

Communication and Optometry:

The Art of Interpersonal Skills and their Role in the Optometric Setting

Senior Literature Review
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The purpose of this literature review is to educate optometry students and faculty on the intricacies of history taking and interpersonal communication skills. It also seeks to bring an awareness of the current state in training these skills in both the optometric and medical communities.

Case History

Case history is the cornerstone of the optometric examination. It is a non-discrete, ever-changing and evolving entity. The history continues throughout the examination allowing the optometrist to continuously modify a list of tentative diagnoses as more information is acquired in the course of the encounter.

History-taking, also referred to in the medical community as medical interviewing is composed of eight distinct, yet inter-related categories: the chief complaint, personal ocular history, family ocular history, personal medical history, family medical history, medications, allergies and additionally, social history.

Chief Complaint

“...the patient will often tell us what is wrong if we have the patience to listen and the background to ask the proper questions at the appropriate times.”

--Joel S. Glaser, M.D.

Also known as the reason for presentation, the chief complaint is the patient's primary concern. It is the major motivator for their visit on that particular day. This component of the history is important for several reasons. To begin, it controls all aspects of the examination from tentative diagnoses to testing and assessment. As soon as the patient begins describing their problem, the optometrist is including and excluding possible diagnoses. This process improves with an increasing knowledge base, so an

experienced clinician may have a very good idea of what that patient's diagnosis is after investigating the chief complaint. The reason for presentation is also what must be addressed at examination's end in the form of management and patient education. To illustrate this important aspect, a person takes their car into the mechanic because their muffler is loud. In the course of his inspection, the mechanic finds that the car's brakes are dangerously worn, so he opts to give his customer a brake job, neglecting the need for the new muffler. Although, the brakes pose more of a threat to the customer's safety, the original concern fell to the wayside. Cars and patients are by no means similar. However, this illustrates that within the course of a comprehensive ocular examination, an optometrist may focus on more significant issues in their mind and completely neglect the patient's primary concern. The patient's problem was important enough to bring them into the office, so it must be addressed by examination's end. The chief complaint is also very important to third party payers for reimbursement. It is essential to document clearly, the patient's reason for presentation and address this in the management plan to avoid costly insurance audits.

In a perfect world, each patient would have only one concern at each visit, but since primary care optometrists see their patients annually, most will have multiple issues that must be addressed. When this is the case, each concern must be prioritized, investigated and addressed separately.

Once the chief complaint(s) has been concisely documented, the investigation begins, utilizing principles of skillful communication. The patient's problem(s) must be probed in detail. This is the history of present illness (HPI), which includes acquiring specifics about the onset, frequency, duration, quality, progression, and associated

symptoms of the chief complaint. Benbassat in 1984 found medical students made four common errors in the documentation of the history of present illness. The first error occurred when the clinician focused too extensively on previous findings, resulting in the exclusion of potential differentials for the patient's chief complaint. The second mistake was inaccurately recording the patient's symptoms, that is, not clarifying the patient's problem before documenting the HPI. Students had the most difficulty differentiating between the main symptom and secondary complaints and describing clearly the progression of the disease. Detailed questioning and repeating what is understood to be the main problem can eliminate this.

Questioning the patient regarding their complaint continues throughout the examination; "it is a never-ending process that begins with the examination and is expanded whenever follow-up evaluations occur (Carr, 1996)."

Personal Ocular History

After addressing the patient's current ocular complaint, the next logical step would be investigating any previous problems. It is important to ask the patient the date of their last complete eye exam and their past eye care provider. Additionally, the patient should be questioned as to the outcome of that exam. Were there any problems or special testing? What recommendations did the doctor make? Was there a prescription (pharmaceutical or spectacle) given? Also, the patient should be questioned regarding any history of ocular injuries, infections, inflammations or surgeries. Asking these questions ahead of time will often save the optometrist confusion as the exam progresses because a thorough history helps to differentiate new findings from longstanding conditions.

Family Ocular History

Several ocular conditions have familial tendencies. Probably the foremost inquisition into family ocular history is glaucoma. Glaucoma risk for a patient increases if a relative has been diagnosed with the disease, particularly if that relative is a sibling (Walling, 1998). Cataracts, although mainly age-related, and their age of onset and severity may also be genetically linked. However, unlike glaucoma, this is not a red flag in the management of patients. When examining a child, parents should be questioned regarding any history of “eye turns” or “lazy eyes” in the family. This plays a role in the prognosis for the strabismic/amblyopic child. A family history of eye turn is actually favorable in the functional cure for that child (Flom,1958). Finally, the patient should be asked about any family history of blindness because genetic conditions like Retinitis Pigmentosa can have devastating effects on a patient’s life and appropriate counseling and follow-up care should be provided.

Personal Medical History

A well-known adage states that the eyes are the windows to the soul. What this adage neglected was that the eyes are the windows into the health of the whole body. It is of the utmost importance to completely investigate a patient’s medical history; Ocular structures are adversely affected by many systemic conditions or the medications used to treat those conditions. Additionally, there are many systemic conditions whose severity and medical control can be monitored by examining the health of the eyes. For examples, hyperthyroidism, sarcoid, systemic lupus erythematosus, sickle cell anemia, neurofibromatosis may all present with ocular findings. Hypertension, diabetes, and carotid artery disease are examples of conditions whose severity and level of control may

be monitored with careful observation and documentation of findings at eye health examinations. The patient should also be questioned regarding any systemic surgeries. This would be important in the example of heart valve surgery. Vegetative material may form emboli causing a vascular occlusion to a portion of the visual pathway. In addition, the patient should be questioned about previous myocardial infarction or stroke, as there is concern for retinal or visual pathway vascular compromise in either of these conditions. Finally, just as the patient is questioned about their last complete eye exam, so should the patient be asked the date of their last physical exam and their physician's name.

Family Medical History

Although we do not directly treat systemic medical conditions, investigation of the patient's family medical history is important for patient education purposes in a primary care optometry setting. "Are there any blood-relatives with 'red-flag' conditions (Carr, 1996)?" Carr includes diabetes mellitus, systemic hypertension, atherosclerosis, and early death from embolic stroke. If there are family medical conditions of concern, the importance of regular health check-ups should be stressed during counseling.

Medications

A complete list of medications, both prescription and over-the-counter, is valuable two-fold. First, there are many medications on the market with potential ocular side effects, too many to list or count. Hormone therapy, antihistamines, and decongestants all exacerbate dry eye. Anti-motion sickness scopolamine patches cause mydriasis and cycloplegia. Rheumatoid arthritis medication, plaquenil, and the oral acne medication, Accutane, all have potential for retinal toxicity. Phenothiazines, anti-psychotic

medications, have the potential for corneal, lenticular and retinal toxicity presenting as severe pigmentary changes. It is very important in these cases to maintain the recommended follow-up schedule to monitor for these ocular changes. The second important reason for an exhaustive list of medications is that it often provides insight into any medical conditions that the patient failed to mention previously in the history. For example, after eliciting patient A's unremarkable medical history, the optometrist proceeds to ask for a listing of medications. Patient A responds by mentioning a hypertension medication. When further questioned, patient A states that she doesn't have high blood pressure now that she is taking the medication. This logic is very common among patients.

Allergies

Questioning the patient regarding all medication and environmental allergies is valuable for two reasons. Obviously, with the use of diagnostic and therapeutic pharmaceutical agents, hypersensitivities and anaphylaxis must be avoided. Additionally, a patient's environmental allergies may provide a clue for differentially diagnosing a red eye chief complaint.

Personal Social History

The patient's social history is regularly overlooked, but yet important component of a thorough medical interview. By asking the patient about their vocation and avocations, the optometrist understands their visual demands, stresses, and stress-relievers. Questions regarding smoking is an integral part of thorough patient interviewing. Smoking has so many health implications, both systemic and ocular. In a primary care setting, it is our responsibility to watchdog the wellness of the entire person

and patient education is a must in this circumstance. Not only are social history questions necessary for maximum third-party reimbursements, but they also provide the doctor and patient with an opportunity to relate on a relaxed plane. This aids in establishing the doctor-patient bond, which is that little extra that keeps the patient coming back.

Mistakes in the Medical Interview

According to Carr, there are a number of errors that are made by clinicians during the course of the case history. Several directly result from poor communication between doctor and patient. First, and very commonly, is the over-reliance on patient questionnaires handed to the patient before encountering the optometrist. A similar situation occurs in practices with technicians who “work-up” the patient. Although this is an efficient way of obtaining a case history, it gives the optometrist a false sense of completeness. The questionnaire only provides a broad background on the patient’s history. The clinician should use patient checklists only as a history guideline. Meaning, these general questions should lead to more specific questions from the optometrist as differential diagnoses are compiled for the patient’s chief complaint.

Forced choice questioning is another common mistake in a clinician’s interview of a patient. Closed-ended questions are inhibitory to good communication; however, this type of questioning is very efficient for instances in which time is limited or in the case of a talkative patient. The solution is to utilize open-ended questioning as much as possible; switching to close-ended questioning when clarification is needed. To illustrate, Patient B has a chief complaint of blurred vision. The clinician followed up with this open-ended request: “tell me about the blurred vision.” To which Patient B

responds, “things are very dim with my left eye when compared to my right. It is almost as if colors are washed out when I look with the left.” At this point, the clinician is suspicious of optic nerve pathology. Now consider a closed-ended follow-up question: “is the blur present all the time or only intermittently?” Patient B would have responded that the blur was there all the time and the clinician may have missed a vital clue to optic nerve disease because they assumed a refractive error.

Another mistake in medical interviewing occurs with time constraints. Carr refers to this as the ventriloquist’s approach, or leading the patient’s responses. This happens commonly during refraction: “sharper with two...not as clear here.” It is also very easy to allow this during the history. For example, Patient C, a 76-year-old female, presents with complaints of photophobia. The clinician, based on previous cataract diagnosis, responds with: “so you are finding that you are more sensitive to light with glare problems, right?” Here the clinician is attributing the patient’s complaint to the cataract when in actuality Patient C actually has an anterior uveitis.

A doctor is objective and is taught repeatedly to distance themselves from the patient; to not let their emotions affect their clinical decision-making. As a result, this has created a “frigid robot, (Carr, 1996).” The frigid robot approach to doctor-patient interaction occurs when the clinician becomes “beyond or above emotion.” While this distance provides objectivity, it is detrimental to communication because the all-too-human patient feels vulnerable and alienated by the emotionless doctor. When this occurs, the patient is less likely to provide valuable pieces of information for fear of embarrassment.

The final mistake in history taking and patient communication is the direct result of society today. We are a “hands-off” society for fear that any physical contact may be deemed inappropriate. Unfortunately, this maintains a distance between doctor and patient and an effective block in communication; so, it is a mistake to avoid physical contact with a patient. A reassuring touch on the shoulder, a friendly pat on the back or at the least a firm handshake shows sincerity and concern. Touch can calm a patient who is upset and reassure a patient who is uncertain. While it is important not to overstep any boundaries, courteous touch is a wonderful way to establish the bond between doctor and patient.

Basic Communication Skills

With developed communication skills, a clinician will be successful in eliciting a good history, attending to the patient’s emotional needs, and facilitating the patient’s cooperation (Howard and Ehrlich, 1998). An optometrist with effective communication is able to modify factors to enhance the doctor-patient interaction. First, the environment must be comfortable for the patient. By avoiding small rooms and having doors easily accessible, this assures that neither the doctor nor patient feels trapped. Secondly, it is important to make the patient feel at ease; good manners are a must. People will feel more at ease if they are greeted by name and shown where to sit. Also, optometrists should introduce themselves, explain procedures and appear interested in the patient’s comments (Lloyds and Bor, 1996). As mentioned earlier, the interview should begin with open-ended questions. Once the patient is able to describe their concerns then “funnel questions (Howard and Ehrlich, 1998)” can be used to focus the information. Finally, closed-ended questions are used only to obtain very specific information. A

good communicator is an active listener. In other words, one who receives information, is “in tune” with the speaker, and responds appropriately (Lloyd and Bor, 1996). To do this, the optometrist must gather and retain information correctly and understand the implications from the patient’s perspective. Importantly, the effective communicator must respond to verbal and non-verbal cues from the patient. An intent observer no matter how briefly they are mentioned in conversation observes verbal cues. Non-verbal cues such as gestures, postures, eye contact and facial expressions can provide clues to what the patient is feeling without using words. As examples, a depressed patient may slouch and avoid eye contact or an angry patient may gesture a lot and use excessive eye contact. Finally, it is of the utmost importance during active listening to demonstrate that attention is being paid to the patient. This is accomplished by maintaining eye contact, nodding and leaning toward the patient. This urges the patient to continue.

Summarizing information also facilitates communication. This not only demonstrates the doctor’s attention, but it also allows the clinician to check the accuracy of information obtained during the course of the examination. Jargon should be avoided because even commonly used terms found in health education materials are not understood by patients (Boyle, 1970). Therefore, to avoid any confusion, the consultation should be in very clear layman’s terms. While educating the patient, it is very important that they understand and are able to remember the material provided by their doctor. Since this is an imperfect world, the patient will only remember 40 to 80 percent of the optometrist’s explanations and instructions during consultation (Howard and Ehlich, 1998). So it is very important to enhance the patient’s memory by breaking the information into smaller chunks. Typically, patients forget more information when

presented with increasing information; but when questioned about the findings, that patient will actually know more about their condition (Ley, 1988). The bottom line is that more information presented in smaller chunks increases the patient's knowledge of their condition. Memory can also be enhanced utilizing strategies such as repetition and categorization. The optometrist should also know that the patient remembers best what is discussed first and information that is stressed as important. Writing down instructions will also facilitate compliance if the material is readable and understandable.

Obstacles to communication

The foremost barrier to communication is time. It takes a skillful clinician to find the balance between efficiency and good communication. The examination should be streamlined, but at the same time it should allow enough time for the patient to express their concerns. Wilkinson, in 1989, found that if patients were allowed to describe their complaints without interruption, they would take an average of 43 seconds in a primary care setting (Howard and Ehrlich, 1998). A second obstacle to communication is the uncooperative patient. The primary issue is why are they not cooperating? The patient may be sad, naturally shy or even embarrassed. Take time during the examination to watch for verbal and non-verbal clues, showing the patient understanding. Also take time to explain the importance of the examination and consultation. Completely opposite the uncommunicative patient is one who is overtalkative. The clinician must be able to distinguish between facts that are relevant to the case and those that merely waste time. Polite interruptions may be necessary in this case. Howard and Ehrlich recommend calmly stating that time is limited. While many patients will respond well to this intervention, some may not. If this is the case, it may be necessary to use a "broken

record” technique: repeatedly reminding the patient of the limited time and stressing that it is very important that there be time to discuss important findings. An anxious patient presents a block to communication. The best course for this patient is education and reassurance. The best reassurance is providing this patient with as much information about their symptoms as possible; however, false reassurance is not helpful and leads to a breakdown in the doctor patient relationship. An angry or aggressive patient provides a difficult communication situation. Foremost, the optometrist must prevent unsafe situations. Obviously, a lone optometrist should not examine an aggressive patient. The best management here is anticipating these situations and having a plan. This will allow the doctor to feel more confident in diffusing these tricky situations. The key to dealing with angry patients is to listen and not judge, being sure to acknowledge the patient’s anger. Speak quietly and calmly and if the patient is delusional, do not argue over the hallucinations. Avoid addressing abnormal beliefs and focus on optometric issues. Keep a safe distance from this patient.

Communication with Special Populations

Communication with children, including the learning disabled, poses much of a challenge. The key is to involve the child as much as possible. Obviously, the parent’s input is very important in the case history, but always take opportunities to address the child directly. When speaking with a child, it is important to speak to them on their developmental level, not only avoiding speaking over their head, but also taking care not to speak under them as well. Efficiency is a must with children because attention wanes as the length of the examination increases. Examination of children requires flexibility

and it is very important, especially with children, to establish a rapport before performing any tests.

Patients with different cultural backgrounds, especially when there is a language barrier, pose a challenge. Of course when language is a barrier, an interpreter may be required, although this indirect communication is an obstacle as well. Be aware of differences in greetings and gestures by becoming familiar with the local communities.

Communication Challenges

Breaking bad news to a patient is a situation that every optometrist handles regularly. This news may be informing the patient of a loss of driving privileges, the need for hospital testing, a poor disease prognosis; even informing the patient of a need for spectacles may be distressing (Howard and Ehrlich, 1998). Many psychologists have found that the reaction to loss of sight is similar to loss of a loved one. This involves “initial disbelief, then anger, followed by distress and depression, and finally resolution and acceptance (Blank, 1957; Fitzgerald, 1970).” So it is not helpful to discuss possible, potentially unhelpful, treatments with patients because this perpetuates the patient’s denial of the situation. When a patient is in a state of denial, it is best to have them return at a later date for further consultation. An angry patient is a grieving patient and the optometrist should realize this does not reflect on the doctor-patient relationship. In this situation, it is important to follow the basic rules of communication: counsel the patient in a safe, comfortable environment; find out the patient’s knowledge of the circumstances and never make assumptions; assess the patients emotions using verbal and non-verbal cues; ask the patient how much they want to know and educate them in small chunks, avoiding jargon, then repeat and clarify.

Another challenge occurs with the “heartsink patient (Howard and Ehrlich, 1998).” This is a patient who gives the optometrist and staff a feeling of “heartsink” when they see this patient in the waiting area (O’Dowd, 1988). Gerard and Ridell (1988) refer to these patients as “distressed high users” or “blackholes.” These patients are usually depressed or have other psychological problems. Most meet the criteria for somatisation, which is the expression of psychological distress by presenting with somatic complaints that are attributed to organic pathology (Sharpe and Bass, 1992). Somatic amplification occurs when the patient is very aware of their symptoms and amplifies them. This occurs commonly in a depressed, anxious patient or one who is living in a non-stimulating environment. Patients who have experienced illness as a child secondary to poor care or who used illness as a means for attention will often present repeatedly. A patient who is under extreme stress may experience repeated physiological symptoms. This is secondary to increased autonomic activity. Finally, a heartsink patient may be reluctant to think that their problems are psychological and assumes that they are medical. The valuable research about frequent users of the system shows there are increased numbers in practices without effective communications skills training, a high patient volume and little patient counseling (Mathers *et al*, 1995). So the best management of this patient type is to maintain communication, but set limits on the number of appointments and their duration. Foremost, listen to the patient and take their concerns seriously.

Interpersonal Skills and the Medical Model

Interpersonal skills (IPS) have been the focus of much research in medical education circles. IPS can be linked to patient satisfaction, compliance, perception of

doctor competence, health outcomes, and malpractice suits (Novack *et al*, 1993). The first study by Kahn *et al* in 1977 served as the basis for developing interpersonal skills in medical schools. Since 1977, there have been major advances in teaching IPS in medical schools. Medical interview instruction has been shifting from general advice to specific IPS material in the areas of facilitation skills, non-verbal behaviors, patient education strategies, therapeutic skills and communication of empathy (Novack, *et al*, 1993). Several new techniques are being utilized. The first involves role-playing within a classroom setting, either between students or instructors and students. Another instruction tool includes feedback on videotaped, live-patient interviews. These tapes are critiqued in both peer review and instructor review. A more recent approach incorporates standardized patients (SPs) and patient instructors (PIs). Standardized patients and patient instructors are similar in that both are non-physicians who act out the patient's role in practice interviews. The difference is that PIs are trained in multiple roles as patient, teacher and evaluator (Stillman *et al*, 1983). Research has compared traditional lecture format, role-playing, video feedback, standardized patients and patient instructors. When compared to the newer techniques, traditional methods fell short of the mark. Of the remaining methods, numerous studies found that SPs brought about the highest performance in patient interviewing.

In surveying the state of IPS training in medical schools in 1993, Novack *et al* requested information on course length, instruction format, curriculum, and student evaluations. They found that the average length of the courses was between 1 and 2 semesters long, most occurring during the first and second years in introductory courses. The primary teaching method was academic presentations followed by student interviews

of real patients. The majority of schools had programs in which students are able to practice interviews in hospital wards or outpatient clinics. Over half allowed observation of community and/ or hospital physicians. In addition, over half of the programs surveyed provided small group discussions and support groups for personal growth. The dominant evaluation method was staff observation; however, most evaluations did not include checklists for self and faculty review.

Research has looked at the affectivity of training IPS and communication techniques in medical schools. One study found that trained students were better at eliciting full, relevant data and they were also diagnostically more efficient (Evans *et al*, 1991). Another study determined to what extent medical interviewing skills were trainable. These researchers found the skills for history taking, presenting solutions and structuring were all learned; less learning occurred for exploring the chief complaint (HPI) and basic interviewing skills (Kraan *et al*, 1991).

There are several barriers to teaching interpersonal skills in medical school courses (Novack *et al*, 1993). First of all, the majority of these courses must be taught during the first year where basic clinical skills are not yet fully developed. Students at this point in their education do not have the diagnostic background to elicit thorough case histories. Moreover, novices often neglect basic interviewing skills as data collection overshadows communication skills. Of the schools surveyed, most complained of lack of time within the curriculum. Additionally, directors expressed that their programs lacked funding, institutional commitment, or interested and trained faculty.

Optometry compared to Medicine

Following Kahn's 1977 survey, the American Schools and Colleges of Optometry released a paper regarding interpersonal skills. They identified that interviewing, counseling, and patient management were vital parts of the ASCO curriculum and reviewed the state of these components in optometric education. They also outlined a course to teach these skills (Levine, 1979). To date, both the National Board of Examiners in Optometry (NBEO) and the National Board of Medical Examiners (NBME) have portions of part three on national board exams devoted to patient communication. The NBEO states "In the Clinical Skills section, the candidate examines a patient at each of 5 stations in the performance of 18 clinical skills. Although this section measure primarily psychomotor skills, it contains an assessment of affective (i.e., clinical habits and attitudes) and communication skills, as well as some interpretation of clinical findings (NBEO website)." At the time of the 1993 Novack *et al* survey, the NBME was developing a standardized patient assessment of medical interviewing, IPS and physical examination to incorporate as part of the licensing exam under the heading of "oral communication." The NBME on the United States Medical Licensing Exam states: "Step 3 is organized along two principal dimensions: clinical encounter frame and physician task. Encounter frames capture the essential features of circumstances surrounding physicians' clinical activity with patients (USMLE website)." This author failed to find this section listed on the outline for part three of the licensure examination.

Summary

In summary, the case history is the cornerstone of an examination as it grows and changes throughout the course of the encounter. The chief complaint and history of

present illness direct the flow of the examination. Mistakes made in understanding and documenting the chief complaint or HPI are the result of waning interpersonal skills. By remembering open questions, active listening and verbal/non-verbal cues, which are the basic communication skills, the clinician can avoid these errors. Direct, empathetic patient education and interaction can overcome obstacles and challenges to communication like time, difficult patients, and emotional circumstances. Research has shown extensively that training interpersonal skills greatly enhances student interviewing techniques. Both optometric and medical communities realize the importance of teaching these skills and improvements have been made; however, more training is needed for both students and instructors, but it is difficult to find the time and funds for these projects. It is the author's opinion that basic interviewing and communication skills need desperately to be taught directly to all student optometrists and constantly reinforced with workshops and simulated patients. The meaning of doctor is teacher. Interpersonal skills are so important because how can a doctor teach their patient if they cannot communicate?

References

- Benbassat J. (1984). Common errors in the statement of present illness. *Med Educ* 18(6): 18-22.
- Blank, H.R. (1957). Psychoanalysis and blindness. *Psychoanal Quart* 26: 1-24.
- Boyle, C.M. (1970). Differences between patients' and doctors' interpretations of common medical terms. *Br Med J* 2: 286-289.
- Carr, L. (1996). Case history: cornerstone in the neuro-ophthalmic examination. *Optom Clin* 5(3-4): 17-32.
- Fitzgerald, R.G. (1970). Reactions to blindness. *Arch Gen Psych* 22: 370-379.
- Flom, M.C. (1958). The prognosis in strabismus. *Am J Optom Arch Am Acad Optom* 35: 509-514
- Gerrard, U. and Riddell, J.D. (1988). Difficult patients: black holes and secrets. *Br Med J* 297: 530-532.
- Howard, L. and Ehrlich, D.P. (1996). Communication skills for optometrists. *Ophthalmic Physiol Opt* 18(suppl1): S14-20.
- Kahn, G.S., Cohen, B. Jason, H. (1977). The teaching of interpersonal skills in US medical schools. *J Med Educ* 54: 29-35.
- Lloyd, M. and Bor, R. (1996). *Communication skills for medicine*. Churchill Livingstone, London.
- Mathers, N., Jones, N., and Hannay, D. (1995). Heartsink patients: a study of their general practitioners. *Br J Feneral Pract* 45: 293-296.
- National Board of Examiners in Optometry. Part III (Patient Care). www.optometry.org/part3.htm
- O'Dowd, T.C. (1988). Five years of heartsink patients in general practice. *Br Med J* 297: 528-530.
- Sharpe, M. and Bass, C. (1992). Pathophysiological mechanisms in somatisation. *Int Rev Psychiatry* 4: 81-97.
- Stillman, P.L., Sabers, D.L., Redfield, D.L. Use of trained mothers to teach interviewing skills to first year medical students: a follow-up study. *Pediatric* 60: 165-169.

United States Medical Licensing Examiners. Step 3 Examination Content.
www.usmle.org/boi/exconS3.html

Walling, P.E. (1998). Principles of Glaucoma. *Ocular Disease Class Notes Fall 1998*: 9.

Wilkinson