)

### Appendix IV

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<td>Mrs.</td>
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<tr>
<td>Miss</td>
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<table>
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<th>Who referred you to our office?</th>
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<table>
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<th>Chief reasons for today's eye examination?</th>
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<table>
<thead>
<tr>
<th>How long has this been present?</th>
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<tr>
<td></td>
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</table>

### VISUAL INFORMATION

<table>
<thead>
<tr>
<th>Date of last visual examination</th>
<th>Eye doctor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Do you wear glasses? | [ ] yes [ ] no | How long? |

| Do you wear contact lenses? | [ ] yes [ ] no | How long? |

| Do you wear lenses for seeing at far? | [ ] yes [ ] no |

| Do you wear lenses for seeing at near? | [ ] yes [ ] no |

| Were you initially satisfied with them? | [ ] yes [ ] no |

| Do you use special glasses for work? | [ ] yes [ ] no |

| Have you ever had any visual training? | [ ] yes [ ] no |

| Have you had any accidents or surgery to your eyes? | [ ] yes [ ] no |

| Do you do a lot of reading? | [ ] yes [ ] no |

<table>
<thead>
<tr>
<th>Where do you hold your reading material?</th>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>close</th>
<th>intermediate</th>
<th>arms length</th>
</tr>
</thead>
</table>

### CHECK ANY THAT APPLY TO YOUR READING OR NEAR WORK

- frown
- squint
- glare
- fatigue
- daydream
- glare
- headaches
- eyes sore, red, pull
- lose place easily
- poor comprehension

Others: explain

---

---
CHECK ANY THAT APPLY TO YOUR EYES

- pain
- dryness
- swelling
- redness
- sensitive to light
- excessive blinking
- excessive tearing
- poor night vision
- feeling of pressure
- halos around lights
- discharge or secretion

Others: explain

GENERAL HEALTH INFORMATION

How is your general health? □ good □ fair □ poor specific problems

Date of last medical examination ___________________ Result ___________________

Date of last dental examination ___________________ Result ___________________

Are you taking any medication? What? Why? __________________________________

Do you have any drug allergies? Which drug(s)? ____________________

Name of family physician ____________________________

CHECK ANY THAT APPLY TO YOUR HEALTH

- anemia
- diabetes
- asthma
- allergy
- glaucoma
- ulcers
- neurologic/psychiatric disorder
- thyroid disorder
- skin disorder
- heart disorder
- lung disorder
- sinusitis

Others: explain

CHECK ANY THAT YOU HAVE HAD

- mumps
- measles
- goiter
- scarlet fever
- arthritis
- diphtheria
- meningitis
- polio
- tuberculosis
- whooping cough
- rheumatism
- serious head injury

Others: explain

CHECK ANY THAT APPLY TO YOUR FAMILY HISTORY

- diabetes
- allergies
- hypertension
- cataracts
- glaucoma
- color blindness

Others: explain

THANK YOU
This information will aid us in providing a more thorough visual analysis.

Mr.  
Mrs.  
Miss

Last  first  middle  Birth Date  month  day  year

Address  street  city  state  zip

Phone  home  work

Employer

Type of work

Who referred you to our office?

Chief reasons for today's eye examination

How long has this been present?

VISUAL INFORMATION

Date of last visual examination  Eye doctor

Do you wear glasses?  yes  no  Contact lenses?  yes  no

1. How long in total?

2. How long with latest pair?

3. Were you initially satisfied with them?  yes  no

4. Do your glasses help for seeing  distance  reading  both

Do you use special glasses for work?  yes  no

Have you ever had any visual training?  yes  no

Have you had any accidents or surgery to your eyes?  yes  no

Do you do a lot of reading?  yes  no

Where do you hold your reading material?  close  intermediate  arms length

CHECK ANY THAT APPLY TO YOUR READING OR NEAR WORK

frown  squint  glare  fatigue  daydream  headaches  eyes sore, red pull  lose place easily  poor comprehension

Others: explain

PLEASE COMPLETE BOTH SIDES
CHECK ANY THAT APPLY TO YOUR EYES

- pain
- dryness
- swelling
- redness
- sensitive to light
- excessive blinking
- excessive tearing
- poor night vision

- burning
- itching
- pulling
- ache
- feeling of pressure
- halos around lights
- flashes of light
- discharge or secretion

- spots
- styes
- feel tired
- headaches
- momentary loss of vision
- distortion of shapes
- color changes
- small areas of no vision
- color blindness

- blur at far without lenses
- blur at near without lenses
- blur at far with lenses
- blur at near with lenses
- double vision

GENERAL HEALTH INFORMATION

How is your general health? ☐ good ☐ fair ☐ poor ☐ specific problems

Date of last medical examination __________________________ Result __________________________

Date of last dental examination __________________________ Result __________________________


Do you have any drug allergies? __________________________ Which drug(s)? __________________________

Name of family physician __________________________

CHECK ANY THAT APPLY TO YOUR HEALTH

- anemia
- diabetes
- asthma
- allergy
- glaucoma
- ulcers

- neurologic/psychiatric disorder
- thyroid disorder
- skin disorder
- heart disorder
- lung disorder
- sinusitus

- dizziness
- pregnancy
- hypoglycemia
- high/low blood pressure
- hearing problem
- migraine headaches

Other conditions __________________________

CHECK ANY THAT YOU HAVE HAD

- lazy eye surgery goiter stroke

- arthritis meningitis polio rheumatism

- tuberculosis crossed eyes serious head injury

Other conditions __________________________

CHECK ALL THAT APPLY TO YOUR FAMILY HISTORY

- diabetes cataracts color blindness
- allergies glaucoma crossed eyes
- hypertension blindness

Other conditions __________________________

THANK YOU
BIBLIOGRAPHY


31.

Bibliography continued...


