Talking *with* and *about* older adult patients: The socializing power of patient-centered communication in an optometry teaching clinic

by

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Author’s Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

In a teaching clinic, healthcare students and their supervisors talk *with* their patients in the examination room and they talk *about* their patients during teaching consultations outside the examination room. Effective doctor-patient communication helps to establish management plans that are appropriate for both doctors and their patients. Amid a pressure to provide more patient-centered care, communicating effectively with older adult patients is particularly crucial because the occurrence of health problems and the likelihood of age-based communication barriers and negative attitudes increase with age. This project is a qualitative, collective case study of eye examinations, case presentations and participant interviews. This study took place in the Primary Care Clinic at the University of Waterloo, School of Optometry. Participants included 8 fourth-year optometry students, 5 supervising optometrists, and 10 patients between 60 and 85 years of age. The study involved audio-recording and analyzing eye examinations of older adult patients, case discussions about these patients, and interviews of older adult patients, optometry students and their optometrist supervisors. Data were analyzed using a constant-comparative approach, consistent with grounded theory. This study identified some of the discursive features of and reflections about patient-centered communication during the talk *with* and *about* older adult patients. During the eye examinations, optometry students incorporated five types of verbal communication that were consistent with a patient-centered model: Patient Agenda, Social Talk, Analogies, Patient Agency, and Health Promotion & Prevention. Although these successful attempts to incorporate patient-centered

communication strategies were evident in the talk *with* patients, optometry students routinely engaged in seven other verbal strategies that challenged this patient-centered ethos: Closed-Ended Questions, Biomedical and Technical Language, Patient as a Problem, Unacknowledged Patient Voice, Patient Understanding, Doc Talk, and Caregiver Agency. Two types of discursive strategies related to patient-centered care were identified in the talk *about* older adult patients during novice case presentations: Voice of Optometry and Voice of Patient. The Voice of Optometry incorporated field-sanctioned language strategies including three subcategories: Biomedical, Technical and Judgment. In contrast, the Voice of Patient represented various levels of patient agency: Passive Recipient, Negotiated Agency and Patient Agency. According to their interviews, optometry students received limited explicit training, in both classroom and clinic instruction, on how to talk *with* and *about* patients. During their interviews, optometry students and their supervisors made clear distinctions between patient–centered and doctor-centered care. Most of the students and supervisors believed that the optometry profession and the optometry school promoted patient-centered care. Elements of patient voice were represented in the eye examinations, the case presentations and the post-examination patient interviews. During novice case presentations patient voice was often fragmented into sound bytes of the original patient statements or translated into field-sanctioned language. Although many instances of patient education and counselling were evident throughout the eye exams, limited discussion occurred in the novice case presentations between students and their instructors about what to say to patients, In addition, the

majority of topics addressed during educational and counselling moments were not discussed during the novice case presentations. Additionally, post-examination patient recall regarding education and counselling was generally limited. Throughout this study, talk about age appeared in four ways: 1) caregivers used age to make clinical decisions during case presentations, 2) caregivers referenced age during counseling and education to explain eye and vision changes, 3) patients commented on the impact of age on themselves, and 4) caregivers spoke about how they considered age when speaking to their patients. While the caregivers generally valued a patient-centered approach, the talk *with* and *about* patients was skewed towards strategies that may limit the ability to support this ethos. It is questionable what audience (i.e. patient or supervisor) optometry students value and how this affects their ability to adopt patient-centered communication strategies. Findings from this study suggest that caregivers and their patients might benefit from some changes in the way patient-centered practice is taught and practiced in this optometry teaching clinic. As a greater understanding develops of the strategies of and challenges to patient-centered practices in optometry, it is my hope that optometry training programs as well as optometry professional organizations will further embrace patient-centered practices.

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Dedication

This thesis is dedicated to my family for their on-going love and support.

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Chapter 1: Introduction

In a teaching clinic, healthcare students and their supervisors typically talk *with* their patients in the examination room and they talk *about* their patients during teaching consultations that occur away from the patient, in another room. Effective doctor-patient communication helps to establish management plans that are appropriate for both doctors and their patients. Amid a pressure to provide more patient-centered care, communicating effectively with older adult patients is particularly crucial because the occurrence of health problems and the likelihood of age-based communication barriers and negative attitudes increase with age. Through this study in an optometry teaching clinic, I hope to increase our understanding about how optometry students learn to talk *with* and *about* their older adult patients. Specifically, I will:

i) Identify some of the discursive features and perceptions of patient-centered communication.

ii) Identify aspects of the relationship between patient-centered care and professional socialization through the talk *with a*nd *about* older adult patients.

This study involves audio-recording and analyzing eye examinations of older adult patients, case discussions about these patients, and interviews of older adult patients, optometry students and their optometrist supervisors.

Chapter 2: Review of Literature

In this chapter, I provide a brief overview of the profession of optometry in Canada, followed by a summary of some the current literature on patient-centered care, talking *with* patients during clinical encounters, and talking *about* patients during case presentations.

2.1 Optometry in Canada

Considering that one objective of my research project is to identify aspects of the relationship between patient-centered care and professional socialization in an optometry teaching clinic, I feel it is important to provide a brief overview of the professional and educational evolution of the profession of optometry in Canada.

Optometry in Canada is a young, primary eye health care profession with roots that began late in the 19th century in the field of opticianry. While opticians initially restricted the scope of their work to making optical instruments (e.g., spectacles), some began to offer sight testing. By the end of the 19th century, this division in labour was reflected by two different names: dispensing opticians, for those who made and fit spectacles; and optometrists, for those who provided sight testing (Spafford, Schryer, Campbell, & Lingard, In Press). Since optometry's break from the field of opticianry, its sights have been firmly set on the field of medicine. Initially, a drugless profession, optometry has sought to continually expand its scope of practice into the arena of medicine (e.g., instilling diagnostic pharmaceutical agents, prescribing therapeutic pharmaceutical agents, and

performing laser surgery) (Spafford, Schryer, Campbell, & Lingard, In Press). The scope of practice of optometry now includes the use of therapeutic pharmaceutical agents (TPAs) to treat certain eye diseases in six Canadian provinces with another province (Ontario) poised to join this list. The Canadian Association of Optometrists (CAO) defines optometrists as, "primary health care providers who specialize in the examination, diagnosis, management, treatment and prevention of diseases and disorders of the visual system, the eye and its associated structures" (CAO, 2001). Optometrists in Canada are committed to protecting vision and eye health of their patients, and through extensive training and continuing education, fulfilling their role as primary eye care providers (CAO, 2001).

Optometry training in Ontario began in 1920, with a one year technical apprenticeship training programming (Woodruff, 1974). The optometry program was first affiliated with a university in 1925 when training was extended to a 2 year program at the College of Optometry of Ontario at the University of Toronto (Woodruff, 1974). The program was expanded to 3 years in 1936 and to 4 years in 1952 (Woodruff, 1974). In 1967, the academic and clinical programs transferred from the College of Optometry of Ontario in Toronto to the Faculty of Science at the University of Waterloo (UW) in Ontario. Initially the UW program required one year of undergraduate sciences; however, today the UW program requires students to complete a minimum of three years of undergraduate science course work followed by four years of professional training leading to a Doctor of Optometry (O.D.) degree. Today the UW School of Optometry operates as the

only English speaking School of Optometry in Canada. The University of Montreal also offers optometry training with the language of instruction being in French. Traditionally the UW School of Optometry accepted 60 students yearly; however with increasing demands on the profession (e.g., an aging population), the School now accepts 90 students annually. Over the last thirty years the profession of optometry has grown from 1500 practicing optometrists in 1974 (Woodruff, 1974) to more than 3200 practicing optometrists across Canada (CAO, 2007).

2.2 Patient-Centered Care

The underlying theme in this research project is patient-centered care. Following World War II, the profession of medicine was seen as a "miracle-working" profession, and few patients questioned or challenged their physicians (DiMatteo, 1998, p. 330). A doctor-centered paradigm of health care dominated whereby practitioners controlled patient care and commonly withheld diagnostic information from patients. During this time period, doctor-centered consultations were dominated by the demonstration of medical skills and knowledge whereby physicians gave directions and asked direct and closed ended questions to their patients (Mead & Bower, 2000). However, the rise of consumerism, principles of informed consent, the changing status among women in society, the shift of care from hospitals to the community, the increased emphasis on prevention and health promotion, as well as the evolution of patient autonomy and case laws, created ethical and legal obligations for health care professionals to provide patients with as much information as they desired about their illness and treatment options

(Stewart, Brown, Weston, McWhinney, McWilliam, & Freeman, 1995). Consequently, a revolutionary shift began from the biomedical-oriented model to a patient-centered approach whereby patients' experiences of illness, the psychosocial context, and shared decision making were more often incorporated into care giving (Epstein, 2000). This idea that health care services should be patient-centered has been a component of the patients rights movement since the 1960s (Laine & Davidoff, 1996).

In a patient-centered model, patients become active participants in their own care and receive services designed to focus on their individual needs and preferences. Table 1 provides a concise comparison between the doctor- and patient-centered models of health care. Differing fundamentally from the conventional 'paternalistic' relationship, patient-centered care promotes the ideal of an egalitarian doctor-patient relationship (Mead & Bower, 2000).

Table 1: A Broad Comparison of Doctor-Centered and Patient-Centered Care

Characteristic	Doctor-Centered	Patient-Centered
Orientation	Biomedical	Biopsychosocial
Control	Patriarchal	Consumer Oriented
Relationship	Practitioner as authority	Partnership
Focus	Disease	Illness

According to Health Canada,

> collaborative patient-centered practice is designed to promote the active participation of several health care disciplines and professions. It enhances patient-, family-, and community-centered goals and values, provides mechanisms for continuous communication among health care providers, optimizes staff participation in clinical decision making (within and across disciplines), and fosters respect for the contributions of all providers (Health Canada, 2007).

Although Health Canada advocates this patient-centered model of care and many health professions have adopted this approach (Mead & Bower, 2000), the Canadian Association of Optometrists has yet to officially indicate their support for patient-centered care.

As health care practitioners in Canada become more actively engaged in interprofessional patient care (i.e., where health care providers from various disciplines work together), it is important that all health care professions, including optometrists, collectively adopt a patient-centered approach to care. Since patient-centered care is advocated by Health Canada, it is also important that all health care professionals are learning in environments that support this approach. Although optometry in Canada has yet to formally adopt this educational approach, many Canadian medical schools, and all Canadian postgraduate medical education programs have adopted a patient-centered framework (Frank & Langer, 2003). The authors of the Health Canada report on interprofessional education argue that,

> Changing the way we educate health providers is key to achieving system change and to ensuring that health providers have the necessary knowledge and training to work effectively in interprofessional teams within the evolving health care system (2007).

Very little research on patient-centered care has focused on professions outside of medicine and nursing. My research project will address the current gap in knowledge regarding the presence of patient-centeredness in optometry. It is my goal to identify the relationship between patient-centered care and professional socialization through exploring the talk *with* and *about* older adult patients in an optometry teaching clinic.

2.2.1 The Patient-Centered Clinical Method

Although many authors have described a 'patient-centered' approach, the method established by Levenstein (1984) and further refined by Stewart, Brown, Weston, McWhinney, McWilliam and Freeman (1995) provide the most comprehensive descriptions and inform my research project. The six interacting components of Stewart et al.'s (1995) model, outlined in Figure 1 and Table 2, are described in more detail below:

(i) Exploring both the disease and the illness experience.

Effective patient care requires equal attention paid to patients' personal experiences of illness as well as their diseases. It is important that practitioners distinguish between illness and disease. According to Stewart et al. (1995), "disease is a theoretical construct, or abstraction, by which physicians attempt to explain patients' problems in terms of abnormalities of structure and/or function of body organs and systems" (p. 27). Illness, on the other hand, refers to "patients' personal experiences of ill health" (p. 27). In contrast to a doctor-centered approach that focuses primarily on disease, the patient-centered method focuses on four dimensions of patients' illness experiences: 1) their ideas about what is wrong with them, 2) their feelings, especially fears about being ill, 3) the impact of their problems on functioning, and 4) their expectations about what should be done (Stewart et al., 1995).

(ii) Understanding the whole person

Understanding the whole person includes understanding patients' disease and illness experiences in the context of their life including family, work, religion,

attitudes, culture, etc. As Stewart et al. (1995) state, “understanding the whole person can deepen the doctor’s knowledge of the human condition, especially the nature of suffering and the responses of persons to sickness” (p. 28). Attending to ‘the patient’s story of illness’ (Smith & Hoppe, 1991) involves exploring both the presenting symptoms and the broader life context in which they occur (Mead & Bower, 2000; Stewart et al., 1995).

(iii) Finding common ground regarding management

Finding common ground is an important aspect of the patient-centered clinical method. As noted by Stewart et al. (1995) “an effective management plan requires the physician and patient to reach agreement in the following three domains: 1) the nature of the problem and the priorities, 2) the goals of treatment, and 3) the roles of the practitioner and the patient” (p. 28).

(iv) Incorporating prevention and health promotion

Health care providers should take advantage of every opportunity to incorporate prevention and health promotion into their clinical encounters with patients by enabling people to take control over and to improve their health.

(v) Enhancing the doctor-patient relationship

In a doctor-patient relationship, the number one priority ought to be providing individualized patient care. Practitioners should strive to build effective long-term relationships with patients and recognize the unique needs of each individual.

(vi) *Being realistic*

It is important for practitioners to set priorities and manage their time and resources efficiently. Primary health care providers, as the first point of contact into the health care system, should be knowledgeable about their community's resources, while recognizing their own limitations and place within the health care system (Stewart et al., 1995).

Of particular importance to the patient-centered clinical method is the manner in which practitioners communicate with their patients. A patient-centered method of communication includes "identifying and responding to patients' ideas and emotions regarding their illness" and "reaching common ground about the illness, its treatment, and the roles that the physician and patient will assume" (Stewart et al., 1999, p. 27).

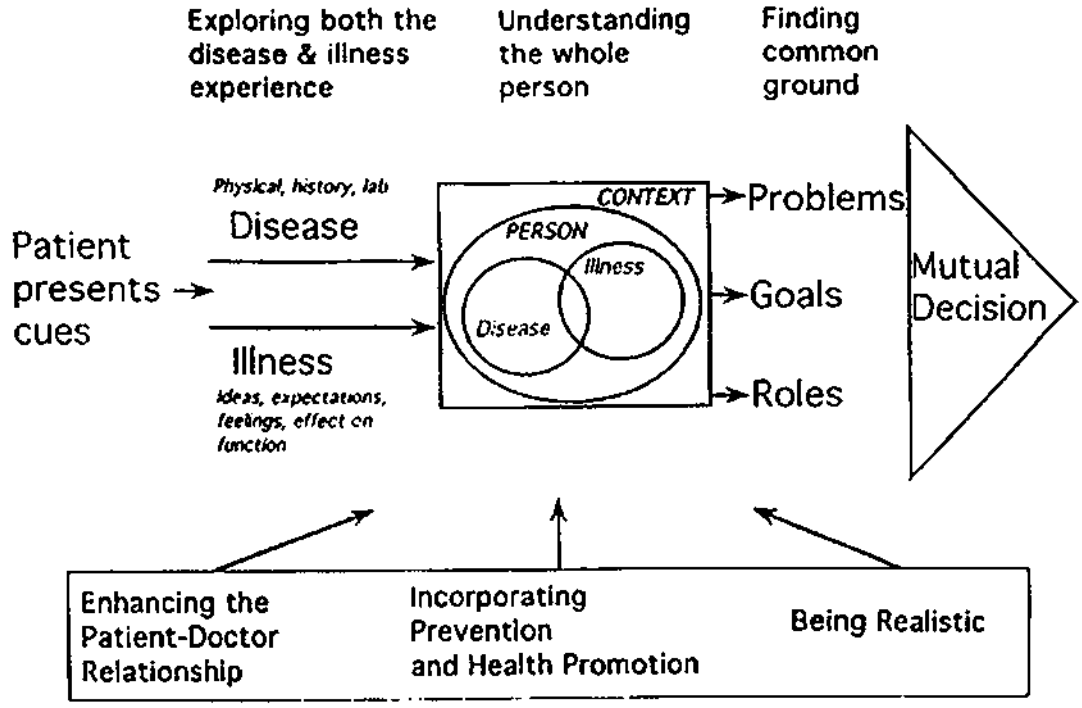


Figure 1: The Patient-Centered Clinical Method (Stewart et al., 1995, p. 29)

Table 2: The Patient-Centered Clinical Method (Stewart et al. 1995, p.25)

Six interactive components of the patient-centered process:
1. Exploring both the disease and the illness experience i) Differential Diagnosis ii) Dimensions of Illness (ideas, feelings, expectations, effects on function)
2. Understanding the whole person i) The "person" (life history and personal and developmental issues) ii) The context (the family and anyone else involved in or affected by the patient's illness; the physical environment)
3. Finding common ground regarding management i) Problems and priorities ii) Goals of treatment iii) Roles of doctor and patient in management
4. Incorporating prevention and health promotion i) Health environment ii) Risk reduction iii) Early detection of disease iv) Ameliorating effects of disease
5. Enhancing the patient-doctor relationship i) Characteristic of the therapeutic relationship ii) Sharing Power iii) Caring and healing relationship iv) Self-Awareness v) Transference and counter transference
6. Being realistic i) Time ii) Resources iii) Team Building

2.3 Talking *with* Patients: Clinical Encounters

One goal of this study is to explore how optometry students and their supervisors talk *with* their patients during eye examinations in an optometry teaching clinic. A growing body of evidence links patient-centered communication with desirable health outcomes. Research on doctor-patient communication in optometry clinics is slowly emerging, yet there is no existing research on how clinical novices in optometry talk *with* their patients. This section

will address research findings from other health care disciplines that addressed the talk *with* patients during clinical encounters.

2.3.1 Benefits of Patient-Centered Communication

There is increasing awareness among practitioners, patients, researchers and educators that effective doctor-patient communication is important in achieving desired health outcomes. Researchers have been showing links between effective patient-centered communication strategies and improved patient health outcomes. For example, patient-centered visits have been associated with positive patient outcomes such as increased satisfaction and compliance (Stewart, 1984; Williams, Frankel, Campbell & Deci, 2000; Drew, Chatwin & Collins, 2001), reduction of concerns (Bass, Buck, Turner, Dickie, Pratt, & Robinson, 1986), symptom reduction (Drew et al., 2001), and improved physiologic status (Greenfield, Kaplan, & Ware, 1988; Williams et al., 2000). Compared with doctor-centered care, patient-centered communication has been shown to take similar amounts of time, yield greater satisfaction among patients and physicians, trigger fewer malpractice complaints, improve patient health status, and increase the efficiency of care (Stewart, Meredith, Brown, & Galajda, 2000). In a summary of published evidence linking communication and health outcomes, Drew et al. (2001) reported that patients are more likely to take medication effectively if they have been involved in discussions about treatment options, and if they understand and support the decisions about what is prescribed. Their meta-analysis of more than 30 studies identified four features of physician-patient communication that led to decreased anxiety and improved symptom resolution:

clear information given by physicians, mutually agreed upon goals, active patient participation, as well as positive affect, empathy, and support from physicians.

2.3.2 Patient Perspectives

If patient-centered strategies are the standard of care, some may question whose perspective counts in determining patient needs. Stewart (2001) argues that "the ultimate patient-centered finding should be the patient's not the expert's views on patient centeredness" (p. 445). Although a patient-centered approach to care is advocated, there is still a need for more research that explores patients' perspectives and identifies which components of the model are most important to patients across various health care disciplines (Little, Everitt, Williamson , Warner, Moore, Gould, et al., 2001). Stewart et al. (2000) conducted an observational cohort study in which they examined the interrelationship between patient perceptions of patient-centeredness, communication behaviours, and subsequent health and resource utilization. When patients perceived the visits to be patient-centered, they experienced better recovery, better emotional health, and fewer diagnostic tests and referrals two months later (Stewart et al., 2000). According to DiMatteo (1998), more than 90% of patients highly valued having as much information as possible and wanted to know the potential risks and alternatives to treatment recommendations. Little et al. (2001) found that patients favour a patient-centered approach, and if they did not receive it, they were less satisfied, less enabled, and more likely to suffer greater symptom burden. A study conducted by Little et al. (1998) aimed at identifying patient preferences for patient-centered consultations in general practice identified three domains of

patient preferences: communication, partnership and health promotion. By interviewing patients following their eye examination, my study will contribute to the growing research in optometry on patient perspectives following clinical encounters.

2.3.3 Practitioner Perspectives

Research has revealed that physicians also appreciate the benefits of patient-centered strategies. For example, Lyles (1996) found that medical residents, trained extensively in patient-centered interviewing, experienced increased professional and personal satisfaction. These residents, who were interviewed at least 2 years following training, indicated that regardless of the diagnosis, they were better able to help their patients by using patient-centered techniques. Research by Haas, Cook, Puopolo, Burstin, Brennan, & Cleary (2000) revealed that physicians satisfied with their work were more likely to have patients who were satisfied with their care. Highest physician satisfaction has been associated with communication patterns characterized by asking patients questions, and giving patients information (Roter, Stewart, Putnam, Lipkin, Stiles, & Inui, 1997). Conversely, lowest practitioner satisfaction has been associated with biomedical communication patterns characterized by closed-ended questions and minimal psychosocial discussions (Roter et al., 1997).

2.3.4 Communication Challenges

Although patient-centered communication is encouraged, some practitioners continue to adopt doctor-centered strategies when communicating with patients. Consequently, a wide range of communication problems between practitioners and patients persist. For example, approximately two thirds of patient psychosocial and psychiatric problems are missed by practitioners (Goldberg & Blackwell, 1970); 54 per cent of patient concerns are not elicited by physicians (Stewart, McWhinney, & Buck, 1979); 45 per cent of patient concerns are not elicited (Stewart et al., 1979); and 50 per cent of patients do not agree with their physicians on the nature of the main presenting problem (Starfield, Wray, Hess, Gross, Birk, & D'Lugoff, 1981). Robert Buckman (1992) reported that during medical consultations, the average time patients were allowed to talk before they were interrupted by a physician is 18 seconds and only 23 per cent of patients ever finished their opening statements. If practitioners do not accurately elicit patient concerns, agendas and history, patients may leave the consultation not understanding or remembering information about the diagnosis or treatment (Nagy, 2001). Approximately half of patients misunderstand significant portions of the information physicians convey to them, and on average, they forget 50 per cent of what physicians tell them (Buckman, 1992). According to DiMatteo (1998), physician-patient communication is so poor that 50 per cent of patients leave their physicians' offices not knowing what they have been told and what they are supposed to do to take care of themselves. Contributing to this problem, physicians often use medical terms that patients do not understand and many

patients are too intimidated and without sufficient skills to articulate their questions (DiMatteo, 1998). Insufficient explanations, poor patient understanding, and a lack of consensus between physicians and patients can lead to poor health outcomes. As evidence, DiMatteo (1998) found that an average of 40 per cent of patients in the United States fail to adhere to the recommendations they received from their physicians. These findings indicate a need for practitioners to adopt patient-centered strategies when communicating with their patients. It is important that practitioners gain a better understanding of their patients' agendas, reiterate and reinforce their findings, and ensure patients are well informed about their illness and treatment options.

2.3.5 Communicating with Older Adult Patients

Patient-centered care has particular implications for older adults. Older adults, who are more likely to manifest eye and systemic diseases, are forming an ever-increasing sector of the Canadian population; thus the typical patient in an optometric practice is older and sicker than average (Pieper, 2006). It is, therefore, essential that optometrists learn how to effectively communicate with older patients and be aware of the potential communication barriers associated with aging in order to maximize optometric care. Given that a paternalistic model of care dominated the majority of the twentieth century, older patients may be more accustomed to a doctor-centered approach to health care and less accustomed to actively participating in decision making. Beisecker (1988) proposes two explanations as to why older adults may want less input into medical decision making. The first explanation pertains to "role theory" – older patients spent most

of their lives during a time where doctor-centered care dominated. This effect, however, may be an age cohort effect rather than an age dependent effect. The second explanation Beisecker (1988) states is "developmental" - as people age they want less responsibility for treatment decisions and tend to rely more on the expertise of others. In addition to considering a possible disconnect between patient and doctor communication preferences, it is also worth mentioning the possible barriers to communicating with older adults including: a reduced capacity for information processing, degraded perceptual skills (e.g., vision and hearing), increased cognitive interference, and declines in reaction time and speech discrimination (Giordano, 2000).

In this study, I am interested in examining the communicative practices optometry students and their supervisors use when communicating with older adult patients as well as identifying the communication preferences of older adult patients in an optometry setting. Although no direct research on this topic exists, findings reported in other related studies are somewhat conflicting. There is evidence that older patients report being more satisfied with their overall care when they favorably rate communication with their practitioners. In a review of studies that focused on medical communication with older patients (Stewart et al., 2000), the key communication dimensions reported were:

> concordance between the patient and physician regarding expectations of an encounter, full patient participation, information given in a timely and sensitive manner, take-home information, mutual discussion of resources and responsibility, discussion of relevant aspects of the patients' life context, a caring attitude of the physician, and continuity of the relationship (p.34).

Their research supports a patient-centered approach to communication with older patients. In contrast to these findings, evidence from research in secondary care settings has indicated that older patients and those with severe illness may not prefer a patient-centered approach (Guadagnoli & Ward, 1998). Research conducted by Greene, Adelman, Charon, & Hoffman (1986) found that fewer psychological issues were discussed in interviews with older patients, and when older patients raised psychological issues, physicians tended to be less responsive than when younger patients raised similar issues. Additionally, Greene et al. (1986) found that physicians were less egalitarian, patient-engaged and respectful when communicating with older patients. Due to the incongruity among findings, it is clear that further research is needed to determine the communication preferences of older adult patients.

By analyzing the communication between optometry students, supervisors and older adult patients, and by conducting follow-up interviews with older adult patients and their optometric care-givers, my study will contribute to the research on communication strategies and preferences and provide insights regarding the needs among older adult patients in a primary care optometry setting.

2.4 Talking *about* patients: Case Presentations

Aside from talking *with* patients during clinical encounters, practitioners also talk *about* their patients during consultations outside the examination room. Case presentations are one vehicle in which healthcare providers talk *about* their patients. The case presentation is a spoken discursive tool "that facilitates the collection, construction, transportation and presentation of medical data to varying audiences during the course of a patient's care" (Lingard, Garwood, Schryer & Spafford, 2003. p. 604). It is one of the ways that practitioners learn to talk *about* their patients. The widely used medical case presentation organizes patient information into the following, ordered structure: demographics, chief complaint, history of present illness, past history, family history, social history, physical exam and diagnostic impression including plan (McWhinney, 1988). With its roots in medicine, this biomedical model has been adopted by many health care professionals; however, the format of the optometry case presentation has been shown to be less structured. Research by Schryer et al. (2003) indicates that although clinical novices in optometry acknowledge the necessity of a case presentation structure, the students adjust the structure according to their clinical rotation, the setting, and their supervisor. The socializing power of genres, such as case presentations, has been demonstrated by researchers who have revealed the ways genres co-ordinate forms of social actions as they mediate and constrain the choices of speakers and writers (e.g., Miller, 1984; Paré and Smart, 1994, Winsor, 1996; Bazerman, 1988). Of interest to this study is the socializing power of case presentations, particularly novice case presentations. Novice case

presentations involve the presentation of patient information by clinical novices to their clinical instructors and the subsequent discussions that emanate from the presentation. In apprenticeship settings, novice case presentations offer a rich site for observing the development of professional identity (see 3.3 Professional Identity Formation). My interest in patient-centered communication practices leads me to speculate whether optometry novice case presentations, that shape the socialization of these novices, reflect patient-centered values.

2.4.1 Patient-Centered Case Presentation

According to Stewart et al. (1995), the case presentation can be a valuable tool for teaching patient-centered communication and an important part of the socialization of students. Stewart et al's research collective has introduced a patient-centered case presentation (PCCP) which gives primacy to the patient and the total experience of the illness and associated pathology, thereby clearly demarcating it from the conventional biomedical case presentation (Table 3). The PCCP emphasizes the subjective experience of illness whereas the conventional model focuses more on the disease. Similar to the patient-centered clinical method, the PCCP puts emphasis on "the patient's feelings, ideas, expectations, and the effects of the illness on function" (p. 171). Stewart et al. state that "the PCCP, by going from the particular to the general and from the subjective to the objective and back again, performs a cycle that ultimately informs the presenter with a greater understanding of the patient" (p. 171). A cornerstone of the PCCP model is the incorporation of the patients' illness experiences by including quotations that illustrate the subjective quality of their illness. Referring to

research by Carter (1989) and Donnelly (1989), Stewart et al. (1995) argue that recording the metaphors used by patients to describe their illnesses gives the clinician "greater insight, understanding and empathy" (p.171). Acknowledging the socializing power of case presentations, Stewart et al. (1995) believe that the PCCP can "serve to inculcate a more human form of medicine and reinforce the basic values inherent in the patient-centered clinical method" (p. 181). As emphasized by Anspach (1988), case presentations are a powerful way of teaching and reinforcing a particular worldview. Stewart et al.'s (1995) PCCP prioritizes the subjective aspects of illness, and reinforces an attitude of patient-centeredness.

In wondering about the alignment of patient-centered values and novice optometry case presentations, I note that potential problems in training may be occurring. While a number of patient-centered communication strategies are presented in an optometry didactic course where I am conducting my study, the format of the case presentation taught to optometry students has a traditional biomedical structure. Past research conducted in the same optometry teaching clinic where my data are collected has revealed that the biomedical structure is not consistently reinforced during apprenticeship training, yet some of the same socialization impacts seem to occur as in a clearly biomedical pediatric apprenticeship (Schryer, Lingard, & Spafford, 2005; Spafford, Schryer, Lingard, & Hrynchak, 2004). I suspect that optometry students are experiencing unannounced and unexamined incongruities in their training regarding patient-centered values that may play out in their developing clinical practice communication skills.

Table 3: A Comparison of the Conventional and Patient-Centered Case Presentation (Stewart et al., 1995, p. 172)

Conventional Case Presentation	**Patient-Centered Case Presentation**
1. Chief Complaint	1. Patient's chief concern or request
2. History of Present Illness	2. Patient's Illness Experience - quotes from the patient; feelings, ideas, expectations, effects on function, meaning of illness
3. Past medical history - medications, allergies, observations	3. Disease - History of present illness - Past medical history - Review of symptoms - Physical Exam - Laboratory, etc.
4. Family History	4. Person - Patient profile - Individual life cycle phase
5. Patient Profile	5. Context - Family History - Genogram - Family life cycle phase
6. Review of Symptoms	6. Patient-doctor relationship (The clinical encounter) The dyad itself - Transference/counter transference issues - Finding common ground - Problems - Roles - Goals
7. Physical exam	7. Assessment (problem list)
8. Laboratory Database	8. General discussion Illness experience – literature (pathographies, poetry); medical literature (clinical epidemiology, pathophysiology, other case reports, medical anthropology)
9. Problem List	9. Proposed management plan
10. General assessment	

11. Proposed Plan	

Chapter 3: Theoretical Orientation

3.1 Patient Voice

A cornerstone of patient-centered care is the inclusion of 'patient voice' when speaking about patients. Patient voice includes language describing the needs, experiences and opinions of a patient and direct patient quotes or paraphrases that echo what the patient has described. Mishler (1984) used the metaphor of voice to describe doctor-patient interactions. Issues of power and control in the doctor-patient relationship are viewed by Mishler (1984) as a problem of imbalance in the discourse of the consultation. By interpreting the 'voice of the lifeworld' through the 'voice of medicine', the personal meaning of illness is annulled. Mishler (1984) explains:

> The voice of the lifeworld refers to the patient's contextually-grounded experiences of events and problems in her [sic] life. These are reports and descriptions of the world of everyday life expressed from the perspective of a "natural attitude". The timing of events and their significance are dependent on the patient's biographical situation and position in the social world. In contrast, the voice of medicine reflects a technical interest and expresses a scientific attitude (p. 104).

Similar to the paradigms for providing care, the 'voice of the lifeworld' is consistent with a patient-centered model of care whereas the 'voice of medicine' reflects a doctor-centered approach. Segal (2005) has acknowledged that medical language, or rather the 'voice of medicine', uses negative phrases such as "complaints" to characterize patient experiences. Spafford, Schryer, & Lingard

(Submitted) found that patient voice is often mitigated in the talk *about* patients in referral letters written by optometrists to ophthalmologists. In the letters they studied, patient voice appeared in fragments, "where some of what patients said appeared" and as adaptations, "where practitioners transformed the patient narrative into a shared professional discourse" (p. 13). Although the recoding of patient descriptions into technical or medical language helped the practitioners to ally themselves with their colleagues by using field sanctioned language, Spafford et al. (Submitted) conclude that patient voice is at risk of being 'lost in translation" during the referral process.

3.2 Dramaturgical Perspective

This research project examines the talk *with* and *about* older adult patients. The metaphorical writings of Erving Goffman complement the notion of talking *with* and talking *about* patients. Goffman (1969) draws on the idea of 'dramaturgy' to explain the seemingly mundane features of everyday life. Using a 'dramaturgical perspective', individuals are viewed as social actors whose identity is constantly remade as they interact with their changing audiences. Goffman uses the concept of actors performing on stage to support his idea. Performances are depicted as 'front stage' whereby the audience is present, and 'back stage' when the actor is separated from the audience in space and/or time. For example, a server in a restaurant is likely to perform in a particular way in front of customers but might be much more casual in the kitchen. It is likely that the server does things in the kitchen that might seem inappropriate in front of customers. This concept has been translated into healthcare settings where practitioners must

perform ‘front stage’ when their audience, namely patients, are present (e.g., clinical encounters) and ‘backstage’ when patients are absent (e.g., case presentations) (Hindmarsh & Pilnick, 2002; Riley & Manias, 2005; Tanner & Timmons, 2000). For example, in their study of operating rooms, Tanner & Timmons (2000) argued that the operating room is back stage for surgeons because the patients are unconscious. Compared to surgeons’ front stage (i.e., the hospital wards and counseling rooms where they interact with patients), surgeons’ communication and behaviour was more relaxed backstage.

In this study, I suspect that patient-centered practices (e.g., patient voice) are less prevalent when optometry students are away from the patient. That is, during novice case presentations, where novices and their instructors talk *about* their patients, I suspect that the novice performance is front stage before the clinical instructor and back stage with respect to the patient.

3.3 Professional Identity Formation

Spafford, Lingard, Schryer and Hrynchak (2004) define an optometrist’s professional identity as “the sense of what it means to be and practice as an optometrist” and they explain that it is a “critical educational component that optometric educators impart to optometry students” (p.800). As aspiring optometrists, clinical novices must learn to talk *with* and *about* their patients. While interviewing and counseling are examples of talking *with* patients, case presentations and patient letters are examples of talking *about* patients. Lingard, Schryer, Garwood and Spafford (2003) explain “a fundamental aspect of

socialization involves learning a community's sanctioned ways of talking" (p. 612).

Optometry students typically learn some of these communication strategies in lecture-based courses but the majority of their training occurs 'in situ', during apprenticeship placements where patient care and student education must co-exist (Lingard et al., 2003). Communication and activity theorists (e.g., Engeström, 1993; Dias, Freedman, Medway, & Paré, 1991; Russell 1997) have developed models to explain the complex interactions between agents (e.g., optometry students) and social structures (e.g., case presentations). Schryer and Spoel (2005) argue that "rhetorical genre theory provides an especially useful framework for understanding the connections between specific health-care communication practices and the symbolic activity of professional identity formation in health fields" (p. 252). In several studies, Schryer and her colleagues, show how the genre of case presentations functions as a mediating tool in the complex processes of professional identity formation. In 2003, Schryer et al. note that through improvising within the structure of case presentations, students acquire two kinds of resources, regulated and regularized, that shape their sense of themselves as practitioners. Regulated resources are defined by Schryer and Spoel (2005) as "the knowledge, skills and language behaviors that are recognized and required by a field or profession" (p. 250). Regularized resources, on the other hand, refer to "strategies that emerge from practice situations and are more tacit" (p. 250). Case presentations fulfill the requirement of being a regulated resource because students must follow a specific pattern of presentation. For example,

optometry students are taught that a case presentation should present information in an organized manner and follow a consistent order: demographics, chief complaint, history of present illness, past history, family history, social history, physical exam and diagnostic impression including plan. By examining the "control of time", Schryer et al. (2003) found that case presentations are regularized. According to their study, students begin with control over the case presentation when they are presenting information about a patient's history or physical exam results. The students, however, lose control over the case presentation to their instructors when the more difficult diagnostic and case management work tends to occur. Besides being regulated and regularized, Schryer et al. (2003) also find that case presentations are "sites of strategic action" for both the instructors and students. Students, during nCPs, often "strategized as a student" rather than behaving as health care providers. For example they tried to prove their competence, seek guidance and deflect criticism during nCPs (Schryer et al., 2003). Besides behaving as students, clinical novices also "strategized as a doctor" by summarizing important details, including relevant details and controlling the pace of the presentation. Thus, clinical novices in optometry behave both like students and health care providers. Spafford et al. (2005) claim that these contradictory roles create a difficult "balancing act" and can generate tension between students and their instructors (p. 22). In their study of case presentations, Schryer et al., (2003) conclude that the genre of novice case presentations mediates two overlapping activity systems, one dedicated to student education and the other devoted to patient care; therefore students must strategize

as both caregivers and learners. While the case presentation format taught in the classroom is not reinforced by all optometry instructors, its biomedical format may challenge patient-centered practices in the clinic. Donnelly (1986) found that biomedical case presentations minimize the importance of patient stories and experiences. Therefore my study will examine the possibility that talk *about* patients during case presentations undermines patient-centeredness when clinical novices talk *with* their patients during eye examinations.

3.3.1 Situated Learning

Research by Lave and Wenger (1991) aids in our understanding of case presentations as a situated learning experience. Based on their perspective, learning is a 'situated activity' that includes a central defining feature called 'legitimate peripheral participation'. Lave and Wenger (1991) state that "learners inevitably participate in communities of practitioners and the mastery of knowledge and skill requires newcomers to move towards full participation in the socio-cultural practices of a community" (p. 29). The novice case presentation is one vehicle by which clinical novices in optometry are socialized as professionals. Lingard, Reznick, DeVito, and Espin, (2002) used the term 'situated learning practices' to characterize the talk that team members use to interact with one another and perform their professional duties. Talk facilitates professional relationships through its central role in the negotiation of labour division, the distribution of responsibility and the establishment of credibility (Lingard et al., 2002). In the training of health care professionals, learning this talk provides a strong socializing force (Lingard et al., 2002). Through their legitimate peripheral

participation, clinical novices construct a sense of their profession including their duties, boundaries, values and aspirations. Lave and Wenger (1991) believe that gaining legitimacy can be a problem when masters prevent learning by acting as educational authoritarians who view apprentices as novices who should be instructed rather than as peripheral participants in a community engaged in work practices. This problem is evident during case presentations when novice optometry students are given both implicit and explicit knowledge of their professional role as optometrists. Research by Schryer et al. (2005) identifies the case presentation as a tool that facilitates the interaction of accepted knowledge (textbook facts), new knowledge (current research findings), and the specific details of a clinical case. In their study of novice case presentations in medicine and optometry, clinical instructors used "we" to demarcate what members of their profession should know, say and do with certainty. They also used "we" and sometimes 'I" to signal uncertainty such as instances where instructors found themselves at the limits of their knowledge or practice, or when they doubted received knowledge. By establishing the "we", instructors in front of their students implicitly signaled the exclusion of others including practitioners from other fields and patients. The exclusion of others is potentially problematic for those seeking to provide patient-centered care because the patient could become an 'other'. The optometry novice case presentation has also been shown to be a powerful site of professional identity formation where students strive, through explicit and implicit messages, to interpret standards of practice (Spafford et al, 2004), to integrate patient and professional agendas (Spafford et al, 2005), and to

manage clinical uncertainty (Spafford et al, 2006). Spafford et al. (2004) noted that little time is available in the clinic for instructors to explicitly articulate to optometry students their rationale for their decisions. Consequently, optometry students sometimes view instructor decisions as "idiosyncratic", reflecting a clinician's personal values, rather than as a considered decision in the light of practice guidelines. As a result, there are missed opportunities in the educational setting to assist students in making responsible decisions, locating their position in practice, and shaping their professional identity (Spafford et al., 2004).

Renée Anspach (1988) has emphasized the symbolic content of language used in case presentations. She argues that the situated activity of case presentations has a ritualized format that can be used as both an evaluation tool and a self-presentation tool. According to Anspach, case presentations have notable discursive features which she calls "speech events" (p. 359). She notes that clinicians often employ impersonal vocabulary when referring to their patients (e.g., referring to a patient as "the" + "disease"), use the passive voice (e.g., the patient was treated) omit the clinicians who perform the procedures, and support a view that instruments rather then people create "results" (e.g., visual fields showed marked bilateral nasal steps). Anspach's work reflects the concept of patient voice, or lack thereof, during backstage performances by healthcare providers. As previously indicated, Spafford, Schryer, & Lingard (Submitted) have identified that patient voice is often diminished in the talk *about* patients in backstage performances. Anspach emphasizes the social consequences of these discursive strategies used in case presentations. For example, she explains that

using a passive voice mitigates responsibility. However, she notes that because case presentations are delivered by clinical novices before their instructors, they serve as instruments for professional socialization. Anspach (1988) states that "because case presentations are self-presentations, interns and residents learn a set of strategies designed to display and protect their own credibility in the eyes of their superiors" (p. 372). She points out that the case presentation is a powerful way of teaching and reinforcing a particular worldview. Therefore, caution must be exercised when performing and evaluating case presentations.

In considering the powerful socializing effect of learning these discursive genres, I speculate about their impact on optometry clinical novices who may encounter learning tools that are not aligned with profession-sanctioned values. For example, I wonder whether there is an alignment between the values of patient-centered care and the discursive features optometry clinical novices encounter in their apprenticeship experiences.

Chapter 4: Research Objectives

As previously discussed in Chapter 1, through this study in an optometry teaching clinic, I hope to increase our understanding about how optometry students learn to talk *with* and *about* their older adult patients. Specifically, I will:

iii) Identify some of the discursive features and perceptions of patient-centered communication.

iv) Identify aspects of the relationship between patient-centered care and professional socialization through the talk *with a*nd *about* older adult patients.

This study involves audio-recording and analyzing eye examinations of older adult patients, case discussions about these patients, and interviews of older adult patients, optometry students and their optometrist supervisors.

Chapter 5: Methods

5.1 Setting

This study took place at the Primary Care Clinic at the University of Waterloo (UW), School of Optometry. The UW School of Optometry is one of two Canadian optometry schools, and provides the only English optometric training in Canada. The School delivers an accredited, four year program leading to the degree, Doctor of Optometry (OD). Successful applicants to the UW optometry program have typically completed 3 years of undergraduate university science courses and sat a standardized optometry admissions test called the Optometry Admissions Test. During the first two years of the UW optometry program students build a base of knowledge in the basic sciences of health, disease, optics and visual sciences. Additionally, students are introduced to procedures and behaviour training in preparation for clinical practice. Although coursework continues, patient contact begins in 3rd year and students begin the study and analyses of diverse case examples. During the 3rd and 4th years, the emphasis shifts increasingly to clinical training. The program's fourth year consists of three 4-month terms, which include rotations through the primary and referral-based clinics in the School and rotations in an optometric private practice and hospital-based care. This study specifically focuses on the fourth year students rotating through the Primary Care (PC) Clinic at the school (one of 9 on-site clinics and the largest of these clinics). The PC clinic is set-up so that one supervisor typically oversees four optometry students who are examining their own patients. The exam rooms are clustered in groups of 4 with one central consultation room

where the students meet with their supervisor for case presentations away from their patients. The Primary Care Clinic provides routine eye examinations for older children (typically 7 years and older) and adults. Examinations include assessments of refractive error of the eye (e.g., myopia), eye coordination, eye movements, and eye health and the provision of optical corrections (e.g., spectacles, contact lenses), and health management, including referral when necessary. The Primary Care Clinic was chosen as the most appropriate setting for this study because the nature of patient care best resembles community practice (e.g., non-referred patients) and because it is an optometry teaching clinic. The following list outlines where each stage of this study occurred:

(i) The audio-recorded eye examinations and associated novice case presentations occurred in the Primary Care Clinic at the University of Waterloo, School of Optometry.

(ii) Individual interviews with patients occurred over the telephone after their eye examinations.

(iii) Individual interviews with optometry students and optometrists occurred in the School of Optometry, University of Waterloo (either the Spafford research lab or Primary Care Clinic) after the recorded eye examinations.

5.1.1 Participants

There were three cohorts of participants for this study:

(i) Eight fourth year optometry students (4 female, 4 male) rotating through the Primary Care Clinic at the University of Waterloo (UW) Optometry Clinic.

(ii) Five supervising optometrists (2 female, 3 male) in the Primary Care Clinic at the University of Waterloo Optometry Clinic.

(iii) Ten patients (4 female, 6 male) between 60 and 85 years of age, who attended the Primary Care Clinic at the University of Waterloo Optometry Clinic for a full routine eye examination.

5.2 Data Collection

5.2.1 Recruitment

After receiving approval from the Office of Research Ethics at the University of Waterloo (ORE # 13250), potential participants were recruited through the following process:

(i) One quarter of the fourth year students meet regularly for lecture based courses; therefore, I was able to notify this group of students about my study at the end of their lecture. I handed out letters of information to the students and explained to them the study's research objectives, participant expectations, and associated risks and benefits. Another quarter of the students were notified about my study via an email I sent which included a letter of information. Due to the nature of the clinic rotations, this group of students did not collectively meet in lectures during the course of this study. To follow-up on my inquiry to participate

in my study, I personally approached the students in the Primary Care Clinic. Of the 15 students approached, 8 agreed to participate. Upon agreeing to participate in the study, the students signed a consent form.

(ii) Supervising optometrists in the Primary Care Clinic received a letter of information in their mailboxes. Approximately one week later, I personally approached each supervisor and asked if they were interested in participating in the study. Of the 6 supervisors approached 5 agreed to participate. Upon agreeing to participate in the study, the supervisors signed a consent form. Due to an unexpected leave of absence, one of the supervisors participated in the eye examination field recordings but was unable to participate in an interview.

(iii) Patients were recruited on the day of their appointment, prior to their examination. I personally approached patients before their appointment, explained the study to them, and presented them with the letter of information. Upon agreeing to participate in the study, the patients signed two consent forms: the general UW Optometry Clinic consent form and a study-specific Consent to Participant in the Study form. All clinic confidentially policies were followed. Of 11 patients approached, 10 consented to participate in the study. The patient, who declined participation, was unable to participate because of a language barrier.

5.2.2 Field Observations

Field observations of eye examinations and their associated case presentations were conducted. During the eye examinations, an audio-recorder was placed on the counter of the Primary Care Clinic eye exam rooms of consented patients. I was not present during the eye examinations. Case

presentations took place in the supervisor's consultation room, away from the patient. For the eye exams that I recorded, I observed and audio-recorded the novice case presentations.

5.2.3 Interviews

The following steps outline the interview process used in this project:

(i) I conducted and audio-recorded one-on-one interviews with individual patients over the telephone. The interviews occurred 2-4weeks following the patients' eye examination (on average, the period was 2 weeks). A predetermined interview guideline (Appendix 1) with open-ended questions was used. The purpose of the interview questions was to find out the patients' reasons for an eye exam, any concerns they had about their vision, and what the patients recalled learning about their eyes and/or vision during their appointment. The patients were also asked to reflect on their role in the decision making process regarding treatment.

(ii) I conducted and audio-recorded one-on-one interviews with individual optometry students in the Spafford lab. The interviews occurred approximately 1 to 2 months following their audio-recorded examinations and case presentations. A predetermined interview guideline (Appendix 2) with open-ended questions was used. The purpose of the interview questions was to learn how optometry students learned to talk *with* and *about* patients, their particular

communication strategies, and opinions regarding patient inclusion in decision making, as well as their thoughts about patient-centered care.

(iii) I conducted and audio-recorded one-on-one interviews with individual optometrist supervisors either in the Spafford lab or in the Primary Care Clinic. The interviews occurred approximately 1 month following their audio-recorded examinations and case presentations. A predetermined interview guideline (Appendix 2) with open-ended questions was used. The purpose of the interview questions was to learn how optometry supervisors learned to talk *with* and *about* patients, their particular communication strategies, and opinions regarding patient inclusion in decision making, as well as their thoughts about patient-centered care.

5.2.4 Transcription

I transcribed all audio-recorded files which included eye examinations, case presentations and interviews. To ensure the identity of all participants remained anonymous, pseudonyms were assigned to each participant (e.g., S1, for student 1, OD1 for supervisor 1, P1 for patient 1, etc.). Dr. Spafford reviewed selected transcripts and identified spelling errors and clarified certain optometric and medical terminology.

5.2.5 Data Storage

To ensure that the identity of all participants remained anonymous, all signed consent forms were stored in Dr. Catherine Schryer's office which is

located in another building on the University's main campus. All audio-files were stored on a password protected computer in the Spafford lab where only I could access the data.

5.3 Data Analysis

5.3.1 Methodology

This project was a collective case study (Denzin & Lincoln, 1994) of 10 eye examinations, 10 case presentations and 22 interviews. The audio-recorded data were analyzed using a grounded theory approach where a constant comparative method was used to code the data. As Stewart et al. (1995) have noted, "using grounded theory holds the promise of developing theory of the patient-centered method" (p. 210). Grounded theory is a constructivist, inductive approach to discovering, developing and verifying theory through systematic collection and analysis of qualitative data (Strauss & Corbin, 1990). "Inductive analysis means that the patterns, themes and categories of analysis come from the data: they emerge out of the data rather than being imposed on them prior to data collection and analysis" (Patton, 1980, p. 306).

5.3.2 Sensitizing Concepts

It is important that qualitative researchers recognize their own knowledge and/or experiences, as they relate to the research topic being studied, before immersing themselves in data analysis. Social researchers view sensitizing concepts as interpretive devices that are starting points for qualitative inquiry (Bowen, 2006; Glaser, 1978; Padgett, 2004; Patton, 2002). According to Strauss

& Corbin (1990), “theoretical sensitivity refers to the attribute of having insight, the ability to give meaning to data, the capacity to understand and capability to separate the pertinent from that which isn’t” (p. 40). As a graduate student and research assistant I have become theoretically sensitized through a number of sources. My graduate course work on ‘professional ethics and optometric communication’ as well as ‘professional identity formation’ required that I conduct in-depth literature reviews which consequently provided me with a knowledge base that helped inform my thesis project. The literature review I conducted for my thesis also provided me with insights into the profession of optometry, patient-centered care, and professional socialization. My earlier undergraduate background provided me with knowledge in aging studies and biological processes of the eye and ocular diseases. My personal experience as a patient in the UW Primary Care Clinic aided in my understanding of the day-to-day operations of an optometry teaching clinic. Additionally, my volunteer and employment optometric experiences have informed my understanding of the profession of optometry and clinical terminology.

5.3.3 Process

The transcribed data (10 eye examinations, 10 case presentations, 10 patient interviews, 4 supervisor interviews and 8 student interviews) were analyzed using a constant comparative approach consistent with grounded theory. In accordance with grounded theory tradition (Charmaz, 2002), preliminary data analysis occurred as data were collected. It is important to note, however, that principles of patient-centered communication, as described by Stewart et al.

(1995), guided my data analysis. Therefore, the data analysis process was not a true inductive grounded theory approach because preconceived theory informed how the data were analyzed. The constant comparative process used was informed by Glaser & Strauss (1967) and involved: 1) coding all data for each case (e.g., case presentation/eye exam/interview) and comparing each new case with the previous case, 2) identifying common and variable patterns in the data, 3) comparing emergent patterns across the cases, 4) identifying central categories or themes, 5) comparing the categories or themes to come up with the properties of each, 6) determining the relationships among categories or themes, and 7) comparing emergent categories or themes with the existing literature. The coding process was assisted by QSR NVivo 7.0 qualitative data analysis software (Kelle, 1995). The software program assisted with organizing my data first into free nodes (i.e., independent categories) and later into tree nodes (e.g., confirmed categories/themes with assigned properties). Throughout this process, sample portions of the data were discussed with Dr. Spafford to verify, refine, and elaborate the developing categories and themes.

5.3.4 Triangulation

Consistent with grounded theory methodology, interviews and observations were used in this study to identify common concepts and the relationships among them. To reduce the likelihood of misinterpretation, investigator triangulation occurred, whereby I, as the primary investigator, and my supervisor, Dr. Marlee Spafford, looked at and analyzed the anonymized data through a constant comparative analysis. Throughout the coding process the two

of us compared our findings to ensure our data analysis was consistent and therefore reliable. Once the data were analyzed, my co-supervisor, Dr. Catherine Schryer, reviewed our data analysis. Theory triangulation aided in establishing validity. My supervisors come from different academic backgrounds; Dr. Spafford is an optometrist and Associate Professor at the UW School of Optometry and has a research focus in healthcare professional education, communication, socialization and equity; and Dr. Schryer is an Associate Professor in UW's Department of English Language and Literature and focuses her research on rhetorical genre theories. Further, multiple qualitative methods (e.g., non-participant observations, audio-taping, and semi-structured interviews) were used to collect the data for this study.

5.3.5 Glossary of Terms

During the data analysis process, I realized that the language used in the novice case presentations, eye examinations, and interviews may not be accessible to all audiences. Therefore, with the help of Dr. Spafford, a glossary of terms (see Appendix 3) was created which includes definitions for the biomedical and technical terms appearing in my thesis.

Chapter 6: Findings & Discussion

In utilizing a grounded theory approach to analyze the data, my findings were grouped into several themes. The following sections will provide a detailed analytical review and discussion of the findings as they pertain to the eye examinations, novice case presentations and participant interviews.

6.1 Talk with Patients; Novice Eye Examinations

As depicted in Figure 3, the caregivers made successful and unsuccessful attempts at patient-centered communication strategies when talking *with* older adult patients during novice optometry eye examinations. The following sections address caregiver strategies that fostered successful or unsuccessful patient-centered communication with patients during eye examinations in an optometry teaching clinic.

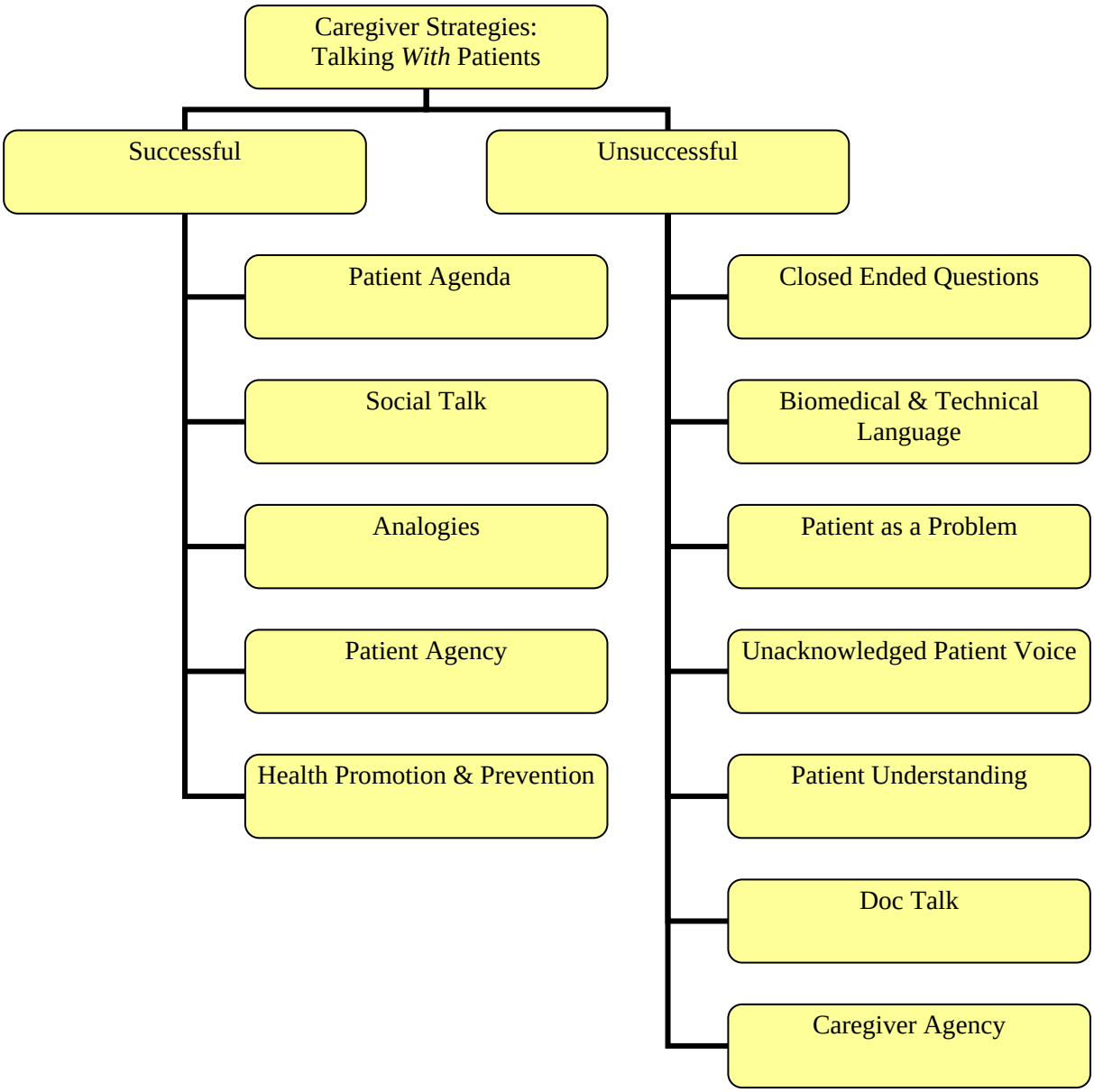


Figure 2: A Flowchart Representing Caregiver Strategies for Talking *with* Patients

6.1.1 Successful Patient-Centered Strategies

During the eye examinations, optometry students often successfully incorporated patient-centered verbal communication strategies when talking *with* older adult patients. In this section, I describe and discuss five successful

communication strategies used by caregivers during the eye exams: Patient Agenda, Social Talk, Analogies, Patient Agency, and Health Promotion & Prevention.

During the eye examinations, the optometry students elicited **Patient Agenda** (i.e., reason for visit) by asking patients at the beginning of the exam their reason(s) for having an eye examination. For example, at the beginning of one exam a student (S5) asked the patient *"Alright, so, what's the main reason you're here today?"*. Patients usually responded saying they were *"just due"* (e.g., P3) for a check-up (see Table 6); a response, which prompted the students to explore any specific concerns or symptoms the patients were experiencing. By eliciting the patient's agenda, the students created an opportunity to try and understand concerns from the patients' perspective. Two important components of patient-centered care that have been identified are the provision of opportunities for patients to express their reasons for the health care appointment as well as the solicitation of their experiences, feelings, thoughts and expectations (Henbest & Stewart, 1990). During the follow-up patient interviews, all patients indicated that they were satisfied that the optometry students gave them the opportunity to express their concerns, wants and needs during their exams.

Throughout the course of the eye examinations, the optometry students and their patients engaged in **Social Talk** (i.e., conversations) that deviated away from the focus of the eye exam. These conversations ranged in topics including the weather, yoga, music preferences, and electronics. I coded these instances as successful examples of patient-centered talk, in part, because during the follow-up

interviews, many of the patients commented on how "pleasant" the optometry students and their supervisors were and how "satisfied" they were with the interactions they had with the caregivers. They enjoyed their friendly caregivers. For example, in one interview, the patient commented:

> *P1: Oh heavens yes, I really liked her, I liked the way she put me at ease and she talked about this and a bit about that…. I thought that she was just a very, very warm person, she seemed to be interested in what you were saying. It was a quite enjoyable experience to be honest.*

This finding is consistent with other studies that have concluded that communication patterns in which caregivers are friendly and approving and engage in social non-medical conversations are associated with patient satisfaction (Freeman., Negrette, & Davis, 1971; Roter & Hall, 1989). In the presence of social talk, patients conclude that their practitioner cares about them and is a 'real person'.

Another type of successful patient-centered strategy noted during the eye exams was the optometry students' use of **Analogies** to educate their patients. Using lay terms, optometry students educated their patients on age-related changes of the eye (e.g., floaters and flashes) and ocular diseases (e.g., cataract and glaucoma). For example, one student used an analogy of a tennis ball to explain why a patient (P1) saw floaters:

> *S1: Well if you can imagine, if you cut a tennis ball …[in] half and open it—it's filled with air. If you cut the human eye in half, it's filled with a jelly-like substance called the vitreous—like a shock-absorbent material. And as we get older, that jelly-like substance shrinks and becomes liquidy, so there's a little more gel floating around, so you might see a few of those and that's completely normal. But if you ever tend to see a big shower of floaters or any*

flashes of light or anything like a curtain coming down over the vision, that's something urgent.

Analogies are effective teaching tools to compare unfamiliar concepts to familiar ones, using a common principle (Frieden & Dolev, 2005). Effective analogies have been shown to decrease learner (patient) and instructor (physician) anxiety (Masters & Christensen, 2000).

Throughout the eye exams, the students used **Patient Agency** as another successful patient-centered strategy. This strategy referred to the patient's ability to act, choose or decide. During the exam, the students helped patients to state their agenda, express concerns or questions they had, and have opportunities to be included in treatment decisions. In the following example the student and patient discuss whether the patient wants new eyeglasses:

S6: *Are you looking to get new ones now or?*

P6: *No, I'd just like them straightened up a bit if that's possible.*

S6: *Okay, we can do that, yep we can do that once we're done. We'll make it over to dispensing.*

Here the patient explicitly states that they do not want new glasses and would prefer to have the current glasses adjusted. The student acknowledges the patient's wish and agreement is established (i.e., common ground) between the student and patient. There were other indicators of students seeking the patients' voice. For example, during most of the eye examinations, the optometry students demonstrated the refractive correction and allowed the patient to compare this finding to the patient's habitual spectacle correction. This step fostered patient

input in treatment decision making. The following excerpt is from one eye exam where the student demonstrated the patient's change in prescription:

> *S8: Okay, now take off your glasses and we'll compare to this prescription here. So this is what I found today…do you notice any difference at all in terms of clarity?*
>
> *P9: Well this is sharper, yeah.*
>
> *S8: Would you say this is a marked improvement or do you think it's a slight improvement?*
>
> *P9: Slight improvement.*

Demonstrating a refractive correction change to a patient is an essential part of a complete eye exam. By doing so, the patient has an opportunity to see how their vision might change with a new spectacle correction and, thus, make an informed decision about whether or not to go forward with a new prescription. Such instances reflect a key component of the patient-centered clinical method where the participants engage in a mutual undertaking of finding common ground (Stewart et al, 1995).

Consistent with the patient-centered clinical model, another successful strategy optometry students incorporated into the eye exams was **Health Promotion and Prevention**. For example, during the counselling portion of an exam one student explained to the patient:

> *S7: So if your diet is not that great, so continue the ICaps then…Because those will give you some of the vitamins and minerals that have been shown to prevent macular degeneration or prevent the progression, and always wear sunglasses when you're in the sun cause the UV has been shown to damage the macula as well…And you've got those sunglasses, either that or a wide brim hat just to make sure you're always being protected.*

A different student explained:

> *S3:* *…make sure you keep exercising, healthy diet, no smoking all those things. And also we gave you that [Amsler] grid to do at home. Do it on occasion, even if you can do it once every two weeks, that would be fantastic. As we said before, we want to make sure there are no changes in the back of your eye because if there are changes at the back of the eye they are often sudden and very devastating. Often we can't reverse it so we want to make sure we catch it as soon as we can so we can at least stop it from getting worse. So it is fairly important that you do that. Every two weeks if you can attribute it to a special time….*

Health promotion, as defined by the World Health Organization (1986), is "the process of enabling people to take control over and to improve their health" (p. 73). Optometry students attempted to enable their patients to be proactive in preventing the progress of ocular diseases (e.g., cataract, macular degeneration, glaucoma, eyelid disease) by routinely testing their eyes with the Amsler grid, wearing sunglasses, taking vitamins and following a healthy diet, as well as actively treating dry eye problems with warm compresses and improved lid hygiene. In order to prevent vision loss, students also emphasized the importance of regular eye examinations and the immediate reporting of vision and/or ocular health changes.

6.1.2 Unsuccessful Patient-Centered Strategies

During the eye examinations, optometry students engaged in certain verbal strategies that sometimes challenged a more patient-centered ethos. This section will address seven potentially problematic strategies: Closed-Ended Questions, Biomedical and Technical Language, Patient as a Problem, Unacknowledged Patient Voice, Patient Understanding, Doc Talk, and Caregiver Agency.

The main questioning strategy used by students during the patient interview was the **Closed-Ended Question**. This question strategy was used to ask about the patients' vision and ocular health, medications, general health, family history and vision demands. For example, in attempting to explore a patient's symptoms, one student (S8) asks a patient (P9) the following questions:

S8: Any sparkling of light?

P9: No

S8: No flashes…Do you notice halos?

P9: No

S8: Eyestrain, headaches?

P9: No, I don't think so

Using predominantly closed-ended questions to explore a patient's illness experience contradicts a patient-centered model of care (Roter, Stewart, Putnam, Lipkin, Stiles & Inui, 1997). There were many instances among the eye examinations where optometry students asked closed-ended questions and patients replied in the dichotomous answer, yes or no. Closed-ended questions are less likely to obtain the appropriate richness of a patient's story, thereby minimizing the acquisition of the illness experience. The pattern of questions asked may be, in part, a function of the oculo-visual assessment record (see Appendix 4) that optometry students in the Primary Care Clinic use to record patient information. In their analysis of the same optometry record used by the caregivers in this study, Varpio, Spafford, Schryer & Lingard (In Press) found that the visual representations and designs in the record favored objective, scientifically obtained

data over subjective patient reports. Their findings support my speculation that the format of the paper record plays a role in the closed-ended questions asked by the optometry students. Closed-ended questions are characteristic of doctor-centered communication strategies because they provide limited opportunities for response and therefore minimize patient voice (Roter, Stewart, Putnam, Lipkin, Stiles & Inui, 1997). It is important to note, however, that although closed-ended questions restrict a patients' response, if used appropriately, they can be helpful during patient interviewing. For example, closed-ended questions can help obtain patient information, clarify previous statements, and leave less room for doubt (Heery, 2000).

Optometry students frequently used **Biomedical and Technical Language** when talking *with* patients during eye exams. Particularly interesting was the biomedical talk that occurred during instances of patient education. Attempting to educate a patient on glaucoma, one student explained:

> *S8: Yeah, there's actually another way they think can cause glaucoma, and again it has to do with the cable that connects the eye to the brain, supplied by these vessels, nourishes, so vessels that supply this is what nourishes it to keep it alive, so when these vessels become constricted, maybe due to diabetes what we call* **vasospastic…*conditions like migraines or Raynaud's***, *these vessels don't get the food they need to continue to live, so that can be a way of causing damage to the cable, okay. (emphasis added to signal biomedical language)*

In this excerpt, the student has the right intention by using the analogy of a cable for the optic nerve in the explanation of causes of glaucoma; however this opportunity is constrained by the students' use of medical language that many patients would not understand such as "vasospastic" and "Raynaud's" to explain

the condition. While it could be argued that most people have heard of a migraine, they might not understand the student's intent. Migraines and Raynaud's Phenomenon both involve blood vessel constriction during phases of the events; thus they are both classed as examples of vasal (i.e., vessel) spastic disorders. Without this additional information, many patients would not have understood the student's point. In another instance, a student used technical language when reporting test results to a patient:

> *S6: Well you're **20/25** in both eyes. So **20/20**, that's pretty close, well below driving minimums. I mean the driving standard is actually the top one (emphasis added to signal technical language).*

The student may have assumed the patient understands the technical terms used (e.g., 20/25, 20/20) because the student did not provide any explanation as to what the terms meant and did not check in with the patient to assess understanding.

Another unsuccessful strategy optometry students used during the eye exams was referring to the **Patient as a Problem**. 'Patient as a Problem' included instances where the students used phrases such as "complaint" and "suspect" to characterize the patient as the actual problem, when talking *with* patients. Instances where patients reported a problem were excluded from this category. This language was most prevalent during the first portion of the eye exams where students attempted to obtain the patient's history. Inquiring about a patient's reason for their eye examination, a student (S7) asked "*Is this a routine eye exam for you or do you have any particular concerns or **complaints**? (emphasis added)"* During the later portion of the exam, S2 explained to a patient *"You are not even a **glaucoma suspect** anymore…like glaucoma has nothing to do with*

you" (emphasis added). Referring to the patient as a problem contradicts patient-centeredness and reflects a doctor-centered approach to care. Framing the 'Patient as a Problem' is consistent with research by Segal (2005) who claims that medical students use negative language to talk about patients.

Throughout the eye exams, there were also instances of **Unacknowledged Patient Voice**. These occasions were characterized by patients making statements that appeared to be unheard or at least unacknowledged by the students. In most cases, the students completely changed the topic of conversation and did not acknowledge that the patient had even spoken. For example, during one eye exam, student S4 tried to explore the patient's general health and failed to explicitly acknowledge the content of what the patient had said:

S4: And do you smoke?

P4: No, I quit 10 years ago, when I was 75

S4: And how old are those glasses you're wearing?

In this instance the student used a closed-ended question to ask whether the patient smoked and did not acknowledge the patient's response that he had quit 10 years previously. One might expect that the student would have responded with positive reinforcement but instead the student continued with the professional agenda of asking the next question in the history. In attempting to glean the patient's story, the student appeared to miss an important piece.

Another sub-theme of unsuccessful patient-centered strategies became evident in the discordance between the caregivers' interview comments regarding the importance of patient understanding and the attempts made by caregivers

during the eye examinations to ascertain patient understanding. This discordance led to the sub-theme, **Patient Understanding**. During the participant interviews, the caregivers defined patient understanding as one of the key components of effective doctor-patient communication. They also indicated that they judged whether or not patients understood them by the patients' nonverbal communication (e.g., body and facial expressions) and by asking patients directly if they had understood. For example, one student noted:

> *S3: Well generally, I just I kind of watch their face, watch their expressions because that's a really good give away, at least so I have found. And, ah you know, the whole glazed-over look, watching out for that…*

One supervisor described:

> *OD3: I ask them, like, "Do you understand, ah, did you understand everything I had just mentioned? Do you have any questions or do you want me to go over anything with you?" I'm definitely not afraid to ask them for their feedback.*

There were also indications by some caregivers that ultimately they were unsure if a patient has fully understood them. Acknowledging this point, a supervisor explained:

> *OD4: Because there are times they'll nod their head, "Uh-huh-uh-huh-uh-huh" and then on their way, as you're walking them out the door, they'll turn around and say, "Well what about this?". And it's like, "I just talked to you for an hour about that!". So you really don't [know]…*

In agreement, one student talked about the common assumption regarding patient understanding:

> *S4: I don't [know] sometimes, I have to admit I just assume sometimes they do but I think they understand when they nod, but that's really about it.*

Although ‘patient understanding’ was reported as an important element in talking with patients, this was a missed opportunity during the observed eye exams. Of the 10 eye exams, there were only two exams where the caregivers asked their patients whether they had any questions or understood what they had been told. Additionally, even though patients asked many questions that were followed by educational responses, the students never verified whether or not the patient understood what they had explained. As indicated by Sullivan (2003), patients have a right to understand their illness, prognosis and treatment options regardless of whether or not they choose to participate in decisions.

Another unsuccessful strategy evident in the eye exams was the use of **Doc Talk** by caregivers presenting in the presence of their patients. These instances typically occurred during the latter portions of the exams when both the supervisor and optometry student were present in the exam room and comparing their test findings. ‘Doc Talk’ about patients was predominated by biomedical and technical language. Instances of this language occurred in the eyes exams during teaching and learning exchanges between the supervisor and optometry student. This finding can be attributed, in part, to the fact that the optometry clinic is a teaching facility; thus the supervisors routinely verified students’ exam findings and sought to assess student understanding. While these exchanges may have been warranted on an educational level, their inaccessibility to patients was rarely acknowledged with patients and no attempts were made to ‘translate’ the language exchanges for the patients. Only once did the caregivers acknowledge their inaccessible language to the patient:

OD2: *Okay…I see a hyper…so it's actually over here though…ugh huh, yeah it's temporal to the macula. And you were seeing it down…"[to the patient] look all the way down to the corner there…Okay". No significant drusen though, so…*

S5: *Okay*

OD2: *Look temporal to the macula, about 2 or 3 disc diameters in, and you'll see what I'm seeing…it's normal…*

P7: *Okay*

S5: *Temporal right?*

OD2: *Temporal yeah…so once you get to the macula move away from the nerve about 2 or 3 disc diameters and you should see the patch there.*

S5: *So that's a hyper…*

OD2: *Yes, hyper*

S5: *Oh you're talking about the…*

OD2: *That's hyper, yep, talking about the hyper yep, so that's temporal. I didn't see anything nasal.*

S5: *Ohh, okay*

OD2: *[to the patient] We're talking about some little, almost like freckles, they're little marks at the back [of your eye].*

In this excerpt the supervisor (OD2) talks about the patient to the student (S5) using very biomedical language to ensure the student has observed and understood a physical finding at the back of the patient's eye. Following their discussion, the supervisor acknowledges the patient's presence and uses a more accessible term (freckles) to explain the previous conversation although the optometrist doesn't explain the significance of the 'freckles' to the patient or check for understanding. During instances where the supervisor is present in the

exam room and 'Doc Talk' occurs, the student is implicitly asked to perform 'front stage' (Goffman, 1969) for two audiences: the patient and the supervisor. Yet each has different needs. By using professionally-sanctioned language, the student tries to prove her competency to the supervisor at the expense of the patient's understanding. It appears in this situation, the student choose to prioritize performing for the instructor who would ultimately grade the student rather than performing for the patient. Consistent with research by Schryer et al. (2003) and Spafford et al. (2005), this instance highlights the tension students experience as they routinely must balance the competing agendas of patient care and student education.

During the interviews, the patients and caregivers both reaffirmed my observation that Doc Talk, biomedical and/or technical talk occurred during novice eye exams and caregivers often neglected to acknowledge this behavior to their patients. During one patient interview, the participant (P4) explained to me (JH):

> *JH: Okay, and when the student and their supervisor spoke with you, did they use terms that you understood, like accessible language?*
>
> *P4: Yeah, they did to me but not when they were talking—like the supervisor and the student—they used their technical terms, which I didn't understand.*
>
> *JH: And did you ask any questions about what they were talking about between themselves?*
>
> *P4: Not really, no, I figured it was something that they, ugh—but I don't know. I probably should have asked them but I didn't bother.*

The patient noted the "technical terms" used by the student and supervisor during the eye exam and wondered if he should have asked about them. 'Doc Talk'

contradicts a patient-centered communication model because of its possible impersonal and objectifying impact on patient care; a problem, which has been noted in other healthcare settings (Anspach 1988; Segal 1995; Spafford et al, Submitted).

Another unsuccessful strategy utilized by caregivers was **Caregiver Agency,** where the caregivers appeared to assert "power" (or agency) during the exams and exclude patients in decision making. Although the optometry students did a good job at showing patients their potential prescription change (i.e., providing treatment options), at times, they made the final decision about other treatment or management plans without seeking patient input. In one exam, the student told the patient:

> *S5: There wasn't any significant change in your prescription either, so **I don't think** we'll give you a prescription for that, especially until after you see Dr. Z (emphasis added to signal caregiver agency).*

In the above excerpt, the student neglected to ask the patient his preference for a prescription change, and the student decided no prescription would be given to the patient. On many occasions the caregivers dictated treatment regimens (e.g., warm compresses, drops, etc.) to their patients without seeking patient input. This finding contradicts the philosophy of pursuing mutual decision making and reaching common ground; these strategies have been found to be key components of successful patient-centered care (Stewart et al., 1995).

6.1.3 Learning to Talk *with* Patients

Learning to talk *with* patients was one theme discussed during the interviews with optometry students and supervisors. The supervisors all indicated

that they primarily learned to talk *with* patients through trial and error experiences interacting with their patients. The students indicated that they had experienced limited opportunities to practice some communication strategies in a clinical laboratory during their second year of the optometry program; however they felt that the course was not practical enough because it did not involve real patients. The students were asked to role play doctor-patient encounters and then receive feedback from the course instructor. For these students, the situated learning that occurred in a clinical laboratory was not directly transferable to the teaching clinic. This challenge is noted by communication researchers who have found that student behaviour is dictated by the different activity systems that exist in learning environments versus 'real world' settings (e.g., Dias, Freedman, Medway, & Paré, 1999; Freedman, Adam, & Smart, 1994). These researchers describe the communication strategies of students in a school setting as constituting "school genres" and contrast them to "work genres" used in 'real world' settings, concluding these genres are "worlds apart" (p. 3). Spafford et al (2006) have noted that clinical apprenticeships produce communication strategies that are neither entirely characteristic of 'school genres' or 'work genres'; they are in fact, "hybrid apprenticeship genres" (p. 121) where both patient care and student education activity systems are in play.

In this study, the ability of the students to learn effective communication strategies with their patients was furthered constrained by the limited feedback they received from their clinical instructors. When it came to learning how to talk *with* patients, students felt they were often left to "*figure it out on their own*" (S1).

The students also felt that they learned through a combination of methods. They learned communication skills through their own experiences as well as by observing their supervisors and peers. The transition between third year and fourth year was raised by many of the students as a challenge because of the increased expectations regarding communication. For example, one student explained:

> *S1: So I think in third year, you don't really do much counseling. It's either, you do it on your own half-assedly [sic] or someone's taking over. And then you're expected to just know everything in fourth year.*

Reflecting on their training, the optometry students all felt that the opportunity to listen (i.e., audio-record) and/or watch themselves (i.e., video-record) as they interacted with patients would be a valuable learning tool. In fact one student participant asked if she could listen to the eye examination I recorded in the study[1].

6.2 Talk *about* Patients; Novice Case Presentations

Consistent with research by Schryer et al. (2003) that found optometry students adjusted the structure of novice case presentations according to their clinical rotation, the setting, and their supervisor, my analysis of novice case presentations (nCPs) also revealed the range in structure and format of patient information presented by clinical novices to their supervisors. Data analysis of the nCPs revealed two major themes: **Voice of Optometry** and **Voice of Patient** (see

[1] I responded to the student indicating that she would be able to listen to the audio-recorded eye exam providing that she listened to it in my laboratory, from my computer. I also told the student that she would not be able to duplicate or keep a copy of the recorded exam. The student indicated that she would follow-up with me at a later date if she were still interested. I never heard back from the student.

Figure 3). The following sections describe these two major themes and the subcategories pertaining to each.

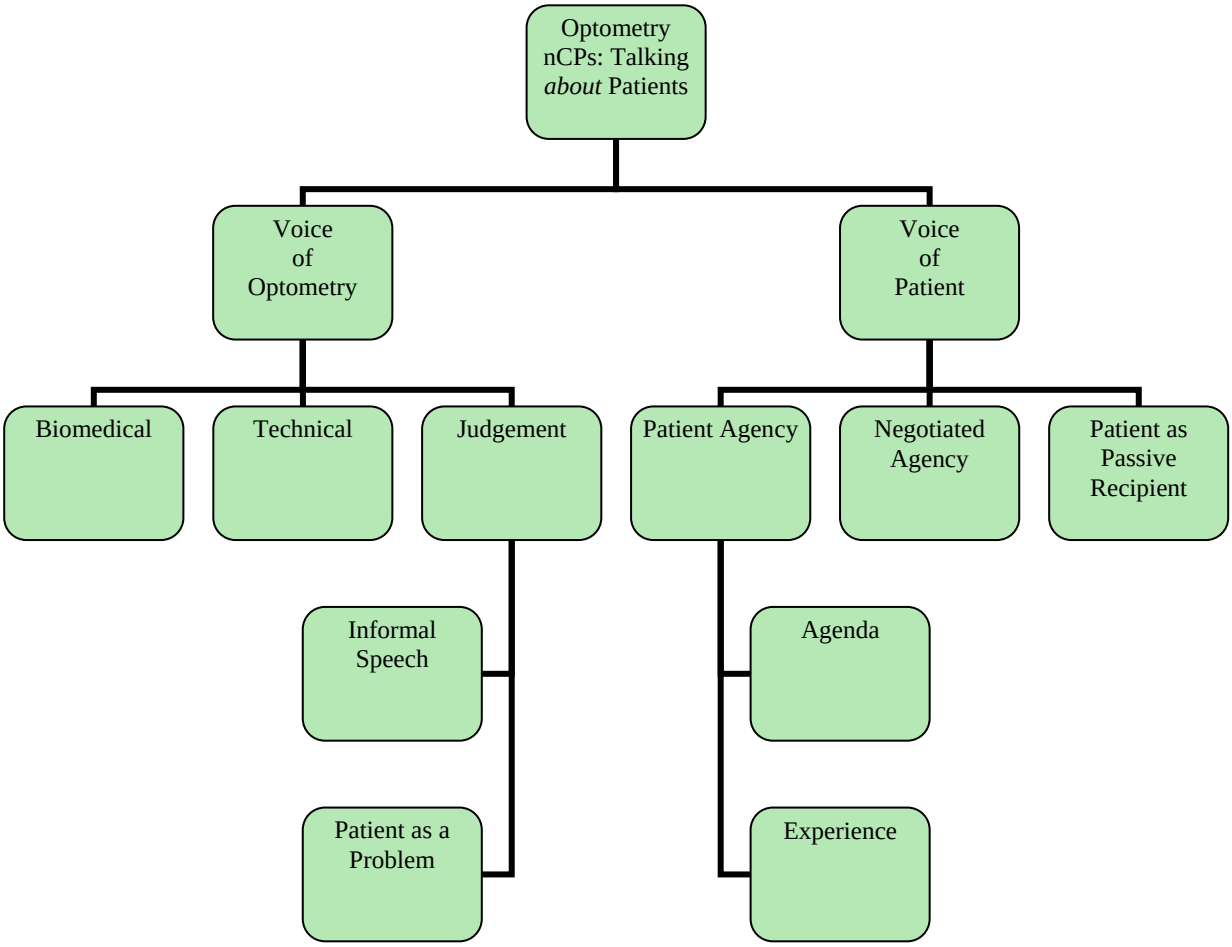


Figure 3: A Flowchart Representing the Talk *about* Older Adult Patients during nCPs

6.2.1 Voice of Optometry

As depicted in Figure 3, one of the major themes revealed in the data analysis of the novice case presentations was the **Voice of Optometry**. The 'Voice of Optometry' referred to instances during the nCPs where caregivers (optometry students and/or supervising optometrists) used professionally-sanctioned language to talk *about* patients that could be subdivided into three subcategories: 'Biomedical', 'Technical' and 'Judgement'.

The subcategory **Biomedical** refers to instances where the caregivers used biomedical language when talking about patients. For the most part, these instances reflected discussions about the health assessment of the eye and the health of the patient. For example, during one nCP, a student (S2) reported "*So his NS, a little bit of PSC here and here, OD more than OS*". In a separate nCP, a supervisor, OD2, noted "*Limbal girdle of vogt, that's probably what you're seeing. It's really sparkly almost and just nasal and temporal…*". This biomedical talk predominated the nCPs.

The subcategory **Technical** included instances where the caregivers used technical language when talking *about* patients. This language largely referenced quantitative measurements pertaining to refractive error, binocularity, and ocular health. For example, during one nCP the supervisor described a patient's refractive error to a student as:

> *OD3: 2.50 with 0.75 [along] 145. She's 6/12, okay. Then, 3.25, 0.75 [along] 145, so again, the axis is changing like 90 degrees. Right? We're going from 145 to 50….*

This quantitative-infused dialogue was notable in all the nCPs. Technical talk appears to comprise a greater proportion of optometry nCP talk than medical nCP talk according to data evident in studies of medical nCPs (e.g., Spafford et al, 2006, Schryer et al, 2005).

Using biomedical and technical language is an efficient way for caregivers to talk *about* patients. Considering that this language is professionally-sanctioned, using this talk signals participants are on the same team and they are credible speakers. Clinical novices showcase their knowledge by using this language when talking to their supervisors. Mastering "the correct medical terminology" is one strategy that clinical novices use to display their competence (Anspach, 1988, p. 362). There are, however, potential problems associated with using biomedical and technical language when talking *about* patients. For example, using this language can objectify patients. This finding is consistent with the work of Anspach (1988), Segal (2005) and Spafford et al (Submitted) who allude to the culture of impersonal vocabulary and patient objectification that occurs in the talk *about* patients. As Anspach noted, this language suggests that "biological processes can be separated from the persons who experience them" (p. 366). During the optometry nCPs the caregivers often omitted identifying the patient and referred to the patient by the exam findings. For example, during one nCP a student (S6) referred to a patient by saying *"Pretty solid, pretty round cataracts, pretty dark, nuclear-sclerosis…".* The biomedical and technical language observed during the novice case presentations may be a function of the teaching environment, where optometry students try and prove themselves as

knowledgeable students by mastering the professionally-sanctioned language. As Anspach (1988) pointed out, “it is in talking and writing to other doctors about patients that cultural assumptions, beliefs and values are displayed more directly” (p. 358). The biomedical and technical voice heard during optometry novice case presentations also reiterates the ‘voice of medicine’ described by Mishler (1984) and reflects a doctor-centered approach to care which diminishes the patient as an autonomous individual. The predominance of biomedical and technical talk in the nCPs raises a concern for the novice caregivers. Will they be able to translate their professional language to a more accessible patient language once they re-enter the examination room? We saw little evidence of discussions during the nCPs that addressed how to talk *with* patients.

The third subcategory of the ‘Voice of Optometry’ was **Judgment**. Judgment was defined as instances where the caregivers used field-sanctioned words and/or phrases that would not necessarily be experienced as neutral to patients and these instances occurred in two forms: ‘informal speech’ and ‘patient as problem’. Informal speech acts included informal words or phrases that could be considered inappropriate for patient ears. For example, during a novice case presentation, one student explained:

> *S7: That was the tear layer which was **kinda crappy**, so I asked him if he felt dryness and he feels it is dry, so I am going to give him some samples… (emphasis added to signal ‘informal speech’).*

These ‘informal speech’ instances appeared in the talk of both students and their supervisors. Thus, instructors implicitly signaled that informal speech was condoned away from the patient.

The ‘Patient as a Problem’ sub-theme included instances where the caregivers used phrases such as “complaints” and “suspects” when talking about their patients. Instead of reporting the patients’ problems, the caregivers used language that characterized patients as being problems rather than having problems. For example, during one nCP , the student told their supervisor:

> *S8: P9 is here for a routine eye exam, so he **complains** of teary eye in the right eye, and the right eye is all capped in the oil glands, history of dry eye and he said dryness is worse towards the end of the day…(emphasis added to signal ‘patient as a problem’ speech).*

In a different nCP one student explained to their supervisor:

> *S2: Yeah, he has unequal cup to disc, 0.3 and 0.5, and he’s already been up for a glaucoma evaluation and they took him off. He’s not even a glaucoma **suspect** anymore…(emphasis added to signal ‘patient as a problem’ speech).*

The fact that the caregivers made judgments when talking *about* their patients, using language that was not typically observed during the talk *with* patients, with the exceptions of ‘Doc Talk’, supports the interpretation that nCPs are backstage performances to patients (Goffman, 1969). Away from the patients, caregivers can afford to speak in ways they would pursue less before their patients (and for good reasons). The presence of negative phrases such as “complaints” to characterize patient experiences is consistent with Segal’s study (1995) of physician talk. As some patients might find some of the ‘patient as a problem’ language inappropriate, it might be a helpful exercise for students to minimize this type of talk away from the patient. Considering that the students are being evaluated, it is initially surprising that they would use informal speech when talking with their supervisors. However, the language used may be a reflection of

an informal relationship previously established between the student and the supervisor.

6.2.2 Patient Voice

Although nCPs were dominated by professionally-sanctioned language (i.e., the 'Voice of Optometry'), the caregivers did make attempts to include patient voice. There were a few instances where optometry students and their supervisors referenced the needs, experiences, opinions and/or expectations of their patients. I divided these instances into three sub-themes: 'patient agency', 'negotiated agency', and 'patient as passive recipient'.

Patient agency, where the patients' ability to act, choose or decide, was apparent in instances where the caregivers referenced 'patient agenda' (i.e., references to patients' preference, needs and/or opinions regarding their eye exam) and/or 'patient experience' (i.e., references to patients' past or present experiences). For example, during one nCP, the student reported a patient's experience as follows:

> *S5: So this is P7, she is 76. Here for an eye exam. Had cataract surgery last year, umm, She did have sore eyes throughout the year, burning.* ***She mentioned*** *shooting pains… (emphasis added to signal acknowledged 'patient experience').*

While much of the above history likely came from the patient, the student reported the information without acknowledging its source. The student explicitly acknowledged the patient as the source once, when S5 says, "She mentioned…". Most patient history was not attributed to the patient, signaling perhaps that, in the students' mind, patients played a passive role in the telling of their own story.

In a separate nCP a student, S2, made reference to the patient's agenda noting *"…he thinks his glasses are 5 years old so he's just thinking he needs new glasses."*. Although agency was attributed to patients in some cases, there was evidence that caregivers struggled to consistently convey patient agency during the nCPs. Excluding the patient's voice during nCPs contradicts a patient-centered case presentation because the patient is portrayed as passive while the caregivers and the data collection tool (the interview) appear to have more agency. As Stewart et al. (1995) note, a cornerstone of the Patient-Centered Case Presentation (PCCP) model (see Table 3) is the incorporation of the patients' illness experiences by including quotations that illustrate the subjective quality of their condition.

The assignment of agency was an issue in the theme, **Patient as Passive Recipient**. Similar to instances of 'Caregiver Agency' during the eye exams, the patient often appeared as a Passive Recipient where instead of the patient having agency, the caregiver or the tests performed had agency rather than the patients. For example, during one case presentation, S8 said "*What I was able to do is 6/6, +2.00, so I did my job"*. In two separate nCPs the caregivers discussed their patients as follows:

S6: Ohh, okay and I'm refracting her to 3.75 and 0.75 basically, so…

OD1: Okay, alright so what do you want to do with her?

Along the spectrum of instances between acknowledging patient agency (i.e., 'Patient Agency') or assigning agency to the caregivers or tests (i.e., 'Patient as Passive Recipient'), a midpoint, **Negotiated Agency** was evident in the novice

case presentations. Negotiated agency included instances where the caregivers talked about a patient and switched back and forth from giving the patient agency to giving themselves agency. For example, during one case presentation, the student described:

> *S4: Refraction wise, **I found** a little change during refraction but **I trial-framed** him and **he said** he didn't find much of a difference, **he's happy** with what he has right now (**bold** emphasis signals caregiver agency and **bold underlined** signals patient agency).*

In a different nCP the student reported:

> *S5: There's a lot more cyl **I'm getting**. **I put** it over his glasses and **he barely noticed** a difference **He said** it was a little bit clearer (**bold** emphasis signals caregiver agency and **bold underlined** signals patient agency).*

In the above excerpts, agency was given to both the patients and the caregivers. The 'Voice of Optometry' dominated the novice case presentations. Although the caregivers did include patient voice during the nCPs they often translated it into biomedical and technical terms. For example, during one nCP, a student explained:

> *S3: I started doing my add and **he didn't like the [+]2.50's** I gave him and the one eye was definitely worse so I bumped it up a quarter and you know, **he likes +2.00's basically** (bold emphasis signals patient voice) .*

In the above excerpt, the student explains the patient's prescription preference using technical terms. The patient would not have said that he liked "the [+] 2.50's"; thus the student translated the patient's voice into technical terms. This finding reflects Mishler's perception that by translating the 'voice of the lifeworld' (i.e., the patient's world) into the 'voice of medicine' (i.e., the medical world), the personal meaning of illness to the patient is lost (Mishler, 1984).

Findings from the nCPs in this study are also consistent with those of Spafford et al. (Submitted) who found patient voice was mitigated in the talk *about* (and away from) patients in referral letters written by optometrists to ophthalmologists.

6.2.3 Learning Talk *about* Patients

In order to understand what I had observed during the nCPs, I asked the optometry students and their supervisors during their interviews how they learned to talk *about* patients. The students indicated that they had never explicitly learned any strategies for talking *about* patients. This finding isn't surprising considering that the order of information presented during case presentations varied widely across the ten observed novice case presentations. Explicit teaching opportunities or conversations about the structure of case presentations and/or the supervisors' preferences did not appear during the nCPs. The students acknowledged that the manner in which they presented patient information was instructor dependent. For example, in response to a question I asked a student about if and how they learned to talk *about* patients, one student responded:

> *S4: Depending on our supervisor, I'll say yes but mainly no…we kind of just throw it at them, but it depends, some supervisors want you to do it [in] more of a organized manner which is great but rare.*

Inconsistent case presentation structures may be attributed to missed teaching and learning opportunities in the classroom and the clinic, and also to the fact that students tailored their presentations to meet the changing needs of their supervisors. This finding echo's research by Schryer et al. (2003) who found that novice case presentations involve competing activity systems; one devoted to patient care and the other to student education and this tension can lead to students

having to make choices about patient care when what they say and do will be eventually evaluated by their supervisors.

The talk *about* patients during nCPs can also be viewed, in Goffman's terms (1969) as both a back stage and front stage performance. During nCPs in this study, optometry students shared patient information with their supervisors (away from the patient) while at the same time attempting to portray themselves as competent speakers for their supervisors who evaluate them. Thus the students' novice case presentations were front stage performances before their instructors and back stage performances to their absent patients.

6.3 Defining Patient-Centered & Doctor-Centered Care

During their interviews, optometry students and their supervisors were asked to explain the difference between patient-centered and doctor-centered care. Following their response, the caregivers were asked for the pros and cons of each approach as well as factors that may influence whether a practitioner practices in a patient-centered or doctor-centered manner. Table 4 summarizes the responses pertaining to doctor-centered care and Table 5 summarizes the responses pertaining to patient-centered care.

Table 4: Doctor-Centered Care as Defined by Optometry Students & Supervisors

Participant	Definition	Pros	Cons	Influences
OD1	• Empowering the doctor • Professional paternalism			• Time • Resources • Staff, • Patient • Education
OD3				• Characteristic of doctor
OD4	• Patient told what to do • More clinical; cut and dry		• Doctor doesn't say much • No eye contact • Patient is in/out in 30 sec	• Training • specialty • Age of doctor • Type of practice
OD5			• Little empathy for the patient	• Personality of practitioner
S2	• Arrogant • Paternal	• Doctor is the expert and knows best	• Patient sacrifices; may not come back	• Arrogance of doctor
S3				• Experience of doctor • Personality of doctor • Location, setting of practice • Patient load
S4	• Doctor makes decision			• Ego, • Patient Knowledge • Time • Business
S5	• Doctor knows best			• Age of practitioner

S6	• Doctor knows best, does what's easiest for them • Less feedback from patient	• Easier for doctor	• Doctor is responsible if they make wrong decisions	• Personality of doctor
S7	• Doctor makes decision	• Doctor knows best	• Patient loses autonomy	• Personality of doctor • Patient population
S8	• Parental		• Compliance	• Training • Environment • Peers

Table 5: Patient-Centered Care as Defined by Optometry Students & Supervisors

Participant	Definition	Pros	Cons	Influences
OD1	• Empower the patient • Rational autonomy			• Time • Resources • Staff, • Patient • Education
OD3				• Characteristic of doctor
OD4	• More talking		• More talking	• Training • specialty • Age of doctor • Type of practice
OD5	• Patient has more input in treatment options	• Good for Patient • Patient has choice		• Personality of practitioner
S2	• Everything is for the patient	• Patient gets what they want	• Patient doesn't make right choice	• Arrogance of doctor
S3	• Friendlier	• Patient feels Comfortable • Patient asks questions • Patient takes	• Patients who don't want to play a role in	• Experience of doctor • Personality of doctor • Location,

		active role in their health • Retain more patients	their health	setting of practice • Patient load
S4	• Patient makes decision	• Patient makes informed decision		• Ego, • Patient Knowledge • Time • Business
S5	• Patient has greater say			• Age of practitioner
S6	• Ask patient what they want	• Patient has a role; makes patient happier		• Personality of doctor
S7	• Patient makes decisions	• Patient autonomy		• Personality of doctor • Patient population
S8	• Patient decides	• Patient is involved; active in care • More compliance	• Patient denies treatment	• Training • Environment • Peers

Overall, the students and supervisors made clear distinctions between patient–centered and doctor-centered care that were consistent with a number of the features indicated in the literature (e.g., paternalism, patient autonomy, compliance, giving patients directions, etc.) (Anderson, 2002; Mead & Bower, 2000; Stewart et al., 1995). However, during one interview, a student distinguished between doctor-centered and patient-centered care by indicating:

> *S4: I think they are two extremes: doctor centered. "You have cataracts. Your vision's bad. I'm sending you—you need a referral. It's not your choice". Patient centered is more like "[doctor]: You're bleeding at the back of your eye. You should do something about it" "[patient]: No, I don't want to" "[doctor]: O.K." That's I think the difference, whether who does what.*

Doctor-centered care was frequently characterized by doctors believing they knew what was best for patients, whereas patient-centered care was characterized by patients as decision makers. This characterization does deviate from how Stewart et al. (1995) defines patient-centered care in that they would argue that it is a shared decision making process between caregiver and patient, not a patient deciding instead of the doctor. More explicit discussions may be needed for caregivers in this setting to appreciate the difference between a shared decision making process and a 'patients get to decide' perspective. The most common stated factors in this study that influenced practitioners' approaches to care included: practitioner age, practitioner personality, practice type (e.g., specialty) and practitioner training. In their review of research on patient-centered care, Mead & Bower (2000) reported similar factors that influence practitioners approach to care including the personality and age of the practitioner, their medical training and clinical experience, time limitations, and workload pressures.

During the interviews, the caregivers were also asked to reflect on whether the profession of optometry promoted patient-centered care. The following two excerpts reflect typical reasons why caregivers attributed a patient-centered approach to optometric care. One supervisor explained:

> *OD4: I think though it [optometry] has to be because, if you're talking about your family doctor; you don't have to like your family doctor. Most people don't. It's not like you can go somewhere else. Optometry, if you don't like your optometrist, you can go anywhere else that day, you know like, say you know, with the de-insurance, if you don't mind paying you can have ten eye exams in one day if you wanted to. Right? Umm, so there's a lot more freedom of movement for [optometry] patients, umm, and so I think*

because of that we as a profession have become more patient centered, you know, you have to kiss ass a little [sic]…

Again, comparing optometry to other health professions, a student noted:

S2: Yeah, well optometry is different because optometry is just glasses where the patient chooses everything; like do they want contacts, do they want this lens or that lens, but other doctors I'd assume they're more doctor-centered, but optometry is more patient-centered I would say.

From the above excerpts, it is obvious that the caregivers believe that optometry is 'different' from other health care professions because the healthcare system allows patients to choose their optometrist and change their minds while the same is not true for choosing their family physician. In the region I studied, the Ontario Health Insurance Plan (OHIP) covers one eye examination once a year for persons under 20 and those 65 and over. OHIP also covers a major eye exam once every 12 months for persons aged 20 - 64 who have certain medical conditions requiring regular eye examinations (e.g., diabetes, glaucoma, cataract, amblyopia) (Ontario Ministry of Long Term Health, 2004). Although OHIP does cover one full eye exam yearly for some patients, they are able to receive additional eye exams at their own expense. Having the option to pay for care allows patients to choose their optometrist. Additionally, since patients are paying for care, optometrists must 'cater' to their patients because payers can reasonably demand satisfaction. If patients are dissatisfied, they can demand their money back and/or go elsewhere.

The caregivers were also asked in their interviews to reflect on whether or not they felt the optometry school promoted patient-centered care. One student responded:

S7: I think patient centered is what we're taught here, yeah…. because they kept stressing it, "keep your counseling patient centered". Like in case analysis—that class—and that's really important because you have to think about the individual and the particular needs of your patient, like where they're from, their social status, and everything like that, their family status and take all that into account and I feel that's important.

Most of the students agreed that they were taught patient-centered care. However, based on the findings from this study, it is debateable whether the optometry teaching clinic is promoting a patient-centered philosophy because of some of the doctor-centered strategies being displayed.

Although most of the caregivers felt that the optometry school followed a patient-centered approach to care, there were some indications that this was not so. One supervisor pointed out:

OD1: I think what happens is there's a lot of depersonalization that goes on like in a school clinic. Like you know, depersonalization of patients. It becomes almost a clinical laboratory and so the real, you know, the real exercise is the exchange between the student, the intern, and the supervisor and the institution and the clinic and that kind of thing. And what you have is, is almost like, you know, the patient as a participant or as an apparatus in the experiment you're doing…

Also acknowledging that the optometry teaching environment promotes doctor-centered care, one student stated:

S5: We've also been taught you know how to diagnose things and come up with the proper treatment for it and basically once you get to that point, where you diagnose and come up with proper treatment, you, in your mind, basically decide this is what's going to happen and its kind of hard to switch it off and leave it up to the patient. But in the end, you know that we can't make them [patients] do anything they don't want to. Well I always give them the option.

The above two excerpts indicate optometry training may not be as patient-centered as it could be because of the depersonalization of patients that occurs in the clinics and because of the focus on disease. Although only two caregivers felt this way, findings from the nCPs in this study (e.g., Voice of Optometry, Caregiver Agency, etc.) support the idea that depersonalization of patients occurs in a teaching clinic. S5's comment above points to one of the challenges that students face. During the novice case presentation, students and their supervisors develop a management plan without patient input and then, after making a decision, they are expected to include patient input once they return to the examination room. In order to ensure that optometry students are learning and caring for patients in a patient-centered manner, these principles need to be explicitly encouraged in both the classroom and in the clinic.

6.4 Tracking Patient Voice

I wondered how patient voice was variously represented in the eye examinations, the case presentations and the post-examination patient interviews. For example, did patient concerns stated in the eye exam get mentioned away from the patient during the case presentation? Did patients recall during their interviews, the counselling they had received in their eye examination? I chose three instances to track across these settings to create a comparative profile of patient voice: 1) patients' stated reasons for the eye exam, 2) patients' main concerns about their eyes or vision, and 3) patient counselling and education. The optometry students and their supervisors were not asked specific questions pertaining to the eye exams and nCP; therefore their interviews were not included

in this analysis. The purpose of this analysis was to see how patient' voice translated across the domains.

6.4.1 Reason for Visit

At the beginning of eye examinations, examiners usually ask their patients about their reasons for booking an eye appointment (e.g., patients might state they were due for a routine eye examination or they might describe a specific problem, such as blurred vision, that motivated them to book the appointment). In a patient record, this information was typically recorded as the 'Reason for Visit'. Determining the reason for the visit helps examiners to ascertain their patients' motivation for attending the appointment and possibly uncover a major patient concern; thus there is a reasonable expectation that students would convey the 'reason for visit' to their supervisor at the outset of their case presentation. With these assumptions in mind, I compared the 'reason for visit' in two domains: eye examinations and novice case presentations (see Table 6).

Table 6 Patients Reasons for Eye Exam as Reported in the Eye Exams and Novice Case Presentations

Patient	Eye Exam	Novice Case Presentation
Px 1	• Wanted new glasses	• Not Reported
Px 2	• Needed new glasses *	• Needed new glasses
Px 3	• Just due *	• Not reported
Px 4	• Not stated/asked	• Routine eye check up
Px 5	• For a check up*	• Routine eye exam
Px 6	• Saw ad to check for AMD *	• Not reported
Px 7	• Sore eyes *	• Sore eyes
Px 8	• Clinic called them for an appointment *	• Routine eye exam
Px 9	• Annual check-up *	• Routine eye exam
Px 10	• Unhappy with glasses & sore eyes	• Routine eye exam, unhappy with glasses

** Identifies which patients were explicitly asked the reason for their visit.*

During their eye examinations, the majority of patients indicated they were due for an exam or wanted new glasses. In only one exam, the patient was not asked the reason for the visit. Half of the students (i.e., five) accurately reported the patient's 'reason for visit' to their supervisor during the nCP. In two of the ten nCPs, the optometry students failed to indicate the patient's reason for exam. In two nCPs, the student incorrectly stated the patient's reason for exam. The following is an excerpt from the eye exam of P7, followed by an excerpt from the corresponding novice case presentation:

Eye exam:

S5: *You can just put your stuff on that chair there, okay. So what's the main reason you're here today?*

P7: *I had the eye surgery, right, but they told me I had 20/20 vision and I didn't need glasses. But I've been having a lot of sore eyes and pains, shooting pains, I don't know if it's my eyes or sinuses or allergies. It's hard to tell but I didn't have sore eyes before I had the surgery so I'm not quite sure how…*

nCP:

S5: *So this is P7, she is 76, here for an eye exam, had cataract surgery last year, she did have sore eyes throughout the year, burning, she mentioned shooting pains.*

In the above example the student explicitly asked the patient for their 'reason for visit'. The patient's voice was translated into the nCP where the student correctly noted the patient's reason for the visit, albeit in an abbreviated manner. Reporting the patient's 'reason for visit' is an important aspect of novice case presentations. Although half of the optometry students did a good job at

correctly reporting their patient's reason for the visit during the nCPs, there were several who neglected this step or misrepresented the reason for the visit. There are implications to excluding aspects of patient voice such as the 'reason for visit'. By disregarding patients' reasons for their eye examinations, emphasis can be shifted away from the patients' experiences of their illness and towards the process of disease. Minimizing the importance of the patient's story during nCPs suggests that caregivers may not be effectively listening to their patients which in turn may jeopardize fulfilling the patients' needs. Optometry instructors therefore need to reinforce the idea of a patient-centered case presentation where primacy is given to the individual patient rather than the disease. Such an approach would be consistent with the patient-centered practices advocated by Stewart et al., 1995.

6.4.2 Patient Concerns

During eye examinations, patients share concerns, if they have any, about their vision and/or ocular health with the caregiver. Most often, these concerns are revealed in response to structured questions by the caregiver (e.g., Do your eyes get red, sore or tired? How does your diabetes affect your vision?). As I have discussed already, much of the patient's story is elicited through a series of closed-ended questions that could curtail the acquisition of this story. During the nCP, students face the difficult task of sifting through the patient's experience and deciding what to share with their instructor. Ideally, patient concerns should be reflected during novice case presentations unless they are deemed to be not relevant to the patient's eye care. I wanted to know how much of the patient voice, in terms of patient concerns, surfaced away from the patient during the

novice case presentations. Table 7 provides a comparison of patient concerns reported during the eye exams and novice case presentations.

Table 7 Patient Concerns Reported in Eye Exams and Novice Case Presentations

Patient	Eye Examination	Novice Case Presentation
Px 1	• Reading small print • Floaters	• Dry eyes in winter
Px 2	• Needs new glasses • Glare driving at night	• Decreased distance vision
Px 3	• Distance blur & glare • Itchy eyes	• Blur
Px 4	• Dry Eye	• None Reported
Px 5	• Falls asleep reading	• None Reported
Px 6	• Glasses adjusted • Cloudy vision (reading) • Floaters	• Glasses adjusted
Px 7	• Sore, tired eyes; shooting pains • Needs new glasses • Allergies • Wavy lines in bright light • Headaches • Watery eyes	• Sore eyes; shooting pains
Px 8	• None	• None Reported
Px 9	• Teary right eye; dry eyes • Floaters	• Teary right eye; dry eyes
Px 10	• Misty vision • Unhappy with glasses • Sore eyes	• Unhappy with glasses

In seven of the ten nCPs, students made reference to some of the patient's stated concerns. One patient reported no concerns during their eye exam, and this was reflected in the nCP. In the remaining two nCPs, the optometry students failed to include any of their patient's stated concerns. Although the students referenced some of the patient's stated concerns, much of the patients' voice was

excluded in the nCPs. That is, the students presented the patient concerns in ways that negated patient agency (e.g., translating the patient voice into field-sanctioned language or giving agency to the caregiver or interview). The following is an excerpt from the eye exam followed by an excerpt from the corresponding novice case presentation:

Eye Exam

P6: *I do see floaters…. I read the newspaper every morning, which takes 2 hours. Sometimes it gets clouded over before I get done…. I'd just like them [glasses] straightened up a bit if that's possible…*

nCP

S6: *I think she's pretty happy with those [glasses], she just needs them straightened out and that's all.*

In the above excerpt the student notes only part of the patient's concerns neglecting to mention her "floaters" and "cloudy vision". As noted in the previous section, 'Reason for Eye Exam', there are implications to excluding patient voice during nCPs. Caregivers must listen attentively to patient concerns and address these concerns during eye exams. When students do not communicate their patients' concerns to their instructors, a risk develops that some of their patients' needs and expectations may be left unaddressed. Also, the translation of patient voice into a field-sanctioned voice may result in the loss of valuable information while signalling the peripheral location of the patient in this healthcare setting. These types of limitations in communicating the patient voice in the absence of the patient have been noted in referral and consultation letter writing (Spafford et al., Submitted).

6.4.3 Patient Education & Counselling

During clinical encounters, caregivers have the opportunity to educate and counsel their patients. I was particularly interested in knowing whether optometry students and their instructors discussed education and counselling topics during nCPs, as well as whether patients recalled the education and counselling portions of their eye exams. There were many instances of patient education and counselling noted throughout the eye exams. In all nCPs, some discussion occurred between students and supervisors about what to talk to tell patients (i.e., patient education and counselling); however, numerous topics were not addressed during the nCPs. For example, a student and supervisor might discuss the patient's diabetic retinopathy during the nCP and the student might go on to counsel the patient about the retinopathy but there might not be any discussion of what counselling should occur regarding this problem during the nCP. In examining the impact of the patient education and counselling, I also asked patients, during their interviews, about what they recalled learning from their eye examinations about their eyes and/or vision. Table 8 provides a comparison of the topics addressed during the eye exams, the nCPs and the patients' recall of their eye examination. The only instances included in the nCP section were the ones where the supervisors and students explicitly discussed what they had or were going to tell their patients.

Table 8 Patient Education & Counseling in Eye Exams, Novice Case Presentations and Patient Recall

Patient	Eye Examination	Novice Case Presentation	Patient Recall
Px 1	• Warm compresses, drops • Floaters • Diabetes • Prescription change • Exam tests performed • Regular exams, • Blocked glands; dry eye	• Warm compresses, drops	• Updated prescription; bifocals • Spots (floaters) • Eyes are healthy,
Px 2	• Bifocal prescription; intermediate distance • No glaucoma • Pinhole optical system • Mild cataract • Coating on lens; glare	• Intermediate distance	• Bifocal prescription; intermediate distance • No glaucoma • Mild cataract • Coating on lens; glare
Px 3	• Debris in eyes • Warm compresses; toilettes, • Cataracts • Healthy diet • Vitalux • Floaters	• Lid scrubs; warm compresses • Cataracts • Referral option • Amsler grid • Healthy diet • Vitalux • Yearly exams	• Excessive oil in tears • Warm compresses; Toilettes
Px 4	• Amsler grid • AMD • Prescription change; not given • Vitalux	• Yearly exams • Vitalux	• Not much change • Chart (amsler grid) • Vitalux
Px 5	• Diabetic changes • Referred to Ophthalmologist	• Diabetic retinopathy • Refer to Ophthalmologist	• Blood vessels bursting • Referred to Ophthalmologist
Px 6	• AMD • Overgrowth on lens • Drops; dry eyes	• Drops • New prescription	• Dry eye; drops • Glasses for distance • Eyes in good shape
Px 7	• Distance prescription, bifocals • AMD • Prevention; sunglasses, healthy diet	• Glasses with consistent strength; bifocals • UV protection and healthy diet	• Glasses for TV and night driving, • Vision in one eye better

	• Drops; cold compresses		
Px 8	• Clear lenses • Cataract • Opticrom • Warm compresses; drops • Macula • ICaps • Healthy diet, sunglasses/hat	• Clear lenses • Lid hygiene • Warm compresses; drops	• Clear lenses • Dry eyes; eye drops • Cataract
Px 9	• Prescription change • Glaucoma • Warm compresses; lid cleaning; drops • Cataract	• Warm compresses; tears	• Dry eyes; drops; lid cleaning • Cataract
Px 10	• Drops • Prism • Cataract • Prescription change	• Cataract	• Drops • Same prescription as 4-5 years ago

From Table 8, it is clear that not all topics addressed during educational and counselling moments during the eye exams were discussed during the novice case presentations. In fact, the majority of topics were not discussed during the nCPs. Additionally the patients recalled much less than what they were educated and counselled about during their eye exams. The following is an excerpt from a novice case presentation, followed by an excerpt from that eye exam and finally the patient's recall during the interview:

nCP:

> *S5: Okay, there is a lot of diabetic retinopathy in the left eye, I don't really know what is going on with his macula. Like I did direct and I saw pigmentary changes…*

Eye Exam:

> *OD5: And the primary thing we notice in diabetics is bleeding at the back of the eye, and I don't think it's ever been previously noted on your*

record, but today we're seeing some bleeding in your left eye, so obviously we want to have it checked out.

Interview:

P5: He explained a bit that I got some blood vessels bursting or something back there and that's common with someone who's got type 2 diabetes and then they didn't want to do anything further. And I forget the name but they're gonna get me a schedule of the optometrist or what have you…

From the excerpts above, it appears that the patient understood the main message of the counselling. It is interesting how the language used to discuss the patient's condition changed in each setting. For example, during the nCP, the student said *"diabetic retinopathy"*, during the exam the supervisor stated *"bleeding at the back of the eye"*, and then in the patient's interview, the patient reported *"blood vessels or something bursting back there"*. This example supports the idea of 'front stage' and 'back stage' talk. Away from the patient the student used a biomedical term to describe changes in the back of the patient's eye, whereas in the patient's presence the supervisor used more accessible terms to describe the condition. Using clear language to talk with patients proved to be effective as the patient recalled, although in different terms, that diabetic changes were occurring at the back of his eye. Although accessible language was evident in this particular instance, as previously discussed in Section 5.1.2, not all caregivers used accessible language when educating/counselling patients.

When asked to recall what they learned about their eyes and/or vision, patients reported much less than what they were educated and/or counselled on (e.g., the long list of topics discussed with Px7 & Px8 are not recalled by the patients during their interviews, see Table 8). This could be a reflection of poor

counselling, inaccessible language, poor recall on the patient's behalf, and/or an overwhelming amount of information given. According to research by Spafford, Schryer, & Creutz (Submitted), who studied the delivery of bad news in the same optometry clinic as my study occurred, they found clinic novices made reasonable attempts to provide patients with as much information as possible; however, their instructors believed 'over-counseling' was one of the most common errors made by novices when delivering bad news. Therefore providing patients with too much information may be a plausible explanation for why low recall was found among the patients in this study.

Patients seemed more likely to recall topics related to eye care regimens that they were responsible for doing on a daily basis (i.e., eye drops, warm compresses) and changes in their prescription. The action of having to physically perform care regimens may contribute to patient recall. When educating and counselling older adult patients it may be helpful for caregivers to provide patients with written information on eye conditions to aid recall and increase understanding. Caregivers also need to be cautious of biomedical and technical language used during these instances. Accessible language may aid patients in recalling information shared during eye exams.

6.5 The Role of Age

One objective of my thesis was to identify the relationship between patient-centered care and professional socialization through the talk *with a*nd *about* older adult patients. Throughout my data analysis, the concept of age appeared in different contexts. Age talk appeared in four ways: 1) caregivers used

age to make clinical decisions during case presentations, 2) caregivers referenced age during counseling and education to explain eye and vision changes, 3) patients commented on the impact of age on themselves during their eye examinations, and 4) caregivers spoke during their interviews about how they considered age when speaking to their patients.

During novice case presentations, the caregivers routinely made references to patient age. These instances were characterized by optometry students and/or their supervisors making clinical judgments based on the patient's age. For example, during one nCP, the supervisor explained to the student:

> *OD4: Yeah. 65 is a tough age between caring and not caring. That is, it might be early onset, just arcus senilis, or indicative—if we didn't know any of his medical history, cholesterol issues and all that, and you saw a little bit of arcus or a lot of arcus in a 65 year old—it could be that he's just onset senilis or that there might be something going on so…*

In another nCP, the student explains:

> *S8: He's happy with his vision. He noticed a slight improvement but I mean you can't really improve a 73 year old guy that sees more than 6/6 there…*

During these instances the caregivers reflect on the patient's age when considering their diagnosis and/or prognosis. This is not surprising because increasing age is associated with decreased vision and increased eye diseases (Pieper, 2006). As previously discussed (see Section 5.1.1) informal language is characteristic of the talk *about* patients. Although caregivers made clinical references to age, the manner in which they discussed age above might not be considered neutral in the patient's presence (e.g., "*65 is a tough age between caring and not caring*"; "*we*

can't really improve a 73 year old guy"). These types of statements would not likely have been framed this way in front of the patients and thus are further examples of back stage performances by the caregivers.

During the eye exams, the caregivers often referenced age while they were educating and/or counselling patients on eye conditions that are associated with advancing age. For example in one exam, a student makes reference to age when explaining cataract to the patient:

> *S7: The cataracts are just a very, very mild yellowing of the lens, and it happens to everyone as they get older, and that's the lens inside here. It's just getting a little bit yellowed and older. So right now, you don't need cataract surgery or anything at all, it's not really affecting your vision at all, but we just monitor it at your yearly eye exams.*

Students and instructors generally presented age as a natural process that happens to everyone and there seemed to be a genuine effort to present age-related changes in a neutral or at least non-negative light. However, the patients were not likely hearing age-related talk as neutral. I noted that patients brought up the issue of aging during the exam more often than the caregivers. In fact, patients initiated talk about age and when they referenced their own age, or the process of aging, it was often portrayed in a negative manner. For example, one patient (P3) mentioned *"It's not fun getting old, believe me."* Another patient explained,

> P1: *It's just too bad you get older and then you've got the time and you wish you could have done this 10 years ago, but that's life.*

During the student and supervisor interviews, it became apparent that the caregivers 'profile patients' according to their age and level of education. Repeatedly the caregivers explained that they adjusted their communication

strategies based on the "type" of patient. For example, when asked if they adjusted their communication strategy for different patients, one supervisor replied:

> *OD3: Umm, children you communicate with their parents, umm and then I try to explain to their child exactly what's going on as well. Umm, professionals, engineers, they like a little more detail. And then elderly patients, communicate with them, give them a printout that they can pass along to their daughter or son so that they can also be up to date with the information.*

Addressing older adult patients specifically, one student explained:

> *S8: Older patients you've got to repeat yourself a couple of times. I find that because they're going through a lot of stuff and most of the time they come in with maybe a list of medication they're taking and you know some are experiencing dementia. So I mean it all depends what I found, what I like to do, is try to get a couple of important points across, you know. I'm not going to bother with, you know, asymptomatic red eyes, sorry, dry eye and I just address what's more important to them at the time.*

Patient profiling was not directly evident in the eye examinations. In part this is because my research did not compare caregiver communication strategies with other cohorts of patients. Also, because the caregiver interviews occurred away from their patients, the caregivers were able to openly reflect on their communication strategies and explain how they adjusted to different patient audiences. As indicated in the above two excerpts, the caregivers acknowledged that they adjusted their communication strategy for older adult patients. For example, they gave patients "*printouts*" (OD3) to take home, and stressed only "*important points*" (S8). I found that caregivers varied in their views about how much information to share with older adult patients. For example, in one interview, a supervisor explained his strategy for talking with older adult patients:

OD4: …its less potentially, less confusing just, you know, cut to the chase. I think if you spend less time talking then they [older adult patients] usually will come back with questions and you can sometimes get a little bit more done that way rather than talking for an hour and them looking at you and saying "well what about whatever' which you probably talked about already so.

A student explained how she adjusts her communication strategy according to age, noting:

S3: *Older patient's they have more concerns, so you tend to tell them more, younger patients often don't care as much about, not that they don't care about their health, but they're just, they don't want to know all the details so, I probably do a little bit more explaining if they're older.*

Interestingly the supervisor and student report completely opposite strategies; the supervisor "*cuts to the chase*" whereas the student "*tells them more*". This difference highlights an inconsistency between perhaps what is being taught by some supervisors, but clearly is not echoed by others, as not all students have adopted their philosophy.

It is clear from my analysis that age appeared in conversations *with* and *about* older adult patients. In their discussions with and about patients, caregivers acknowledged the biological processes of aging and made clinical judgements based on age. I think it is important to make note of age when making clinical decisions. For example, the presence of a cataract in an infant compared to an older adult is of clinical importance to caregivers and signals a different set of concerns. The patients acknowledged age in a negative tone; this attitude would be an understandable reflection of their frustrations with deteriorating health and it may also signal ageist experiences they have had with healthcare providers.

This latter point likely held true for one of the patients who talked about how a past optometry student had talked about cataract and told him *S2: "…I wouldn't worry about it [the cataract] if I were you, they're still growing, you'll probably be dead before they [ophthalmologist] ever do a thing about it.* The caregivers explained age-related changes in terms of the natural aging process; however, it is clear from the patients' comments (e.g., *S1: (sigh) Oh that aging thing*!) that older adult patients hear these remarks in a negative tone. Therefore caregivers need to acknowledge patient sensitivity regarding aging and adapt their communication strategies accordingly.

Chapter 7: Implications

7.1 Summary of Findings

In this study of optometry eye examinations, novice case presentations, and interviews with optometry students, optometrist instructors, and older adult patients, I identified some of the discursive features of and reflections about patient-centered communication. I also studied aspects of the relationship between patient-centered care and the professional socialization that occurs through the talk *with* and *about* older adult patients.

During the eye examinations of older adult patients, optometry students incorporated five types of verbal communication that were consistent with a patient-centered model: Patient Agenda, Social Talk, Analogies, Patient Agency, and Health Promotion & Prevention. Although these successful attempts to incorporate patient-centered communication strategies were evident in the talk *with* patients, optometry students routinely engaged in seven other verbal strategies that challenged this patient-centered ethos: Closed-Ended Questions, Biomedical and Technical Language, Patient as a Problem, Unacknowledged Patient Voice, Patient Understanding, Doc Talk, and Caregiver Agency. According to the interviews of optometry students, their strategies of talking *with* patients resulted from limited classroom instruction and no explicit clinic instruction.

I identified two main types of discursive strategies related to patient-centered care in the talk *about* older adult patients during novice case presentations: 'Voice of Optometry' and 'Voice of Patient'. The 'Voice of Optometry' incorporated field-sanctioned language strategies that followed three subcategories: Biomedical, Technical and Judgment. In contrast, the 'Voice of Patient' theme represented various levels of patient agency: Passive Recipient, Negotiated Agency and Patient Agency. The 'Voice of Optometry' predominated the nCPs leaving the 'Voice of Patients' as fragments and adaptations of what patients said during their eye exams. According to the optometry student interviews, students received no training on how to talk *about* patients (e.g., case presentation structure); this finding was reflected in the nCPs where no teaching moments existed.

During their interviews, optometry students and their supervisors made clear distinctions between patient–centered and doctor-centered care. Doctor-centered care was frequently characterized by the doctor knowing and doing what was best for the patient, whereas patient-centered care was characterized by the patient as the decision maker. However, this characterization deviates from how Stewart et al. (1995) define patient-centered care in that Stewart et al. would argue that it is a shared decision making process between caregiver and patient, not a patient deciding instead of the doctor. Most of the caregiver participants believed that the optometry profession and the optometry school promoted patient-centered care.

Elements of patient voice were represented in the eye examinations, the case presentations and the post-examination patient interviews. For example, traces of patient voice expressed during the eye exams appeared in the nCPs when students correctly identified their patient's reason for the visit (5 of 10 nCPs) or their patient's eye and visual concerns (7 of 10 nCPs). Yet this patient voice was often fragmented to sound bytes of the original patient statements or translated into field-sanctioned language. I also traced patient voice through the patient education and counselling that appeared in the eye examinations, the case presentations and the patient recollections during their interviews. There were many instances of patient education and counselling noted throughout the eye exams. Yet, in all nCPs, limited discussion occurred between students and their instructors about what to talk to patients about and the majority of topics addressed during educational and counselling moments were not discussed during the novice case presentations. Additionally, post-examination patient recall regarding education and counselling was generally limited.

Throughout this study, talk about age appeared in four ways: 1) caregivers used age to make clinical decisions during case presentations, 2) caregivers referenced age during counseling and education to explain eye and vision changes, 3) patients commented on the impact of age on themselves, and 4) caregivers spoke about how they considered age when speaking to their patients. Students and instructors generally presented age as a natural process that happens to everyone and there seemed to be a genuine effort to describe age-related changes in a neutral or at least non-negative light. However, the patients in this

study were not likely hearing age-related talk as neutral. Patients routinely initiated negative comments regarding age and its effects on their lives.

7.2 Theoretical Implications

Findings from my study complement and extend current theories on patient voice, front stage and back stage performances, situated learning and professional identity formation. In this section I will address the relationship between findings from my study and the above theoretical perspectives.

This study extends the work of Mishler (1984) by demonstrating that his sense of the contrasting voices in medicine transcends its professional borders into the realm of optometry. My findings complement Mishler's idea that the 'Voice of Medicine' competes with the 'Voice of the Lifeworld'; yet seem better represented by the 'Voice of Optometry' and the 'Voice of the Patient'. Similar to the 'Voice of Medicine', the 'Voice of Optometry' was dominated by field-sanctioned biomedical talk, yet the 'Voice of Optometry' also included a heavy emphasis on field-appropriate technical talk. This study helps to further critique field-sanctioned talk that may unintentionally problematize patients; a tendency noted by Segal (1995) in medical talk and by Spafford et al (Submitted) in optometry talk. The talk *about* patients observed in these novice case presentations was consistent with that observed in optometry referral letters (Spafford et al, Submitted). This study provides further evidence that 'Patient Voice' in the talk *about* patients tends to appear in fragments (i.e. where some of what patients say appears) and as adaptations (where caregivers transform patient narrative into professional discourse).

This study's talk *about* and *with* patients echoes Goffman's (1969) dramaturgical perspective of front stage and back stage performances. For example, the predominant appearance of the 'Voice of Optometry' throughout the case presentations, signaled front stage performances of optometry students for their instructor audience, who ultimately evaluated them. This field-sanctioned talk also revealed back stage performances by students in the absence of their patients. Expanding on Goffman's perspective where performances were either front stage or back stage, this study provides evidence that there are instances when social actors (e.g. optometry students) find themselves before competing audiences or simultaneously providing more than one type of performance. During the later portion of the eye examinations, when supervisors were typically present, optometry students struggled to perform for two audiences, the patient and their supervisor. The struggle to perform for competing audiences also highlights the idea of competing activity systems of patient care and student education that communication and activity theorists have previously described (e.g. Engeström, 1993; Dias, Freedman, Medway, & Paré, 1991; Russell 1997). Performing for their supervisors, students used Doc Talk (e.g. biomedical and technical language) to talk about patients. Using less accessible Doc Talk, and failing to acknowledge this talk with their patients, showed that, although patients were physically present, students prioritized their supervisors as their primary, front stage, audience. .This study helps to question what audience clinical novices value or view as real and how that decision may affect patient care.

Like past studies of clinical novice talk (e.g., Schryer et al, 2003; Lingard, Schryer, Garwood and Spafford, 2003), this study demonstrates the socializing power of learning this talk and the situated nature of this learning. The limited application of second year classroom lessons on communication strategies to clinic rotations in third and fourth year may reflect, in part, the time disconnect between these situated learning opportunities, the differing activity systems operating in these settings, and the different learning opportunities of students and their previously trained instructors. The situated nature of learning noted in this study echoes that found by communication researchers who have noted that student behaviour is dictated by the different activity systems that exist in learning environments versus 'real world' settings (e.g., Dias, Freedman, Medway, & Paré, 1999; Freedman, Adam, & Smart, 1994).

The increasing role in patient care that these optometry students experience as they move from third year to fourth year of the program is consistent with Lave and Wenger's (1991) vision of novices as legitimate peripheral participants. Yet, the findings of this study call for a learning environment that includes more opportunities for explicit and structured instruction about communication strategies. Such a call fits with the work of Bruner and Sherwood (1976) who argued that students are more likely to reach the limits of their ability with aid of instructional "scaffolding" (p. 280) where instructors lay out a series of graduated tasks to maximize student learning. Additionally, the observed differences in talk *with* and *about* patients provides further evidence of the competing activity systems of patient care and student

education that communication and activity theorists have previously described (e.g. Engeström, 1993; Dias, Freedman, Medway, & Paré, 1991; Russell 1997). Findings from this study indicate limited, if any, explicit discussion about how students should balance these often competing agendas.

7.3 Practical Implications

The findings from my study reveal optometry clinical apprenticeships as a complex learning site where the talk *with* and *about* patients has the potential to both facilitate and limit patient-centered care. While the students and their instructors generally value a patient-centered approach, the talk *with* patients (during eye exams), and in particular, the talk *about* patients (during novice case presentations), was skewed towards strategies that may limit the ability to support this ethos. This section provides some educational and professional recommendations that may encourage optometry training programs and optometry practitioners to more successfully enact a patient-centered stance.

Findings from this study suggest that there may be some changes in the way patient-centered practice is taught and practiced in this optometry teaching clinic. When possible, optometry clinical supervisors could consider role modeling and explicitly teaching patient-centered communication strategies. Optometry students would benefit from their instructors addressing issues such as the implications of using biomedical and technical language during nCPs, and the importance of incorporating patient voice (including patient concerns). In acknowledging potential opportunities to teach patient-centered communication strategies during nCPs, it is important to recognize the reality of time as

supervisors in this clinic typically attend to four students at the same time. It may also be advantageous if clinical supervisors are made aware of strategies students learn in lectured-based courses on communication so that they can promote similar approaches. The optometry faculty may also want to revise the optometry curriculum to replace the current biomedical case presentation with a more patient-centered case presentation approach (e.g., Stewart et al, 1995) to assist optometry students in incorporating patent voice into their nCPs. As students progress through optometry clinical apprenticeships, instructional scaffolding may be a valuable teaching strategy to assist students with increasing professional roles and the tensions emanating from the competing agendas of student education and patient care. The negative experience of age discourse in this study suggests that clinical novices need to recognize that some older adult patients are sensitive to the issue of aging, and caregivers must exercise caution when communicating age-related findings with patients.

Although findings from this study many not be directly transferable to private optometry practice, there are potential implications for the profession of optometry in Canada. Patient-centered practices are consistently being advocated by Health Canada and Canadian medical schools (CanMEDs); however, the Canadian Association of Optometry has yet to formally adopt a patient-centered philosophy of care. This poses a challenge to the profession; until its representative organizations accept this philosophy, optometry schools in Canada are less likely to formally promote patient-centered training to its future practitioners. Additionally, as optometrists participate in more interprofessional

patient care (e.g. optometrists may work with a variety of physicians to provide patient care), it is important that all care providers adopt a similar philosophy of patient-centered care.

7.4 Limitations

The generalizability of these results is limited by the following constraints. First, this study occured at an optometry school and it involved a small number of eye examinations (10), case presentations (10), and interviews of students (8), supervisors (4) and patients (10). Although my findings may not be directly transferable to private optometric practices, I feel that this study has yielded important insights regarding patient-centered communication and professional socialization in an optometry teaching clinic. Secondly, aside from one patient, the patients in this study were previously established patients at this optometry teaching clinic. Therefore the optometry students had access to their patients' past history and previous exam findings. This knowledge may have affected how the students interviewed patients at the beginning of the eye exams. For example, the students may have asked more closed-ended questions when exploring patient symptoms in anticipation of previously recorded responses. Thirdly, interviewing patients over the telephone (rather than in person) may have constrained the richness of the patients' responses. It was evident from the interview data that even though I previously explained the purpose and goals of my study, many of the patients seemed to interpret the interview as a quality assurance assessment of the optometry clinic. Patient participants were eager to repeatedly tell me that the students and instructors were very nice and that they did a good job. Perhaps an

in-person one-on-one interview would have yielded a richer response. It should also be noted that this project examined strictly verbal communication patterns. Although non-verbal communication strategies are an important aspect of doctor-patient communication, I was not physically present during the eye exams and therefore could not analyze this form of communication. Finally, because this study occurred in a teaching clinic, the findings may not be transferable to general optometric practices.

7.5 Future Directions

Through audio-recording and analyzing eye examinations of older adult patients, case discussions about these patients, and interviews of older adult patients, optometry students and their supervisors, this research project has identified some of the discursive features and perceptions of patient-centered communication and aspects of the relationship between patient-centered care and professional socialization through the talk *with a*nd *about* older adult patients. The findings from this study suggest that attention to patient-centered care communication practices in optometry teaching environments may benefit from more emphasis and structure. Although this research is new to the profession of optometry, findings from this research add to the growing research in other health care disciplines on patient-centered communication *with* and *about* patients. This study is the first of its kind in an optometry setting, and therefore sets the stage for future research to come. Future research on patient-centered communication *with* and *about* optometry patients could consider the impact of examining various cohorts of patients (e.g., younger patients), and different clinical settings (e.g.,

teaching clinics versus community settings). Additionally, it would be interesting to investigate the relationship between what caregivers report in written patient records and what they discuss with patients during the eye exam. As a greater understanding develops of the strategies of and challenges to patient-centered practices in optometry, it is my hope that optometry training programs as well as optometry professional organizations will further embrace patient-centered practices.

Appendix 1: Patient Interview Guideline

1. What were your reasons for making an appointment at the Optometry Clinic?

2. Did you have any concerns about your eyes or vision when you made an appointment?
   - What were these concerns?
   - Did you feel you had a chance to explain how your eye problems affect you (e.g., driving, work, hobbies, visual fatigue)?
   - Do you feel your concerns were addressed during the appointment? If so, how? If not, why not?

3. What did you expect to happen in your eye exam? Were your expectations met?
   - Length of exam?
   - Who examined you (student/optometrist)?
   - How your examiners behaved towards you?
     - Respectful behaviour (dress attire, attitude, introductions)

4. How carefully do you feel the student and/or optometrist listened to what you had to say?
   - What made you feel that way?
     - Interruptions, eye contact, tone of voice, body language

5. What did you learn about your eyes/vision in the appointment?
   - What is your understanding of the causes of your eye condition?
   - Did the student and/or optometrist check to make sure you understood what was discussed?
   - Did you understand the terms they used?

6. Were treatment options discussed with you? (e.g., glasses, contact lenses, drops, referral, etc.)
   - If so, what were they?
   - Did you feel that they were explained well? Explain.
   - Did you feel you were included in the decision(s) of what to do?

7. Do you feel the student and/or optometrist spent enough time with you?
   - Were all of your needs met?
   - Were your feelings considered?
   - Were all of your questions answered to your satisfaction?

8. What did you like (and dislike) about your eye appointment?
   - What could have gone better?

9. Do you have any final comments or questions for me?

Appendix 2: Caregiver Interview Guideline

1. What does effective doctor-patient communication mean to you?
   - What strategies do you use to effectively communicate with patients?

2. What do you find are the most challenging aspects of communicating with patients?

3. How have you learned to *talk with* patients (e.g., counsel)? *Talk about* patients (e.g., case discussions)?
   - (e.g., through case presentations, courses, clinical situations, etc.)

4. Do you adjust your communication strategy depending on the type of patient? How?
   - (Examples: cohort, culture, gender, age, etc.)
   - What are the benefits and challenges of adjusting your strategy?
   - How have you learned these strategies?

5. How do you determine your patients' agenda for making an eye appointment?
   - Do you use this information when planning your counseling? If so, how?

6. How do you know if your patients understand your counseling?
   - Have you ever asked a patient to reiterate what you have told them?

7. How do you decide how much information to tell patients during counseling?
   - (Examples: severity of problem, expected patient understanding, time constraints, age, etc)

8. What does bad news, in an optometric setting, mean to you?

9. What strategies do you use for disclosing bad news to patients?
   - (Examples: obtain invitation, address emotions, check understanding, etc.)

10. How much say do you feel patients should have in the decision making process regarding treatment plans?
    - How do you create opportunities for patients to participate in decision making?
    - What are the benefits and challenges of seeking patient input?

11. What do you think are the differences between doctor-centered and patient-centered care?
    - Pros and cons of each?

12. What factors influence whether a practitioner is doctor-centered or patient-centered?
    - (Examples: doctor/patient preferences, demand for service, patient/doctor characteristics, time constraints, patient vs. government payee of care, etc.)

13. Play two counseling audio-recorded scenarios.
    - What do you like and dislike about each scenario?
    - What are the distinguishing features of each?
    - Which counseling strategy is most effective? Why?

14. Do you have any final comments or questions for me?

Appendix 3: Alphabetical Glossary of Terms

Amsler Grid: A screening test used to assess eye structures (e.g., the macula) responsible for central vision (e.g., the tissue at the back of the eye is called the retina and the central portion used to look right at objects is called the macula). The grid includes evenly spaced horizontal and vertical lines printed on a card (i.e., either black lines on a white card or white lines on a black card). The patient looks at a small dot located in the center of the grid and looks for wavy lines and/or missing areas of the grid. This test is especially helpful for monitoring vision at home.

Cataract: An opacity or cloudy area in the lens of the eye due to increases in water content and alterations in protein structure. There are numerous types of cataract and the causes of cataract include aging, long-term ultraviolet exposure, secondary effects of diseases (e.g., diabetes) and drugs, genetic defects, and eye injury.

Diabetic retinopathy: It is damage to the retina (the tissue at the back of the eye) that occurs secondary to having diabetes mellitus. A decrease in oxygen supply and damage to blood vessels can lead to swelling, bleeding and destroyed cells in the retina and this damage can lead to blindness.

Flashes: A description by a person of seeing ‘light flashes’, ‘lightning streaks’, or ‘stars’ where there is no actual light source. Flashes result

from parts of the retina (the tissue at the back of the eye) being pulled or rubbed by adjacent vitreous (e.g., the clear jelly-like fluid that fills the inside of the eye).

Floaters: Small dots, circles, lines, clouds or cobwebs moving in a person's field of vision. They are often more visible when looking at a plain background (e.g., a blank wall). Floaters are tiny clumps of gel or cells inside the vitreous (the clear jelly-like fluid that fills the inside of the eye).

Glaucoma: A group of eye diseases that damage the optic nerve (the main nerve connecting the eye to the brain) and can lead to losses in visual field. It is the second leading cause of blindness worldwide. Risk factors include a history of diabetes, certain ethno-racial ancestries (African, Inuit, Asian), eye blood flow variations or restrictions, and a family history of glaucoma.

ICaps: Made by Alcon Laboratories, it is one of several types of vitamin and mineral supplements (e.g., with antioxidants such as lutein & beta-carotene) available on the market that are recommended to slow the progression of age related macular degeneration (ARMD).

Limbal girdle of vogt: A corneal opacity that occurs in an arc pattern (near the 3 and 9 o'clock positions), near the outer edge of the cornea (the clear tissue at the front of the eye). It is found in the majority of people older than 40 years and occurs more frequently in women than men.

Macula: A 1.5mm in diameter central area of the retina (the tissue at the back of the eye) that is used for central, detailed vision.

Macular Degeneration: A general term for age-related macular degeneration (ARMD). It is the leading cause of blindness in older Caucasians (typically over 60 yrs). Central vision is lost due to a progressive disease process in the macula.

Migraines: It is a chronic, neurological group of disorders that involve, most often, an episodic, disabling headache and they often include other problems such as light sensitivity and nausea. Many people experience temporary visual distortions ("scintillating scotomas"), 20 to 30 minutes before the headache begins. Migraines are the most common type of vascular headache in which there is a temporary change in blood flow in the brain. Triggers fall into many categories, including behavioral, environmental, infectious, dietary, chemical, and hormonal.

NS: An acronym for nuclear sclerosis, a type of cataract that is typically age-related.

OD: An acronym for Oculus Dexter; the Latin word for right eye. Typically used in reference to test results, measurements and observations about that eye.

OS: An acronym for Oculus Sinister; the Latin word for left eye. Typically used in reference to test results, measurements and observations about that eye.

PSC: An acronym for posterior subcapsular cataract; a type of cataract in which the opacity is located at the back surface of the lens. This type of cataract progresses quicker and is associated with more blurring and glare than some of the other types of cataract. It can be associated with age, diabetes, steroid use, and irradiation.

Raynaud: It is known more fully as Raynaud's Phenomenon and this disorder involves over-constriction of blood vessels in the extremities of the body (e.g., hands and feet) in response to cold and/or stress. Coldness, numbness and pain are typically experienced in the affected extremity. It is more common in women.

Refractive Error: Are disorders of the eye that can be corrected by spectacles, contact lenses or refractive surgery. Examples of refractive error include myopia (near-sightedness where vision is better for close objects than far objects), hyperopia (far-sightedness where focussing is less work for far objects than near objects) and presbyopia (age-related loss in the ability to focus when looking at close objects).

Vasospastic: A sudden constriction of a blood vessel, causing a reduction in blood flow.

Vitalux: Made by Novartis Ophthalmics, it is one of several types of vitamin and mineral supplements (e.g., with antioxidants such as lutein & beta-carotene) available on the market that are recommended to slow the progression of age related macular degeneration (ARMD). There are several types of Vitalux; Vitalux AREDS is the form most often recommended for people with ARMD.

Vitreous: Is the clear jelly-like fluid that fills the inside of the eye and helps maintain eye shape when it is compressed.

2.50 with 0.75, 145: Is an example of a spectacle prescription being spoken. It would likely be written in a patient record or a spectacle prescription as: +2.50/-0.75x145. The first number represents the

correction for myopia (nearsightedness) or hyperopia (farsightedness)—in this case hyperopia. The second two numbers represents the correction for astigmatism (the cornea—the clear, front surface of eye—or the lens—inside the eye, have a slightly different surface curvature in one direction from the other).

20/20: It is a measure of the best vision a person can achieve on an eye chart while wearing an appropriate refractive correction (called visual acuity). The top number of the fraction refers to the 20 foot test viewing distance. A person with 'normal vision' should be able to read the 20/20 line of an eye chart. In metric, this finding would be recorded as 6/6 (referring to a test distance of 6 meters).

20/25: Is a measure of the best vision a person can achieve on an eye chart (i.e., visual acuity). It is a poorer performance than 20/20 vision. At a viewing distance of 20 feet, the smallest line a person can read on an eye chart could be read by a person with 20/20 vision at 25 feet. In metric, this finding would be recorded as 6/7.5 (referring to a test distance of 6 meters).

6/12: Is a measure of the best vision a person can achieve on an eye chart (i.e., visual acuity). It is poorer vision than 6/6 vision. It is measured in meters (instead of feet). At a viewing distance of 6 meters, the smallest

line a person can read on an eye chart could be read by a person with 6/6 vision at 12 meters. In feet, this finding would be recorded as 20/40 (referring to a test distance of 20 feet).

Appendix 4: Oculo-visual Assessment Record

University of
School of

File No. _____ **Full Oculo/Visual Assessment Record** Date _____

PATIENT IDENTIFICATION

Name _____ (SURNAME / GIVEN NAMES) Tel.No. _____ (HOME / BUSINESS)

Birth Date _____ (DAY / MONTH / YEAR) Age _____ M ☐ F ☐ Occupation _____

Referral Source _____ Avocation _____

Family Physician _____ Drivers Licence Rest. Yes ☐ No ☐

CASE HISTORY

Reason for visit:

Present Rx D.B.C. /

	SPH	CYL	AXIS	PRISM	ADD	OTHER
O.D.						
O.S.						

Blur
Diplopia
Flashes/Floaters
Haloes
Asthenopia
HA
Pain/Itching
Eye Injury/Infection
Eye Surgery
Strab
Age of Spectacles
Condition of specs.
CL
Additional Information

Medical Care

Allergies: No ☐ Yes ☐
Medications (Assoc. diseases)

LME (reason)
LEE (OD/MD)

Family History
DM
HPT
Glaucoma
RD
Strab
Blindness
Other

Visual demands
Computer use
School performance

PRELIMINARY TESTING

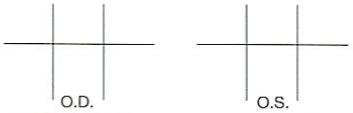
Unaided V.A. (Dist.) O.D. _____ O.S. _____ O.U. _____ (Near) _____ cms. O.D. _____ O.S. _____ O.U. _____

Aided V.A. (Dist.) O.D. _____ O.S. _____ O.U. _____ (Near) _____ cms. O.D. _____ O.S. _____ O.U. _____
Spectacles ☐ CL ☐

Amp. of Accom. (Push Up) O.D. _____ D O.S. _____ D N.P.C. _____ cms. PD _____ / _____

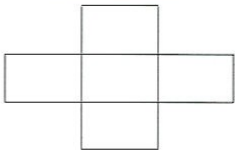
COVER TEST:
Unilateral (Dist.) (Near cms.)
Alternating (Dist.) (Near cms.)

Ocular Motility:
Saccades _____
Pursuits _____
Gaze Restrictions: Unrestricted

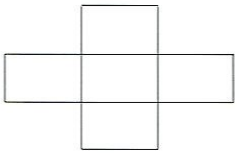


Visual Fields: (Confrontation or Attached Record)

Comitancy
Test: _____
Distance _____



Maddox Rod OD OS
Distance _____
Head tilt R _____
Head tilt L _____

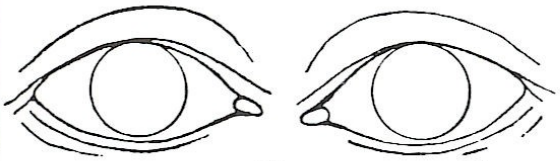


Fusion
Test

Colour Vision
O.D.
O.S.
Test

Stereopsis
Test

OCULAR HEALTH



OD OS

General Observations _____

	OD	OS
Lid and Margins		
Conjunctiva		
Limbus		
Cornea		
Tear Breakup Time		
Anterior Chamber		
Angle (van Herick)		
Iris		
Pupil Size		
Pupil Reflexes:		
Direct		
Consensual		
Accommodative		
Marcus/Gunn		
Tonometry		

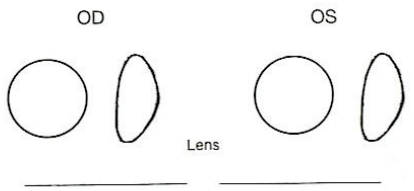
Perkins / Goldmann / NCT Time: _____

Anesthetic _____ ☐ Informed consent
(type and dosage)

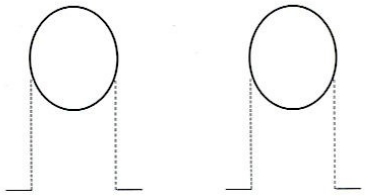
Mydriatic _____ Time: _____
(type and dosage)

☐ Informed consent patient/guardian

Ease of exam: ☐ good view ☐ other _____



Disc:

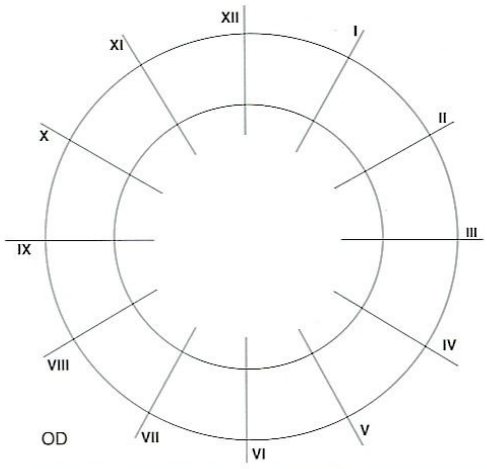


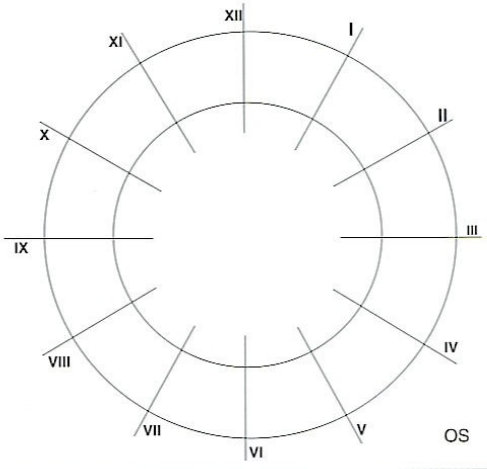
Cup Profile:

		OD	OS
C/D Ratio	H		
	V		
Colour			
Margin			
Lamina Cribrosa			
Macula			
Retinal Vessels:			
Calibre/Ratio			
A/V Crossings			
Course			
Periphery			
Vitreous			

Intern: ☐ BIO ☐ Fundus biomicroscopy ☐ MIO ☐ Direct
Doctor: ☐ BIO ☐ Fundus biomicroscopy ☐ MIO ☐ Direct

FUNDUS





DO NOT WRITE IN THIS SPACE

REFRACTION

Keratometry O.D. _____ / _____ Corneal _____ X _____

O.S. _____ / _____ Cylinder _____ X _____

Comments

Static Retinoscopy

O.D. _____ VA _____

O.S. _____ VA _____

Subjective Refraction: Phoropter / Trial Frame

O.D. _____ VA _____

O.S. _____ VA _____

Other Prism / RG Balance

O.D. _____ VA _____

O.S. _____ VA _____

VA _____

BINOCULAR VISION

Von Graefe / Free Space

6M					40CM				
Phoria	Diss Lat		Vert		Phoria	Diss Lat		Vert	
Neg. Fus.	Vergence		+V.V. $^{BU}/_{OS}$		Neg. Fus.	Vergence		+V.V. $^{BU}/_{OS}$	
Pos. Fus.	Vergence		–V.V. $^{BD}/_{OS}$		Pos. Fus.	Vergence		–V.V. $^{BD}/_{OS}$	

Gradient Phoria +1.00 _____ Accom Facility OD _____ Ampl of Accom OD _____

ACA _____/1_____ ± _____ D OS _____ (Sheard's) OS _____

ADD

Crosscyl/Age/Sheard's OD _____ VA _____ BMA _____ Final _____ Range from _____ cm

Habitual WD _____ cm OS _____ VA _____ BPA _____ Add _____ to _____ cm

ADDITIONAL TESTS

Trial Framed Tentative Rx ☐

SUMMARY

#	Problem	#	Plan

RECALL

Follow up appointment booked: (circle) Clinic area: PC OH BV PSN LV ED CL

Date/Time _____ ☐ entered

Recall: 3 mo. 6 mo. 1 yr. 2 yr. none unchanged Other: _____ for Full/Partial examination

Reason _____

PRESCRIPTION

	SPH.	CYL.	AXIS	PRISM	ADD
O.D.					
O.S.					

Additional Specifications:

Special Instructions
- ☐ Rx not prescribed
- ☐ Rx taken
- ☐ Redo Date: _____

Valid for: 6 mo. 1 yr. 2 yr. other _____ Doctor's Initial _____

Intern's Name (Printed) _____

Doctor's Name (Printed) _____

OPT. OCT. 2000 839-1

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