Making Sense of Medical Education

An Examination of Contraception Counselling, Unplanned Pregnancy Counselling, and Abortion Services Curricula in Ontario Medical Schools

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
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Abstract

Background: To date, little information exists about contraception counselling, unplanned pregnancy counselling, and abortion services curricula in Ontario medical schools. Identifying existing curricula, including influences on whether and how curricula are delivered, is an essential starting point for evaluative processes.

Purpose and Objectives: The purpose of this study was to explore contraception counselling, unplanned pregnancy counselling, and abortion services curricula in Ontario medical schools. The objectives were to 1) identify the existence of such curricula in undergraduate (preclinical, obstetrics and gynecology clerkship, and family medicine clerkship) and post-graduate (obstetrics and gynecology and family medicine) programs; and 2) explore factors influencing the existence and form of these curricula from the perspective of program directors.

Design: An exploratory qualitative approach was used for this study whereby, Ontario program directors responsible for contraception counselling, unplanned pregnancy counselling, and abortion services curricula were interviewed.

Results: Overall, the inclusion of routine curricula in contraception counselling, unplanned pregnancy counselling, and abortion services was limited and variable between schools, as well as within clerkship and post-graduate programs. Program directors were often uncertain about
whether such routine curricula were present in their programs. Four factors were found to influence whether these curricula were included in a program: 1) program structure, 2) program resources, 3) the interests of residents/students, and 4) personal philosophy of the program director. A typology was developed to understand how program directors resolved uncertainty when asked about the existence of these curricula in their programs. The emergent sensemaking typology revealed strategies used by directors to either justify the current system of medical teaching (i.e., defending the status quo) or support change (i.e., responsive). Program directors were consistent across programs in terms of the factors they identified as influencing the curriculum offered. The perceived impact of these factors varied according to the sensemaking processes employed by each director.

Conclusions: This study provides an outline of curriculum variability within and between medical school programs. Further, it offers a typology of the ways program directors explain their uncertainty regarding the inclusion of these curricula in their programs. In so doing, program director sensemaking as a key influence on the curriculum is revealed.
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1 Introduction

“It is possible to store the mind with a million facts and still be entirely uneducated.”

– Alec Bourne

On average, physicians generally spend more than ten years in postsecondary education and training. During this time, their beliefs and attitudes can be influenced (Espey, Ogburn, & Dorman, 2004; Raymond, Kaczorowski, Smith, Sellors, & Ward, 2002), their knowledge and skills developed, and the framework for their future practices established (Espey et al., 2004; Rosenblatt, Robinson, Larson, & Dobie, 1999; Steinauer, Landy, Filippone, Laube, Darney, & Jackson, 2008). Given that the curriculum medical students and residents are exposed to impacts their subsequent actions and decisions, it is a key area to explore when attempting to understand the underpinnings of physician practices. From a quality improvement perspective, it is essential to routinely examine the medical education process, including curriculum. Is the content and quality sufficient? How is it delivered, and how effectively? Answering these questions can inform improvement opportunities, including the adoption of evidence-informed medicine and best clinical practices (Deming, 1987; Donaldson & Mohr, 2001; McEwen & Wills, 2002).

1.1 Chapter Overview

This chapter provides background and contextual information about medical education in Ontario, and specifically contraception counselling, unplanned pregnancy counselling, and abortion services curricula. The goal of this chapter is to outline the rationale, purpose, research objectives, and implications of the current study. An overview of the remaining chapters is also provided.

1.2 Medical Schools in Ontario

There are currently six medical schools in Ontario: University of Western Ontario, McMaster University, University of Toronto, Queen’s University, Ottawa University, and the Northern

1 Curriculum is defined by Kelly as all learning that is planned and guided by school, whether it is carried on in
Ontario School of Medicine. While there are features common to all of these, such as required programs (e.g., family medicine, obstetrics and gynecology (ob-gyn) clerkship programs), each school is unique in its mission, organization, development, implementation, and evaluation of curriculum.

Medical schools are complex organizations that include multiple teaching sites and numerous stakeholders including preceptors, other faculty, students, and residents. According to the Liaison Committee on Medical Education (LCME), a U.S.-based organization that collaborates with the Committee on Accreditation of Canadian Medical Schools (CACMS) in the accreditation of Canadian medical schools, all of these stakeholders share the responsibility for creating an appropriate learning environment (http://www.lcme.org/). Developing and delivering curriculum effectively requires consideration and coordination of these multiple contexts and stakeholder groups.

1.2.1 Family Planning and Abortion Curriculum

Family planning and abortion are challenging curriculum topics. These topics 1) cross specialty areas, including family medicine and ob-gyn; 2) involve behavioural competencies on the part of a physician, such as empathizing and providing non-discriminatory information; 3) are embedded with moral, political, and religious implications; and 4) are of a sexual nature. These characteristics create challenges for medical leaders when designing and delivering a curriculum that addresses family planning and abortion.

Surprisingly, few Canadian studies have examined contraception counselling, unplanned pregnancy counselling, and abortion services curricula (Roy, Parvataneni, Friedman, Eastwood, Darney, & Steinauer, 2006; Steinauer, LaRochelle, Rowh, Backus, Sandahl, & Foster, 2009). Most existent research comes from the U.S. and focuses on identifying whether abortion procedures are included in ob-gyn post-graduate (residency) programs. It is important to examine all areas where contraception counselling, unplanned pregnancy counselling and abortion services curricula are likely to be addressed. Such examination requires widening the

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2 In this dissertation family planning includes contraception counselling and unplanned pregnancy counselling. For an explanation of curricular topics covered (i.e., contraception counselling, unplanned pregnancy counselling, and abortion services) see Appendix A.

3 Please note the terms “post-graduate” and “residency” will be used interchangeably in this dissertation.
scope of inquiry to include family medicine (in addition to ob-gyn) at undergraduate and postgraduate levels. Research indicates that medical students and residents have limited standardized (i.e., routine/required) exposure to contraception counselling, unplanned pregnancy counselling, and abortion services curricula (Caro-Bruce, Schoenfeld, Nothnagle, & Taylor, 2008; Espey, Ogburn, & Qualls, 2005; Raymond et al., 2002).

Research is needed to address critical questions related to medical school contraception counselling, unplanned pregnancy counselling, and abortion services curricula. For example, do Ontario medical schools provide such curricula? If they do, are the curricula addressed in the undergraduate and post-graduate phases of medical education? What do they involve? Are all students/residents exposed to these curricula?

1.2.2 Physician Counselling and Abortion Practices

Currently, very little is known about physicians’ practices in the areas of contraception counselling, unplanned pregnancy counselling, and abortion services. This is despite the fact that family physicians and obstetrician-gynecologists are a primary resource for individuals seeking counselling on contraception methods and pregnancy options (keeping the baby, adoption, and termination), as well as access or referral to abortion services when requested.

Physicians are often reluctant to address sexual matters because they feel embarrassed, ill-equipped, or pressed for time (Kingsberg, 2004). The need to educate health care providers on providing contraception counselling for their patients, including offering thorough and clear information, making appropriate recommendations, and providing referrals for additional services, has been identified (Brown, 2008; Schreiber, Harwood, Switzer, Creinin, Reeves, & Ness, 2006).

In addition to a lack of competency in contraception counselling, research has demonstrated that newly trained family physicians and obstetrician-gynecologists often lack the knowledge and skill to perform options counselling and abortion services (Raymond et al., 2002; Wu, Bennett, Levine, Calkins Aguirre, Bellamy, & Fleischman, 2006). A nationwide Canadian study conducted by the Canadian Abortion Rights Action League (CARAL), an abortion advocacy group, found that when abortion services were requested physicians refused to provide referrals, provided false information, and intentionally delayed the delivery of medical processes until
gestational limits were passed (CARAL, 2003). With 40% of Canadian pregnancies estimated to be unplanned (Delbanco, Lundy, Hoff, Parker, & Smith, 1997), ensuring physicians learn to effectively counsel patients in preventing and managing unplanned pregnancies is a public health concern.

1.2.3 Factors Influencing Curricula

Resources and politics influence the inclusion of contraception counselling, unplanned pregnancy counselling, and abortion services curricula in medical programs. For example, fewer trained abortion providers (and aging abortion providers) in the U.S. means that fewer experts are available to teach medical students (Henshaw, 1998). Policy that places students and residents at religious-affiliated (i.e., Catholic Church) hospital sites, and the often elective status of these curricula, may also contribute to a medical curriculum that does not adequately educate physicians in this area (i.e., fails to teach individuals about the importance of and need for these services) and thus fails to produce confident and skilled physicians (Darney, Landy, MacPherson, & Sweet, 1987; Espey et al., 2005; MacKay & MacKay, 1995; Raymond et al., 2002; Westhoff, Marks, & Rosenfield, 1993). It is important to examine the factors that influence whether and how contraception counselling, unplanned pregnancy counselling, and abortion services curricula are included in medical programs.

1.3 Study Rationale

Historically, research has focused on the abortion procedure curriculum in ob-gyn post-graduate programs. Extending the research to explore the inclusion of contraception counselling as well as unplanned pregnancy counselling and abortion services in medical education programs (that include this curriculum) at undergraduate and graduate levels will address an existing knowledge gap.

With the announcement by the Minister of Training, Colleges and Universities in May 2009 of increased medical student enrolment, it is important to ensure that effective processes are in place to adapt to change, and to provide a high quality and equitable medical education for medical students and residents. Understanding the factors that shape whether and how those responsible for program design and delivery include contraception counselling, unplanned pregnancy counselling, and abortion services curricula in medical programs will aid in providing
this quality education. Identifying the obstacles to the provision and implementation of these curricula is particularly important.

1.4 Study Purpose and Objectives

The purpose of this study is to examine the inclusion of contraception counselling, unintended pregnancy counselling, and abortion services in Ontario medical school curricula from the perspective of program directors responsible for them (i.e., family medicine and ob-gyn undergraduate and residency program directors).

1.4.1 Research Objectives

1. To identify contraception counselling, unplanned pregnancy counselling, and abortion curricula in Ontario in

   - relevant courses offered during the preclinical years (typically first two years) in undergraduate medical curricula;

   - family medicine and ob-gyn clerkship rotations; and

   - family medicine and residency programs and ob-gyn residency programs.

2. To explore factors that influence whether contraception counselling, unplanned pregnancy counselling and abortion curricula exist in Ontario family medicine and ob-gyn (undergraduate and residency) programs.

1.5 Implications

This study is the first to examine Ontario medical school contraception counselling, unplanned pregnancy counselling and abortion services curricula in undergraduate and residency programs, as well as in family medicine and ob-gyn specializations. As such, it provides a base of understanding of the spectrum of existing family planning curriculum, from prevention (contraception counselling) to management of unplanned pregnancies (unplanned pregnancy counselling and abortion services), offered to medical students and residents at all levels of education, from undergraduate to residency (family medicine and ob-gyn programs). This is also
a precursor to ascertaining if the current curriculum is sufficient in breadth and depth and identifying opportunities for its improvement and development.

Examining factors that according to medical school program directors influence the content and delivery of contraception counselling, unplanned pregnancy counselling, and abortion services curricula adds to our understanding of the curriculum itself. It also adds to our knowledge base about the world of medical school program directors.

Moreover, understanding these curricula from the perspective of program directors may shed light on how curricula with similar characteristics are handled, as well as broader medical education system issues. As noted earlier, contraception counselling, unplanned pregnancy counselling, and abortion services curricula are challenging because they involve behavioural competencies, overlap between specialties, and are sensitive, given the sexual nature, and political, moral, and religious implications. For example, contraception counselling may be covered in family medicine and in ob-gyn. The degree of overlap depends on the program director’s beliefs of what constitutes each program, and the scope of each practice; this in turn determines the content that education leaders feel they are responsible for covering in their programs. If contraception counselling, unplanned pregnancy counselling, and abortion services curricula do not fall solely within the territory of family medicine or ob-gyn, the question must be asked as to who is accountable for students/residents learning this material and achieving the applicable competencies.

1.6 Outline of Thesis Content

This section outlines the content of the remaining dissertation chapters.

1.6.1 Literature Review

Chapter Two provides a literature review in key areas related to the research objectives. This includes providing a context for the study by outlining the process of medical education from undergraduate to post-graduate training in Ontario. In addition, existing research examining curricula and factors influencing curricula are reviewed. A brief discussion about literature that pertains to program directors and leadership is also included.
1.6.2 Conceptual Framework

Chapter Three outlines the conceptual framework adopted in this study. The chapter begins with an overview of pragmatism and identifies why it is well-suited to address this study’s first research objective. The chapter then discusses the role of symbolic interactionism, an interpretive approach that evolved from pragmatism used herein to explore factors influencing curricula from the lived experiences of program directors.

1.6.3 Methods

Chapter Four, the methods section of this dissertation, identifies and describes the adoption of qualitative description and symbolic interactionism. This is followed by a description of the methods for data collection, transcription, and analysis. The chapter also includes my personal reflections and a discussion about study rigour.

1.6.4 Results

The results are discussed in three chapters (Chapters Five, Six, and Seven). Chapter Five provides contextual information and presents the curricula identified by program directors according to undergraduate preclinical years, ob-gyn clerkship, family medicine clerkship, ob-gyn post-graduate, and family medicine post-graduate program levels. Chapter Five also provides the background information necessary for addressing research objective two, which is to explore those factors that influence medical curricula according to the perspective of program directors. Chapters Six and Seven address the factors influencing the medical curriculum. This is achieved first by outlining factors that influence the curriculum and the typology that emerged to describe how program directors make sense of uncertainty regarding contraception counselling, unplanned pregnancy counselling, and abortion services curricula. Chapter Seven applies the typology to describe how program directors resolve uncertainty about curricula and the varying influence that factors have depending on the sensemaking process evoked.

1.6.5 Discussion

Chapter Eight summarizes the key findings identified in this study. In addition, a discussion of findings relative to other research in the field is presented. Contributions, limitations, and future research directions are also provided. The chapter closes with recommendations.
2 Literature Review

“The social status of women and gender discrimination even in developed countries is still unacceptable, the gynecologist must be not only the woman’s physician but also the woman’s advocate”

– Dr. Mahmoud Fathalla

2.1 Chapter Outline

This chapter provides a review of literature related to the research objectives identified in Chapter One. The chapter begins by describing Ontario’s six medical schools and includes information about the process of medical education in Ontario. Following this, an outline is provided of existing research, particularly as it relates to current contraception counselling, unplanned pregnancy counselling, and abortion services curricula. Factors identified in the research as influencing these curricula are also listed. The chapter concludes with a discussion about program directors and leadership theory.

2.2 Medical Education and the Training Process in Ontario

In Ontario, there are currently six medical schools: University of Western Ontario, McMaster University, University of Toronto, Queen’s University, University of Ottawa, and the Northern Ontario School of Medicine. Undergraduate medical education typically comprises a four-year program (McMaster University’s is a three-year program) starting with a preclinical course curriculum. Practical clinical experience is introduced (typically in conjunction with academic education sessions) in the concluding years through a series of clinical clerkship rotations. Clinical clerkship rotations are generally six weeks in duration.

After undergraduate medical school, post-graduate (residency) training begins. Depending on the area of specialization, programs typically last up to five years and are meant to increase knowledge and skills relating to a specialized field (e.g., family medicine, ob-gyn, oncology).

4 Dr. Mahmoud Fathalla (Sciarra, 2009)

5 Family medicine residency is two years in length
2.2.1 Accreditation

The Committee on Accreditation of Canadian Medical Schools (CACMS) works with the Liaison Committee on Medical Education (LCME) to develop and approve accreditation standards that undergraduate medical schools are required to meet. Postgraduate medical education is evaluated and accredited by two major national certification organizations: the College of Family Physicians of Canada (CFPC) for family medicine and the Royal College of Physicians and Surgeons of Canada (RCPSC) for all other residency programs.

2.2.1.1 Undergraduate Medical School Accreditation

Accreditation standards for Canadian medical schools relate to the following areas: 1) Institutional setting, 2) Education programs, 3) Medical students, 4) Faculty, and 5) Educational resources. Each faculty undergoes a full on-site assessment by the LCME and CACMS at least every eight years to ensure that the accreditation standards are being met. The assessment is conducted by trained surveyors composed of leaders, educators, and students. CACMS/LCME identifies key areas (specialties) of medicine that students must be exposed to, such as surgery, family medicine, ob-gyn, and population health. In addition to key competencies, certain organizational structures and processes are also required (e.g. mechanisms for ongoing program evaluation).

Medical accreditation organizations introduce a degree of standardization, and thus enable a level of consistency and quality to be established in the field of medical training. CACMS/LCME identifies that medical schools must provide “assurances that their graduates exhibit general professional competencies that are appropriate for entry to the next stage of their training, and that serve as the foundation for life-long learning and proficient medical care;” further, it also recognizes “the existence and appropriateness of diverse institutional missions and proficient medical care” (LCME, 2008, p.1). In other words, schools must implement certain CACMS/LCME competencies; however, the LCME is explicit that its aim is not to create “cookie cutter” schools. Medical schools can maintain autonomy such as implementing their own formal policies, curricular foci, and procedures. How accreditation requirements and competencies are translated into practice between schools and within programs (e.g., family medicine clerkship versus ob-gyn clerkship) is flexible.
2.2.1.2  College of Family Physicians of Canada

Family medicine is a two-year community-based or hospital-based training program, with many programs encouraging supervised training in rural areas. The College of Family Physicians of Canada (CFPC) oversees the curriculum goals and objectives for family medicine post-graduate (residency) programs. There are four principles of family medicine that guide family medicine residency programs. These principles are: 1) the family physician is a skilled clinician; 2) family medicine is a community-based discipline; 3) the family physician is a resource to a defined practice population; 4) the patient–physician relationship is central to the role of the family physician (http://www.cfpc.ca/English/cfpc/about%20us/principles/default.asp?s=1). In addition, family medicine residents must receive training in the following areas: internal medicine, surgery, ob-gyn, psychiatry, and emergency medicine while also engaging in ambulatory family medicine training. At the end of training, residents must successfully complete written and structured office oral examinations developed and administered by the CFPC.

The purpose of CFPC accreditation is to ensure educational quality and sufficient uniformity and portability to allow residents from across Canada to qualify for the CFPC examinations as residency-eligible candidates. The CFPC standards for residency accreditation are presented at http://www.cfpc.ca/local/files/Education/Red%20Book%20Sept.%202006%20English.pdf.

2.2.1.3  Royal College of Physicians and Surgeons of Canada

There are 56 specialty disciplines accredited by the Royal College of Physicians and Surgeons of Canada (RCPSC). Core specialization areas are internal medicine, paediatrics, general surgery, psychiatry, community medicine, ob-gyn, pathology, and anaesthesia. Postgraduate training programs are typically five years in duration. To become certified, residents must complete a national certifying examination developed under the auspices of the RCPSC. The mode of evaluation varies across specialties, and includes a range of evaluation methods such as multiple choice and short answer written examinations in combination with oral examinations and objective structured clinical examinations (OSCE).

The RCPSC created the CanMEDS (Canadian Medical Education Dimensions for Specialists) physician competency framework for medical education. This framework identifies a set of essential competencies physicians are expected to achieve within each of seven specialist roles:
medical expert, professional, communicator, collaborator, manager, health advocate, and scholar. For each role, key competencies and enabling competencies are identified. For example, CanMEDS suggests that physicians are communicators and thus need to “effectively facilitate the doctor–patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter” (http://rcpsc.medical.org/canmeds/CanMEDS2005/). Key physician competencies related to this role are identified as follows:

1. Develop rapport, trust and ethical therapeutic relationships with patients and families;

2. Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues and other professionals;

3. Accurately convey relevant information and explanations to patients and families, colleagues and other professionals;

4. Develop a common understanding on issues, problems and plans with patients and families, colleagues and other professionals to develop a shared plan of care;

5. Convey effective oral and written information about a medical encounter.

Similar to the CFPC for family medicine, CanMEDS guide program directors’ program evaluations for accreditation as well as the ongoing assessment of their residents by the RCPSC. More information about the CanMEDS framework is available at http://rcpsc.medical.org/canmeds/CanMEDS2005/CanMEDS2005_e.pdf.

Accreditation standards identify the importance of programs having goals, objectives, and evaluation; however, the processes and procedures to attain these are left to each individual program. Changes mandated by accreditation organizations can require adaptation of organizational processes. The ways in which medical curriculum leaders interpret and approach accreditation standards can vary and influence medical education programs differently. In addition, while the CACMS/LCME, CFPC, and RCPSC ensure a standard of quality and level of systematic inclusion of curricula, given implementation flexibility including diversity in methods of teaching and evaluation accreditation does not mean program development and improvement are not warranted.
2.3 Medical Curriculum

2.3.1 Variability in Medical Education

Whether the medical curricula in question are included in existing programs and how they are delivered can vary between medical schools (Barzansky, Veloski, Miller, & Jonas, 1999; Forbes, Fitzgerald, & Birch, 2006; Gay, Talner, Hunt, McIlhenny, Smith, Arndt, 1995; Steinauer et al., 2009). A study of undergraduate surgical training among Canadian medical universities, for example, identified variation in the design and implementation of undergraduate surgical curriculum (Forbes et al., 2006). The study identified wide variation in the ways Canadian medical schools construct the length of rotations, methods of instructions (e.g., grand rounds, surgical conferences), number of sites or hospitals involved in their education (the range was from two to ten for surgery), and evaluation tools used (multiple choice examinations, objective structured clinical examinations [OSCEs], oral examinations, and exit surveys [for program evaluation]). Variation between programs is not necessarily a negative thing. Forbes et al. (2006) did identify, however, that the extent of variation was beyond their expectations.

Forbes and colleagues (2006) also explored the extent to which Canadian medical schools comply with the Canadian Undergraduate Surgical Education Committee (CUSEC) and the Association for Surgical Education (ASE) undergraduate surgical learning objectives. They identified a wide variation in the level of emphasis placed on the basic learning objectives and specialty specific learning objectives. Forbes and colleagues (2006) concluded that the CUSEC and ASE objectives had limited impact on the structure of individual undergraduate surgery curricula. Factors such as resources, structure, teaching site variations, and faculty available may have significantly influenced this variation (Forbes et al., 2006).

According to accreditation (LCME/CACMS), autonomy and uniqueness are important for each of Ontario’s six medical schools. The challenge is to have systems in place that serve to ensure quality and consistency within individual medical programs. It is important to evaluate whether core objectives are sufficiently included in each program. Having a valid way to compare across

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6 Curriculum is defined by Kelly as all learning which is planned and guided by school, whether it is carried on in groups or individually, inside or outside the school (Kelly, 1999).

7 Interestingly, the operating room, despite its frequent use, was perceived as the least effective location for teaching medical students.
medical programs/schools would facilitate our ability to ascertain standardized quality across medical schools.

2.3.2 Curriculum Format

Traditionally, the medical curriculum was delivered primarily by way of a didactic lecture format. Increasingly, alternative methods of educating students and residents are being used. These include problem-based learning sessions where students/residents work through patient scenarios (see Appendix A for definitions). Adoption of more practical-based learning in clinical sites and integrative approaches to curriculum is also taking place. The trend to use more integrative alternatives to primarily lecture-based pedagogy adds challenges to understanding the curriculum that is provided and the ways it is delivered. Integrative models make it challenging to tease apart what curriculum topics are covered and to what level of depth and adequacy. Innovation in the ways medical curriculum is delivered is important; however, ensuring systematic evaluation to establish a relative advantage is equally important.

Ontario medical schools’ clerkship and residency programs are fashioned after an apprenticeship model, which includes inherent challenges (Hauer, O’Brien, & Poncelet, 2009). In this model, clerkship students encounter patients by chance (i.e., the cases that happen to come into their placement clinic will determine the experience that students gain). Hauer and colleagues (2009) noted that this model only allows for short encounters with patients and students end up supervised by a variety of supervisors, predominately residents. This random structure may not meet students’ learning needs or the goals of the clerkship. The shortcomings identified by Hauer et al. (2009) may be resolvable by exploring processes to ensure program objectives are achieved.

A longitudinal integrated clinical clerkship model has also been developed and implemented in some medical schools. This model enables long-term student–patient and student–preceptor relationships in the same clinic setting integrated over time, usually six to 12 months (Hauer et al., 2009). This may benefit students’ patient-centered practices including enhanced knowledge of patients’ biomedical and psychosocial needs and skills. This longitudinal approach may thus prove to be advantageous compared to traditional clerkship models that have students in a specialty for approximately six weeks. According to Dwyer Brooks and colleagues (2010), students participating in a longitudinal rural family medicine clerkship program experience
continuity with a primary preceptor and patient population. A key component is that students are able to follow the course of a patient’s care in their placement office, learning from primary and specialty clinicians (Dwyer Brooks, Halaas, & Zink, 2010).

2.3.3 Challenging Curriculum

Certain curriculum in medical schools is particularly challenging to address. For example, it is challenging to implement curriculum when the topic is not a discrete procedural skill (e.g., hysterectomy); encompasses social and behaviour features; crosses over more than one area of specialization; is sensitive in nature (e.g., sexual); and has the potential to elicit strong political, moral, and religious reactions. It is a further challenge to determine how best to teach curriculum that has these features. For example, an examination of end-of-life and palliative care curriculum in undergraduate and residency medical education revealed variation in whether such curriculum was included as required content or as an elective (Barzansky et al., 1999).

One Ontario study examined intimate partner violence (IPV) undergraduate preclerkship and clerkship curriculum (Wathen, Tanaka, Catallo, Lebner, Kinneret, et al., 2009). Among medical leaders surveyed, 43% reported that IPV was included in the undergraduate curriculum. In cases where it wasn’t included, lack of institutional endorsement, funding for new curriculum, and competition for curriculum time were noted as barriers. Inclusion, delivery methods, and evaluation of IPV curriculum were variable across Ontario programs. It was rare that time was dedicated specifically to IPV; rather it was typically included as a component of a broader topic as part of a required or elective course. With numerous competing competencies and limited time, IPV curriculum was not well integrated in all medical schools. Contraception counselling, unplanned pregnancy counselling, and abortion services curricula share many of the challenging characteristics identified above such as behavioural components and emotional sensitivity. Potential challenges are discussed further below.

2.3.3.1 Social and Behaviour-Based Competencies

Developing and implementing curriculum that encompasses broad social and behaviour-based competencies such as counselling may be more challenging and vulnerable to inconsistency than discrete technical skills such as suturing. The Function and Structure regulations (of the LCME) do require curriculum content to include social and behavioural aspects in addition to basic
science and clinical disciplines. It identifies that specific instruction in communication skills “as they relate to the physician responsibilities, including communication with patients, families, colleagues, and other health professionals” (LCME, 2008, p. 2) must be included. This is supported by the CFPC and the RCPSC (CanMEDS) as well. Nonetheless, research has identified that training in counselling may not be enough to produce graduates capable of referring appropriately and counselling in a thorough and clear manner (Bernhardt et al., 1998; Bernhardt, Mastromarino, Haunstetter, Roter, & Geller 2005).

2.3.3.2 Overlap Between Specializations

Contraception counselling, unplanned pregnancy counselling, and abortion services overlap between family medicine and ob-gyn. Family medicine overlaps with many sub-specialties (e.g., palliative care, pediatrics). The degree of overlap depends to some degree, for example, on beliefs about what constitutes “family medicine” and “ob-gyn” for example. If both assume it is the responsibility of the other specialty, it is possible the curriculum topic is not covered sufficiently. Managing this overlap adequately requires collaboration between these two programs and explicit understanding of the scope of practice (Weitz, 2009).

A Canadian study (Beaulieu, Samson, Rocher, Rioux, Boucher et al., 2009) examined how intra-professional collaboration itself was learned within the medical profession, and focused on the relation between family medicine and other medical specialists. While content analysis of each program’s official documents revealed collaboration objectives existed for all programs, these were vague and lacked clarity and uniformity across programs. This was confirmed in interview analyses as well. All residents interviewed indicated intra-collaboration was not formally included in the clinical rotations. This competency was not consistently or specifically included across programs. In addition, the location of a rotation appeared critical as rural settings may have favoured better generalist–specialist collaboration compared to university hospitals where it was not considered a priority (Beaulieu, et al., 2009).

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8 Contraception counselling and unplanned pregnancy could be argued as important in many specializations. For example, an oncologist should ensure a patient is well informed about the importance of contraception to prevent unplanned pregnancy during possible radiation or chemotherapy treatments.
Many factors influencing intra-professional collaboration curriculum were revealed in this study (Beaulieu, et al., 2009), including 1) role confusion (where each group was confused about each others’ roles), 2) a shift of family physicians being trained in private and community settings instead of teaching hospitals, 3) isolation of family physicians’ and specialists’ work settings, and 4) the view that a two-level system exists (the family medicine and the specialist), which serves to segregate resident teaching. In addition to system organization factors, deep discourse and bitterness specifically among educators and family medicine residents about their collaboration experience (more than specialist residents) was noted. According to Beaulieu’s perspective, intra-professional collaboration was not an academic priority. Beaulieu and colleagues also highlighted the need for education innovations including the development of innovative models of care delivery (Beaulieu et al., 2009).

2.3.4 Spectrum of Medical Education: Undergraduate to Residency Training

There is a paucity of research that examines both the undergraduate and residency components of the medical school (Barzansky et al., 1999). Given the transition of medical students into residency, it is important to identify where overlap and gaps exist; this can allow maximization of training time available. Of course the challenge to examining the continuum of medical education from undergraduate to post-graduate within one medical school or across the province is that upon receiving an undergraduate medical degree, physicians often do not remain at the same school (or province) for their post graduate (residency) training. This means medical school residency programs cannot base their curriculum on what is covered in their school’s medical program. They may consider the level of competency undergraduate medical school graduates have in general; this would need to be identified.

At the start of residency training, physicians go from being supervised medical students to engaging with patients independently. Identifying what curriculum is provided at the undergraduate level could help maximize the time available in residency. Martin (2008) for example explored the transition physicians’ faced when entering into a family residency program after completing their undergraduate degree. This study revealed that resident trainees did not know what it meant to be a family physician when entering into residency and had to learn what fulfilling this role meant. For participants, practice and developing longitudinal relationships
with patients were key to developing confidence that allowed successfully transition to being a family physician.

2.4 Quality in Medical Education and Training

Medical education is a continuous process of knowledge and skill building that continues to grow and evolve beyond graduation, ultimately ending when the physician retires. Physicians generally spend over ten years in postsecondary education and training. During this time, beliefs and attitudes can be influenced (Raymond et al., 2002), a foundation of knowledge and skill developed, and a framework for future practices established (Espey et al., 2004; Rosenblatt et al., 1999; Steinauer, Landy, Filippone, Laube, Darney, & Jackson, 2008; Westhoff et al., 1993).

2.4.1 Growth and Expansion

In May 2009, the Ontario government announced an increased enrollment for medical students. John Milloy, Minister of Training, Colleges, and Universities at the time, identified 100 new spots to be created for medical students. This included expansion of existing and the creation of new sites. For example, a Waterloo Regional and St. Catherine’s campus will be created as a part of McMaster’s medical school expansion. By 2011, the Ontario government will have increased medical school spaces by 38 percent since 2004-05 (http://fhs.mcmaster.ca/main/news/news_2009/medical_school_enrolment.html). To increase the number of schools and locations (classrooms and clinical locations) and maintain a standard of quality curriculum means effective organizational processes need to be identified and established to ensure increased growth does not compromise the delivery of curriculum; particularly given the complexity of medical school organizations.

2.4.2 Evidence Informed Practice

The medical education system in Ontario is adopting an evidence-based approach to medical training. Coined by a McMaster University research team in 1991, “evidence-based medicine” is also an important aspect for accreditors (e.g., College of Family Physicians of Canada). Now called “evidence-informed” medicine, this approach promotes the use of good quality evidence for medical decision-making and best practices, and also identifies the need for evidence to be implemented into practice (Dickersin, 2007). As such, inherent in evidence-informed medicine is the need to systematically evaluate medical education and training to evaluate whether the
content is based on best clinical and behavioural evidence (Shields, 2009), and that curriculum is achieving the intended outcomes effectively.

2.4.3 Quality Improvement

If the goal of medical schools in Ontario is to produce the best physicians (outcome/product), it is important not only to examine appropriate outcome measures (e.g., successful completion of medical license examination) but also that effective processes are in place that meet the needs of medical students and residents (Bazansky et al., 1999; Da Rosa, Prystowsky, & Nahrwold, 2001). Medical program quality is often equated to whether students/residents pass licensing examinations and/or accreditation. Whether this metric is sufficient to judge a program’s quality is questionable (Paolo & Bonaminio, 2003). Research confirms academic variables may not necessary the best predictor of performance.

Even if passing examinations and accreditation are effective measures of a quality program, it is important to proactively identify opportunities for program development and improvement. Quality improvement is a commitment and continuous process used to assess and continually improve every process in every part of an organization (McEwen & Wills, 2002; Womack, Byrne, Fiume, Kaplan, & Toussaint, 2005). This includes examining the structures and processes for how medical curriculum is developed, delivered, and evaluated (Womack, et al., 2005). The need for more effective outcome measures of medical school quality has been identified (Paolo & Bonaminio, 2003).

As noted earlier in this chapter, differences between medical schools exist. These can include how curriculum is developed (content), implemented, and evaluated. In fact, Lazarus and colleagues (2007) note that curriculum developed by and for one medical school, is not easily replicated in other schools given huge variance in culture and process. This presents a challenge when examining medical curriculum and training across Ontario medical schools. It is important to consider each school’s uniqueness when examining curriculum.

2.5 Importance of Contraception, Unplanned Pregnancy, and Abortion Curricula

While advances have led to the development of a wider variety of more convenient and effective contraceptive devices, 40% of pregnancies are estimated to be unplanned (Sedgh, Henshaw,
Singh, Ahman, Shah, 2007). The social, economic, and health implications associated with unplanned pregnancies for both the individual woman and society, means adequate family planning is a major public health concern in Canada (Boonstra, 2007; Henshaw, 1995; Klima, 1998; Moos, Bartholomew & Lohr, 2003; Pentick & Johnson, 1999). Increased attention to prevention and access to abortion services when unplanned pregnancies arise is essential.

The relatively high level of unintended pregnancies in Canada also means family physicians (FPs) and ob-gyns are likely to encounter women needing information, access, and/or an abortion procedure itself (Henshaw, 1998). These physicians are an important resource for services including contraception counselling, unintended pregnancy counselling regarding all available options (keeping the baby, adoption, and termination), and access (or referral) to abortion services, if requested.

When the decision is an abortion, the increased risk of complications and increasingly limited access to abortion with increasing gestation, means it is critical women receive information and, if requested, referrals for the procedure in a timely fashion (Ferris, McMain-Klein, Colodny, Fellows, & Lamont, 1996). Abortion services entail counselling on unintended pregnancy options, referrals as required, and/or the procedure itself (including follow up).

While physicians may disagree with performing the procedure, they should not dictate for a pregnant woman what her decision should be, or use their powers as resource “gatekeepers” to withhold information and resources (information, procedure) required by women to make informed decisions (Koyama & Williams, 2005). The Canadian Medical Association’s (CMA) policy on Induced Abortion states “A physician whose moral or religious beliefs prevent him or her from recommending or performing an abortion should inform the patient of their beliefs so that she may consult another physician” (CMA, 2007). The policy does not require the physician; however, to refer the patient to another physician. The obligation to refer to another physician is a matter of continued debate. The CMA does make it clear that a physician should not prevent or delay patients from accessing abortion services (Blackmer, 2007).

2.5.1 Importance of Medical Education

Medical education and training provide the foundation for subsequent physician attitudes and practices (Espey et al., 2005; Steinauer, DePineres, Robert, Westfall, Darney, 1997; Steinauer,
Landy, Filippone, Laube, Darney, Jackson, 2008). With respect to attitudes, including observation of abortion procedures as a routine component of residency training for example, significantly improved attitude scores of residents participating in abortion clinical time compared to non-participating controls (Aiyer, Ruiz, Steinman, Ho, 1999). It is unclear if attitude change persisted, as attitude was only assessed following the training session. Longitudinal evaluations of the impact of training on family planning and abortion attitudes are warranted; however, current studies do support the influence of routine curriculum (Steinauer et al., 2008).

Regarding practices, physicians trained in family planning are more likely to discuss all pregnancy options with their patients (Shanahan, Metheny, Star, & Peipert, 1999; Westhoff et al., 1993). Medical students and physicians’ knowledge, attitudes, intentions, and decisions to perform surgical and medical abortions including the type of procedures performed are also directly influenced by training (or lack of training) (Aiyer et al., 1999; Coyteaux, Moore & Gelberg, 2003; Pace, Sandahl, Backus, Silveira, Steinauer, 2008; Raymond et al., 2002; Steinauer, Landy, Jackson, Darney, 2003). In fact, training has even been identified in research as the most influential predictor of physician abortion practices (Steinauer et al., 2003). For example, while training was the primary predictor found in one study, other factors including age, time since graduation, residency program attended, subspecialty, and practice type did not relate to performing abortion procedures after including residency training experience (Steinauer et al., 2003). This study is based on correlations and therefore a causal relationship between training and the subsequent provision of abortion cannot be made. In addition, studies examining intent to perform abortions cannot ascertain these physicians will actually perform abortions upon completion of training. Intention is an indicator of the likelihood that a behaviour will occur, but does not mean abortion services will necessarily be practiced. While randomized control trials are needed (to draw causal links), overall medical education and training do appear to be influential factors on future practice.

Medical curriculum is an important area to consider when examining whether physicians are equipped to provide contraception counselling, unintended pregnancy counselling, and abortion services (Aiyer et al., 1999; Espey et al., 2004: Raymond et al., 2002; Rosenblatt et al., 1999; Westhoff et al., 1993). Lack of education and training has been identified as barriers to physicians providing care in this area (Lazarus et al., 2007; Lindau, Goodrich, Leitsch, & Cook,
2.6 Current Curriculum

Canadian specific research examining contraceptive counselling, unintended pregnancy counselling, and abortion medical curriculum is limited. Initial reports indicate curricula is limited (Espsey, et al., 2005; Raymond et al., 2002; Veloudis, Do & Murray, 2000). In fact, the Association of American Medical Colleges reported that 76 out of 142 medical schools in the United States and Canada identified contraception and abortion are part of medical students’ curriculum (AAMC, 2009). In Ontario, a series of studies examining abortion services in province, the Studies on Access to Therapeutic Abortion Services, identified training procedures for future physicians in Ontario exposed to unplanned pregnancies as a focus for future research (Ferris, McMain-Klein, & Iron, 1998).

This chapter will now examine what is known about current contraception counselling, unintended pregnancy counselling, and abortion services curricula in medical schools, according to level of education: pre-clerkship, clerkship, and residency and specialty: family medicine, ob-gyn when discussing clerkship and residency training.

2.6.1 Undergraduate Curriculum

The Medical Students for Choice (MSFC) organization has initiated curriculum mapping to obtain information on reproductive health education in Canadian medical schools. Findings from a baseline pre-clerkship curriculum assessment completed by students at 10 Canadian medical schools found that 405 respondents recalled no routine class time allotted to teaching technical or procedural aspects of abortion (MSFC, 2003). In three of Canada’s medical schools, the class time dedicated to infertility was reported to be four times greater than time spent on contraception. The time spent on all contraceptive and abortion education was reported to average less than two hours, with more time allotted to Viagra than abortion (MSFC, 2003). Caution is warranted when drawing conclusions from this report as it comes from an advocacy

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9 For a definition of these please refer to Appendix A.
group. Moreover, information pertaining to methods including sample size and composition is unavailable as the information is not published in a peer-reviewed journal.

Steinauer and colleagues extended the MSFC’s curriculum mapping by surveying MSFC student coordinators at all medical schools in the United States and Canada about sexual and reproductive health curricula. According to this study, the inclusion of contraception and elective abortion in preclinical medical schools was limited and variable (Steinauer et al., 2009). Among Canadian schools participating (9/17), 78% reported unplanned pregnancy counselling (i.e., options counselling), 67% medical and 1st trimester surgical abortion (manual vacuum aspiration, dilation and curettage methods), and 44% post-abortion care. An average of 2 hours was allocated to contraception focusing on oral contraception methods.

Limited undergraduate curriculum has also been noted among Ontario (Thunder Bay and Hamilton) family medicine residents. Among respondents, only 25% reported some medical abortion training during their medical school education (Raymond et al., 2002). This data may be vulnerable to response bias and error given that it relies solely on resident recall. Participants who responded to the survey may be more interested in this training than the average student or resident and their responses may reflect this self-selection.

Most studies survey one stakeholder group such as students, residents, and program directors. Studies incorporating both program directors and students (or residents) have identified discord in curriculum recall (Steinauer et al., 1997). In these instances, program directors’ estimates of exposure were greater than residents’ (Roy et al., 2006; Westhoff et al., 1993). In Steinauer and colleagues (1997) for instance, 16% of chief residents reported no training in injectable contraceptives during post-graduate training, while program directors indicated only 8% of residents receive no training in this area. With only 37% of chief residents responding, this low response rate may account for why the differences in self-reported training levels were identified between these two groups. Second, chief residents by nature may differ from the average resident and if so, their responses would not reflect the actual experiences of average residents. Discord between what curriculum students identify and the curriculum leaders’ identify has been noted elsewhere (Wathen, et al., 2009).
2.6.2 Clinical Clerkship Training

The largest gap in research examining curriculum in this area is at the clinical clerkship program level. One U.S. study specifically examining ob-gyn clinical clerkship training in this area was identified. Among ob-gyn clinical clerkship program directors responding to a 2003 survey, 23% reported no form of abortion training in their third year ob-gyn clinical clerkship rotations, 32% offered a lecture specifically about abortion, and 45% offered an elective clinical experience (Espey et al., 2005). In Ontario medical schools, family medicine and ob-gyn are required clinical clerkship rotations. Given that exposure to these rotations is common among all medical students, it is a great opportunity to legitimize attitudes and practice behaviours through standardized curriculum that includes clinical exposure to contraceptive counselling, unintended pregnancy counselling, and abortion.

2.6.3 Post-Graduate (Residency) Training

Historically, research in this field has concentrated on identifying whether the abortion procedure itself was included in U.S. ob-gyn post-graduate programs. More specifically, research concentrates on whether training on the abortion procedure (1\textsuperscript{st} and 2\textsuperscript{nd} trimester) exists and whether it is routine or elective (Almeling, Tews & Dudley, 2000; Cheng, 1999; MacKay & MacKay, 1995). While this information is important, it does not provide an in-depth understanding of the spectrum of family planning from prevention (contraception counselling) to management (unplanned pregnancy counselling and abortion services). In addition, understanding the content of the curriculum and method of delivery (e.g., didactic lecture versus case-based sessions versus hands-on experience) adds to our ability to ascertain if curriculum is sufficient.

2.6.3.1 Obstetrician Gynecologist Residency Training

In addition to the need for more attention to counselling identified earlier in this literature review (Bernhardt et al., 1998; 2005), low exposure to IUD, diaphragm, and implant insertion has been noted by ob-gyn residents (Cheng, 1999; Westhoff et al., 1993). Regarding abortion, a survey of recent ob-gyn residency graduates found 58% reported performing at least one abortion and 42% reported “never” performing an abortion during their residency training (Steinauer et al., 2003).
Studies soliciting faculty perspectives on ob-gyn residency training in abortion services verified the low level of training reported by residents (Almeling et al., 2000). In fact, a series of U.S. studies indicate a steady decline in ob-gyn residency programs offering abortion from the late 1970’s to the 1990’s (Lindheim & Cotterill, 1978; Westoff et al., 1993). In 1985, 23% of programs offered routine 1st trimester abortion training and 21% routine second trimester abortion training (Darney et al., 1987). In 1991-92, a decline to 12% of programs reporting routine 1st trimester abortion training and 7% indicated routine 2nd trimester training was available (MacKay & MacKay, 1995). Again, this data only provides information regarding program directors’ perspectives and does not provide information from the physicians participating in the post-graduate training process in the U.S. One Canadian survey of ob-gyn residents in their 4th and 5th year (Post-Graduate Year [PGY]-4 and PGY-5) and program directors found that while most medical schools reported abortion curriculum available as an elective, only half include abortion as a routine aspect of their program (Roy et al., 2006). More than half of the residents felt competent to perform a first-trimester aspiration and second trimester inductions but did not feel competent in first-trimester medical abortions (39%) or dilation and evacuation (D&E) 26%. Approximately 71% of residents participated in abortion training and half intended to provide elective abortions after residency training to patients. Residents were more likely to intend to provide abortions after training if the curriculum was a routine part of their training (Shanahan et al., 1999).

2.6.3.2 Family Medicine Residency Training

Steinauer and colleagues (1997) surveyed graduating family practice chief residents on their training in family planning. Most respondents reported limited clinical experience in fitting cervical caps or diaphragms, inserting or removing intrauterine devices, and performing first-trimester elective abortions during residency training (Steinauer et al., 1997). Cheng (1999) also noted limited training among final year residents. In fact, 37% had never prescribed emergency contraceptives, and 43% had never inserted an implant (Norplant). In another study of family medicine residency programs, 88% of programs did not include any abortion training (Talley & Bergus, 1996). In another study, 39% of Ontario family medicine residents reported some exposure to medical abortions in residency training (Raymond et al., 2002). In addition to little knowledge, residents and practicing physicians in this survey reported discomfort with discussing, performing, and identifying abortion complications (Raymond et al., 2002).
Family medicine physicians may not perform abortions in practice but they will likely be exposed to women seeking information and referral for unintended pregnancy. It is important they understand the importance of quick and safe access to abortion. Is it sufficient to provide unplanned pregnancy and abortion as an elective for those interested to pursue it or is it important to ensure all students and residents are able to counsel patients about this issue? It is important that research examines whether the procedure itself is taught and to determine if family medicine and ob-gyn students and residents are trained in other aspects of family planning and abortion such as how to provide patient referrals to physicians who will assist with abortion requests.

Currently, research in this field surveys stakeholders about curricula using a questionnaire method. Qualitative interviewing would allow probing to support deep understanding about curriculum and why and how it is implemented (Steinauer et al., 2003).

2.7 Medical School Complexity

Medical schools operate in a complex world where multiple settings (e.g., classrooms, clinics, hospitals) must be balanced, organized, and coordinated with expert staff capable of teaching and mentoring and resources to support faculty. This involves resolving tension and conflict such as prioritizing curriculum topics and time allotted to competencies (Forbes et al., 2006; Lazarus et al., 2007). For example, as remote rural clinical placements are increasing outside of teaching hospitals and far away from the medical school itself it is important all students/residents receive an equitable experience. Maintaining a standard of quality and consistency for all students and residents requires effective processes in place for implementation and evaluation.

Some family planning and abortion services curricula studies make note of possible contextual factors influencing medical curriculum such as policy changes from accreditation organizations or a possible reduction of abortion providers in the U.S. due to an aging demographic (Almeling et al., 2000; Henshaw, 1995). Additional reasons for inclusion of this curricula include lack of time, competing priorities, expert faculty available to teach, limited training sites, and a belief these issues are less important than other areas (Bennett, Calkins, Aguirre, Burg, 2006; Lazarus et al., 2007; Weiss, Lee, Levinson, 2000). There has not however, been an in depth examination of what and how factors influence curriculum content, delivery, and evaluation. Going beyond a descriptive level (i.e., identifying that a variable may/may not impact curriculum existence) to
explore what these factors mean to education leaders and how curriculum and the medical education processes are influenced adds to our understanding of curriculum. Some factors that may influence curriculum are outlined in further detail in the following section.

2.7.1 University Administration and Accreditation Organizations

Medical school programs’ content and structure are ultimately influenced by policy makers such as accreditation organizations and university administration. As identified earlier, there is flexibility in how policies are translated into practice. There is room for stakeholders such as program directors to direct their curriculum or training program in a manner conducive to their personal expertise and perspectives of “essential” competencies (either consciously or subconsciously). As such, curricula development, implementation, and evaluation can be variable despite regulated changes.

In 1996 for example, the Accreditation Council for Graduate Medical Education (ACGME) altered accreditation guidelines to require that training in abortion services be offered (routine or by elective) in the ob-gyn residency programs. Despite this change, the ACGME’s Residency Review Committee for ob-gyn estimated that 35% of residents did not perform a single abortion procedure during their residency program (Almeling et al., 2000). Almeling and colleagues (2000) examined program directors’ perspectives about whether the availability of residency abortion training had changed since the 1996 ACGME guidelines took effect. While 81% of program directors responding claimed to offer 1st trimester abortion training only 46% was routine, with 7% of program directors reporting no training in abortion provided at all. With respect to second trimester abortion training, 73% offered it (44% as routine and 29% as elective) and 10% reported no training (Almeling et al., 2000). When asked about the percentage of residents who obtain abortion training during residency training, 26% of program directors claimed all did, 34% believed 50-99% did, and 14% believed none of their residents were exposed to abortion training during their program (Almeling et al., 2000). This highlights the variable resident experience that is possible in light of policy changes.

10 The ACGME accredits residency programs in the United States.
It is important to note that the study above (Almeling et al., 2000) was sponsored by a national advocacy group (National Abortion Federation) and may promote responses in line with the current ACGME guidelines and/or discourage responses from program directors with negative perceptions regarding these groups. While these levels of training are still low, the training was higher than researchers expected. Critics have raised concern the study yielded exaggerated training level results due to methodological flaws. For example, the study had a lower response rate (69%) than the earlier series of studies (e.g., MacKay & MacKay [1995] had an 87% response rate). An examination of early versus late respondents did reveal evidence of potential response bias because program directors responding early were significantly more likely to report their program offered routine 1st trimester abortion training than late responders. As such, it may be that non respondents provided little or no training thereby positively biasing the results.

In addition, there may be response error due to misinterpretations of terms such as “routine” and “abortion”. An earlier study examining family practice curriculum for example, found respondents’ comments often suggest a misunderstanding of common terms “routine” and “optional” (Westhoff et al., 1993). Landy and colleagues (2001) highlight trouble with terminology as abortion exposure may mean respondents included all abortions such as those for medical reasons [e.g., fetal anomaly], emergency, and elective, rather than just elective abortion training as intended. If this is the case, then residents with training only in emergency abortions for example, were likely not exposed to some of the competencies involved in elective abortions such as counselling (e.g., pregnancy options) (Landy, Steinauer & Ryan, 2001). Surveying with questionnaires does not enable probing participants in order to ensure understanding of nomenclature. As this study was not a direct replication of the earlier series of studies identified with higher response rates (e.g., MacKay & MacKay, 1995), caution should be exercised when drawing comparisons. The results of this study may reflect response bias and/or error, rather than an increase in training. As such, care must be taken before drawing conclusions about abortion training levels. While policy changes may be implemented, it is possible for education leaders to adopt policies without implementing “real change” in the program structure and process. How the use of electives for example, may be used to circumvent implementing routine abortion curriculum is discussed further below.
2.7.2 Curriculum Format

When new topic areas are identified (voluntary or mandated) there are several ways to incorporate or alter curriculum in a medical school program: 1) space for a new course can be devised adding additional material or having other curriculum excluded; 2) an elective can be created; 3) extra educational resources can be made available for students to independently access; 4) overarching competencies can be identified so that new curriculum can be woven into existing curriculum. An abundance of competing curriculum topics already exist. This means it is likely the topic must be identified as salient and integral by accrediting bodies and stakeholders (such as program directors) to warrant adding new curriculum.

Based on the literature, it appears that when abortion training is available, it is often in the format of an elective rather than routine curriculum (Almeling et al., 2000). Making family planning and abortion services training an elective serves several purposes. It enables the curriculum to be available without adjusting the existing system; provides an opportunity to abide by regulations; ensures that training is offered; places the responsibility of acquiring the skills onto the students/residents; and, allows the training to exist in theory without having to deal directly with the political and religious issues or the discomfort and turbulence created by structure and procedural change. It is well-established that making curriculum topics elective or having students/residents arrange the training themselves, reduces the likelihood of participation (Espey et al., 2005; Roy et al., 2006; Steinauer et al., 2003).

As noted earlier, the challenging nature of these curricula makes it difficult to implement given the possible political and religious affiliations and stakeholders. Some schools deal with the family planning and abortion “quandary” by ignoring it in the medical curricula altogether, others make the topic an elective, and others include some component as routine with the option to sit out due to religious or moral beliefs. Including curricula routinely, legitimizes it as an important component of women’s health that students/residents should acquire. If programs clearly expect participation in this area, students and residents will be more likely to receive training (Almeling et al., 2000; Espey et al., 2005; MacKay & MacKay, 1995).
2.7.3 Issue with Electives

Electives pose challenges because students/residents are overburdened with routine curriculum. Student/resident decisions to participate in an elective means they are likely motivated to seek knowledge and skills in this area and may have a positive attitude toward abortion access for women (Epsey et al., 2004). Therefore, the average student/resident is less likely to be exposed to training in these areas. Moreover, those with negative attitudes towards abortion and who may have the greatest need for this education and training are unlikely to receive it (MacKay & MacKay, 1995). In one study for example, 92% of program directors offering an elective, report that fewer than 10% of students participated (Espey et al., 2005).

While making curriculum topics elective enables medical leaders to balance the time versus competency trade off, it places accountability for acquiring the related knowledge and skills onto the student/resident. The notion of an elective might indicate the competency is not important in order to “pass” examinations and therefore not necessary to participate in.

2.7.4 Teaching Faculty

One qualitative examination identifying problems establishing “humanities” into a Swedish medical school curriculum noted that although the program texts declare the program to be an interdisciplinary program, curriculum was implemented solely by the medical faculty’s agenda (Wachtler, Lundin, & Troein, 2006). In addition to conscious stakeholder biases, the representation of an event as “truth” about what is occurring from one stakeholder’s perceptions may not be the same compared to another stakeholder’s (Wachtler et al., 2006). For example, a faculty member uninterested in the topic of contraception counselling for example, may feel their coverage of the topic in their course is adequate. Input from a faculty member with expertise in this area and/or students and residents; however, may think it is inadequate coverage.

Personal beliefs and attitudes may also influence perspectives, particularly given the sensitive nature of these curricula. In addition, physicians overseeing students and residents may not have the skills to supervise in this area effectively. While availability of expert faculty has been identified as a barrier to including this curricula (Lazarus et al., 2007), we know little about how faculty (teachers and preceptors) influence how curriculum is taught (if at all). Physicians with negative attitudes to providing contraception counselling, unplanned pregnancy counselling and
abortion services may negatively influence clinical clerkship students’ and residents’ exposure either by not including these topics or addressing them inappropriately.

It is also important that faculty understand the program objectives and possess the skills to translate these into effective teaching. Research has identified that clinical teachers receive little instruction on core knowledge regarding effective teaching principles (McLeod, Steinert, Meagher, & McLeod, 2003). We should not assume physicians automatically translate into excellent teachers. Resources including education and training should be provided.

As such, while contraceptive counselling, unintended pregnancy counselling, and abortion curricula may be listed as program objectives, how faculty adopt and translate them into their program could be variable. This may include inadequate or too much curriculum.

2.7.5 Abortion Provider Faculty

The number of physicians who perform abortions is on the decline (Henshaw, 1998). In addition, in 1999, 57% of ob-gyn specialist physicians in the U.S. who performed abortions were 50 years or older (Foster, van Dis, & Steinauer, 2003). While demographic data regarding Ontario abortion providers are not available, if a significant number of providers are retiring and not being replaced by newly trained providers, the availability of clinical training may be in jeopardy. As such, it is important to ascertain if this cycle where fewer providers are available to train the next generation of residents is presenting itself in Ontario.

There is also evidence that while physicians may perform abortion procedures, there is a large range in the number performed. For example, one study found providers self-reported performing between one and 175 abortions per week. While the mean was five, it appears that a small, select group of providers perform large numbers of abortions (Wyatt, Wyatt, Morgan, Riederle, Tucker, et al., 1995). If an abortion provider is available to teach and mentor, it may be that a wide variability in the frequency of procedures performed means students/residents may not be exposed. For example, it is less likely student A placed with a physician who performs one abortion per week will receive clinical exposure to abortion compared with student B placed with a physician performing 175 abortions per week during a six-week clerkship rotation.
2.7.6 Affiliated Hospital Sites

For clinical clerkship students and residents, their placement location may have a major impact on their experiences. Each hospital has its own policy and specialties dictating the type and frequency of patient cases students and residents will encounter. For example, students and residents placed at a hospital specializing in women’s health may be more frequently exposed to contraceptive counselling, unintended pregnancy counselling, and abortion than they would at a Catholic affiliated hospital. Policies of religious-affiliated hospitals prohibit or offer very limited family planning services and as a result, training is essentially unavailable for students and residents placed in these hospitals (Almeling et al., 2000; Ferris et al., 1998).

Hospital policy may not directly prohibit unplanned pregnancy counselling and abortion training but structural factors such as the training hospital/clinic’s location, size, and resources, such as staff expertise mean they are unlikely to occur (Almeling et al., 2000; Ferris et al., 1998; Nathanson & Becker, 1980). Overall, the number of hospitals providing abortions is on the decline (Henshaw & Van Vort, 1994). In one study, only 18% of Canadian hospitals were reported to perform abortions (CARAL, 2003). Regarding placements in physician offices, experiences in a rural setting may be very different than a family physician situated close to Toronto or Ottawa where there is more ready access to free-standing clinics.

2.7.7 Free-Standing Clinics

The majority of abortion procedures are now occurring in free-standing clinics. In Ontario, free-standing abortion clinics are exclusive to Toronto (n=5) and Ottawa (n=1). While these clinics can provide specialized training, there are two issues related to this. Providing centralized services in a small number of locations limits the number of students/residents that can attend these sites for training. Second, students/residents attending medical schools far away from specialized clinics may have to travel to an alternate site (i.e., free-standing clinic) to obtain training. It is therefore, less likely they will participate in training (Almeling et al., 2000). As such, exposure to training during clerkship and residency may be limited (Harper, Henderson & Darney, 2005).
2.7.8 Students and Residents

Medical students and residents have a voice in their medical training. While they are limited by their work loads and available time to participate in electives; overall, this group appears to be accepting of this type of education (Rosenblatt et al., 1999). Epsey and colleagues, for example (2004), provided students the option to participate in a half day family planning clinical experience (observing contraception and abortion counselling as well as abortion procedure); 68% of students elected to participate. This is only one university and may not provide a full picture of different student demographics (e.g., religion, gender, ethnicity, age, geographic location) but positive attitudes have been identified in other studies as well (Raymond et al., 2002; Steinauer et al., 2003).¹¹

Students/residents opposed to family planning are typically given the ability to opt out of routine curriculum. Students cite personal beliefs, religion, and time as reasons to opt out of elective training (Epsey et al., 2004). Ironically, while student beliefs, attitudes, and desires may be cited as reasons not to include curriculum by medical schools, curriculum exposure is perhaps the most important for this group, not only for basic knowledge and skill, but to positively influence attitudes and potentially future physician behaviour (Epsey et al., 2004; Steinauer, et al., 2003).

In 1993, in response to a reduction in training opportunities, medical students formed Medical Students for Choice (MSFC). Today, the group has spread throughout North America with Canadian branches at almost every medical school across the country. The purpose of MSFC is to assist in ensuring undergraduate medical schools and residency programs provide education and training opportunities. This includes involvement in curriculum reform, funding externship opportunities (supports training outside hospital settings), and creating outreach programs to increase awareness and support.

Medical schools are complex sub-cultures that require coordination of a variety of resources and stakeholders in order to implement the curriculum effectively. To better understand if and how

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¹¹ Attitudes towards abortion can change depending on the perceived “appropriateness” of the procedure. Agreement with providing medical abortion among Ontario family medicine residents in Thunder Bay and Hamilton was significantly higher when the reason for abortion was maternal health compared to education and employment (Raymond et al., 2002). In addition, residents in Thunder Bay, a more rural setting in Ontario, were less supportive of abortion for each reason than residents in Hamilton (an urban location).
Ontario medical curriculum is implemented (translated from course objectives into actual education sessions or clinical training), it is important to identify factors that influence curriculum and explore how these influence curriculum. Research has identified accrediting organizations, university administration, curriculum format, faculty, hospital sites, free-standing clinics, and students/residents as factors that may impact the provision of contraception counselling, unplanned pregnancy counselling, and abortion services medical curriculum (Bennett et al., 2006; Lazarus et al., 2007; Weiss et al., 2000). Qualitative methods can further our understanding of factor by moving beyond identifying to understanding how factors enable and/or restrict curriculum (Travers, 2001).

Understanding curriculum is necessary in order to identify both gaps and opportunities for improvement. Including program directors is important when trying to understand curriculum in medical schools. Questionnaires have asked program directors to identify curriculum (Espey et al., 2005; Roy et al., 2006). In fact, Roy and colleagues identified that programs with routine abortion training was more likely to have a supportive program director or departmental chair. The role of program directors will be described below.

2.7.9 Medical School Program Directors

Yukl (2006) describes leadership as the process of influencing others to understand and agree upon what needs to be done and how to do it, and facilitating individual and collective efforts to accomplish shared objectives. Management includes administration, organization, and monitoring. Both leadership and management are necessary components for effective managerial performance. Leadership and management are closely related and sometimes intertwined concepts.12

Yukl’s description is well-suited to describe the role of program directors. For each program (e.g., family medicine, ob-gyn) and level (e.g., clinical clerkship, residency), there is a program director in place (e.g., program director for family medicine clinical clerkship). Program directors represent an interesting level of leadership in medical schools as they are responsible for the development and delivery of medical curriculum relating to their respective program

12 Leadership is viewed as a component of management, whereas effective management is often expected of a leader (McEwen & Wills, 2002).
(e.g., ob-gyn clerkship). In other words, they have a key role in deciding when and how learning objectives are implemented into their program (Forbes et al., 2004). This includes ensuring it meets requirements for accreditation (LCME, RCPSC, CFPC) and learning objectives identified by organizations. It also means understanding the organization (e.g., resources available) and customer needs (i.e., student and resident) and how curriculum can be best implemented given these factors.

While program directors must coordinate resources, faculty, students’ or residents’ needs, and support the needs of these stakeholders so they can do their work, they must also negotiate for resources and establish a learning culture. However, they are not the ultimate authority; they are accountable to the dean of the medical school (often indirectly via vice-deans of undergraduate and post graduate education respectively and the relevant department chair).

According to Shortell’s definition, program directors may also be considered middle managers (Shortell, Zazzali, Burns, Alexander, et al., 2001). Middle managers are not part of the senior executive staff; they include department heads and first line supervisors. Senior executives are those who are responsible for overall operation and administration. In the case of medical schools, a dean may represent an example of a senior executive title. Program directors are often overseen by a departmental chair and the associate/vice dean of undergraduate or post graduate medical education, with the program director overseeing the site coordinators and teaching faculty relating to their area. Program directors are key components in medical education as they have the opportunity to engage front line educators and consumers (students/residents) in examining the strengths and weaknesses of the program as well as possible improvements in medical education operations. This can be translated into change both by informing senior medical leaders as well as reflecting it in the procedures of the program.

As leaders, program directors should be accountable for the medical education and training given that they shape the experience students/residents receive in their program. Examining how they navigate their responsibilities and oversight from senior leaders would provide important information about the real world of medical curriculum systems and processes.

Traditionally, leadership research theory has focused on traits, characteristics, and behaviours styles of leaders (Uhl-Bien, 2006). This individualistic-variable approach considers the individual as a discrete and independent entity (Uhl-Bien, 2006). Leaders are not impervious to
contextual variables such as fiscal resources and employee attitudes. Leaders must understand the complexity of their organization. Understanding how leaders (program directors) manage their program given resources and stakeholders including how they balance competing needs of senior management (e.g., deans), faculty, and students is an important way to explore leadership.

A social process approach to studying leadership has emerged. This involves considering leadership as made in processes that are dynamic and constantly evolving (Allard-Poesi, 2005; Parry, 1998; Parry, 2004; Uhl-Bien, 2006). According to this perspective, leadership is a complex phenomenon created through actions, behaviours, relationships and interactions between multiple people (not based solely on an individual) and organizational phenomenon (Uhl-Bien, 2006). People and organizations create ongoing and multiple constructions and meanings that are created in processes (Allard-Poesi, 2005). Parry (1998; 2004) has identified the importance of examining social processes of leadership (SPL) in different contexts both physical settings such as education organizations as well as “types” of behaviours. Sensemaking is an example of a social process of leadership. Weick’s theory of sensemaking (2001) identifies that people create their own situations and actions and try to make them rationally accountable to themselves and others. Sensemaking is ongoing and fluid. When people act, the reason is self-evident or uninteresting. When this flow is disrupted, particularly if the action cannot be easily dismissed or minimized, people feel a sense of the unknown and feel compelled to make sense of what is happening.

While social processes of leadership has not been used in the field of medical education, it has been developed in health care settings. For example, optimizing is a social process of leadership theory developed by Irurita (1996) using a grounded theory to explain how nurses can impact healthcare delivery. In essence, optimizing involves making the best of a situation, including using what resources are available as effectively and innovatively as possible to compensate for the situation and move beyond mediocrity to excellence. It is important to validate and further develop existing social processes of leadership in different contexts as well as explore potential new social processes of leadership (Prus, 2007).

Given the complexity of medical schools including multiple organizations (e.g., hospitals and clinics), faculty (e.g., preceptors and teachers), and consumers (e.g., students and residents) it is important to consider how program directors makes sense of this complexity, in order to develop,
implement, and evaluate their program. Exploring how curriculum that is challenging such as contraception counselling, unplanned pregnancy counselling and abortion services is handled provides an important layer to this research.

The lived experiences of program directors receive little attention in the medical literature. This is despite the unique role they play in medical education (Gay, Talner, Hunt, McIlhenny, et al., 1995). The role of the program director is stressful and has been associated with high burnout (Pugno, Dornfest, Kahn, & Avant, 2002). Program directors do report personal satisfaction and enjoyment, particularly related to interactions with students/residents (Gay, et al., 1995). Negative components of the job according to radiology residency program directors was lack of time, administrative paperwork, interviews, questionnaires, and the “thankless job” (Gay et al., 1995).

Another survey of program directors identified few program directors had management experience prior to becoming a program director (Pugno et al., 2002). In one survey, a typical program director reported 3 to 4 years of experience before feeling prepared to meet their role expectations. Interestingly, 3 to 4 years was also the typical lifespan of a program director (Pugno et al., 2002).

Some medical education research has discussed the role of academic physician administrators within hospital settings (clinical teaching). Fairchild and colleagues (2004) for example identify the danger of medical discourse that posits that senior physicians take administrative roles and that leadership and management skills are inherent. Assuming that leadership and management skills exist without any formal training is dangerous, particularly given the possible negative impact on the quality of Ontario medical schools.

Although the program director role is complex and demanding, program directors receive little formal education and training for the role. In fact, program directors are typically trained on the job (Pugno et al., 2002). Program directors may benefit from education and training in leadership and management practices, rather than assuming these inherently exist. Literature examining program directors leadership in medical school curriculum is limited, and focuses on physician academic administrators in settings such as hospitals (Fairchild, Benjamin, Gifford, et al., 2004). This further supports the need for specialized training for physicians interested in management and leadership positions within academic medicine (Fairchild et al., 2004). Increasingly, medical
school curriculum is evolving to include physician leadership. Curriculum is not however, informed by evidence about what an effective medical education leader is and the processes they should follow because this has not been established. As such, there is a gap in knowledge regarding effective leadership in medical education. The National Institute for Program Director Development (NIPDD) was formed in 1994 to assist family practice residency directors including creating curriculum and establishing mentor relationships. This has also been replicated in obstetrics and gynecology as well (Gay et al. 1995).

Bland and colleagues (1999) studied effective leadership in a collaborative effort to produce sustainable curricular change among primary care leaders responsible for changing curricula. More specifically, the emphasis was on leader perceptual frames. The perceptual frames used by Bland et al. (1999) were: 1) structural (emphasizing formal roles and relationships), 2) human-resource-oriented (focusing on the needs of people), 3) political (centering on conflict arising over scarce resources), and, 4) symbolic/value-based (viewing organizations as cultures with shared values). Consistent leadership, use of multiple cognitive frames (particularly the human resource lens), and a broad range of leadership behaviours were associated with positive outcomes. Bland and colleagues noted a leader who perceives their organization with only one frame may neglect other features of the organization (Bland et al., 1999). Viewing the organization with multiple frames may make a leader more effective, especially in a changing environment (Bland et al., 1999).

How a leader perceives their organization can influence what they think is the most important curriculum to cover and effective ways to teach it. When organizations are required to deal with change relating to systems and processes, the result is a time of uncertainty and distress (Allard-Poesi, 2005; Parry, 1999; Parry, 2004). Understanding how leaders deal with challenges (e.g., uncertainty, change) can inform future process improvement and ultimately improve organizational outcomes. Interestingly, studies have not focused on how program directors deal with challenges such as policy change.

Leaders can challenge current institutional “meanings”, ways of doing things, and subsequently produce new cultures (McEwen & Wills, 2002). There is some evidence of this among program directors. For example, a survey of U.S. residency directors’ revealed wide variability between participants about what competencies and skill levels they believed first year residents should
attain (Longdale, Schaad, Wipf, Marshall, Vontver, Scott, 2003). Moreover, having a supportive program director was significantly related to whether Canadian ob-gyn residency programs included routine abortion training (Roy et al., 2006).

Before a leader can implement change in an organization, they must first identify that a change is required and make sense of how to implement and lead the organizational culture or “thinking” to enable sustainable and effective change. Research to date focuses on the “doing”, examining “thinking” contributes knowledge to how medical education leaders operate (Martin, 2008).

2.8 Chapter Summary

With little knowledge of what and how medical students, and obstetrician and gynecology and family medicine residents are taught about contraception counselling, unplanned pregnancy counselling, and abortion services, it behoves us to explore this issue. This curriculum is challenging given its overlap with ob-gyn, and family medicine, its social and behavioural basis, sensitive sexual nature, and religious and moral implications. Understanding how program directors address this curriculum may also add to our understanding of program director leadership processes. Program directors are an important stakeholder group to focus on as they are key decision-makers in curriculum implementation, accountable for their respective program. Examining curriculum from program directors’ perspective, including exploring the factors that influence how they develop and implement curriculum has not yet been studied.
3 Conceptual Framework

“. . . a fundamental property of everyday life is that people believe ahead of the evidence.”
— K.E. Weick (2006: 1724)

3.1 Introduction

This dissertation represents an expansion of study four of the “Studies on Access to Abortion Services” (SAAS). SAAS is a series of four studies examining issues relating to the prevalence and accessibility of abortion services in Ontario conducted at the Institute for Clinical Evaluative Sciences conducted by Dr. Lorraine Ferris (PI).\textsuperscript{13} The objective of study four of SAAS was to identify current abortion curriculum provided in Ontario medical schools. As my thesis dissertation, I set out to broaden study four of SAAS. As noted earlier in this dissertation (see Chapters 1 and 2) the public health implications for unintended pregnancies in Canada are significant and warrant attention. A study examining abortion curriculum provides an opportunity to extend the topic area beyond one aspect of managing unintended pregnancy (examining abortion). Including contraception curriculum and unintended pregnancy counselling curriculum (in addition to abortion) provides information about the full spectrum of unintended pregnancy curriculum provided in Ontario medical schools: from prevention to management. Information about medical curriculum is limited and focuses on abortion procedures in U.S. ob-gyn residency programs (Espey et al., 2005; Steinauer et al., 2003). Understanding how physicians, likely to encounter patients vulnerable to unintended pregnancy (i.e., family physician and obstetrician and gynecologists) are educated to provide contraception counselling, unplanned pregnancy counselling, and abortion services is a key piece to understanding unintended pregnancy.

This study aimed to understand current contraception counselling, unplanned pregnancy counselling and abortion services curricula provided in undergraduate (preclerkship, family medicine clerkship, ob-gyn clerkship) and post-graduate (family medicine residency and ob-gyn

\textsuperscript{13} SAAS is funded by the Ontario Women’s Health Council (OWHC) through full funding from the Ontario Ministry of Health and Long-Term Care (MOHLTC). Dr. Lorraine E. Ferris is the primary investigator (PI); study conducted at the Institute for Clinical Evaluative Sciences (ICES).
residency) programs in Ontario. In addition, it sought to identify and explore factors influencing this curriculum through qualitative interviews with program directors responsible for this curriculum.\footnote{This will be addressed in detail in the methodology section. To frame this chapter it is necessary to provide a brief overview of the methods used in this study. This sets the stage to discuss the transition from a pragmatic framework to a symbolic interactionist approach.}

3.2 Chapter Outline

This chapter serves to outline the conceptual framework adopted in this dissertation. The chapter begins by introducing pragmatism, identifying the broad spectrum of possible pragmatic perspectives and the rationale for its adoption in this study; particularly in identifying existing curriculum. Finally, the chapter discusses symbolic interactionism: why it was well-suited to frame the exploration of factors influencing curriculum (objective two: to explore factors influential in determining whether contraception counselling, unplanned pregnancy counselling, and abortion curriculum exist in Ontario family medicine, and ob-gyn programs), its relationship with pragmatism, background information, and key features that guide this study.

3.3 Pragmatism

Since its inception in the 19th century with Charles Sanders Pierce and his “pragmatic maxim” pragmatism has become broadly diffuse. Charles Pierce, William James, John Dewey, Charles Horton Cooley, and George Herbert Mead are key scholars associated with the development of pragmatism in the early 20th century. At this time, pragmatism was generally positioned against determinist paradigms (i.e., positivist). The focus was on conceptualizing human behaviour based on examining the actual lived day to day behaviours of people (Prus, 1996), and to develop knowledge directly relevant to the human lived experience. According to pragmatism, practical consequences and real effects were vital components of truth and meaning (Pruyt, 2006).

While pragmatism is situated between objective and subjective views, there is a wide-spectrum of different perspectives within pragmatism (Pruyt, 2006). Some common features of pragmatism include radical empiricism, instrumentalism,\footnote{Instrumentalism is the view that a concept or theory should be evaluated by how effectively it explains and predicts phenomena, as opposed to how accurately it describes objective reality.} anti-realism,\footnote{Anti-realism is the view that statements about the world do not refer to things in the world, and that they are not supposed to refer to things in the world.} verificationism, and...
conceptualism. For example, Dewey’s radical empiricism posits that experience includes both factors and relations between those factors. As such, both the factors and relations need to be accounted for in our explanations. Any philosophical world view is flawed if it stops at the physical level and does not explain how meaning, values, and intentionality arose from it.

In the 1940s, pragmatism faded and was considered passé among philosophers and researchers, eclipsed by the latest and greatest: the positivist focus. Sociologists and psychologists at this time were more focused on finding ways of predicting and controlling human behaviour (Herman & Reynolds, 1995). The emphasis was quantifying causes (independent factors) for human behaviour and situations (dependent factors). Variables that were not easily measurable were dismissed as peripheral and irrelevant (Prus, 2007).

### 3.3.1 Revival of Pragmatism

A new analytic school of philosophy revived pragmatism beginning in the 1960’s. This movement criticized the dominance of positivism in the United States and Britain and the focus of social research on reducing human behaviour to a set of variables. Instead, this group advocated for the need to focus on understanding how people make sense of their situations and intentionally engage in processes as agents.17

This revival was led by Richard Rorty and Hilary Putnam, each with separate analytic views: 1) neopragnatism — a more relativist view attributed to Richard Rorty, and 2) a neo-classical perspective headed by Hilary Putnam which advocated for adherence to the pioneers: Pierce, Dewey and James’ original works. Neopragnatism is a more modern category but does incorporate insights from classical pragmatists. Like original pragmatism, neopragmatist perspectives are broad and diffuse.

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16 Anti-realism is used to describe any position involving either the denial of an objective reality of entities of a certain type or the denial that verification-transcendent statements about a type of entity are either true or false.
17 While diverse, interpretivists, humanists, constructionists, interactionists shared this view among pragmatists.
The degree and type of differences in neopragmatism are variable and widespread depending on different inquiry features such as conceptual formation or methodology.\(^{18}\) For example, neopragmatist C.I. Lewis does not agree with the aspects of Dewey’s works, while Richard Rorty disagrees with Pierce’s work, arguing that we should stop talking about reality in the world. According to Rorty, we cannot find the answers to the classical philosophical questions. Rorty posits that philosophy is a kind of literature; success is a kind of literature. Literature (and thus philosophy) influence how we think of ourselves and how societies structure and organize themselves. Rorty’s neopragmatic research aim is to produce practical knowledge, not to understand the true nature of the world (Pruyt, 2006). Pragmatists are about focusing more on the best way to answer research questions rather than contributing to philosophy (Prus, 1996).

The contemporary pragmatic outlook comprises a set of ideas that are often appealed to in defending qualitative inquiry as a viable option in the social sciences. Moreover, for qualitative inquiry, pragmatism is particularly important because it is the philosophical foundation of the Chicago school of sociology and symbolic interactionism emerged from pragmatism (discussed in further detail below).

### 3.4 Conceptual Framework for This Study

This dissertation draws on general pragmatist concepts that include attending to the lived experiences of participants, viewing knowledge as constructed and based on the reality of the world we live in. In this view, both the natural physical world and the social world exist and are important.

Pragmatism views knowledge, truth, and meaning as dynamic. The idea is that knowledge is obtainable but is value laden, changes over time, and is provisional with respect to the time and context it was obtained. Research decisions, methods, and interpretations are based on what approach can provide the closest approximation to the truth (Prus, 1996). This philosophy views knowledge as an instrument or tool for organizing experience; and is deeply concerned with the union of theory and practice.

\(^{18}\) It is important to note that there are diverse views among neo-classical pragmatists as key “classical” pragmatists such as Pierce, Dewey and James, who disagreed with each other and had different views of various features of pragmatism (Herman & Reynolds, 1995).
3.4.1 Pragmatism for Identifying Curriculum

With applied research objectives, I intended to make an academic contribution to the knowledge base in medical education (Pruyt, 2006). A pragmatic framework was well-suited to provide a conceptual framework for interviewing program directors about existing contraception counselling, unplanned pregnancy counselling, and abortion curriculum in undergraduate (preclerkship and clerkship) and post graduate (residency) programs.

Medical curriculum is not provided in a vacuum but in a complex system. Medical schools function in the real-world, and are subject to the constraints of context, resources, and participants’ perspectives and constructions. The pragmatic framework identifies the importance of examining not only the particulars of contraception counselling, unplanned pregnancy counselling, and abortion curriculum but also the relations between the particulars.

Exploring whether contraception counselling, unplanned pregnancy counselling, and abortion services curricula existed and the factors influencing required understanding the context. Including broad questions about curriculum development, delivery, and evaluation in general supports understanding how identified factors influence contraception counselling, unplanned pregnancy counselling, and abortion services curricula.

Understanding program directors values, personal beliefs, and experiences and how these influence their responses was worthy of consideration. As such, pragmatism had utility for addressing the applied research objectives of this study.

Examining factors influencing curriculum from the reality of program directors (research objective two) would however, benefit from a more interpretive framework. Attending to the lived experiences of program directors and their reality would support not just identifying influential factors but also inform the relations between those factors. Understanding the complex world of medical education systems from the lived experiences of program directors would contribute to our knowledge of why and how contraception counselling, unplanned pregnancy counselling, and abortion services exist (Travers, 2001). As such I selected a symbolic interactionist approach to examine research objective two (examining factors that influence this curriculum).
3.4.2 Rationale for Selecting Symbolic Interactionism

Symbolic interactionism was chosen because it requires attending to the lived world of program directors and examining how they make sense of their lived world. In addition, as it evolved from pragmatism, it’s theoretical and methodological underpinnings are in line with pragmatism; however, symbolic interactionism involves a more interpretive approach. In the following section I will describe the roots of symbolic interactionism. This serves to provide background information. Key features of symbolic interactionism are also identified to support why symbolic interactionism is well-suited as a theoretical and methodological framework for research objective two of my thesis dissertation.

3.4.3 From Pragmatism to Symbolic Interactionism

The origins of symbolic interactionism can be traced to a number of sources including: phenomenology; existentialism; German idealism; formalism; evolutionary theory; and, American pragmatism. Pragmatism is inarguably the greatest influence on symbolic interactionism, providing its foundational intellectual ideas.\(^{19}\) The most influential pragmatists came from the Chicago school of pragmatism (Charles Pierce, William James, John Dewey, and George Herbert Mead). Many ideas by Pierce, James, and Dewey directly influenced the ideas and structure of symbolic interaction theory. An example of this is the Chicago school of pragmatism’s concern for process, viewing ideas as part of ongoing activity. This is a central premise of symbolic interactionism\(^{20}\) (Herman & Reynolds, 1995; Prus, 2007).

The pragmatist concern with understanding social processes and meaning was adopted, built upon, and revised into what was coined by Herbert Blumer (1937) as symbolic interactionism. Symbolic interactionism reflects pragmatism with its emphasis on attending to the ways people make sense of and act towards the world as purposive, thinking, and goal-oriented beings (Prus, 2007).

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\(^{19}\) American in origin, pragmatism is tied to the American social context, or “American way of life”. Critics have called pragmatism a philosophy of the anti-intellectual American business class. Pragmatism pushes to prove its worth (theory) in practice.

\(^{20}\) Some would even suggest that pragmatists James and Dewey could be considered “early symbolic interactionists” (Herman & Reynolds, 1995).
Symbolic interactionists continue the pragmatist agenda of producing knowledge relevant to the human world of lived experience; however, it is extended by locating understanding of the “doing” of everyday life in a context that is theoretically and methodologically informed, unlike early pragmatism (Prus, 1996).

Herbert Blumer includes Mead’s social behaviourism and his methodology of attending to the experiential essences of the human condition. This stems from Charles Horton Cooley’s method of “sympathetic introspection” (i.e., ethnography); the notion that researchers must place themselves in the shoes of the person they wish to understand (Herman & Reynolds, 1995; Prus, 2007). Symbolic interactionism differs from pragmatism in its typically ethnographic approach to study group life (Prus, 2007).

### 3.5 Symbolic Interactionism

This section provides more background information about symbolic interactionism in order to further elaborate this conceptual framework and situate symbolic interactionism in this study.

Symbolic interactionism focuses on the nature of human social interaction emphasizing an active human image rather than a passive, robotic entity. Society is comprised of human beings interacting with one another. Individuals and society are in a constant state of evolution and change. The three core premises that form the foundation of symbolic interactionism are 1) human beings act toward things on the basis of the meanings they have for them; 2) the meaning of such things is derived from, or arises out of the social interaction that one has with one’s fellows; 3) these meanings are handled in and modified through an interpretative process by the person dealing with the things he/she encounters (Blumer, 1969; 2; Prus, 1996).

Like pragmatism, there are diffuse views among symbolic interactionists. Depending on the author, there are two to fifteen varieties of symbolic interactionism (Herman & Reynolds, 1995). These differences range from ontological to methodological. Two polar opposites are the “Chicago” school led by Herbert Blumer (a student of Mead’s) and the “Iowa” school led by Manford Kuhn. While both agree that humans have the capacity to develop and use symbols to represent features or aspects of their world, the symbolic capacity makes humans unique. Symbols can be used to represent social objects that are used to shape and influence definitions of their situations and interactions. Humans are able to self-reflect and see themselves as objects.
With respect to methods, both views also agree the focus should be on the social processes humans use to define their social situations and behaviour decisions. The two schools part ways however, with respect to causality. For the Chicago style, social structures or factors do not cause human behaviour; they are only one type of object influencing an individual’s symbolic thought. Human behaviour does not have clear causes. The Iowa school focuses on factors as the cause of human behaviour and employs the scientific method to establish causality (Herman & Reynolds, 1995).

### 3.5.1 Symbolic Interactionism for This Study

I adopted the “Chicago school” of symbolic interactionism and more specifically, the three central premises that form the foundation of symbolic interactionism identified above for this dissertation. The objective of symbolic interactionism is to examine the ways people deal with particular situations they find themselves in and the ways people, as reflective beings, live and interact with others. To understand factors influencing curriculum beyond whether they exist from program directors perspectives requires trying to understand program directors lived experiences. As Blumer notes:

> As human beings we act singly, collectively and societally on the basis of meanings which things have for us. In our activities we wind our way by recognizing an object to be such and such, by defining the situations with which we are presented, by attaching a meaning to this or that event, and where need be, by devising a new meaning to cover something new or different. This is done by the individual in his personal action, it is done by a group of individuals acting in concert, it is done in each of the manifold activities which together constitute an institution in operation, and it is done in each of the diversified acts which fit into and make up the patterned activity of a social structure or a society. We can, and I think must, look upon human group life as chiefly a vast interpretive process in which people singly and collectively guide themselves by defining the objects, events and situations which they encounter.

-Blumer, 1969, p.132

According to Mead, “the concept of mind, or an internalization of the perspective of the (interactive) community in which one is located, is viewed as an ongoing process by which one makes sense of the world as encountered” (Prus, 1996, p.53). Reality is a symbolic experience, created and based on human interaction with others. “Humans may be born with physiological capacity for thought, but thinking (interpreting, defining, contemplating, assessing, selecting, creating) is a reflective process that develops only by attending to the other and envisioning self
as an object from the viewpoint of the other” (Prus, 1996, p. 55). People act with various biological capacities and limits and attend to cultural and organizational systems of the communities they belong, knowingly and meaningfully engaging in the world as agents. Human knowing and acting is something in the making (Prus, 2007). Symbolic interactionists do not focus on what people should do or are not doing but what they are actually doing and the ways they go about these activities. They do not ask why or what makes people act the way they do but focuses on how people enter into processes of human group life (Prus, 2007).

Social structures do not cause human behaviour; they are one feature that influences an individual’s symbolic thinking. Social structure is emergent and a result of shared interpretations. It is a product of individuals’ internal symbolic processes trying to group together their behaviours into organized patterns. Blumer, a pioneer symbolic interactionist, claims deeper and richer insight is possible using this lens. In my dissertation, while identifying curriculum and the factors that influence it are important, it is critical to move beyond these influences to address the ways in which program directors make sense of them and how they influence the process of medical education. In this manner, we are able to better understand the social processes involved (Mohr, 1997; Prus, 2007; Travers, 2001). Symbolic interactionism allowed me with a framework to explore the manner in which program directors make sense of these in the context of their roles as curriculum leaders.

3.6 Chapter Summary

Given the applied nature of the research objectives in this study; particularly identifying existing curriculum, pragmatism is adopted to guide this aspect of the study. Emerging from pragmatism, symbolic interactionism provides an interpretive framework to attend to the lived experiences of program directors as they attempt to make sense of factors influencing curriculum in their programs.
4 Methodology

“No method is absolutely weak or strong but rather more or less useful or appropriate in relation to certain purposes”

– Sandelowski 21

4.1 Methodology Introduction

Qualitative methods are useful in health care and education. Arguably they are more appropriate to inform and resolve certain questions than quantitative methods, such as how and why (Kearney, 2001). This is because qualitative methods (such as interviews, focus groups, participant observation, and document analyses) support thick description, depth, and contextual understanding (Denzin & Lincoln, 2000; Sandelowski, 2008). Quantitative methods on the other hand, focus on breadth of knowledge and aggregate data via numerical analyses and data reduction (McCracken, 1988).

If we consider examining medical curriculum in Ontario medical schools, it is reasonable to expect that each of the six schools is unique, given possible differences that can include: missions, approaches to developing, implementing, and evaluating curriculum. Historically however, research in this field identifies curricula using quantitative questionnaires. This does not lend itself to capturing the differences between schools that may influence curriculum such as structure and processes, beyond a surface level. Moreover, questionnaires are not conducive to clarifying issues such as different meanings participants may attribute to variables. As identified in the literature review, terminology can have different meanings for participants such as curriculum, and elective abortion (Almeling et al., 2000). In fact, leading researchers in the field have identified the contribution qualitative methods could lend to our understanding of curricula in medical schools (Steinauer et al., 2008). In addition, as noted in Chapter Three, it is important to attend to the broader complexities of medical school systems in order to understand curriculum and factors influencing curriculum. This requires adopting methods that support in-depth probing. As such, a qualitative approach was selected to foster understanding of the

21 See Sandelowski, 2000, p.235
uniqueness of each school, the broader context, and specifically contraception counselling, unplanned pregnancy counselling, and abortion services curricula.

### 4.2 Chapter Outline

The focus of this chapter is to outline the methodology used to explore contraception counselling, unplanned pregnancy counselling and abortion services curricula. I begin this chapter with a reflexive piece that describes my journey and further discusses the emergent nature of this study. Methodologies selected for research objective one: identifying curriculum and research objective two: exploring factors influencing curriculum are specified and explained. To advance the establishment of clear links between the research objectives and method choices, a detailed description of the sampling, recruitment, data collection, transcription, analyses, and rigor including trustworthiness and credibility is provided.

### 4.3 My Story

I have situated my reflexive piece here because it will inform the method decisions that follow. This is the story of a journey, a true experience of the emergent needs of qualitative research. It also serves to locate any potential researcher biases. This discloses the qualitative research process given me as the researcher and data collection instrument (Creswell, 2003).

Beginning this study, I was motivated to find out what contraception counselling, unplanned pregnancy counselling, and abortion services curricula were provided in Ontario family medicine and ob-gyn programs, as well as the factors that influence the existence of this curricula. I wanted to uncover the specific contraception counselling, unplanned pregnancy counselling, and abortion services curricula that were implemented in each area (family medicine and ob-gyn) and program level (preclerkship, clerkship, residency). This included wanting to uncover specific details of the curriculum such as different competencies involved in each area: contraception counselling, unplanned pregnancy counselling, and abortion services (e.g., sexual history taking, medical abortion), format (e.g., education session, clinical training), and the level of exposure (e.g., observation, perform independently).

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22 For example, inquiry aimed at identifying effective processes for implementing policy change is not easily quantifiable and perhaps inappropriate to quantify without careful consideration of individuality and in depth exploration of daily processes.
As I don’t have a background in medical education, I was driven to understand the medical education process from the perspective of program directors to ensure I was confident in my claims and identification of any medical curricula provided.

I spent a considerable amount of time reviewing literature in the area and consulting with medical and research experts. As most research was based in the U.S., I did not have preconceived notions of what curriculum program directors would identify. I had a sense of the complexity of medical schools and the importance of examining the factors that could influence whether and how curriculum was delivered. The literature-identified factors such as elective status, faculty available to teach, advocacy groups (student led and others), and policy were important features that could influence family planning curriculum. I included this as a direct question to the program directors (e.g., What factors do you think influence contraception counselling curriculum?) but broader, indirect questions were utilized to try and reveal factors influencing the curriculum that may not have been identified by directly asking the question. I wanted to make sure that this aspect was exploratory, not only to identify as many factors as possible but also to understand the world of medical education and the ways factors such as faculty, residents/students, and resources (e.g., training sites available) operate and interact.

As noted by Blumer (1967), starting with a theory a priori shifts analysis away from focusing on the social world to concentrating on preconceived notions of what is “true” or “real.” I wanted to collect as much information as possible about curriculum delivery, but also the development, evaluation and context of the curriculum. I was uncertain what would be revealed as important from the perspective of program directors so it was vital to obtain as much information as I could (Prus, 2007).

With a sensitive topic area, I knew it was important to foster rapport and trust. At the onset of the interviews I communicated to program directors that the purpose of my study was not to evaluate the program or their role, but rather to understand the curricula (contraception counselling, unplanned pregnancy counselling, and abortion services) that existed. Despite this initial caveat, power struggles and tension permeated many interviews. In preparing for the interviews I practiced and subsequently adopted motivational interviewing techniques that included empathizing (e.g., “that must be difficult”), rolling with resistance (e.g., “the purpose of the interview is to understand not to evaluate”), establishing rapport (e.g., “thank you so much for
your time, I cannot imagine how busy you are”), and avoiding confrontation (e.g., ignoring tension and agitated language, and continuing with empathetic questioning) (Skinner, 2000). These strategies support rich data collection. This was necessary to satisfy my drive to accurately understand program directors’ perspectives and to ensure I had enough information to address my research objectives. It was also important that program directors felt at ease so I could probe further and obtain open explanations, particularly with respect to contradictions and ambiguities, without causing tension or agitation.

Probing and follow-up questions were essential for obtaining thorough information on existing curriculum and also to explore routine, possibly taken-for-granted practices of program directors, and their relation to the inclusion of these curricula (Prus, 2007). Achieving this required patience, perseverance, and maintaining focus. Prior to beginning the interviews I created a list of possible issues that might arise, (e.g. different interpretations of terminology), and subsequently planned responses such as a potential probes to ask. In addition, I practiced potential scenarios with other colleagues.

During the initial interview, there was typically subtle tension from the program director while accounting for contraception counselling, unplanned pregnancy counselling, and abortion services curricula. While I was prepared for resistance and the possibility of tension relating to the topic area, that which I encountered centered on variability and the director’s ability to identify if and how the curricula were provided. More specifically, the program director was not able to identify if students/residents routinely encountered and acquired competence in the areas discussed. Discord between being a “program director” accountable for the program and not being able to confirm whether students/residents were exposed to the curricula in question created discomfort or tension. Initially, I thought this might be a result of the specific program director, program, or school. As described in later chapters, this was found to be common across schools and programs.

After each interview, I transcribed the audiotape verbatim, reviewed each transcript, and made entries into my reflexive journal. After the third interview and a comparison of the data, it became clear that a common situation was presenting itself. Program directors were uncertain about and revealed variability in the inclusion of routine contraception counselling, unplanned pregnancy counselling, and abortion services curricula within their programs. I expected
variation in curriculum between schools (based on literature and expert input) prior to beginning the interviews, however, I did not anticipate variation within programs. Repeatedly, program directors could not respond to my specific questions about the medical curriculum. Questions, particularly those addressing clinical training, typically yielded similar responses, including “I cannot guarantee,” “it is luck of the draw,” “it depends on the preceptor,” “it depends on the student/resident,” and, “it depends where they are placed.” I was initially concerned that my interview questions were not appropriate, that I was not getting the information needed to meet my objectives. I did not think it would be possible to identify every detailed competency. However, I reasoned that in order to provide quality medical education, there must be a systematic level of standardization to ensure all students/residents received an equitable education. Were my questions inappropriate? How could programs fail to ascertain with 100% confidence that students/residents encounter competencies and that the exposure is adequate in frequency and quality? How could program directors identify curricula as “luck of the draw”? How do these program directors resolve this?

After reviewing the data again and consulting with members of my thesis advisory committee over multiple meetings, I realized that while some questions that addressed specific features of contraception counselling, unplanned pregnancy counselling, and abortion services curricula were affording little detailed information about the curriculum provided (that is the level of detail I thought they would be able to provide), there was important knowledge being revealed. I continued with my interview questions with the assurance my methods were revealing important knowledge and the confidence to allow responses to guide the interview in order to support understanding of the world of medical curriculum from the perspective of the program directors.

I had always been including questions and an approach that focused on understanding the curricula from the perspective of program directors, but as the interviews continued I was focusing on whether program directors could identify curricula and, more importantly, if they could not, how was this accounted for and explained? Did directors identify this variability/uncertainty as an issue? If so, how did they resolve it?

As interviews continued, I transcribed each within three days of the interview and compared the transcript and notes to existing transcribed interviews. I created a codebook to group information according to categories that included curriculum type, program level, and broad factors (e.g.,
faculty, student/residents, clinical locations). I used NVivo 7, a qualitative software program to assist with the management of data. Originally, I planned to develop a model resulting from the factors identified to influence the curriculum. It was becoming clearer that the notion of uncertainty was dominant and permeated the interviews. A different type of knowledge, one that revealed the strategies program directors employed to address the gap in their certainty regarding the inclusion of contraception counselling, unplanned pregnancy counselling, and abortion services curricula emerged.

Reporting on routine contraception counselling, unplanned pregnancy counselling, and abortion services curricula at each level and for each program and listing influential factors was still possible. Revealing itself was an opportunity to explore the largely invisible process that contributes to and perpetuates whether and how these curricula are implemented. It appeared to me to be a more meaningful contribution to explore how program directors confront, avoid, or challenge these curricula when faced with their uncertainty regarding student/resident exposure. How do program directors make sense of uncertainty and variability? This had not been examined and could serve to enhance our understanding of how medical curriculum is developed, delivered, and evaluated (relating to contraception counselling, unplanned pregnancy counselling, and abortion services). Only then can there be opportunity for addressing problems, issues, and challenges faced in the day-to-day process of medical education.

While this was not the original purpose of this dissertation, early analysis revealed important insights into the world of program directors that required examination. Examination of this aspect of their world required focusing on the program directors’ lived experience. I was already approaching interviews with an intense concentration on understanding how program directors account for contraception counselling, unplanned pregnancy counselling, and abortion services curricula and how their daily “doing” as a program director influences this curriculum, as such, this continued. For example, the following questions arose as the data were examined: How do program directors account for the contraception counselling, unplanned pregnancy counselling, and abortion services curricula in their program? How do program directors reconcile their accountability for the program quality and their ability to ascertain what students/residents are exposed to (with respect to contraception counselling, unplanned pregnancy counselling, and abortion services curricula)? If program directors are bothered by a discrepancy, what do they do to resolve it? Why are some program directors not bothered by this discrepancy? To whom do
program directors attribute accountability for medical education and training quality — themselves, students, superiors, faculty?

I repeatedly assessed the data in an iterative manner, allowing themes to emerge from the data and discussing these with my thesis committee. I turned to the literature to see if there was anything related to examining the way program directors reconcile uncertainty. In examining literature in symbolic interactionism, I discovered social processes of leadership. Social processes of leadership stipulate that leadership emerges in the daily lived experiences with individuals in an organization. Among social processes of leadership was Weick’s theory of sensemaking. This theory serves to identify people’s meanings — meanings that develop and are attached to experiences. Sensemaking occurs among individuals when they are trying to maintain or restore continuous, consistent and positive self-conceptions (Weick, 1995). In other words, when faced with uncertainty, program directors needed to reconcile this with their role as the director in charge of the program. Discovering Weick’s theory of sensemaking was a “light bulb” moment for me. This theory had never been explored in the medical education context.

The broad theory of sensemaking fit the situation I was examining, that is, how program directors make sense of uncertainty regarding the content of their programs. By directly asking them about their program during an interview, I was interrupting the flow of the day-to-day for them and requiring them to confront processes that appeared to create uncertainty, not in line with program directors’ identities. While this guided the analyses at that point, I continued to explore other theories and made notes of contradictory evidence as analyses proceeded.

One of the strengths and challenges with qualitative research can be the need to adapt to emerging events. Qualitative research is not tightly prescriptive; it involves iterative analytic processes that allow adjustments to research strategy based on findings that emerge during the process (Cresswell, 2003). As such, the research objective examining factors (research objective two) was modified to concentrate on the way program directors make sense of uncertainty to reconcile this issue (see Boydell, Stasiulis, Greenberg, & Pong, 2008 for example of modification of research objectives). Moreover, as program directors identified factors, the meaning of the factors differed according to the program directors’ sensemaking processes.
4.4 Method Selection

Different qualitative methods were selected to address each research objective. For research objective one, identifying existing curriculum, a qualitative descriptive method was used (Sandelowski, 2000). Symbolic interactionism was selected for research objective two. This is explained in further detail below.

4.4.1 Research Objective One: Identifying Existing Curricula

Qualitative description is in line with a pragmatist aim to produce practical knowledge. Qualitative description is well-suited for research goals based on getting straight answers about “who, what, and where” because the goal of qualitative descriptive methods is to summarize a phenomenon in everyday terms of the events (Sandelowski, 2000). Qualitative description involves understanding a phenomenon well enough to decide what information best represents the “facts” and meaning individuals attribute to the “facts”.

Some of the main challenges with qualitative description rest in filtering through information to extract the “facts”, selecting the most appropriate text to illustrate the facts, and to relaying this information as the participant intended. It also requires conveying information in the correct sequence and in a clear, concise and useful manner (dependent on the target audience). Qualitative description does not involve complex interpretations (Kearney, 2001), but provides important information including research participant’s perspectives.

4.4.2 Research Objective Two: Exploring Factors Influencing Curricula

As identified in Chapter Three, I selected a more interpretive qualitative method to explore factors influencing curriculum. Symbolic interactionism was chosen because it supports interactive interviewing and requires more interpretation than qualitative description.

4.4.3 Interview Method

While ethnography is in-line with symbolic interactionism and includes: 1) observation, 2) participant-observation, and, 3) interviews, it was not possible given logistics, resources, and time constraints to engage in extensive participant observation. For example, Ontario medical schools are dispersed across the province. Program directors, the participant group of interest in this study have extremely busy schedules and multiple competing priorities. Selecting a flexible
method amenable to program director availability that is minimally intrusive and does not require a large time commitment was essential. It was also important to select a method that would provide an opportunity to establish trust and rapport.

As such, a semi-structured interview method was selected for this study. This method balanced the need for structure and systematic questions to collect information about curriculum specifically; yet, was open enough to allow flexibility beyond predetermined questions and opportunity to tailor the interview according to program directors’ responses (DiCicco-Bloom & Crabtree, 2006; Kvale, 1995; Sewell, 2008). Other key features included being able to probe and use follow up questions. These were key characteristics given my aim to understand curriculum and processes of medical education curriculum from the perspective of these informants (Allard-Poesi, 2005; Herman & Reynolds, 1995).

4.5 Research Design

4.5.1 Program Director Informants

A purposive sampling approach was used to obtain information from Ontario medical schools family medicine and obstetrician and gynecology program directors (those responsible for contraception counselling, unplanned pregnancy counselling, and abortion services curricula) in family medicine and ob-gyn (ob-gyn) undergraduate and residency programs in five of Ontario’s six medical schools.

Ontario has six medical schools: the Northern Ontario School of Medicine (NOSM), University of Western Ontario, McMaster University, University of Toronto, Queen’s University, University of Ottawa. NOSM was excluded from this study as it was new at the time of the study (September 2005 was its inaugural year) and no physicians had completed the program at the time of this study.

The table below shows the number of program directors approached in each medical school program (specialization and level).
Table 4-1  Program Directors Approached for an Interview

<table>
<thead>
<tr>
<th>Program Director Level</th>
<th>Number of Program Directors in Ontario (family medicine &amp; obstetrics &amp; gynecology) (n=21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preclerkship (Course Director)</td>
<td>1</td>
</tr>
<tr>
<td>Clerkship Family Medicine</td>
<td>5</td>
</tr>
<tr>
<td>Clerkship Ob- Gyn</td>
<td>5</td>
</tr>
<tr>
<td>Residency Family Medicine</td>
<td>5</td>
</tr>
<tr>
<td>Residency Ob- Gyn</td>
<td>5</td>
</tr>
</tbody>
</table>

There were 21 program directors targeted with four directors per medical school who were asked to participate: one clerkship program director for family medicine and for ob-gyn (n=2); one program director for residency training in family medicine and ob-gyn (n=2). Typically, the ob-gyn clerkship program director also oversees the preclinical curriculum in this topic area however, for one school there was a separate course director for preclinical so she/he was also included in the sample.

4.5.2 Recruitment

A letter was sent to the dean of medicine at each of the five Ontario medical schools included in the study (see Appendix B). This letter informed the dean of the study and that we would be approaching family medicine and ob-gyn (ob-gyn) clinical clerkship and residency program directors for an interview (and if necessary, the relevant preclinical course directors).

Ten business days later, an e-mail was sent to all identified family medicine and ob-gyn clinical clerkship and residency program directors from family medicine and ob-gyn programs informing them of the study and requesting their participation in an interview (see Appendix C). The e-mail letter stated the study purpose: to understand existing curriculum (relating to

23 Program directors were identified using medical school websites.
contraception counselling, unplanned pregnancy counselling, and abortion services curriculum) and not a critical evaluation of their program.

Those agreeing to participate were followed up by e-mail or telephone to confirm an interview time. Program directors not responding to the interview request were followed up via e-mail and telephone systematically every 2 to 4 weeks (after the initial e-mail was sent) until interviewing was complete. Interviews commenced in July 2006 and were completed in October 2006.

4.5.3 Research Setting

In-person interviews were requested; however, early into the data collection process it was clear that some program directors were only available to participate via telephone. In order to get as much information from as many program directors and schools as possible, telephone interviews were conducted as required. In one instance, a program director indicated only a written statement would be provided.

Mode comparisons are limited in qualitative research (Novick, 2008). Research evaluating telephone qualitative data has concluded this mode can provide rich, vivid, detailed, and high quality data (Chapple, 1999; Sturges & Hanrahon, 2004). Comparisons of telephone to in-person qualitative interviews revealed telephone interviewing can yield as fruitful qualitative information as in-person interviews. It is important to note, all interviewing require interpersonal demands regardless of the mode, I used similar strategies to develop rapport and ease for telephone and in-person interviews (Novick, 2008).

In-person interviews took place in a setting selected by the program director. This was typically their office; however, other interviews took place in a boardroom and a university classroom. Allowing program directors to determine the interview location promotes comfort and enhanced ability to develop rapport and open dialogue (Erlandson, Harris, Skipper, Allen, 1997; Kvale, 1996).

4.5.4 Interview Program Development

Guideline semi-structured interview questions and prompts were created in advance to identify the topics and order of questions (Kvale, 1996; Patton, 1990). Questions were developed from the literature and input from experts in medical education and this curriculum. These were
experts in: content (contraception counselling, unplanned pregnancy counselling, and abortion services); medical school systems (technical accuracy); and, one in interview methods (techniques). These experts also assessed the draft interview questions to ensure the content and the interview program designs were appropriate.

One interview schedule was created and slightly modified to be relevant to each program level (i.e., preclinical, clerkship, and residency). Most interview questions were open-ended (e.g., “Please describe the format, type, timing, and frequency of the routine contraception counselling training”). A sample interview program is included in Appendix D.

4.5.5 Preparing the Interview Instrument

In qualitative research, the researcher is the instrument (Lincoln & Guba, 2000). The instrument is not impervious to fatigue, personality, knowledge, training, and skills. Extensive preparation included studying interviewing techniques as well as practicing and evaluating my interview performance (outlined above).

Two systematic steps namely, practice/training and evaluation were taken to reduce the likelihood of interviewer error, and ensured the interview programs would be valid, reliable, and minimized participant burden (length, format, flow). Revisions to the interview programs occurred after feedback was received at each step. These changes were minor and related to the ordering of questions.

4.5.5.1 Step 1: Interview Practice and Training

I practiced using the interview programs and motivational interviewing independently and then with four individuals unfamiliar with the project. This training built my confidence and aimed to prevent interviewer error such as omitting questions, asking leading questions, and inappropriate probes (McCracken, 1988; Kvale, 1996). It also provided a check to confirm questions were neutral, singular (no more than one idea in a single question), and clear (Patton, 1990).

4.5.5.2 Step 2: Interview to Evaluate Content and Experience

I conducted the first interview with a family medicine clerkship program director who agreed to assess the quality of the interview program (relevant, valid, no key issues missing, flow, and length of time). A think-aloud interview technique was used where the program director
provided feedback and asked questions as the interview was conducted (Fowler & Mangione, 1990). In addition, a debriefing session occurred at the end of the interview, during which the program director provided overall impressions and additional input. The program director did not suggest any major changes at this point.

4.5.6 Procedures

One week prior to each interview, the program director was sent a reminder notice of the interview date as well as the interview questions.

I kept a journal throughout the study to record my personal feelings before and after each interview. For example, feelings of nervousness prior to in-person interviews and subsequent reactions to my interactions with program directors after each interview. Post interview notes included impressions, personal feelings and changes in the program director’s body language or attitudes that could not be captured on audio recordings.

Each interview included a briefing, questioning, and a debriefing component as outlined below.

4.5.6.1 Briefing

Before beginning the interview, each program director was briefed: 1) about the interview purpose, 2) the importance of his/her contribution, 3) that the study purpose was to understand their program not to critique it, 4) that their input would be treated confidentially however, when the data was aggregated it may be possible for someone to identify a school (and subsequently the program director), 5) that they could stop the interview at any time for any reason. In addition, the program director was thanked for their willingness to participate and verbal consent was obtained to audio record the interview.

4.5.6.2 Interview Program Questions

The interviews lasted an average of 45 minutes and were recorded using a digital recorder. Interviews started with general questions about the program to build rapport and ease the program director. This was followed by more specific questions relating to contraception counselling, unplanned pregnancy counselling, and abortion services curricula and factors (Patton, 1990). Curriculum addressed in this study included: routine education sessions and routine clinical training. Routine education sessions include formal education time structured as
seminars, problem-based learning sessions, tutorials, and lab time. Routine clinical training refers to time spent learning in clinical settings such as hospitals, private practices, and clinics. In instances where responses did not reflect what was being asked or more information was warranted, preselected probes were used (e.g. What would that entail?, Can you describe?). Probes were identified and practiced a priori to prevent leading questions and interviewer error from occurring.

4.5.6.3 Debriefing

Debriefing occurred at the end of each interview. This included once again thanking the program director for their participation and asking if they had any further questions or comments (Kvale, 1996).

Within one day of each interview’s completion, a thank you e-mail was sent to the program director acknowledging gratitude for his/her participation.

4.6 Ethics

This research received ethics approval from Sunnybrook Health Sciences Centre (the Research Ethics Board used by ICES); University of Toronto conducted an expedited administrative review. Ethical issues including confidentiality, informed consent, risk assessment, promises and reciprocity, and interviewer mental health were identified and steps to address them were explained. This study protected the privacy of participants by following the ICES’s policies, procedures, and agreements that provide for data protection. The Information and Privacy Commissioner of Ontario approved the arrangements for the protection of confidential ICES data.

Program directors were informed during recruitment and prior to the interview that while institution specific data would not be publicly published/reported (their input would be confidential) it may be possible for readers to identify an institution (and subsequently Program Directors) given that there are only six Ontario medical schools (and five participating in this study). For data coding, each medical school was given a letter (A, B, C, D, E) assigned randomly.
Informed consent was obtained verbally prior to commencing each interview. Special care was taken to ensure the confidentiality of each program director.

Audio recorded data were stored in a locked drawer in a locked office. In addition, interview transcripts were stored in a locked filing cabinet. Computer files are double password protected and saved under code names. In accordance with Research Ethics Board procedures, audiotapes and transcript files will be destroyed after the required time period.

### 4.7 Program Director Interview Transcription Process

All interview data were transcribed verbatim from the audio recorder into a Word document within one week of conducting the interview. After the initial three interview recordings were transcribed they were reviewed with their corresponding field notes. Codes were then created (Appendix E) to represent verbal and non verbal nuances (Bird, 2005; Poland, 1995). During the transcription process, I stopped the digital recordings and reviewed as necessary to obtain accurate transcriptions.

#### 4.7.1 Assessing Transcription Quality

A list of potential transcription errors was created to assess transcript quality (e.g., appropriate text verbatim code selected, missed word, added word). After each transcript was completed, it was compared with its respective audio recording and field notes to identify transcription errors (Poland, 1995). Finally, a member of my thesis committee and a member of the SAAS team reviewed two randomly selected transcripts and found them to accurate.

### 4.8 Data Analysis

Data was analyzed in an iterative process. NVivo 7 was used to help manage the data. Thematic analyses outlined by Braun and Clarke (2006) was followed to address research objective one (identifying curriculum) and begin the process of analysis for research objective two.

To identify existing curriculum and group data into broad “factor areas”, themes were identified that included routine education sessions, routine clinical training for contraception counselling, unplanned pregnancy counselling, and abortion services and for each school and program level: preclinical year, ob-gyn clerkship, family medicine clerkship, ob-gyn residency, family medicine
residency and broad factors (e.g., faculty, students/residents, evaluation, clinical locations, elective).

Analyses of research objective one was at the semantic level. This is in-line with qualitative description’s need to maintain the surface meaning of data and to not look beyond what program directors identified as existing curriculum (Braun & Clarke, 2006). An inductive approach was taken to address research objective two (to explore factors influential in determining whether contraception counselling, unplanned pregnancy counselling, and abortion curricula exist in Ontario medical schools). The process of coding did not involve fitting the data to any preexisting coding frame rather it was data-driven in-line with the symbolic interactionism paradigm (Braun & Clarke, 2006; Patton, 1990). The development of themes themselves required interpreting the data. Components of grounded theory were drawn upon to develop a typology of program director sensemaking (Glaser, 1992; Glaser & Strauss, 1967). The analytic processes included grounding data, comparative and iterative analyses. These are described in the following section.

4.8.1 Becoming Familiar with the Data

Familiarizing myself with the data began during the transcription process. I continued to review original transcripts and compare to findings as they emerged throughout the analyses. After transcribing each interview and going through the process to confirm accuracy of the transcript (see 4.7 above), I read each transcript and corresponding field notes. After this, I re-read the transcript in conjunction with the other completed interview transcripts.

During this time I began to create codes and group data into broad categories. An initial code list was created and is available in Appendix F. These initial transcripts and codes were reviewed by a member of my thesis committee.

Summaries of each program and its respective routine curriculum were created according to education sessions and clinical training for contraception counselling, unplanned pregnancy counselling, and abortion services.
4.8.2 Generating Initial Themes

After transcribing interviews I coded the data into the categories identified above\(^{24}\). Through an iterative process of going over data repeatedly and constantly comparing transcripts and field notes, key themes were refined. Similarities and differences between and within transcripts were noted.

4.8.3 Assessing Themes

Regarding research objective one, once all interview transcripts were coded for themes, data was merged for each category and subsequently, a summary of each program level for routine education and clinical training was created. A researcher familiar with the project but not directly involved\(^{25}\) conducted a separate analysis of curriculum. These results were compared to my findings. One correction was required due to a false identification of ethics curriculum existing for one preclinical undergraduate program.

For research objective two, sub-themes were also identified and an initial typology\(^{26}\) developed to depict factors (Berg, 2007). Data was merged for each sub-theme. A check of each theme’s fit was done by comparing codes to original transcripts. As noted above (see Section 4.3, “My Story), uncertainty among program directors was a key issue that emerged. The theory of sensemaking was adopted as a broad lens to guide the typology; however, refinement of themes, labels and meanings were derived from the data. Once themes were established, the typology was adjusted repeatedly to reflect input from my thesis committee member and further analyses of the data.

\(^{24}\) Routine education sessions and clinical training for each program level and school and factors (faculty, training sites, students/residents, evaluation, elective, other)

\(^{25}\) This researcher was part of the SAAS team.

\(^{26}\) A typology is a systematic method for classifying similar events, objects, people or places into discrete groupings (Berg, 2007).
4.8.4 Reviewing Themes

The typology went through multiple iterations\(^{27}\), going back to the data each time and a review with members of my thesis committee. A diagram of some typology versions are depicted in Appendix G. This serves to provide a visual of the evolution of the typology.

4.8.5 Defining and Naming Themes

Re-assessing definitions and nomenclature was done with my thesis committee to ensure labels appropriately reflected the meaning(s) assigned. As noted throughout this section, ongoing analyses to refine the typology themes, sub-themes, and selection of program director quotes to represent the results effectively was conducted. This process was supported through ongoing feedback from my thesis committee.

4.9 Trustworthiness

Identifying specific nomenclature and methods to determine quality research is debated among qualitative researchers (Mays & Pope, 2000; Taylor, Dempster, & Donnelly, 2007). Establishing trustworthiness and rigor in a study’s conceptual framework, methods, and results is nonetheless important. While steps taken to establish trustworthiness and rigor have been discussed throughout this methods section, I will summarize some of these as they relate to the criteria identified by Lincoln and Guba (1985). Lincoln and Guba’s criteria include: dependability, transferability, credibility, and confirmability.

4.9.1 Dependability (Reliability)

Experts in the field were solicited prior to beginning the study; they also informed and reviewed the interview questions. An audit trail and field notes were kept to meticulously detail interviewing, observation, transcription, and analyses. A second researcher on the SAAS study team familiar but not directly involved in the study conducted an independent analysis of identifying existing curriculum (objectives one to three). My thesis committee was actively engaged and regularly consulted about the typology.

\(^{27}\) Thirteen iterations were conducted.
4.9.2 Transferability

Thick descriptions of the research process were used to detail methods and research findings (Erlandson, et al., 1993). Rich and thickly described interpretations mean results reflect going beyond identifying the existing facts and providing surface level description, and provide detail, context and interconnections (Denzin & Lincoln, 2000).

4.9.3 Credibility (Internal Validity)

Experts in the field (family planning, abortion, medical curriculum, interviewing) were engaged throughout the process including preparing (creating interview questions), interviewing, and analyzing (including assessment of themes). The interview questions and approach were pilot-tested with the first program director. This program director provided concurrent feedback and a post interview debriefing. These assured relevance of the content and adequate interviewing protocol; establishing credibility during the interviews and an effective interviewing approach. Extensive time was spent reviewing each transcript, organizing data, and an iterative codebook was used to establish intimate knowledge of each interview.

4.9.4 Confirmability

An audit trail included data analysis and processes of reduction, reconstruction, synthesis, and structuring of themes are described. Themes supported and substantiated with clear descriptions and quotes from several participants ensures the results are dependable (Cote & Turgeon, 2005). Findings that diverged from the identified themes were presented and discussed with a committee member to ensure transparency. The development of the study and challenges faced are openly identified and discussed in this dissertation.
5 Results

5.1 Outline of the Results Chapters

The results of this study are divided into three chapters (Chapters Five, Six and Seven). Each chapter addresses different components of the study. This chapter describes the program directors participating in the study. It also outlines the curricula identified by these directors as pertaining to contraception counselling, unplanned pregnancy counselling, and abortion services in preclinical, ob-gyn clerkship, family medicine clerkship, ob-gyn post-graduate, and family medicine post-graduate (residency) programs. This chapter closes with an overview of the variability between medical schools and within programs with respect to whether and how these curricula are offered. This chapter resolves the first research objective of identifying curricula, provides background contextual information, and lays the foundation for the typology discussed in Chapters Six and Seven.

Chapter Six focuses on addressing the second research objective: to identify factors that, from the perspectives of the program directors, impact the inclusion of contraception counselling, unplanned pregnancy counselling, and abortion services curriculum in their programs. The factors identified by program directors were program structure, availability of resources (human, financial), interests of students/residents, and personal values, beliefs, and experiences of the director. The research unexpectedly revealed that there was considerable uncertainty among program directors as to whether and how this curriculum was included in their programs. To appropriately interpret program directors’ perspectives on the factors that influence the curriculum in question, it was necessary to further explore directors’ uncertainty about the presence of the curriculum in their programs. As such, a sensemaking typology was developed and is presented here (in Chaper Six) to explain how program directors made sense of their own uncertainty (variability).

Chapter Seven describes factors in the context of the sensemaking typology presented in Chapter Six. Factors identified by program directors as influencing the inclusion of contraception counselling, unplanned pregnancy counselling, and abortion services curriculum in their programs were interpreted differently depending on how program directors made sense of their own uncertainty about whether such curriculum was offered in their program. The chapter
illustrates this by examining factors using the different forms of sensemaking revealed by program directors.

5.2 Describing Program Directors

This section describes the program directors interviewed in this study. It identifies the medium used to interview the various directors (i.e., telephone, in person, or written communication) and outlines their characteristics. This section is intended to provide background information for the remaining results.

5.2.1 Program Directors Interview Modes

Twenty-one program directors were identified and recruited for participation in this study; of these, 19 agreed to participate (90% response rate). More specifically, one pre-clerkship course director, five family medicine clerkship program directors, four out of five ob-gyn (ob-gyn) clerkship program directors, five family medicine residency program directors, and four out of five ob-gyn residency program directors in Ontario participated. Though one program director new to the role did not feel prepared to provide sufficient information, the former program director agreed to be interviewed. Table 5.1 summarizes the participants, number of schools represented, and the way in which the interview was conducted (in person, via telephone, or via a written statement).
Table 5-1  Program Director Participants and Interview Media

<table>
<thead>
<tr>
<th>Program Directors Interviewed</th>
<th>Medical Schools Represented</th>
<th>Interview Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=19</td>
<td>In Person</td>
<td>Telephone</td>
</tr>
<tr>
<td>Course Director*</td>
<td>1</td>
<td>4/5</td>
</tr>
<tr>
<td>Clerkship Obstetrics &amp; Gynecology</td>
<td>4</td>
<td>4/5</td>
</tr>
<tr>
<td>Clerkship Family Medicine</td>
<td>5</td>
<td>5/5</td>
</tr>
<tr>
<td>Residency Obstetrics &amp; Gynecology</td>
<td>4</td>
<td>4/5</td>
</tr>
<tr>
<td>Residency Family Medicine</td>
<td>5</td>
<td>5/5</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>—</td>
</tr>
</tbody>
</table>

*The pre-clerkship was addressed by the ob-gyn clerkship director at three of the other schools

5.2.2  Program Director Characteristics

Ob-gyn clerkship program directors had been in their role from 0.5 to 6.5 years; all were female. Family medicine clerkship directors had been in their role from 0.5 to 2 years; three were male and two female. Ob-gyn post-graduate program directors had been in their role from 2.5 to 6 years; two were male and two female. Family medicine post-graduate program directors were in the role from two to nine years; three were male and two female.

A description of contraception counselling, unplanned pregnancy counselling, and abortion services curriculum at each program level identified by program directors within each Ontario medical school is described in the following section.
5.3 Identifying Curricula

This section begins by describing the contraception counselling, unplanned pregnancy counselling, and abortion services curriculum provided in undergraduate medical schools in Ontario. Preclinical courses that would serve to deliver this curriculum together with family medicine and ob-gyn clerkship rotations that would cover relevant topics (if any) are described. This is followed by a description of post-graduate (residency) family medicine and ob-gyn programs in Ontario medical schools. The chapter ends with an overview of variability between medical schools and discusses variability within programs.

Throughout this chapter and in Appendix H, each school is allocated a letter — A, B, C, D, and E — to represent the school and foster confidentiality of responses. When it is necessary to decipher program types, an abbreviation for the program type and level is provided as follows: preclinical (pc), ob-gyn clerkship (obc), family medicine clerkship (fmc), ob-gyn post-graduate/residency (obr), and family medicine residency (fmr) programs.

To view each medical school’s contraception counselling, unplanned pregnancy counselling, and abortion services curricula from undergraduate to post-graduate organized by school, please refer to Appendix H.

5.4 Undergraduate Medical Curriculum

5.4.1 Preclinical Curriculum

Table 5-2 provides an overview of pre-clerkship curricula, including whether they were case-based and whether ethics were included. This is followed by a more detailed description of each program type.
### Table 5-2: Overview of Pre-clerkship Curricula within Ontario Medical Schools

<table>
<thead>
<tr>
<th>Medical School</th>
<th>Didactic Seminar</th>
<th>Case Based</th>
<th>Ethics</th>
<th>Overview of Preclinical Curricula Content</th>
</tr>
</thead>
</table>
| A              | Yes              | Yes        | Yes    | • 120 minutes on contraception, half was a didactic lecture and the other half was cases (role playing involved contraception method decision making with a case of a postpartum woman and a 17-year old woman post termination).  
• 60 minutes on unintended pregnancy included an overview of Plan B, history, side effects, RU486, how to counsel, and abortion methods available.  
• 120 minutes: watched a movie about abortion in different contexts followed by a discussion on why abortion is not illegal and the Canadian Medical Association code of ethics. |
| B              | Yes              | Yes        | No     | • 60- to 120-minute didactic lecture and some role playing on contraception. This included methods, pros, cons, contraindications (not direct counselling but indirectly what to do if a pill is missed). Emphasis related to how common methods are and focus on the pill and IUD.  
• 60-minute didactic seminar on pregnancy termination. Objectives of lecture included how to counsel a pregnant woman regarding options available, indications for abortion, abortion methods available, abortion complications, importance of counselling and follow up. |
| C              | Yes              | Yes        | Yes    | • 60- to 90-minute lecture from a nurse practitioner discussed all contraception methods available (did not include contraception counselling).  
• 60- to 90-minute tutorial on contraception, early pregnancy and pregnancy termination.  
• 60 minutes on ethical issues in reproduction including abortion. |
| D              | Yes              | Yes        | Yes    | • 90-minute didactic lecture, the purpose of which was to provide an overview of all available contraception methods (touching on contraception counselling), included unplanned pregnancy options, abortion procedures, complications, and contextualization of abortion (history/incidence/prevalence).  
• 240-minute case-based learning around a teenage woman discovering she is pregnant (opportunity to discuss pregnancy termination).  
• 60-minute “Ethics in Obstetrics” session including a panel discussion of family medicine and ob-gyn with pro life to pro choice perspectives and impact on practice. |

#### 5.4.1.1 Contraception Counselling

Programs allocated approximately 60 to 180 minutes of preclinical clerkship class time to contraception. This typically involved a didactic lecture in which contraception methods and their benefits, risks, and complications were discussed. Typically, the focus was on the most
common contraception methods, with an emphasis on oral contraception; the aim was to provide basic information about contraception that could then be built upon during the subsequent clerkship rotation. Three programs included contraception counselling specifically within their lectures.

All programs included some level of case-based discussion, whether this was role playing within the lecture (two programs) or a separate session held specifically for problem-based learning (two programs). Two programs included a brief case (e.g., a postpartum woman, a 17-year-old female post termination) within their (60 to 120 minute) lecture time. The other two programs allocated separate time in addition to the lecture; one included a four-hour (240-minute) problem based learning (PBL) session and the other a 60- to 90-minute tutorial session that included a discussion on contraception, early pregnancy, and pregnancy termination.

5.4.1.2 Unplanned Pregnancy and Abortion

Pre-clerkship curriculum included unplanned pregnancy counselling and abortion services. For two programs this was included as part of a 60- to 90-minute contraception lecture; for two other programs it was the primary topic of a separate 60-minute didactic session. The content of these lectures included how to counsel on unplanned pregnancy, the range of options available, indications for abortion, abortion procedures available, and abortion complications. Again, the focus in most programs was to provide a basic overview.

5.4.1.3 Psychosocial and Ethical Aspects of Abortion

Three programs included a separate lecture to address the psychosocial and ethical aspects of abortion. The topic was addressed within a broader session on ethical issues in reproduction for two programs (one with a 60-minute expert panel discussion where the range of physician views from pro-choice to pro-life and the ramifications for care were addressed and the other within a 60-minute lecture). The third program used a 120-minute session to show a film that places abortion in a historical context and illustrates the ramifications of a society where abortion is illegal, followed by a debriefing session and discussion of the Canadian Medical Association code of ethics.
5.4.1.4 Clinical Opportunity

One program placed students with a family physician in the community for a half day per week for six to 12 weeks at the start of pre-clerkship. According to the director of this program, as a result of this experience students may have been exposed by “luck of the draw” to contraception counselling, unplanned pregnancy counselling, and abortion services.

5.4.2 Clerkship Routine Curriculum: Obstetrics and Gynecology Clerkship

Two specific aspects of the ob-gyn clerkship curriculum are addressed here: routine education sessions and routine clinical training. Routine education sessions include formal education time structured as seminars, problem-based learning sessions, tutorials, and lab time. Routine clinical training refers to time spent learning in clinical settings such as hospitals, private practices, and clinics.28

5.4.2.1 Routine Education Sessions

All ob-gyn clerkship programs included a routine contraception curriculum. Two of these programs included contraception in a 60- to 90-minute seminar wherein unplanned pregnancy and abortion services were also discussed. One program included contraception counselling within a 60-minute case-based seminar. The time allotted to contraception was 60 minutes on average (ranging from 30 to 120 minutes). Sessions offered were primarily didactic and comprised a review of contraception methods provided in preclerkship courses and included the side effects, pros and cons, and contraindications of various methods, decision making and counselling around contraception, educating patients about contraception options, and recommending appropriate contraception methods.

Three programs included unplanned pregnancy and abortion services in the seminar component of their rotation, each in a different way: one addressed unplanned pregnancy and abortion services within a broader 60- to 90-minute lecture; another included these in a dedicated 60-minute didactic-based seminar (which may have included some short case studies, depending on

28 Appendix A provides definitions for key concepts used in this study.
the faculty delivering the program); a third offered a 60-minute case-based seminar that aimed to apply knowledge gained in preclerkship to discuss available options for a patient presenting with an unplanned pregnancy, which included counselling. One program did not include any academic session time for unplanned pregnancy counselling or abortion services. The reason cited by the program director was that the topic is addressed in detail during preclerkship. Table 5-3 summarizes routine education sessions in participating Ontario ob-gyn clerkship programs.

### Table 5-3 Obstetrics and Gynecology Clerkship Routine Education Sessions

<table>
<thead>
<tr>
<th>Program</th>
<th>Obstetrics and Gynecology Clerkship Programs: Routine Education Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>• Yes (contraception counselling).</td>
</tr>
<tr>
<td></td>
<td>• No unplanned pregnancy counselling and abortion services.</td>
</tr>
<tr>
<td></td>
<td>• 60 to 120 minutes of a 240-minute seminar included contraception in small group learning; students went through methods, had physical interaction with contraception devices, discussed pros, cons, contra-indicators, and decision making around contraception.</td>
</tr>
<tr>
<td>B</td>
<td>• Yes.</td>
</tr>
<tr>
<td></td>
<td>• 60-minute case-based seminar on contraception that included a discussion of all contraception methods and their associated side effects, risks, cost and efficacy; working through a case-study that required obtaining a patient’s physical history before discussing contraception methods; addressing oral contraception in greater detail.</td>
</tr>
<tr>
<td></td>
<td>• 60-minute case-based unplanned pregnancy counselling and abortion services seminar building on preclerkship seminar. Knowledge obtained in preclerkship is applied to a case that included exploring available options for a patient with an unplanned pregnancy, considering possible choices and complications, and offering counselling.</td>
</tr>
<tr>
<td>C</td>
<td>• Yes.</td>
</tr>
<tr>
<td></td>
<td>• 90-minute seminar included reviewing contraception methods, and identifying, educating, and recommending to patients appropriate contraception methods; follow up and monitoring were also discussed though the focus was on contraception options. This time included identifying options available for women presenting with an unplanned pregnancy; a basic review of all abortion procedures was provided. Abortion referral and identifying and managing complications were not discussed.</td>
</tr>
<tr>
<td>D</td>
<td>• Yes.</td>
</tr>
<tr>
<td></td>
<td>• 60-minute seminar on contraception and pregnancy termination. Standard objectives were provided to each location, however the precise content and format for delivery differed according to site (e.g., didactic or case based) as students could be placed at numerous sites.</td>
</tr>
</tbody>
</table>

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29 One program sending ob-gyn students to several different sites during the rotation creates seminar topics and objectives for these academic sessions to be used as required academic curriculum at every site where ob-gyn clerkship students are placed. While the topics and objectives are uniform, the mode of delivery (e.g., didactic, case based) and the precise content of the seminars can differ according to the individual faculty member delivering the lecture at each site.
5.4.2.2 Routine Clinical Training

While it was highly likely, according to ob-gyn program directors, that students would be exposed to clinical training in contraception, most programs did not have a system in place to guarantee that this occurred. One program included contraception counselling as a required encounter for clerkship students. Similar to contraception counselling, exposure to unplanned pregnancy counselling and abortion referral curricula may have occurred, but there was nothing in place to ensure students received such exposure.

Students were more likely to receive training in contraception counselling as opposed to unplanned pregnancy counselling and abortion services; they were least likely to receive training in abortion services as compared to the other two.

Student experiences in clinics that performed abortion services centered on the psychosocial aspects of patients; it was variable whether they included an encounter with a first trimester surgical abortion procedure. Medical abortion procedures were performed at relatively few clinic sites and second trimester abortion exposure would be highly unlikely. Clinical training in unplanned pregnancy counselling and abortion services were handled differently in each program.

One program included a random assignment of students to a rotation through an abortion clinic as routine. The experience comprised one half-day observing counselling followed by one half-day observing medical and first trimester surgical abortions, specifically dilation and curettage procedures (D&C). Students could opt out of the procedure observation. Though students were randomly assigned to the abortion clinic, they had the option to opt out due to personal objections.\(^{30}\) Students not assigned to the clinic were not exposed to unplanned pregnancy counselling or abortion services beyond the academic session that addressed these.

A second program included unplanned pregnancy counselling and abortion services training as a routine part of the clerkship rotation if students were randomly placed at two out of three sites. One site offered contraception counselling, unplanned pregnancy counselling, and abortion services through an adolescent centre and a hospital (students could opt out of the abortion part

\(^{30}\) According to the program director, approximately 50% of students participated in the abortion rotation.
of the rotation). The second site included two possible abortion sites where students participated with a social worker in the counselling process around abortion. Only if students signed up for extra time at the clinic(s) during this rotation would they be exposed to first trimester surgical abortion procedures (medical abortions are rare at this location). The focus at this site was having students recognize all the factors that contribute to an unintended pregnancy and the relevant decision making, consider the actions the patient wants to take, and offer post-abortion counselling. The third site was a religious-affiliated hospital where students were not exposed to unplanned pregnancy counselling or abortion services. Students at this location were told they could attend an abortion clinic elsewhere for a half-day session, but they were responsible for arranging this experience themselves. The program director surmised that less than half of students did so.

In the third program, the program director informed students at the outset of the ob-gyn clerkship rotation they could attend an abortion clinic for a half-day or full day session. The program director recommended to students that they participate in an elective based at an abortion clinic during their two-week clinic rotation. The clinic exposed students to contraception counselling, unplanned pregnancy counselling, abortion counselling, and early pregnancy terminations (up to 14 weeks).

The fourth program did not include routine training in unplanned pregnancy counselling or abortion services but noted elective time could be spent in an abortion clinic for ob-gyn clerkship students wanting this experience. Typically, this elective consisted of a half day in an abortion clinic where students could observe the general atmosphere, how to assess a patient, and if they wanted to a first trimester abortion procedure. The physician responsible for teaching this elective identified that approximately 50% of clerkship students chose to attend.

All but one program director identified that students could, if they wished, spend extra clinical time involved in contraception counselling, unplanned pregnancy counselling, and abortion services. The option of additional time was not available in the program where students were randomly allocated to an abortion clinic as a routine part of the rotation. The program director in this case noted that opportunities for experience were limited at the clinic in question. Table 5-4

31 The program director estimated three students participated in the abortion clinic per clerkship rotation.
summarizes the contraception counselling, unplanned pregnancy counselling, and abortion services routine clinical training in participating ob-gyn clerkship rotations.

### Table 5-4 Obstetrics and Gynecology Clerkship Routine Clinical Training

<table>
<thead>
<tr>
<th>Program</th>
<th>Obstetrics and Gynecology Clerkship Programs: Routine Clinical Training</th>
</tr>
</thead>
</table>
| A       | - Depended on the site.  
          | - Could not guarantee students would encounter contraception counselling but it was a goal.  
          | - At one site students had to arrange unplanned pregnancy and abortion services for themselves; two other sites included routine rotation (half day) in a termination clinic focused on counselling and decision making around abortion; students could get procedure (first trimester surgical) exposure if they signed up for extra time; exposure to medical and second trimester abortions were unlikely. |
| B       | - Random experience.  
          | - Contraception experience occurred as frequently as anything else; likely to occur.  
          | - Random assignment to an abortion clinic where students would see counselling, first trimester surgical abortions (D&C) and medical abortions for one session per week. |
| C       | - Contraception counselling was highly likely.  
          | - Students were not routinely exposed to unplanned pregnancy counselling or abortion services.  
          | - Program director was neutral regarding whether clerks were likely exposed to unplanned pregnancy and abortion counselling; exposure to abortion procedures was unlikely.  
          | - Students spent four weeks in a community placement where they were exposed to contraception counselling and unplanned pregnancy counselling.  
          | - An elective was available in a clinic with an abortion provider; typically consisted of a half-day in an abortion clinic with a focus on how to assess, what the procedure is like and what the atmosphere of such a clinic is like (not formally built into program). Medical abortions not performed. |
| D       | - Depended on the students’ placement site.  
          | - Program director was confident contraception counselling occurred; it was less likely that students learned about unplanned pregnancy and abortion services.  
          | - Students could spend elective time (typically one-half to one full day) in a clinic where they would be exposed to contraception counselling, unplanned pregnancy counselling, and abortion services (first trimester surgical procedures and possibly medical). |

### 5.4.3 Family Medicine Clerkship Programs

#### 5.4.3.1 Routine Education Sessions

Family medicine clerkship rotations did not include routine seminar sessions in contraception counselling, unplanned pregnancy counselling, and abortion services. In two out of five programs it is possible that these topics may have been raised randomly during the seminar time. More specifically, one program operated weekly tutorial sessions wherein relevant case experiences would be explored if students raised these issues; topics of discussion were not predetermined, however. Another program sent students to multiple training sites and left the
topics and objectives of academic sessions up to the discretion of each site (no central curriculum existed for this family medicine clerkship rotation). This program director noted that contraception was a popular topic for seminar sessions and students were likely to be exposed to it. One program did not include any seminar or formalized education component within the family medicine clerkship, while the remaining two programs specifically did not include contraception counselling, unplanned pregnancy counselling, and abortion services within their seminars. Table 5-5 outlines the routine education sessions in Ontario family medicine clerkship rotations.

Table 5-5  Family Medicine Clerkship Programs Routine Education Sessions

<table>
<thead>
<tr>
<th>Program</th>
<th>Family Medicine Clerkship Programs: Routine Education Sessions</th>
</tr>
</thead>
</table>
| A       | • No.  
• Preparing to implement a sexually transmitted infection case, so contraception counselling would likely be included within this. |
| B       | • No. |
| C       | • No.  
• One tutorial per week (three hours of problem-based learning) for a total of six sessions; if a clerkship student raised a case in tutorial then it would be discussed  
• Every tutorial had a communication component wherein counselling could be discussed. |
| D       | • No.  
• Students were sent to multiple locations and each site conducted its own seminars (decentralized) so there was no guarantee topics would be discussed. It was highly probable that contraception was covered as it was a common seminar topic; it is uncertain if unplanned pregnancy counselling and abortion services were addressed; would depend on the location. |
| E       | • No.  
• Routine seminars were not operating from the university during the family medicine clerkship rotation. |

5.4.3.2 Routine Clinical Curriculum

While all program directors noted that contraception counselling was very common in family medicine practices, none could guarantee that students on their family medicine clerkship rotation encountered contraception counselling. As one program director stated:

*There is no formal part of the curriculum [dedicated to women’s health] but in the family physician office they are spending six to seven half days per week; they deal with women and child health a lot. They do PAP smears, they give contraceptive advice, they do lots*
of women’s health things. There is no formal women’s health part of the family medicine [clerkship] curriculum. –C

Most program directors thought students were “adequately” exposed to contraception counselling in the family medicine clinical clerkship rotation, but not unplanned pregnancy counselling and abortion services. Table 5-6 outlines routine clinical training in family medicine clerkship programs.

Table 5-6  Family Medicine Clerkship Routine Clinical Training

<table>
<thead>
<tr>
<th>Program</th>
<th>Family Medicine Clerkship Programs: Routine Clinical Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>• No.</td>
</tr>
<tr>
<td></td>
<td>• Likely to have encountered contraception counselling, but not likely to have encountered unplanned pregnancy counselling or abortion services.</td>
</tr>
<tr>
<td></td>
<td>• Program director noted they did not put students in an abortion environment.</td>
</tr>
<tr>
<td>B</td>
<td>• No.</td>
</tr>
<tr>
<td></td>
<td>• Program director could not guarantee students would encounter contraception counselling and unplanned pregnancy counselling but thought it was likely (unplanned pregnancy counselling was estimated to be less frequent than contraception).</td>
</tr>
<tr>
<td></td>
<td>• No elective.</td>
</tr>
<tr>
<td>C</td>
<td>• No.</td>
</tr>
<tr>
<td></td>
<td>• Program director could not guarantee students would be exposed to contraception counselling, unplanned pregnancy counselling or abortion services.</td>
</tr>
<tr>
<td></td>
<td>• One half-day per week students spent time in a family medicine practice for a duration of six to 12 weeks. Students had the option to spend one of their half-days at a location of their choice; could be a women’s health clinic.</td>
</tr>
<tr>
<td></td>
<td>• Women’s health exam and pregnancy termination were competencies included in student log books to experience but there was no confirmation that any training occurred.</td>
</tr>
<tr>
<td></td>
<td>• Program director thought it highly likely that students experienced contraception counselling; unplanned pregnancy counselling and abortion encounters were whatever the “statistics are” for how often they are required.</td>
</tr>
<tr>
<td>D</td>
<td>• No.</td>
</tr>
<tr>
<td></td>
<td>• Contraception counselling was a common practice in the family physician’s office but depended on the individual preceptor’s practice.</td>
</tr>
<tr>
<td></td>
<td>• Clerks did not have required encounters.</td>
</tr>
<tr>
<td>E</td>
<td>• Depended on site, no required encounters (contraception counselling, unplanned pregnancy counselling, abortion services were objectives of the rotation and were possible exam questions but only contraception counselling was included on the exam).</td>
</tr>
<tr>
<td></td>
<td>• Program director felt contraception counselling was covered well but unplanned pregnancy counselling and abortion services were not.</td>
</tr>
<tr>
<td></td>
<td>• Elective time could be spent in a family planning clinic where exposure to this curriculum would occur.</td>
</tr>
</tbody>
</table>
5.5 Post-Graduate (Residency) Programs

5.5.1 Obstetrics and Gynecology Post-Graduate Programs

Ob-gyn post-graduate programs typically included some seminar time allocated to contraception counselling, unplanned pregnancy counselling, and abortion services. Regarding clinical training, all residents were likely exposed to contraception counselling. Unplanned pregnancy counselling and abortion services were not included in routine clinical training but were available as electives. Abortion training was left to the discretion of the resident. A more detailed description of routine education and clinical training is provided below.

5.5.1.1 Routine Education Sessions

All ob-gyn post-graduate program directors interviewed reported that routine academic sessions addressing contraception, unplanned pregnancy counselling, and abortion services were included in their programs. Information was typically communication via didactic lectures, some conducted every year or, in one program, every two years. One program director identified a skills lab that addressed contraception and pregnancy termination as routine aspects of the curriculum. Table 5-7 provides an outline of the routine education curriculum in each program.
Table 5-7  Obstetrics and Gynecology Post-Graduate Routine Education Sessions

<table>
<thead>
<tr>
<th>Program</th>
<th>Obstetrics and Gynecology Post-Graduate Programs: Routine Education Sessions</th>
</tr>
</thead>
</table>
| A       | • Yes.  
          • A three-hour lecture was offered each year that addressed contraception counselling, unplanned pregnancy counselling, and abortion services conducted by staff consultants who are abortion providers and also experts on contraception. |
| C       | • Yes.  
          • Weekly academic half days were part of the program; contraception was a regular topic. Approximately four academic half days over the past year focused on contraception. One of these sessions included the Society of Obstetrics and Gynecology of Canada contraception workshop.  
          • One academic half-day session per year focused on issues of abortion, including indications for the procedure, techniques, and complications. |
| D       | • Yes.  
          • Contraception counselling was included in a didactic teaching session. There were also some workshops and skills labs on such things as inserting an IUD.  
          • Three to six hours of didactic teaching (and surgical skill lab) was provided to address unplanned pregnancy counselling; abortion services was also a component of this. This included: unplanned pregnancy counselling, first and second trimester surgical abortion, and medical abortion. |
| E       | • Yes.  
          • Every second year there was one contraception session.  
          • Every second year there was one didactic lecture on abortion procedures (it did not include unplanned pregnancy counselling).  
          • In the future there will be an afternoon contraception session (through the Association of Professors of Obstetrics and Gynecology [APOG]) that will include counselling. |

5.5.1.2  Routine Clinical Training

While all ob-gyn residency programs included contraception counselling as a routine part of their clinical training (and residents were likely exposed to unplanned pregnancy counselling), accessing abortion services training was up to the discretion of the resident. In some programs directors stated that residents would be exposed to emptying a uterus and possible abortion complications as a required part of care. It was possible for residents to complete their program without exposure to options counselling and elective abortion procedures according to some program directors. Table 5-8 outlines the routine clinical training offered in each program.
5.5.2 Family Medicine Post-Graduate Programs

All family medicine post-graduate programs included seminar time allocated to contraception counselling; however, training in unplanned pregnancy counselling and abortion services were not routine in most programs’ routine education time; this was the same for clinical training.

5.5.2.1 Family Medicine Post-Graduate Routine Education Sessions

Table 5-9 outlines the routine education sessions in family medicine post-graduate programs.
Table 5-9  Family Medicine Post-Graduate Programs Routine Education Sessions

<table>
<thead>
<tr>
<th>Program</th>
<th>Family Medicine Post-Graduate Programs: Routine Education Sessions</th>
</tr>
</thead>
</table>
| A       | • Contraception counselling was included as a routine three-hour seminar devoted to prescribing contraceptives.  
          • Training in unplanned pregnancy counselling and abortion services was not offered. |
| B       | • Contraception counselling was offered in the form of one to two hours on contraceptive choices and contraception counselling.  
          • Training in unplanned pregnancy counselling and abortion services was not routinely included. |
| C       | • A three-hour case-based workshop and a two-hour problem based-learning on contraception counselling were provided.  
          • Training in unplanned pregnancy counselling and abortion services were not included (counsel and referral included in other sessions). |
| D       | • Training in contraception counselling, unplanned pregnancy counselling, and abortion services could not be guaranteed.  
          • Contraception counselling was highly likely in the form of didactic and case-based discussion.  
          • Unplanned pregnancy counselling and abortion services were more likely included in case-based discussion time of practice encounters. |
| E       | • Training in contraception counselling, unplanned pregnancy counselling, and abortion services were included however, the program director was not aware of exact curriculum. |

5.5.2.2  Family Medicine Post-Graduate Routine Clinical Training

Overall, family medicine program directors were able to confirm that contraception counselling training was provided for all residents by virtue of the frequency with which this issue is encountered in family practice. Unplanned pregnancy counselling and abortion services were not included as routine components of any of the family medicine residency programs. Most program directors reported that residents were exposed to unplanned pregnancy counselling and referral to abortion services “by chance;” unless residents sought out additional training, exposure to abortion procedures did not occur in Ontario family medicine residency programs. Table 5-10 outlines routine clinical training in family medicine post-graduate programs.
### Table 5-10  Family Medicine Post-Graduate Routine Clinical Training

<table>
<thead>
<tr>
<th>Program</th>
<th>Family Medicine Post-Graduate Programs: Routine Clinical Training</th>
</tr>
</thead>
</table>
| A       | • Experience in contraception counselling was required and was delivered in the family medical centre residency experience.  
          • Unplanned pregnancy counselling also occurred in the family medicine centre experience, but infrequently.  
          • Abortion services training was not included. |
| B       | • Contraception counselling was included in the family medicine block; students spent a half-day in a clinic that involved contraception.  
          • Training in unplanned pregnancy counselling or abortion services was not required. |
| C       | • Every resident was exposed to contraception counselling.  
          • Residents were likely to be exposed to unplanned pregnancy counselling (as well as abortion counselling and referral to abortion) but not likely abortion procedures. |
| D       | • Contraception counselling was included in family medicine, ob-gyn blocks and various clinic rotation locations.  
          • Unplanned pregnancy counselling and abortion counselling and referral training was provided. Exposure to abortion procedures was not required, though students could spend elective time in an abortion clinic. |
| E       | • Contraception counselling occurred in family medicine centres and a women’s health clinic.  
          • Unplanned pregnancy counselling and abortion services were not a required part of the program. |

### 5.6 Variation across Medical Schools

For the most part, whether routine education sessions were included was consistent across programs. The amount of time and format of the education session (e.g., case-based, lecture, and so on) varied from school to school. For example, one ob-gyn residency program conducted seminars four times per year to address contraception while another program director included this topic once every two years. With respect to routine clinical training, overall schools were consistent in that exposure to contraception counselling, unplanned pregnancy counselling and abortion services was not formalized, but rather depended on how frequent the situation presented itself in the clinical location where students/residents were situated; that is, exposure occurred “by chance.” Experience with contraception counselling was highly likely given the high frequency with which patients present requiring this. In contrast, with the exception of two ob-gyn clerkship programs, a routine clinical rotation to address unplanned pregnancy and abortion in Ontario medical schools was not available.
More detail about the range of contraception counselling, unplanned pregnancy counselling, and abortion services curricula provided in Ontario medical schools is presented here according to program level/type. This section is intended to provide a summary of existing curricula and explore variability across schools.

5.6.1 Preclinical

In preclinical years, all medical schools included lecture time specifically on contraception. There was also lecture time dedicated to unplanned pregnancy counselling and abortion services, either as part of a larger topic area (e.g., contraception) or specific to unplanned pregnancy counselling and abortion. All schools included some case-based curricula where students worked through family planning-related scenarios. Three schools dedicated some amount of time to discuss ethical issues around unplanned pregnancy counselling and abortion services. This ranged from including it as a topic discussed by a professional panel to having students view a movie about the history of abortion followed by a debrief discussion.

5.6.2 Obstetrics–Gynecology Clerkship Programs

Three out of the four participating ob-gyn clerkship rotations allocated time to contraception counselling, unplanned pregnancy counselling, and abortion services in the form of a seminar; in one instance the seminar was focused on case-based learning. The fourth program did offer an interactive learning session on contraception methods but the program director noted that unplanned pregnancy counselling and abortion were thoroughly covered in the preclinical curriculum and thus were not offered at this stage of training.

On the subject of routine clinical training, two programs included clinical time in an abortion clinic as a standardized part of the program; factors such as random assignment and placement at a religious hospital meant that not all students received this exposure. For both of these programs clinical experience focused on counselling around abortion.

5.6.3 Family Medicine Clerkship Rotation

For family medicine clerkship programs there was little variation between programs; the curriculum was limited in all cases. Contraception counselling, unplanned pregnancy counselling, and abortion services curricula were not structured components of any program.
Routine education sessions dedicated to contraception counselling, unplanned pregnancy counselling, or abortion services were not offered by any program. One clerkship program did not offer education sessions of any type.

Clinical training was not structured to ensure exposure to contraception counselling, unplanned pregnancy counselling, and abortion services; however, according to program directors, exposure to contraception counselling was likely due to the high occurrence of contraception counselling in family medicine clinics. Unplanned pregnancy counselling and abortion services may have been encountered by “chance;” in some programs students could elect to seek out such exposure.

5.6.4 Obstetrics and Gynecology Post-Graduate Programs

The post-graduate programs participating in this study all included contraception counselling, unplanned pregnancy counselling, and abortion services training in similar ways. All included these topics in routine lectures that ranged from being offered every year to every second year. The mode of delivery of these lectures varied across programs; one focused on skill lab training, another delivered the Society of Obstetrics and Gynecology of Canada (SOGC) contraception workshop, and the remaining two programs conducted lectures alone.

With respect to routine clinical training, some programs standardized contraception counselling via specific rotations; others relied on the high frequency with which contraception counselling often occurs during clinic time as sufficient inclusion. None of the programs included training in unplanned pregnancy counselling or abortion services as a routine component, though all confirmed that elective experience was possible.

5.6.5 Family Medicine Post-Graduate Programs

Family medicine post-graduate programs were consistent with respect to whether contraception counselling, unplanned pregnancy counselling, and abortion services curricula were addressed. All programs included contraception counselling during routine education time in the form of seminar or case-based sessions; in all cases, unplanned pregnancy counselling and abortion services were not included. One program ran tutorial-based sessions where topics were not predetermined meaning either of these latter topics could have been raised for discussion.
Regarding routine clinical exposure, contraception counselling was somewhat standardized in that students completed rotations in clinics where contraception counselling was frequently offered. Unplanned pregnancy counselling and abortion services were not included except “by chance.”

5.7 Variability within Medical Schools

One of the challenges of this study in attempting to identify existing curricula was uncertainty on the part of program directors as to whether students/residents encountered contraception counselling, unplanned pregnancy counselling, and abortion services, particularly during clinical training. Limited standardization and systematic processes across programs, meant that students/residents’ within programs could receive variable exposure to contraception counselling, unplanned pregnancy counselling and abortion services. Factors of influence include the program structure, the type and location of clinics where students/residents are placed, and the availability of resources including faculty with expertise to teach the curricula. Variability within programs was evidenced in both areas of curriculum examined: 1) routine education sessions, and 2) routine clinical training. These are explained in further detail below.

5.7.1.1 Routine Education Sessions

For the most part, program directors could identify whether and how contraception counselling, unplanned pregnancy counselling, and abortion services were included in routine education sessions. As stated earlier, routine education sessions were time allocated to teaching students/residents in formalized education formats (e.g., didactic seminars, case-based/problem-based learning, tutorials, and skill labs). One program did not allocate any time for routine education sessions (family medicine clerkship). For the remaining programs, variability occurred in two ways: 1) at the system level, where schools sent students/residents to multiple locations but did not standardize the seminar topics and objectives (that is, topics and objectives of seminars were determined at each site independently); 2) in the format of education session, where topics discussed in tutorial-based sessions were not predetermined but instead dictated by issues students raised.

32 Program directors noted that unplanned pregnancy counselling was likely encountered infrequently, but there was the possibility for residents to be exposed to it.
5.7.1.2 System Level

The following are examples of variability at the system level identified by program directors:

*Experiences vary, there are no formal academic sessions run out of the university. Students have variable access depending on the physician office, for example. They may attend a CME [continuing medical education] with their preceptor.* –fmc

*We don’t have a training session [in abortion]. We have lectures, so I don’t know if [residents] opt out of lectures. They can opt out of training.* –obr

Probed about the frequency with which residents opt out, this program director responded:

*I am not sure I have a good handle on whether they attend the seminar.* –obr

The examples above illustrate how the program structure can influence curriculum provided in education sessions. In the following example, the program placed students at multiple locations where each individual clinical site conducted their own seminar series. There was no centralization of the seminar topics or objectives for this family medicine clerkship program and the program director was unaware of seminar topics provided.

*Students are distributed to . . . hospitals. We have approximately 16 students per year that do their placement in a rural setting. So students at each of the sites have seminars, and many of those students will have a seminar on contraception counselling. Very, very commonly [contraception counselling] is offered as one of the seminars. It is not mandatory it is not for sure it will happen it is likely but not guaranteed.* –fmc

5.7.1.3 Education Session Format

*[Contraception counselling] might be discussed in the tutorial if there is an issue. If there is no issue in the case of contraception [and unplanned pregnancy, abortion services] then they don’t need to do anything.* –fmc

This example illustrates how some delivery formats can inherently introduce a level of variability. In the case of tutorial sessions where students/residents raise their own issues, the curriculum covered was variable. This is not to suggest processes could not be implemented to ensure standardized curriculum topics and program objectives are covered in tutorials.

The following is another example that highlights variability in the tutorial sessions of one family medicine clerkship program:
We don’t have a list of topics in the tutorial, so that is the reason we do not have [unplanned pregnancy counselling and abortion services]. We cannot cover all of the topics in family medicine so then they would get very frustrated because there are many topics to cover. They just bring the cases that they find challenging. –fmc

5.7.2 Routine Clinical Training

As noted above, program directors expressed uncertainty about the topics students/residents were exposed to during clinical training. When asked about student/resident exposure to contraception counselling, unplanned pregnancy counselling, and abortion services during clinical training, program directors replied that it was variable, depended on various factors, and, in some cases, happened by chance. Program directors were “confident” about exposure to contraception counselling based on the high frequency with which contraception counselling occurred in clinic settings rather than systematic processes. Exposure to unplanned pregnancy counselling and abortion services was, however, more variable, according to program directors; two ob-gyn clerkship programs did, however, include routine rotations in abortion clinics as part of their program.

Examples are provided below from each program type offering clinical training to highlight that variability (and uncertainty) occurred consistently in all medical programs included in this study: ob-gyn clerkship, family medicine clerkship, ob-gyn post-graduate, and family medicine post-graduate programs.

Contraception counselling is one of the most common encounters among family physicians. [It] depends on the nature of the practice, tough guess given in family medicine [there is] such a wide scope of possibilities. Unplanned pregnancy counselling and abortion are luck of the draw; less likely. –fmc

There are certainly encounters of opportunities for learning during their rotation but there is no formal learning of it [contraception counselling] during the [family medicine] clerkship. –fmc

The philosophy is based on experiential learning model. Learning is based on what they see in the clinic setting. We do have a list of topics we do like students to learn about regardless of whether they see these things in the clinic. –fmc

Systematically exposed in a systematic manner? I think the opportunity is available but it is not planned necessarily. –obc

Experience is variable. Formal teaching is fixed. Our mandate is to provide the residents the information and knowledge they need to get them through their fellowship qualifying
examinations. If they feel that they can get the information and avoid physical terminations of pregnancy we have no control of that. So they may not physically do the counselling or abortions but they would have the knowledge base. –obr

Well we choose our practices. They do 40 weeks and we require eight weeks of obstetrics and eight weeks in a rural practice so, no, no resident would miss out on a whole section of health care. Whether every resident manages an unplanned pregnancy I would not be able to tell you. We don’t track that specifically. –fmr

They can do an elective in anything they want. They could [do an elective in unplanned pregnancy counselling or abortion services], I have never had anyone ask. –fmr

The following are additional examples provided to highlight the language used by program directors which reflects both variability in programs and uncertainty with respect to what students/residents encounter. Such language includes such phrases as “it depends,” “by chance,” “there may be,” and “no formal curriculum.”

I think a lot of [whether students are exposed to contraception counselling, unplanned pregnancy counselling and abortion services] depends on circumstances. When the student is in that clinic that day, are we going to have a patient walk in with that particular issue? So it almost leaves it up to chance. –obc

Every resident has at least six weeks in a row in a doctor’s office plus one day, two days a month, for ten months and in most of those doctors’ offices there may be that kind of conversation [about unplanned pregnancy and abortion services]. However, there is no way to guarantee. –obr

If it [abortion services] happens within the clinic context and the supervisor either sort of either does not have an issue with it, or works around it, I would not know about it. –fmr

Asked to account for whether the program adequately prepared students for contraception counselling, unplanned pregnancy counselling, and abortion services, program directors responded with more confidence about contraception counselling (due to how frequently it occurs) and had variable reactions to unplanned pregnancy counselling and abortion services. Some program directors noted that students/residents may get through their programs without exposure in these latter two areas, as evidenced in the following interview excerpts:

It does if you see it. [Students] are well aware of all available options but ...you [students] could avoid it. I would say maybe one-third max get through without a clue. If they want to do opthamology and they do not seek out the [unplanned pregnancy counselling] experience they will never see it. –obc

If they come to my clinic, yes. But I am only one. I would say that a majority of students don’t graduate with that [contraception counselling]. –obc
5.8 Summary

This chapter opened by describing various characteristics of program directors participating in this study. It went on to outline existing contraception counselling, unplanned pregnancy counselling, and abortion services curricula offered to students enrolled in preclinical, ob-gyn clerkship, family medicine clerkship, ob-gyn residency, and family medicine residency programs. Variability between and within programs was discussed. All program directors identified some degree of uncertainty within their programs regarding the routine exposure of students/residents to these curricula. In discussing this uncertainty, two key issues were identified: variability in students’ and residents’ exposure to these curricula, and factors influencing whether and how the curricula were delivered. These two issues are explored in further detail in Chapter Six.
6 Results: A Typology of Sensemaking

6.1 Introduction

The goal of this chapter is to address the second research objective: to identify those factors that influence the inclusion of contraception counselling, unplanned pregnancy counselling, and abortion services curricula in various medical programs. As noted in Chapter Five, interviews with program directors revealed uncertainty on the part of program directors about the inclusion of these curricula in their programs’ and variability student and resident exposure. It was further revealed that the inclusion of these curricula in medical programs was influenced by four key factors: program structure; availability of resources (human, physical, financial); interests of students/residents; personal characteristics (values, beliefs) of program directors. While the factors of influence were similar across programs, their impact on the curriculum differed according to the way program directors made sense of their own uncertainty about the content of their programs. As such, exploring the ways program directors resolve uncertainty adds to our understanding of barriers to and facilitators of curriculum.

Chapter Four included a discussion of Weick’s theory of sensemaking (1995). To review, in analyzing the transcripts and exploring the pervasiveness of uncertainty and how program directors reconciled this using a symbolic interactionist lens, I encountered Weick’s sensemaking. While the typology was grounded in program director interviews, the theory of sensemaking guided analyses for the second research objective. The following section briefly describes sensemaking as it relates to this study.

6.1.1 Sensemaking Overview

According to Weick (2001), people create their own situations and actions and then try to rationalize these situations and actions to themselves and others. Sensemaking processes are ongoing and fluid; people continuously defend and redefine their actions and experiences. When people act, the reason is either self-evident or uninteresting. When this “flow” of action is
interrupted, such as when someone questions an act that cannot be minimized or ignored, people are compelled to make sense of what is happening.  

When people (intentional agents) encounter equivocal situations, they seek to structure the unknown — for the self, others, and the world around them (Allard-Poesi, 2005). Sensemaking occurs in their attempt to try and maintain or restore a consistent, continuous, and positive self-conception (Weick, 1995: 23).

### 6.1.2 Program Director Sensemaking

During the interview process, I attempted to understand the medical education system and curriculum from the reality of program directors using a symbolic interactionist introspective approach. During the interviews program directors revealed their sense of uncertainty regarding their program’s curriculum. For some directors, verbalizing this uncertainty to me disrupted the “flow” of their program and created an equivocal situation. As a result, some program directors engaged in sensemaking to reconcile this disconnect and restore their self-conception. Others did not exhibit any apparent disruption in their self-conception and subsequently did not reveal the need for sensemaking during the interview. These latter program directors appeared to be in an “autopilot” cognitive mindset; they did not exhibit an awareness of, or need to, structure the unknown. Those program directors who were “engaged,” however, displayed the need for sensemaking.

In this study, sensemaking emerged either as a means to justify the current system through rationalizing or deflecting accountability, or as a responsive process focused on improving the current system. These sensemaking processes were labelled, respectively, as “defending the status quo” and “responsive.”

Factors identified by program directors as influencing whether the curricula in question were included in their programs had different implications for curriculum based on the sensemaking processes used. For the “defending the status quo” form of sensemaking, factors served as

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33 Sensemaking processes are activated and situated interactions that take place between members of an organization.

34 Self-conception consists of personal identity (i.e., person-specific contributions) and social identity (i.e., social groups) (Allard-Poesi, 2005).
resources to rationalize or deflect accountability. For “responsive” sensemaking, factors were barriers or facilitators that program directors needed to navigate for program development and change. For example, program directors often noted the availability of faculty with relevant expertise as a factor determining whether the curriculum in question was included in their programs. For “defending the status quo” sensemaking, this factor would be used to rationalize uncertainty; that is “we do not have faculty available to teach contraception counselling.” Program directors engaged in “responsive” sensemaking may consider this factor a barrier to be overcome: “Currently, we do not have faculty available to teach contraception counselling. We are, therefore, trying to recruit and offer additional training to faculty in order to address this curriculum gap.”

The typology that emerged is presented in Figure 6-1; this is followed by a detailed description using examples from the interviews to support the typology.

Figure 6-1    A Typology of Program Director Sensemaking

6.2 Cognitive Mindsets

This section will discuss the “cognitive mindset” component of the typology. This component reflects the case wherein program directors were identified to either actively engage in
sensemaking or to be in an “autopilot” state. Figure 6-2 highlights the components of the sensemaking typology discussed in this section.

**Figure 6-2  Typology of Program Director Sensemaking: Cognitive Mindsets**

![Diagram showing the typology of program director sensemaking: Cognitive Mindsets with nodes for Autopilot, Engaged, Sensemaking, and Factor Filter with branches for Defending the Status Quo, Responsive, and Change.]

### 6.2.1 Autopilot Mindset

Program directors exhibited either an autopilot or engaged cognitive mindset. Program directors who were identified to be in an autopilot state did not engage in sensemaking. For these directors, what made sense for the program was already established and/or would be established by more senior staff or policy change; as a result, there was no need for the directors to reflect on the day-to-day details of their program.

These program directors were not bothered by their own uncertainty regarding the curriculum in their program. This was revealed by their matter-of-fact discussions that were devoid of sensemaking; typically neither tension nor discomfort was displayed by these program directors during the interviews. The following is an example of autopilot response:

> [Abortion procedures are] highly variable and it depends on the resident, it could be a few clinics, it could be . . .it really depends a lot, so that is why I can’t really give you more information on that, because it is so variable. Some are going to do it and some [ob-gyn residents] are not. So the only thing that is for sure is that [residents participate in a] two-week block rotation [with a preceptor who is an expert in contraception]. —obr.
Program directors with an autopilot mindset relied on traditional, established rules and processes rather than exploring areas for program development or improvement. In this way they enabled the “status quo” to be maintained; change was only probable if mandated by superiors or a change in policy. The following interview excerpt reflects this:

*The curriculum was developed a number of years ago. It has not changed significantly in probably ten years. . . . By routine, we do not offer any central seminars on contraception [or unplanned pregnancy counselling and abortion services] at each site.* --fmc

What is unclear is whether these program directors were aware of the potential issue with uncertainty and had attempted to resolve it unsuccessfully in the past. This will be explored further in Chapter Eight.

### 6.2.2 Engaged Mindset

An engaged mindset is evidenced by program directors who openly acknowledged that they experienced uncertainty about the content of their programs. They demonstrated awareness that their own uncertainty cast the program’s curriculum and perhaps themselves as well, in an equivocal light. Such awareness was a precursor to engaging in a sensemaking process.

### 6.3 Sensemaking

This section discusses sensemaking, the central feature of the typology presented in this study. When program directors were unable to identify definitively whether the curricula under study were included in their programs, those displaying an engaged mindset experienced noticeable tension and discomfort. These directors were driven by the need to reconcile the equivocal situation and, as a result, engaged in sensemaking. Sensemaking strategies were found to be of two types: defending the status quo and responsive. These approaches served to restore order and preserve self-conception among program directors.

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35 Program directors who engaged in sensemaking differed from autopilot program directors in that discussing curriculum uncertainty and in some cases limited curriculum, I noted discomfort among program directors followed by rationalizing or explanatory language. Once the program director made sense of the situation through this rationalization or explanation the issue appeared resolved and the interview continued to a subsequent question. In autopilot however, the program director simply discussed the program as it stands, I did not notice any discomfort and there was no subsequent rationalization or explanation.
In some cases program directors engaged in both forms of sensemaking during interviews. In addition, some program directors spoke about being attuned to uncertainty prior to the interview as a result of feedback from other stakeholders such as students, and revealed their resulting sensemaking processes. For example, one program director shared that students had commented that abortion was not adequately covered in the program. Consequently, the program director engaged in “responsive” sensemaking assessing the program and agreeing to have students engaged in the process of developing additional curricula in this area.

Figure 6.3 illustrates the sensemaking features of the typology. Sections 6.3.1 and 6.3.2 describe the two sensemaking strategies in detail.

6.3.1 Defending the Status Quo

One of the two sensemaking strategies employed by program directors was defending the status quo. This strategy was employed to garnish support for the program to continue operating in its current form. Directors aimed to reconcile their own discomfort with the uncertainty they had about the content of their programs precisely by justifying that uncertainty. Logic and cognitive strategies were used to frame the current practices of the program as the most appropriate and well-suited choices.

Two primary approaches were used to defend the status quo: rationalizing and deflecting accountability. With this form of sensemaking, structure of the program, available resources, interests of students/residents, and values of the program directors were used as sources for
defending the status quo. This is elaborated further in Chapter Seven. Figure 6.4 provides an overview of the two approaches used to defend the status quo.

**Figure 6-4  Types of Defending the Status Quo Strategies**

6.3.1.1  Rationalizing

There were found to be five common rationalizations used by program directors to reconcile the tension they felt in light of their uncertainty about the inclusion of the curricula in question within their programs. These involved extrapolating the probability curriculum exists based on: a) their own personal practice experiences; b) judging the frequency of encounter with the issue in the clinical world; c) the likelihood of overlap in content with another specialty (i.e., family medicine and ob-gyn; undergraduate and post-graduate); in addition, d) highlighting a lack of time to cover all relevant curricula; and, e) referring to a lack of resources were also used.

6.3.1.1.1  Personal Experience: Practices and Preceptor Experience

In deciding on the likelihood that the curricula in question would be included in their programs, directors often called upon their own professional experiences as physicians and their own practices. Program directors did not rely on systematic evidence to support their claims. Rather, their rationalization was based on recall of their personal practice and what they “surmised” or “hoped” students/residents would encounter. For example, one program director noted the following:
I am sure they do [encounter contraception counselling]. I can only base [the frequency of encounter] on what I do in my own practice, but I do have students. There would be variety depending if they were male clinicians or female clinicians, and how old the practice is in terms of the population they are encountering. I suspect [encountering contraception counselling] should be a daily occurrence. –fmc

Program directors who engaged in the rationalization type of sensemaking often referred to “likelihood” versus “absolute knowing.” Directors who, determined curriculum based on their own experience in their practices, felt it was “likely” the relevant curricula would be covered in their programs. This rationalization satisfied them and thus resolved the issue of uncertainty they encountered. “Knowing” based on evidence was not necessary. The interview excerpt above also illustrates that program directors reflected on the existence of curriculum based on their experiences as preceptors (or physicians) rather than program directors. Moreover, directors generalized their personal experiences to formulate decisions about the inclusion of curricula at all clinical training sites in their program. The following are two additional examples:

[Unplanned pregnancy] is not an uncommon situation I encounter. Just last week I had someone who was wanting to [have an elective abortion] and the resident and I discussed ways of discussing options and helping them work through the procedures . . . . The residents get some experience in unplanned pregnancy counselling but it varies. –fmr

That would be hard for me to say. I would have a hard time knowing how much [unplanned pregnancy] counselling the student would be exposed to in that area . . . . I wouldn’t know what goes on in people’s private practices and in the clinic. I sometimes wonder how much students can actually see or be involved in with a lot of hospitals getting away from doing pregnancy termination for non genetic non medical. –obc

As these examples illustrate, program directors identified that they had limited knowledge about the practices at the clinical training sites student/residents were placed, and further that they were not responsible for having such knowledge.
6.3.1.1.2 Frequency of Encounter with the Issue

A second rationalization program directors used to reconcile the tension they felt in light of their uncertainty about the inclusion of the curricula in question within their program was relying on the frequency with which students/residents would be likely to encounter the issue in question in the “real” clinical world. As one director stated,

*Based on my practice, [providing unplanned pregnancy counselling and abortion services] is not a daily practice like I have told you about contraception, which is a daily occurrence. We are probably looking at maybe it could be once-a-month occurrence, let’s say. It is not [a] very frequent occurrence that a young woman or a woman would come in with questions regarding abortion services.* –fmc

Unplanned pregnancy counselling and abortion services do not occur as frequently as contraception counselling. Identifying likelihood of curriculum based on frequency of occurrence appeared to resolve the issue for some program directors. One program director stated,

*Given that their family medicine [clerkship] rotation is six weeks and it [unplanned pregnancy counselling] is an event that even as a female physician with a very open view of things encounters probably a handful of times over a year, unfortunately it is unlikely [that family medicine clerkship students encounter it]. Not to say that we do not want it to happen; it is just that it is not on the menu every day.* –fmc

6.3.1.1.3 Overlap with Other Specialties

A third rationalization program directors used to reconcile the tension they experienced when faced with uncertainty about their programs’ content was making reference to the overlap in content of contraception counselling, unplanned pregnancy counselling and abortion services with that of family medicine and ob-gyn. Since the topics could be covered in family medicine or ob-gyn, some program directors’ discomfort due to this uncertainty was resolved; it was their assumption that the curricula in question were covered in the other programs.

The assumption that contraception counselling, unplanned pregnancy counselling and abortion services curricula were included in an overlapping program was expressed primarily by family medicine program directors. These directors often referred to “thinking it was covered in ob-gyn.” Some ob-gyn program directors made similar references, “hoping” students/residents received exposure in family medicine programs or other areas of training.
Program directors using this type of rationalization to defend the status quo were not driven to follow up to determine whether their assumptions were actually realized. As with directors who relied on their personal experiences, directors who used this type of rationalization did not rely on systematic evidence to resolve their experience of uncertainty regarding their programs’ content. The following are illustrations of this rationale:

*I am confident a lot of students will get exposure [to contraception counselling], but I cannot guarantee it. I think it will be different in (the) ob-gyn rotation.* –fmc

*That is another thing, we know there is also six weeks of ob-gyn and we hope that things students don’t get in the family medicine rotation they will get in other clerkship rotations.* –obc

*They may not see [unplanned pregnancy counselling and abortion services] during their six weeks of family medicine. Maybe there is no case of miscarriage in the practice they are with, but we hope they will see it in their ob-gyn rotation that follows the family medicine clerkship rotation, or later on when they are internist they might see it. It is hard to pin point when they see [unplanned pregnancy counselling and abortion services]. They end up seeing it somewhere, we do not know exactly where.* –fmc

*As we revise things we recognize that is one of the goals [is contraception counselling], and we hope they will get it in family medicine.* –obc

*You know, we just assume people are teaching it. I think ob-gyn teaches it more formally and we teach it from our family medicine perspective.* –fmc

In the interview excerpts above, the family medicine clerkship program director can only “assume” the content is covered in ob-gyn and yet acknowledges that the methods of teaching there would differ from those used in family medicine. The same program director later went on to say,

*The problem, especially with women’s health, is that we try to get them to see as much as they can, but they have the ob-gyn clerkship too. It is a different perspective however, in primary care and family medicine and we want them to experience this as well. It is hard to trace all of their experiences since family medicine is so broad.* –fmc

Here, the program director identified the danger of not following up to ensure the curricula are in fact covered sufficiently in ob-gyn if they are not covered in family medicine.
6.3.1.1.4  Rival Competencies: Balancing Limited Time

A fourth type of rationalization used by program directors to maintain the status quo in light of their uncertainty about whether students/residents encountered the curricula in question was suggesting there was too much curriculum to cover in the time available. The following examples illustrate the use of this type of rationalization:

…it is always a balance of everything a student needs to know and be capable of doing by the time they graduate. It is always the tension between all the elements that they need to know. That is the difficulty in finding the spot within the curriculum for them to be able to learn what they need to know. There is always a competition if you will, what do you put in the curriculum? What do you choose to put in or not put in as fully as you would like to for the time that you have? –fmc

We only have 4 weeks. Such a short period of time to get that kind of exposure and cover those things is quite a challenge. –fmc

It is becoming incredibly difficult to include everything that is included into adequate training... –obr

Given the limitations of time, directors must prioritize topics to be covered and decide how in-depth to make the instruction. The use of this rationalizing approach to maintaining the status quo of the programs suggests that program directors may not have valued the curricula in question as highly as other topics they did choose to include.

6.3.1.1.5  Resources: Faculty and Clinical Sites

The final common rationalization used by program directors to reconcile the discomfort they felt when faced with uncertainty about the inclusion of the curricula in question within their programs was making reference to a lack of resources. Many program directors mentioned having limited resources, particularly available faculty and teaching sites, to educate all students/residents in a routine fashion. This rationalization type will be discussed in greater detail in Chapter Seven.

6.3.1.2  Deflecting Accountability

In addition to rationalizing, program directions used a second primary approach to defend the status quo: deflecting accountability. By deflecting accountability for whether students/residents received contraception counselling, unplanned pregnancy counselling, and abortion services training, program directors were able to reconcile the tension they experienced in light of their
uncertainty regarding the inclusion of these curricula in their programs. This approach to defending the status quo shifted responsibility for the student/resident experience from program directors to other sources. In turn, program directors experienced the situation as being beyond their control and thus absolved them of responsibility to make any changes. The end result was that the status quo was upheld.

Program directors deflected accountability onto one of three groups: students/residents; resources (i.e., faculty and hospitals/clinics where students/residents were placed); and other programs.

6.3.1.2.1 Student/Resident Accountability

Program directors often deflected accountability onto the students/residents for ensuring they learned the right skills. That is, if students/residents did not encounter something in medical school, it was up to them to seek out relevant resources and obtain the requisite knowledge and skills. This requires students/residents to be aware of what they need to know and ways to apply that knowledge in practical settings, and the expertise they need to have in order to perform a given skill when they complete their medical school training.

The following directors’ comments demonstrate their deflection of accountability onto students/residents:

*If students are not exposed, it is their responsibility to access resources provided by (names the medical school).* –fmc

*The academic half days are supposed to be mandatory. Not all of the residents show up but as far as we are concerned, they are mandatory.* –obr

*Experience is variable. Formal teaching is fixed. Our mandate is to provide the residents the information and knowledge they need to get them through their fellowship qualifying examinations. If they feel that they can get the information and avoid physical terminations of pregnancy, we have no control of that. They may not physically do the counselling or abortions but they would have the knowledge base.* –obr

*We leave it up to the students, which is not ideal.* –obc

In addition, program directors rationalized that, in cases where the curriculum was not formally included, students/residents who had the interest would seek it out and learn it on their own. This helped the directors reconcile discomfort with their own uncertainty about the inclusion of the curricula under study; this rationale assured them that, if students/residents were interested, they
would acquire specific knowledge/skills on their own. It is worth noting that most program
directors highlighted the fact that few of their students/residents participated in electives in
contraception counselling, unplanned pregnancy counselling and abortion services.

*I think if the student wants to learn it, [then they will learn it] quite well. I think it depends on
the motivation of the student...I don’t think it is different with contraception than anything
else. I think people who are going to be family doctors pay more attention than people who
are going to be surgeons. But they all get the same devotion to time to learn it.* –obc

*A lot of students will seek out additional training in the electives...A lot of students will do
electives in women’s health issues. They will get contraception counselling, abortion services
that sort of thing. I do not know numbers but it is popular because I frequently hear students
cannot get in because they are booked up with learners.* –obc

Asked if residents were adequately trained to perform first trimester surgical abortions upon
completing their ob-gyn residency program, one program director responded as follows:

*If [residents] wish to [be adequately trained to perform first trimester surgical abortions],
they will.* –obr

### 6.3.1.2.2 Other Programs

In addition to students/residents, program directors also deflected accountability for addressing
contraception counselling, unplanned pregnancy counselling, and/or abortion services curricula
onto other programs. Deflecting accountability to other programs served to defend the status quo
within the directors’ programs. For program directors not including contraception counselling,
unplanned pregnancy counselling, and/or abortion services within the responsibility of their
program’s offerings, accountability for the curricula was shifted to other programs (family
medicine or ob-gyn). This deflection is illustrated in the following examples:

*The (family medicine) clerkship rotation does not place them in an abortion environment
because we are not ob-gyn, we are family medicine.* –fmc

*Contraceptive counselling is not a specific family medicine objective, I think it is in ob-gyn. It
is likely clerkship students are exposed to contraception counselling during
clerkship....contraception counselling is not mandated, not because it is not important.* –fmc

This type of deflection of accountability was noted most frequently in family medicine. The
following quotes illustrate this further:
It is not part of what we are currently doing... Although, it is my impression it is being done in the gynecology rotation. That is definitely part of what they own, this [is their] territory as opposed to us. –fmc

I do not think unplanned pregnancy counselling is a skill in family medicine. Family medicine does not require this. This is the job of a residency program to ensure it occurred. –fmc

It is not part of the curriculum portion [unplanned pregnancy and abortion services] that I look after although one would certainly hope that in the practical aspect of their learning if any of these issues come by the preceptors are up to speed and capable of providing unbiased information to their students. We have evaluations from students of their preceptors. We really have not encountered situations where the students have commented otherwise. –fmc

6.3.1.3 Summary of Defending the Status Quo as a Sensemaking Strategy

Defending the status quo was one of two sensemaking strategies employed by program directors to reconcile the tension they experienced upon expressing uncertainty regarding whether students/residents were exposed to the curricula in question. In defending the status quo program directors used two different approaches: rationalizing and deflecting accountability (shifting responsibility onto others and thus away from themselves). In an atmosphere where the status quo is being defended, it is unlikely that program development or improvements would occur.

It is worth noting that when defending the status quo as a sensemaking strategy by engaging in rationalization, program directors cited various factors, such as limited time, as the reason why their program operated as it did and why the curriculum was delivered in the manner it was. Directors did not appear to be motivated to come up with innovative ways to improve or further develop their program in spite of such challenges. This will be discussed further in Chapter Seven.

6.3.2 Responding to Uncertainty

In addition to defending the status quo, program directors used a second sensemaking strategy to resolve the tension created upon identifying their uncertainty regarding the content of their programs. Having identified a shortcoming, some program directors focused on identifying opportunities for improvement and program development. Instead of justifying the current situation, as with the strategy of defending the status quo, this strategy involved directors being
responsive to the existing situation with suggestions for change and improvement. As with defending the status quo, directors using this responsive sensemaking strategy identified the existence of factors (such as limited clinic sites) that influence the way in which the curriculum is offered; using this strategy, however, directors viewed these factors as challenges to be overcome or facilitators for program improvement rather than justification for maintaining the current system. Three features: continuously assessing the program, basing decisions on evidence, and making the best of available resources emerged when examining responsive sensemaking. These features are described in the following sections using quotes from program directors. Figure 6-5 displays the key features of responding to uncertainty.

Figure 6-5  Features of Responsive Sensemaking

An example of responsive sensemaking was evidenced by a program director who revealed uncertainty about whether residents received adequate exposure in the program to contraception counselling, unplanned pregnancy counselling and abortion services because there were not any faculty on staff with expertise in family planning. In response to this uncertainty, the program director began recruiting for new faculty. As the recruitment was taking a long time, the program director offered existing faculty extra training in this area to resolve the gap in curriculum.

In another example of responding, one ob-gyn clerkship program director identified that students were placed at multiple different teaching sites where they received their seminars. Rather than rationalize that seminars are necessarily different because of the nature of the structure, the program director noted this variability was an issue and subsequently reduced uncertainty by implementing a new standardized process. According to the program director,

When I became the clerkship director, one of the things that was lacking was some structure in the seminar program; different things were happening at different sites. One of the things we did was to actually structure the seminar program so that it is the same program given at
the four teaching sites that give the seminars. So the seminar program occurs at every site with those topics and those objectives. –obc

This program director independently recognized a lack of standardization (and the resulting uncertainty and variability) using an ongoing evaluation approach to the program. This included actively seeking out possible improvement opportunities. In this way, the program director maintained central control and accountability for the seminar topics covered. The following sections describe the key approaches used by directors who make sense of uncertainty in a responsive manner rather than defend the status quo.

6.3.2.1 Continuously Assessing

Program directors making sense of uncertainty responsively spoke of ongoing assessment and continued evaluation to identify areas for program improvement. Two program directors had the following to say:

*It is an ongoing process, we evaluate the residents, they evaluate us. They also evaluate that piece of the program…. (data) is collated by me.* –obr

*…in their evaluation of the rotation, that would come to the attention of the program director who is me. So we are always fine tuning different aspects of the program.* –obr

The language used by directors employing this type of sensemaking strategy reflects openness to change and a focus on ongoing improvement that requires continuously assessing the program and system for opportunities. Another example of continuous assessment is related to preceptor education and training. Most program directors identified that they educate preceptors of program objectives by means of passive dissemination and use student evaluations to assess preceptor performance. The following is an example in which a program director identified this approach could be improved.

*There is a student evaluation of the preceptors and there is…we are setting up a more formalized process for one of us here at the family medicine office to evaluate the preceptors by going on site and having a look at the charts and speaking with the preceptors and having a feel for their environment.* –fmc

Program directors that supported continuous assessment of their programs experienced ownership of their programs and accountability for their quality. These program directors did not deflect accountability for uncertainty onto other stakeholders or structures. This accountability for the program supported the need for continuous assessment. If a potential quality issue arose,
program directors were driven to resolve issues. The following example illustrates this heightened sense of accountability:

All of our residents by the time they finish are competent in that area (contraception counselling), otherwise I would not let them finish. –obr

6.3.2.1.1 Work in Progress

An important feature of continuous assessment was a regard for the program as a work in progress and a willingness to openly discuss trials and errors along the path towards improvement. Program directors using this strategy spoke of ongoing assessment and improvement as they strove to offer the best program they could given the factors they deal with. One program director noted,

...we are in the process of reviewing the curriculum and certainly those are the kinds of issues we want to make sure we are not missing out on. Contraception in general I think a lot of it is done on a patient case based level...but the issues of unwanted pregnancy and discussing counselling options is not necessarily one that we can be ensured residents will be exposed to so I think that we need to look at including that in some fashion in a classroom model. –fmr

Some program directors discussed the need to introduce systematic tracking of student/resident encounters. For some of these program directors this suggestion was in response to requirements for tracking (e.g., CACMS/LCME), but for others it was fuelled by a desire to understand the types of clinical experiences students/residents encounter. This raised uncertainty about how to approach this topic. Responsive program directors spoke openly about the trials and errors experienced in figuring out which methods and competencies to track, and at what levels. For example,

I have to admit, I think we were really ambitious and we tried to capture everything the student was going to be doing so the software thing, this program was difficult to navigate and we had to learn from that the hard way so now we have kind of stepped back and we are going to redesign the screens and we are going to choose what are the important things we want students exposed to. Let’s capture those at least and of course contraceptive counselling and pregnancy termination or abortion counselling would be one of those. –obc

We had really ambitious plans to be monitoring and electronically and now we have to step back and redesign that. –obc

One program director identified that implementing a computer log book to track detailed occurrences revealed that compliance among ob-gyn clerkship students was poor. Consequently, the program director decided to re-assess the process to improve compliance and in the meantime
adopted a paper and pencil log book. The program director revealed a commitment to continuous improvement and standardization (e.g., tracking clinical training) with this statement:

*I think it is important for us to know. What does the student have to do to gain some competency in a certain area? How many times do they need to see something or do something to feel reasonably comfortable to do themselves when they get out into practice? I think we need to have some idea of where to start.* –obc

### 6.3.2.2 Basing Decisions on Evidence

Responsive sensemaking involved using evidence about what occurred in the program to inform decision making and quality improvement efforts. Importantly, while all program directors identified evaluations by students/residents, continuous improvement sensemaking discussed how the information was actively considered and influenced subsequent decisions/changes. For example, prompted to account for the percentage of students who rotate through an abortion clinic (students are randomly allocated to this site as they are any other location), the program director referred to evaluation card data to inform their answer:

*…based on the evaluation card, I would think probably about 50%. I have not ever thought about it so I am not certain.* –obc

As asked if it is likely family medicine students encounter contraception counselling, the program director referred to available evidence based findings.

*I am looking for the log book, in the log book we list all the things that they should encounter. In women’s health, they have breast lump, pregnancy diagnosis, prenatal care, labour and delivery, postnatal care, pregnancy termination, and menopause. So they have to check. We have recently started the log book and tracking system, a new accreditation criterion. We have not analyzed the data yet or evaluated, we will do in September. Then we will see how many have done it. They also have screening, women’s health exam under that they do a PAP smear, part of that is expected contraceptive advice or safe sex, do discuss particularly in adolescence. PAP test is here. This is like procedures: PAP test, pelvic, rectal exam, IUD insertion, biopsy.* –fmc

Another example discussed the use of data to understand student experiences. When queried about uncertainty of student exposure at different clinical locations the program director stated:

*I am hoping the data will get at this. [It is] hard to have control.* –fmc

This aspect of responsive sensemaking was focused on accessing evidence and also pulling input from stakeholders including students, residents, faculty, and preceptors. The program director was open to input from a variety of stakeholders.
6.3.2.3 Making the Best of Available Resources

An important feature of responsive sensemaking was dealing with resources. Dealing with resources included doing the best with existing resources, scanning for and seeking out external resources, and creating new internal resources. As noted above, this often involved engaging all potential resources including critics and stakeholders to participate in improvement planning, and seeking out existing or creating curricular resources, and hiring (or perhaps training) faculty with expertise.

One ob-gyn clerkship program director discussed receiving feedback from students that they did not think there was enough contraception counselling (and unplanned pregnancy and abortion) curriculum. This issue was addressed by engaging these students not only for their feedback but also to support seeking out resources.

I put the students to work and said, then you find me a few centers willing to take students. I think it was the Student’s for Choice that actually e-mailed me and I said we can actually work together to provide these opportunities for those who want them… I think that is one good thing about the clerkship right so far is that we do read the evaluations and try to respond to them. It was obvious topics were not being covered in the curriculum before I started as the Director in this program. We wanted to make the didactic program anyway consistent at every site and covering all the topics. –obc

Program directors exhibiting responsive sensemaking discussed scanning for and seeking out existing resources to address curriculum gaps or further develop the program. For example, the Society of Obstetricians and Gynaecologists of Canada (SOGC) created a contraception skills workshop that program directors referred to as an important resource for addressing this curriculum.

Program directors also created new resources in the absence of existing tools. For example, one university created a fellowship in this area that involved creating curriculum resources for other stakeholders to use.

Making use of all of the available resources meant that, for responsive sensemakers, their “ideal” vision has to be tempered by doing the best with existing resources. This included having to send students/residents to Catholic affiliated hospitals even though they would not be exposed to unplanned pregnancy and abortion counselling and procedures. For example, one program director noted:
I don't know the exact details but I don't think that the residents are allowed to offer the IUDs at (names Catholic affiliated hospital). They might have ways of getting around it mind you. They have colleagues that have an office down the street, if it is really an important issue they might arrange to meet them in the office down the street and put the IUD in there. –obr.

Overall, responsive sensemaking was focused on assessing the program for improvement and development opportunities followed by changing the program to address issues (uncertainty in this case) as much as possible given factors influencing the curriculum. This will be discussed in Chapter Seven.

6.4 Typology Summary

The typology presented in this chapter describes how program directors resolved uncertainty regarding whether contraception counselling, unplanned pregnancy counselling and abortion services curricula was included in their program. Program directors with an engaged mindset revealed the use of sensemaking that defended the status quo or was responsive to potential quality issues. Program directors revealed the same structure, resource, student/resident, and personal factors. Factors had different implications for curricula depending on the sensemaking strategy used by program directors. This is detailed in the following chapter.
7 Results: Factors and the Role of Sensemaking

7.1 Overview of Factors Influencing Curriculum

Interviews with program directors regarding influences on the inclusion of contraception counselling, unplanned pregnancy counselling, and abortion services curricula in their programs revealed four key factors: program structure, availability of resources, interests of students/residents, and their own personal philosophy. The perceived implications and impact of these factors varied according to the sensemaking strategy employed by program directors to address their uncertainty regarding the content of their programs. For those making sense by defending the status quo, these factors served as resources to rationalize the program or to deflect accountability. For those engaging in responsive sensemaking, these factors served as challenges or opportunities to bring about change and thus resolve uncertainty.

This chapter offers specific examples of each identified factor of influence as described by program directors. Further, it demonstrates the influence of the sensemaking typology (outlined in the previous chapter) in framing each factor to either perpetuate the status quo or promote program development and improvement.

7.2 Program Structure

The structure of medical school programs influenced the curricula offered. For example, programs structure clinical training by sending students and residents to multiple training sites often far away from the medical school. This section specifically explores the ways programs structure preceptors at these sites and in particularly, how preceptors were informed about the course objectives they were required to meet as an example of the way structure influences the curriculum offered.

Program directors described a structure where preceptors were typically informed about course objectives through passive dissemination. That is, preceptors were provided written course objectives with the assumption they would be adopted into practice. Standardized processes to ensure preceptors understood and effectively implemented objectives were limited. The following interview excerpts highlight passive dissemination and uncertainty about if and how objectives were implemented by preceptors.
The objectives are available to the clinicians but they do not always go and they say they do not know what they are. –obc

The clerkship objectives were circulated to all the preceptors locally about 2 weeks ago. Whenever we take on new centers, they get a copy of our clerkship manual that includes the objectives clearly in it. –fmc

We certainly make all preceptors available aware of the objectives and make them aware that they are available on the website. –fmc

While program directors indicated that the performance of preceptors and other faculty was evaluated through student evaluations, they also expressed uncertainty about what goes on in preceptor clinics. This uncertainty is reflected in the following interview excerpts:

There are some clinicians known within the department to be pro life and there are some providers. I know there was a gentleman who retired maybe 10 years ago that would not do a tubal ligation at c-section. So we recognize those biases, and you say, that is their belief and we are here to educate you, and provide you information so you can come up with your own belief. –obc

There is an evaluation, students evaluate their preceptors. I have never had a complaint from students placed with a preceptor opposed to contraception and abortion. Most of the time if students are placed there they will also be placed with physicians with liberal views. Some students will seek out to work with preceptors with similar viewpoints as theirs. Working at a religious hospital, I have students requesting to work there to align with physicians with same viewpoints against contraception and/or abortion. –fmc

We educate the faculty through faculty development initiatives on the learning objectives. For family medicine, we circulate that to all of the preceptors both specialty oriented and family medicine preceptors, make sure it is available on the website, evaluation forms loosely evaluate the objectives so when they are evaluating a resident on a rotation, they may not specifically focus in as generally as unintended pregnancy counselling, we try to satisfy ourselves that the objectives are met. –fmr

I imagine they (preceptors) do (provide contraception counselling) but I cannot be certain because everyone’s experiences are a little bit different, right? We don’t have any data that has been tracked to verify what gets done. –fmc

Program directors employing defending the status quo as a sensemaking strategy used two approaches (discussed in Chapter Six): rationalizing and deflecting accountability. Program directors rationalized that using passive dissemination to inform preceptors of course objectives was justified because other checks were in place (e.g., student evaluations of preceptors, the absence of student complaints) to ensure curricular objectives were being met. Further passive dissemination was deemed acceptable as a method of sharing information because it put the onus on preceptors to meet the objectives (i.e., it was an example of directors deflecting
accountability). In addition, deflecting accountability onto faculty or preceptors for students’/residents’ experiences was also used. This is despite acknowledging some preceptors may not address this curriculum. For example:

*I can tell you I know of physicians that object to abortion services and use of contraception and some of our students will be sent to this preceptor.* –fmc

*All of our faculty would be comfortable talking about contraception counselling. I actually do not know if 100% are comfortable talking about abortion counselling.* –fmr

*I think it is only a very small but vocal minority that would be biasing the students.* –obc

Defending the status quo sensemaking rationalized uncertainty of training provided by preceptors because if there was a problem, students and/or residents would not be passing their examinations. As such, passing examinations served as a proxy for preceptor quality and resolved concern about uncertainty. The following excerpts reflect this:

*It is (contraception counselling) one of our exam stations. It might come up probably once or twice a year so a good number of students will be examined on it.* –fmc

*We do not have anything specifically on unintended pregnancy counselling and abortion as an exam topic right now . . . we have a ton of objectives, we don’t necessarily have exam material for each of those.* –fmc

*Most students pass the LCME and it includes these competencies.* –fmc

In contrast, those directors who made sense responsively to resolve uncertainty identified that passive dissemination may not be the most effective process to ensure effective delivery of curriculum and, in some cases, proposed an alternative course of action. Some directors further noted that relying solely on student/resident evaluations to detect issues was not rigorous.

One ob-gyn residency program director revealing responsive sensemaking spoke in detail about creating benchmarks for evaluations as a way to make resident evaluations more effective. The program director noted:

*We have both explicit written objectives for every rotation and we also have implicit objectives. So for instance in the community rotation, residents during their PGY3 year, the explicit objective is to be exposed to and develop proficiency in outpatient clinical care, this is an explicit objective. One of the implicit objectives is to have exposure to IUD insertions. Explicit objectives written are very formal and they are reviewed with the residents at the start of their rotation and used they are used for a benchmark for their evaluations. The students review the preceptors over the year. A course director collates it and sends it back to us so we know.* –obr
Another program director discussed taking a more active approach to ensuring preceptors effectively implement curriculum. The program director stated:

*I do orientation with the preceptor and I do site visits. So the site visits I do for many things, either if there is a problem at the site, to inform about changes, and to offer CME (continuing medical education) courses or workshops on how to deal with a problematic student, how to give feedback, and so on. The other way to communicate with [preceptors] is via phone and via evaluations.* –fmc

### 7.3 Availability of Resources

In addition to the structure of the program, the availability of resources was another key factor identified by program directors as influencing the curriculum offered. Resources included the clinics available for student/resident placements, funding (fiscal resources) and faculty available to supervise and teach (human resources). The following quotes illustrate ways in which the availability of resources was a factor influencing the inclusion of contraception counselling, unplanned pregnancy counselling and abortion services in the various curricula.

*We have to work with the resources we have and most hospitals offer general gynecology and OB clinics and some hospitals have some special things that students (e.g., oncology) have an opportunity to attend those.* –obc

*I think it is very dependent upon the hospital they are working at. I think it is quite unlikely that students that are at our religiously affiliated hospitals will be exposed to this.... It is also dependent upon the preceptor, their patient population but it is also patient dependent too. Because there are certain circumstances that patients have the right to say no, they would not like to be seen by a medical student. Because it is a very personal type of situation, there would be a lot of patients that would not necessarily like to speak to a student about this issue they might prefer to speak directly to their regular physician. So, I think a lot of patients may choose not to speak to a student regarding that type of issue. This has been my experience, personally my experience in clinic that when the situation arises, a lot of patients say no, I want to talk to my regular doctor, I don’t want to talk with a student about this.* –fmc

*It (contraception counselling) would depend upon a number of factors. It would depend upon where the student is working. It would depend upon who the student is working with. Some students could have a preceptor who does not have a strong interest in women’s health or young women in their practice where they would encounter this presentation in their practice. It would depend upon preceptor, the location, again some hospitals with a large focus on women’s health and obstetrical gynecological issues for example X, Y (names to women health focused hospitals) would be two sites in our program with higher exposure to contraception. Those two probably see more patients presenting with questions about contraception.* –fmc
7.3.1 Availability of Clinics for Student/Resident Placement

Program directors indicated that there was necessarily variability in student/resident experiences because there was variability in the clinical training sites where students/residents were placed and limited training sites available to provide training in this area. Students/residents could not all be placed in identical training conditions. Locations could be rural, have specific areas of specialization including women’s health or have a religious affiliation, any and all of which would impact the type of clinical encounters students/residents experienced. Directors indicated that it wasn’t always possible for them to know exactly what students/residents were exposed to at each site. That is, there was a degree of uncertainty about the curriculum they encountered. For example:

Contraception counselling depends on the clinics clerks are in. Certainly, if they are seeing post partum patients then yes. I will because I am a generalist sometimes get a clerk that on the last day I will ask: did you get a post partum visit in? And they say: ‘no’. –fmc

I think probably there is some influence of the one hospital that has religious association. – obc

For those directors who defended the status quo as a sensemaking strategy, deflecting accountability, directors suggested that responsibility for curriculum lay with the training sites and the staff situated there.

Directors using responsive sensemaking, on the other hand, acknowledged that students/residents’ exposure to the curriculum in question varied due to their placement at different clinic sites and that their uncertainty was an issue. These directors then went on to describe some of the actions they had taken to standardize the curriculum in the interest of reducing such variability in and uncertainty about what students/residents were learning. For example, one program director had introduced a routine rotation through an abortion clinic for all ob-gyn clerkship students placed at the general hospital. For students placed at a Catholic-affiliated hospital, the program director identified the placement as a barrier to accessing the abortion curriculum and arranged for these students to also spend time at a site providing the abortion experience.

Program directors identified capacity — that is, having a sufficient number of clinic locations available — as problematic. The following examples highlight capacity as an issue:
...I have often wondered if the students should have a mandatory half day in one of the clinics like (names a clinic) but they might want to be involved in the counselling, they might not want to be involved in the actual procedure. It is hard to know what to do. Having (identifies number) students rotate through 3 centers let’s say, is a big burden for the clinics to take too. So I am not sure where to go on that I do worry about whether students get enough of that, I know they get some but I don’t know if they are getting enough to help them actually move on and continue that in their practice. –obc

I think we cover contraception counselling the best. In terms of other things, in terms of unplanned pregnancy counselling, I don’t think I cover it as well. This is a function of time, resources, we cannot send everyone to (names clinic) they are so overwhelmed with learners. In a perfect world we would have a couple of centers like (names clinic again) and all students would spend time there. –obc

For defending the status quo sensemaking, these directors rationalized that this is why curriculum could not be accounted for and/or may be variable. For responsive sensemaking directors, they identified this as a barrier and discussed doing the best with available resources (e.g., training sites).

7.3.2 Availability of Funding

Not surprisingly, the availability of funding was identified by program directors as having an impact on the curriculum offered. This was noted especially in relation to offering students experience with medical abortions. Two program directors stated that to offer patients medical abortions required a 24-hour call system and an on-call nurse practitioner. Due to a lack of funding, clinics offering this service were no longer operational and, therefore, experience in medical abortions could not be provided to students or residents.

To be successful these women (women receiving medical abortions) need another person on the other end of the phone to talk to when they are feeling crampiness, pain and we just cannot provide that so we basically stick with surgical abortions. –obr

We had a (medical abortion) program for a nurse practitioner but the funding ran out. So hopefully in the next 6 months we will get another one. –obc

Again, similar to limited clinics available, defending the status quo used a lack of funds to rationalize the current system that supported uncertainty and variability. It also supported deflecting accountability onto more senior leaders (e.g., Dean) for appropriating limited funds. For responsive sensemaking, making the most of available resources and structuring the program to support as much training available was noted.
7.3.3  Availability of Faculty

Having access to faculty (teachers and preceptors) with specialty/expertise was an important factor influencing the existence of routine curriculum, as the following examples illustrate:

We are very lucky in (names the city) because we have folks specifically trained in contraception such as (names physician) and all our residents rotate through and so they do learn through her how to provide contraception and counselling that goes with it. –obr

Well we don’t really have anyone in our department that has extra training in sexual health and I have been trying to find someone in ob-gyn or somebody who would be willing to get that extra training and then come to our centre and train, or it is very, very difficult…very few people are actually able to provide that kind of training. So we don’t actually have anybody right now. –obr

Location, preceptor, type of practice preceptor has. For example, a preceptor with a predominately geriatric population, you are not likely to see young women. It is very preceptor dependent.” –fmc

...it is also dependent upon the preceptor, their patient population but it is also patient dependent too. Because there are certain circumstances that patients have the right to say no, they would not like to be seen by a medical student. Because it is a very personal type of situation, there would be a lot of patients that would not necessarily like to speak to a student about this issue they might prefer to speak directly to their regular physician. So, I think a lot of patients may choose not to speak to a student regarding that type of issue. This has been my experience, personally my experience in clinic that when the situation arises, a lot of patients say no, I want to talk to my regular doctor, I don’t want to talk with a student about this. –fmc

Directors whose sensemaking strategy was to defend the status quo rationalized that, without faculty available to teach, it was beyond their control to ensure that curriculum was complete or consistent across teaching sites. Directors whose sensemaking strategy was to respond identified the availability of faculty to teach as a factor influencing the curriculum offered, and then went on to describe strategies to ensure qualified faculty were available. These strategies included recruiting new faculty and offering training to existing faculty to make them more qualified.

Related to the availability of faculty, the issue of medical schools hiring specialists versus generalists was noted by some ob-gyn program directors (clerkship and residency) as a factor of influence on the curricula offered. Two program directors in particular flagged this as having an impact on the content of routine curricula offered in their respective programs. The following examples explain this further:
It is hard because there are so many sub specialists and we need to use all of our clinicians. Like I took 3 weeks off in July so if they were on my clinics (ob gyn clerkship students) they got nothing (contraception counseling) because I was away. So they might have only got pelvic floor or high risk stuff. So clinicians and schedules, it is dependent on who is working. –obc

…just about all across the country with so many subspecialists it is hard to give a general ob-gyn experience to students. So when they get 2 to 3 weeks on oncology they get nothing about contraception counselling and that is how the Chairs have decided to hire within their departments. There are some campuses that have 1 or 2 generalists on their staff. –obc

We have a group of generalists who are really really really very good and we have a women’s health center now and we have (names contraception expert faculty member) who has joined us. I think that our residents are getting very good exposure to those topics and good training. –obr

As educators we recognize the challenges with that Chairs of Departments have to publish and there are different people that have to be answered to at different levels of leadership within their departments. Hopefully it will improve. –obc

7.4 Interests of Students and Residents

Program directors often identified that the interests of students and residents influenced their education experiences. The following examples introduce the role of the interests of students/residents from the perspective of program directors:

The residents in terms of their practicing the technique can go if they wish to. But I can tell you I can probably count them on one hand….I guess what I am saying is the opportunity is there but the resident’s don’t tend to go to those ORs (operating rooms where abortions are performed), they are not interested. –obr

Depending predominately on the individual (resident), we do have a clinical rotation in pregnancy termination. We have lots of opportunity for people to include that as part of their general gynecological training. The pick up on that is quite variable. Some people it is zero because they don’t do it. There are other people that feel understandably that the technical skills of a pregnancy termination whether it is a miscarriage or a therapeutic termination are similar and they have gotten them on one area or the other. There are some people who want more intensive training so they can have special blocks of time where they do just that (unplanned pregnancy counselling and abortion services via elective time). –obr

Well you know, personal comfort, um...so there are some residents who just a...um ...feel less comfortable with material or talking about sexuality or um so they may, they may get less involved if given the option. –fmr
The student/resident factor has been discussed in detail in the previous chapter. Directors who defended the status quo as a sensemaking strategy rationalized that students/residents who had an interest in contraception counselling, unplanned pregnancy counselling and/or abortion services could find ways to access the necessary training and/or that it was the responsibility of the student or resident to acquire training in these areas. Directors who made sense responsively, reported that student/resident interest was used to guide curriculum development. In this case, if students/residents were not utilizing available resources (e.g., a contraception specialized training opportunity) further curriculum development in these areas may not be a priority. Directors whose sensemaking strategy was responsive demonstrated a willingness to improve upon program offerings and to engage students and residents; the result was that student/resident interest could drive how and whether the curricula in question were included.

7.5 Personal Philosophy of the Director

The personal philosophies of program directors shaped their attitudes and values and thus necessarily had an impact on how and whether contraception counselling, unplanned pregnancy counselling and/or abortion services curricula were structured into their programs. Personal philosophy also directly influenced the sensemaking strategy a director employed. For example, program directors who valued competency in these curriculum areas (or who advocated the inclusion of these curricula) were more likely to engage in responsive as a sensemaking strategy than defending the status quo. Program directors who did not consider these curricula as a priority were less motivated to ensure it they were included and, as such, were more likely to engage in defending the status quo as a sensemaking strategy.

For example, one program director noted the importance of surgical skills as the key focus for ob-gyn post-graduate training and did not think contraception counselling, unplanned pregnancy counselling, and abortion services were priorities.

… In terms of practical, when they see the patient one on one, that part is variable. I think because it is a relatively frequent problem, they see a lot of it but, I cannot tell you any number. The reality is in our hierarchy, it is not the most important competency (contraception counselling, unplanned pregnancy counselling, and abortion services). We are more worried can they do a hysterectomy than can they counsel on contraceptives. –obr
Another program director was passionate about the need to include this curriculum in the undergraduate years. The program director noted:

*I get a lot of flack about that but, I need to show the students why it is legal and then we have an hour after that because it used to wind them up and then we have an hour debriefing where we talk about the CMA code of ethics and your obligations to provide referral care, post abortion care, emergency care, that sort of thing.* –obc

Given the value placed on the topic, this program director was motivated to overcome obstacles such as criticism from stakeholders in order to ensure the curriculum was a routine part of the program. Another program director who did not value the need for including the curriculum in a routine manner in ob-gyn residency made the following statement:

*The students are worried because they are more worried….the teachers are not worried because the residents get the technical skills. If you are an obstetrician, 50% of your patients will miscarry and on of those a lot will be D&C which is basically the same D&C for an (elected) abortion. So no one is worried the training and skill set won’t be there what they miss is the philosophical piece, I am an advocate for women and although it may not be fun, I have to do it because that is who I am trained to be and that is the piece that is missing.* –obr

Later, however, the same program director went on to state:

*I know at my hospital, the number of abortions we provide has fallen over the years, it is not it might be as simple as they are going to free standing clinics, they are using medical management.* –obr

*I guess the thing for gynecologists, the gamet of things that we do, contraception counselling is on the low end of the totem pole so I don’t think that there probably is, it is not something that we track.* –obr

### 7.6 Chapter Summary

The purpose of this chapter was to further describe the factors identified by program directors as having an influence on whether and how contraception counselling, unplanned pregnancy counselling, and abortion services were included in the curricula of in their programs. These factors were program structure, availability of resources, interests of students/residents, and personal philosophy of the director. A second objective of this chapter was to explore the ways in which the sensemaking typology (outlined in Chapter Six) employed by the director to resolve uncertainty impacted how these influencing factors were framed.
8 Discussion

8.1 Chapter Overview

This thesis provides the first outline of family planning curricula, from unplanned pregnancy prevention (e.g., contraception counselling) to management (e.g., unplanned pregnancy counselling and abortion services) in Ontario medical schools. It also spans the spectrum of medical education from undergraduate to residency training (in all programs likely to include this curriculum) through interviews with program directors in ob-gyn and family medicine.

Exploring factors that influence this curriculum from the lived world of program directors is an important conceptual framework for examining medical education. The typology that emerged from this framework provides a way of understanding how program directors address uncertainty and subsequently influence curriculum through sensemaking processes. Moreover, the typology highlights the value of going beyond identifying influencing factors to understanding the implication of these factors from multiple perspectives such as the mind, self, and society (Blumer, 1969; Travers, 2001).

This chapter discusses key research findings beginning with study implications. First addressed are implications related to identifying existing curricula in Ontario medical schools (i.e., research objective one). Next, is the identification of factors that influence contraception counselling, unplanned pregnancy counselling, and abortion services curricula (i.e., findings relevant to research objective two) and the sensemaking typology that emerged. Last are the study limitations, future research and recommendations.

8.2 Implications for Identifying Existing Curricula

A substantial component of this study was to identify existing contraception counselling, unplanned pregnancy counselling, and abortion services curricula. This specific area of curriculum was examined from entry into medical school to specialty training (i.e., from preclinical, clerkship, to post-graduate levels) in relevant specialties (ob-gyn and family medicine). Having a clear curriculum focus made it possible to ask detailed questions of program directors and to create a thorough description of what, and how, medical schools teach it.
Similar to other research (e.g., Roy et al., 2006; Steinauer et al., 2009), this study found curricula was limited, as well as variable between schools as to if (and how) such curricula was taught. The study results provide an essential starting point for evaluative processes. Next steps might include evaluating if contraception counselling, unplanned pregnancy counselling, and abortion services curricula are sufficient and whether there are specific opportunities to improve how curriculum is delivered and evaluated. Also, program directors can consider the information presented here to examine how other program directors address this curriculum. The following sections will discuss key findings in preclinical, ob-gyn (clerkship and residency programs), and family medicine (clerkship and residency programs).

8.2.1 Preclinical Contraception Counselling, Unplanned Pregnancy Counselling, and Abortion Services Curricula

Preclinical programs included routine contraception counselling, unplanned pregnancy counselling, and abortion services curricula. This study found a similar pattern as that reported by Steinauer and colleagues’ (2009) when they surveyed American and Canadian Medical Students for Choice. Specifically, contraception received the most preclinical time compared to unplanned pregnancy counselling and abortion services36 and the focus was on oral contraception. Consequently, other contraception methods and some aspects of contraception (e.g., identifying vulnerable groups, counselling) may not be receiving sufficient attention.

Most Ontario preclinical programs in this study incorporated routine case based sessions involving family planning (either as a separate topic or within a broader lecture). Some programs had case scenarios focused on a female teenager and unplanned pregnancy. While teen pregnancy is important, this emphasis may reinforce discourse that female teens are the most vulnerable group. Moreover, these case based sessions may be an opportunity to integrate learning about prevention by educating students about vulnerable groups such as those that cannot afford to purchase prescriptive contraceptives (e.g., oral contraception) or disabled

36 Steinauer and colleagues (2009) assessed a broader range of reproductive health curricula however, the same pattern, most time allocated to contraception was noted.
women. Research suggests these groups are not routinely offered contraception (Gilliam & Neustadt, 2009; Lipson & Rogers, 2000; Thomas & Curtis, 1997).

### 8.2.2 Obstetrics and Gynecology

In this study, routine/required curriculum was included in clerkship and residency programs in ob-gyn as standard education sessions. Regarding clinical training, two ob-gyn clerkship programs included routine clinical rotations involving unplanned pregnancy and abortion counselling (and perhaps exposure to the procedure). In fact, only these two clerkship programs did so in any of the medical schools.

While all ob-gyn residency programs had electives on unplanned pregnancy counselling and abortion services, none included routine exposure to abortion. The implications for this are discussed below (see Electives 8.2.4). Although Canadian research examining ob-gyn residency programs found almost all (97%) programs included abortion training and half the programs included it as a routine aspect of the curriculum (Roy et al., 2006), the findings from this study did not concur. The dissimilarity between the findings may be because of differences in the definition of “abortion training”. For example, in this study some program directors said ob-gyn residents would get procedure related experience indirectly through other competencies (e.g., the management of miscarriages) but this would not meet the definition of “routine abortion training”. It is not known whether exposure indirectly results in being able to effectively understand the social context of unplanned pregnancy counselling, to counsel and perform abortions, and provide follow up care.

### 8.2.3 Family Medicine

This study found there was no routine contraception counselling, unplanned pregnancy counselling or abortion services curricula in the family medicine clerkship programs. While some clerkship program directors indicated their students were likely exposed to contraception, neither it or unplanned pregnancy counselling or abortion services curricula were integrated systematically into the programs. Residency programs included contraception counselling

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37 Roy and colleagues examined obstetrics and gynecology programs in Canada by surveying all post-graduate year four and five (PGY 4 and 5) residents and program directors (2006).
routinely however, neither unplanned pregnancy counselling or abortion services were included. This means for some family medicine post-graduates, the only required curricula to cover all areas: contraception, unplanned pregnancy, and abortion was in the preclinical years (i.e., none in clerkship or residency), likely with little time allocated to counselling, and in the format of an education session rather than a clinic-based experience. This lack of clinical training is surprising given the important role primary care providers have in healthy family planning (Brahmi, Dehlendorf, Engel, et al., 2007; Cwiak, Emmons, Khan, & Edelman, 2006; Weitz, 2009).

**8.2.3.1 Scope of Practice**

While many family medicine program directors identified contraception counselling, unplanned pregnancy counselling, and abortion services as important for their specialty, some noted this was not within the scope of family medicine. However, while the provision of surgical abortion procedure may not routinely be within the scope of family medicine (Prine & Lesnewski, 2005), counselling (on contraception, unplanned pregnancy, and abortion) is a key component of family medicine. Moreover, there is an increasingly number of family physicians providing medical abortions. Prine and Lesnewski (2005) note that this particular procedure does fall within family physicians’ scope of practice and is safely integrated into some family medicine practices (Bennett, Baylson, Kalkstein, Gillespie, Bellamy, & Fleischman, 2009). As noted by Wu and colleagues (2006): “Family medicine training includes obstetric, women’s health and procedural training and skills that are similar to those needed for abortion provision; there is no reason to believe that early abortion would pose difficulties from a clinical perspective for family physicians” (Wu et al., 2006, p.613). Furthermore, including this curricula supports continuity of patient care (from prevention to managing unintended pregnancies) (Dehlendorf, Levy, Roskin, & Steinauer, 2010; Weitz et al., 2010). Particularly in remote rural areas, a family physician may be the primary contact for women to prevent an unplanned pregnancy and for providing assistance for dealing with an unplanned pregnancy. There are limitations to medical abortions, they need to be performed early (typically up to 7 weeks from last menstrual cycle) and there are

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38 A medical abortion uses drugs to empty the contents of the uterus. Medical abortions can be done only early in pregnancy. There are two drug combinations used to cause abortions: 1) methotrexate and misoprostol; and, 2) mifepristone (RU 486) and misoprostol. Only the first combination is currently available in Canada. The second combination mifepristone (RU 486) and misoprostol is not currently approved for sale in Canada.
contraindications making some women ineligible. The point here is not to advocate that family physicians should be performing medical abortions necessarily but that having curriculum on it (counselling and/or the procedure) would be consistent with the scope of practice of a family physician.

8.2.4 Electives

When asked, most program directors identified that students and residents could obtain exposure to curriculum through electives. However, with the exception of one family medicine program, program directors acknowledged that electives in this area are not actively sought. Research suggests there is low attendance in elective curriculum (Espey et al., 2005; Roy et al., 2006). For example, in the Roy study (2006) programs with routine training had higher rates of resident participation for both first-trimester (62% versus 12%, P = .02) and second-trimester training (78% versus 18%, p = .01) than programs with elective training.

It may be that highly motivated students and residents willing to perform abortions will seek elective training in this area. However, such training is important even for reasons other than future abortion provision. Research shows that ob-gyn residents exposed to abortions are more likely to include pregnancy counselling for women in their practice and to support a woman’s right to have an abortion (Aiyer, et al., 1999; Shanahan et al., 1999). While respondents choosing such elective training may have had more positive attitudes towards abortion than those who did not attend, the study findings do provide initial support for the importance of including routine curriculum. Allocating curriculum as elective status supports discourse that competencies covered in electives are of lesser importance (Palmer & Devitt, 2008). Moreover, policy that requires curriculum, but provides flexibility as to how it is offered, including allowing it to be elective, may lead to gaps in knowledge and skill acquisition.

8.2.5 Variability Revisited

While I thought it was likely that variability between schools would exist, I was unprepared to identify variability within programs. All program directors discussed uncertainty about the existence of curriculum at some level referring to curriculum as “variable”, “depends”, and encountered “by chance”. It was not that I thought it was possible to track every micro competency; however, I was surprised to find the degree of uncertainty about whether
curriculum existed and how it was implemented. Curriculum variability has been identified in other types of curricula (Forbes et al., 2004; Gay et al., 1995; Hauer et al., 2009), including reproductive curricula (Steinauer et al., 2009). As such, variability appears to be an acceptable feature of the medical school system.

While for frequent issues such as contraception, this may be fine, but is it the best way to gauge curriculum exposure for other issues? Is there utility in using standardized processes to identify and ensure curriculum exists? Moreover, what is the value added in understanding the frequency and quality of exposure?

8.2.5.1 Clinical Training

Hauer and colleagues (2009) raised issues with the apprenticeship model of clerkship training. They identified that the structure of this model only allowed short encounters with patients and that students had multiple preceptors who were predominately residents (Hauer et al., 2009). My study also noted weaknesses in the clinical training structure. The current structure is vulnerable to gaps in what students/residents encounter and in ensuring a standard level of curriculum quantity and quality. It is not necessarily the apprenticeship model that is problematic, but the system and processes. I will discuss two examples of systems and processes in this chapter related to 1) preceptor performance; and, 2) multiple training sites.

8.2.5.1.1 Preceptor Performance

Only one program director identified processes beyond passively disseminating program objectives to preceptors. Given evidence that passive dissemination is not effective for behavior change (Davis & Taylor-Vaisey, 1997), it is unlikely to be an effective way for ensuring preceptors understand the expected educational objectives nor would it be an effective vehicle for them to learn how to effectively train and evaluate students/residents. Others noted the importance of providing adequate training for faculty (Brennan, Hanson, Gara, et al., 2006; Miles, Saxl, Lieberman, 1988). Knight and colleagues (2007) studied longitudinal faculty development programs to develop clinical teaching skills noting that these programs can have a broad and sustainable positive impact (Knight, Carrese, & Wright, 2007). Knight et al. (2007) suggest the current way medical programs educate and evaluate preceptors’ warrants further
examination. In addition, exploring what resources and supports preceptors need may also add value.

8.2.5.1.2 Multiple Training Sites

Program directors referred to the exposure to curriculum as “depending” on the training site. The issue about exposure is often about the case-mix of the training site. The Royal College of Physicians and Surgeons of Canada (RCPSC) have identified that greater regionalization, new distributive models of medical education that use non-traditional settings, and use of private sites challenges whether residents receive adequate case mix exposure to acquire needed competencies (http://www.rcpsc.edu/publicpolicy/Statement_on_Complexity_e.pdf, 2008). Having systematic processes across all clinical training sites could reduce uncertainty about curriculum at training sites.

8.2.5.2 Implications for Accreditation

Accreditation requires that certain structures, processes, and curricula must exist however, to respect each medical school’s autonomy and individuality, the requirements are often broad and open to interpretation by medical schools (Schreiber et al., 2006). Having broad accreditation requirements however, makes it difficult to compare and evaluate curricula within and across schools. For example, if one school adopts tutorial based learning, how do we compare this curriculum to a didactic lecture conducted in another school? Introducing standardization such as requiring explicit tutorial objectives might facilitate curriculum comparisons. An important component of quality improvement is identifying opportunities to establish standardized processes as this ensures the delivery of quality curricula.

Given flexibility in how accreditation standards are implemented (and because standards are about meeting a certain threshold of acceptability), accreditation may not be a suitable proxy for curriculum and program quality. Some program directors in this study referred to accreditation and students/residents passing examinations as measure of their program’s quality. How do we measure quality in medical education? The World Health Organization (WHO) recommended orienting medical education towards social relevance and making medical schools more accountable for the improvement of health care delivery. The WHO highlighted the importance of developing indicators and criteria for planning and evaluation. Continuous planning and
evaluation which includes policy makers in health care, medical educators, and practitioners are needed to define and measure quality medical education (Boelen, Bandaranayake, Bouhuijs, Page, & Rothman, 1991). The Council of Ministers of Education in Canada adopted the WHO’s definition of social accountability: “[medical schools have an] obligation to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve. The priority health concerns are to be identified jointly by governments, health care organizations, health professionals and the public.” Accordingly, “quality” of Ontario medical education should be assessed on its content and on its relevance to public health issues.

8.3 Program Directors

Results of this study are not an indictment of program directors’ skills. Rather this study’s findings highlight the complexity of medical school programs and the importance of understanding the lived experiences of program directors. Also revealed was the important role program directors have in influencing the inclusion and routine integration of curriculum.

Sexson (2010) identified the program director’s role to be a leader, administrator, and manager. As a leader, the program director sets a vision and culture for the program. From this vision comes the curriculum, systems, and quality standards. The administrative role includes ensuring compliance with accreditation standards. The manager role, for example, includes working with coordinators and organizing department resources (Sexson, 2010). Although the role of program director is complex and demanding, we know little about their lived experiences.

Sexson (2010) identified high program director turnover and lack of training as particular challenges. Currently, the only requirement to become a program director from the RCPSC and College of Family Physicians of Canada (CFPC) is certification by them in the discipline concerned (CFPC for family medicine program directors, RCPSC for obstetrician-gynecologists). Being certified does not mean one is necessarily an effective leader, manager, and/or administrator. In essence, the CFPC and the RCPSC is leaving it to medical schools to determine if their program directors have adequate training, resources, and support to function effectively in this role.
Program directors may benefit from competency training, ongoing supports (e.g., mentorship programs, curricular resources, and leadership tools), skill development, and other education/training programs. The RCPSC offers a workshop to help new program directors understand their role which includes some practical training. The workshop includes designing a residency program (helpful hints on how to manage a program) and an accreditation session which outlines the standards of the RCPSC (these are the standards each program must meet). The practical aspect of the workshop is a simulation exercise where participants review an actual program and decide if it is meeting the standards. In addition, there are helpful hints about how to identify residents in difficulty and manage them. Another RCPSC resource is a program director handbook about recruiting the highest standard of resident recruitment, training, and evaluation. The handbook does not include information on how to lead, manage, and/or administer a medical education program.

Previous research has identified the challenges program directors experience, predominately time, resources (e.g., trained faculty, available teaching sites), and support (Delzell, Ringdahl, & Kruse, 2005; Golnik, Lee, & Wilson, 2008; Sexson, 2010; Heard, Allen, & Clardy, 2002). Not surprisingly, program directors in this study also identified lack of time and resources (e.g., training sites, faculty, and curriculum). Interestingly, while the CFPC and RCPSC state that medical schools must provide adequate staff and financial support, as well as sufficient time to administer and supervise their program, “adequate” and “sufficient” are not defined leaving it to each medical school to define them.

Program directors do influence curriculum. In fact, one study examining abortion curriculum in Canadian ob-gyn residency programs identified program director support as the strongest correlate as to whether routine curriculum existed (Roy et al., 2006). While they are influential, understanding how they lead, manage, and administer their program provides information to support quality improvement. As noted by Eisenhardt and colleagues (1997), reasonable people are likely to perceive ambiguous, uncertain worlds in different ways and prefer different courses of action. Examining how program directors make sense of the uncertainty imbedded within the curriculum can inform effective ways of training program directors. In addition, it might be useful for program directors to see alternative ways of thinking and of approaching curriculum.
8.3.1 A Typology of Sensemaking

Examining medical curriculum leadership-management with an interpretive lens is an exciting approach that sheds light on the complexity of medical schools. Program directors must resolve issues and uncertainties as they arise. This study makes an important contribution to understanding the day-to-day, lived experiences of program directors and the leadership they provide. The typology that developed revealed two forms of sensemaking: 1) defending the status quo sensemaking; and 2) responsive sensemaking. For defending the status quo sensemaking, factors including structures, resources, and students/residents were used to rationalize or deflect accountability. This rationalization or deflection supports the system continuing to operate in the same manner. For responsive sensemaking, these same factors represented barriers or opportunities to contend with in order to resolve variability. Responsive sensemaking is likely to lead to program development and improvement. However, this is not to suggest that one sensemaking approach is better than the other is; in some contexts the status quo is appropriate (e.g., a responsive approach may require a large fiscal investment however, the return on this is minimal).

8.3.1.1 Student and Resident Responsibility

To rationalize the uncertainty when discussing whether the curriculum was included, program directors deflected accountability to students and residents for their learning. While perhaps residents are better prepared to shape the training experience based on their interests and professional goals (as they have completed medical school), for undergraduate medical students it may be unrealistic. In fact, Martin (2008) identified that during the transition from undergraduate to family medicine residency programs, residents were unclear about their learning expectations.

8.3.1.2 Blurred Program Lines

Similar to scope of practice discussed above (Section 8.2.3.1), program directors often deflected responsibility for curriculum to another program. Boundaries for curriculum topics such as contraception counselling, unplanned pregnancy counselling, and abortion services are not always clear. In this study, program directors who deflected accountability onto another program did not know for sure beyond “thinking” or “hoping” that the topics were included. It is important to examine curriculum across levels and programs within schools to ensure it is
routinely included. Moreover, this supports identifying opportunities to improve how curriculum is integrated across program types and levels.

8.3.1.3 Responsive

Responsive sensemaking supports identifying issues before they present as serious problems; it appears an effective process to ensure quality in a dynamic system such as medical education. Responsive sensemaking has similar features to the social process of leadership developed by Irurita called “optimizing”. Using a grounded theory, Irurita (1994) explained how nurses could impact the delivery of healthcare by making the best of a situation, including using what resources were available as effectively and innovatively as possible to compensate for the situation and move beyond mediocrity towards excellence.

“Optimizing” in the Irurita (1994) study helped leaders cope with turbulence created by transition periods of change that invoked uncertainty. According to Irurita, optimizing involves three progressive and cumulative phases: surviving (making optimal use of available resources to sustain basic performance), investing (developing potential resources and investing in the future), transformation (altering negative situations, maximizing potential resources, actively seek and develop additional resources to move the organization forward and promote significant change).

Similar to Irurita’s optimizing, a key feature of responsive sensemaking in this study was making the best with the situation given limitations while seeking and engaging resources. Other features of Irurita’s “optimizing” also seem to be present in responsive sensemaking. Similar to the findings of Irurita, this study found the important features of responsive sensemaking included having expert faculty who advocated for curriculum inclusion (including by actively seeking out resources to support the development and implementation of curricula). The importance of experts and advocates to lead curriculum has also been identified elsewhere (Weitz, 2009).

In terms of seeking resources, some program directors in this study identified the importance of external curriculum modules that they could implement into their program. The Society of Obstetrics and Gynecology of Canada (SOGC) has a contraception curriculum that many program directors referred to when discussing routine curriculum. Externally created curriculum modules could be an attractive way to address the fact that program directors are under time
constraints, tight budgets, and have competing demands. Zimmerman et al. (1997) discussed the impact of an immunization curriculum module that was used to support medical schools’ ability to incorporate immunization into their curriculum (Zimmerman, Barker, Strikas, et al., 1997). Ontario medical schools might benefit from evaluating the adoption of the SOGC contraception module (and/or other similar curricular resources) and examining the impact of its uptake on curriculum.

8.4 Limitations

This research was exploratory and adopted a qualitative interview method. While it had much strength, it also had some limitations, which are discussed in this section. Examining one component of curriculum allowed for the collection of greater detailed information than would have occurred by exploring curriculum more broadly. However not every program director participated in this study (one ob-gyn clerkship and one ob-gyn post-graduate program director were not interviewed). While saturation was achieved regarding program variability and program director sensemaking, it is possible that there were differences with respect to routine curriculum between those program directors that participated and those that did not. Also, we do not have information on the Northern Ontario School of Medicine (NOSM) as it was too new at the time of the interviews to be included (see 4.0 Methods).

Related to identifying curriculum, this study focused on program directors. Program directors over-estimate curriculum levels compared to residents (Roy et al., 2006; Steinauer et al., 1997; Wathen et al., 2009); although, some studies have identified consistency between program director and student curriculum estimations (Steinauer et al., 2009). Examining other stakeholder’s perspectives including faculty, students and residents would provide an opportunity to look for concordance as to what curriculum was reported to be delivered, explore opportunities for improvement, and add a layer of understanding about current routine curriculum.

Medical education is a complex and dynamic system. Study results reflect the time when the data were collected and the views of the program directors interviewed. It is possible that curriculum has been modified since these interviews were conducted. This extends to the sensemaking typology, particularly given that sensemaking is a fluid and emergent process (Prus, 2005). As such, participants sensemaking could be different today.
Weick’s theory of sensemaking aims to establish objective knowledge of a subjective process; sensemaking (Allard-Poesi, 2005). Studying sensemaking is an active and subjective process in itself. Critics of this approach note the paradox of sensemaking is that it defines reality and meaning as socially constructed, but tries to disengage from that experience and objectify it (Allard-Poesi, 2005). Providing structure and order to subjective human experience does not violate the subjective nature of the experience. It provides a framework for understanding and is fluid enough to support change.

Sensemaking typology presented in this study is exploratory and needs to be further examined. For example, we cannot ascertain if autopilot was a reflection of learned helplessness. The concept of “learned helplessness” originally came from the psychology literature. In animal experiments, Martin Seligman found that when animals were unable to prevent or avoid receiving electric shocks, in future situations they would not attempt to avoid or escape it even when it was possible to do so. The concept of learned helplessness has been used to describe the same behaviour in humans: that is, “Human motivation to initiate responses is also undermined by a lack of control over one's surroundings”39. For autopilot program directors, perhaps they were previously engaged in improvement but faced continuous obstacles making their achievements continually unsuccessful. Therefore, for these program directors, they no longer participated in active improvement.

Glaser and Strauss (1967) point out the danger of deriving formal theory from a single substantive area and without significant applications. Formal theory should come from conceptual comparisons across substantive contexts. Appraisal of concepts should take place across similar and dissimilar contexts as part of theory development so that it will be valid and applicable in other contexts and over time. As such, the typology presented here needs to be built upon and tested further in future research.

Symbolic interactionism often involves ethnographic approaches such as participant observation, conversation analyses, and interviews (Allard-Poesi, 2005). This study aimed to gather information from family medicine and ob-gyn directors of undergraduate and post-graduate

39 http://findarticles.com/p/articles/mi_g2602/is_0003ai_2602000349
programs across Ontario. As such, participant-observation would not be feasible given logistic, time, and resource constraints. To add to the conceptual depth of this study, an ethnographic approach might be feasible in one program area (or within a school) focusing on additional stakeholders. While this study was not an ethnographic one, attention was paid to probing program directors beyond the specific curriculum, clarifying terminology such as “curriculum”, and “routine”, and taking detailed field notes (to capture contextual information and to record personal notes). See the Methods chapter for further elaboration about the field notes.

8.5 Future Research

This study focused on program directors’ accounts of curricula. Examining other stakeholders such as preceptors, other faculty, students and residents would serve to validate current findings and add depth to our understanding. In addition, it could provide additional ways of knowing. Presenting stakeholders and program directors the results of this study for input may also add insight and directions for future research.

Research that focuses on how best to inform preceptors about course objectives and how to implement these objectives is warranted. It behooves us to ensure preceptors are supported with resources and to ensure evaluation processes assess their performance beyond asking students/residents. Studies that further examine program directors’ lived experiences in Ontario are also warranted. This includes identifying program director challenges and exploring potential ways to support them in their role.

The sensemaking typology developed in this study provides a unique approach to examining how program directors resolve uncertainty and the implications that factors (structure, processes, resources, and personnel) have for curriculum. Examining the typology in detail will help to develop it further (e.g., validation, reliability, revision, etc.). For example, Iruita’s social process of leadership “optimizing” was developed by identified a transition period and studying how leaders deal with uncertainty. Applying this approach to program directors using the sensemaking typology developed in this study would further develop the typology. One possibility to develop further the sensemaking typology is to use it during a time of anticipated uncertainty, such as when new accreditation standards are introduced (e.g., tracking clinical experiences) or when a new program director is hired. Exploring how program directors make sense of other situations that create uncertainty or ambiguity (e.g., policy change) like these.
would further develop the sensemaking typology revealed in this study. This includes opportunity to evaluate, refine, and add new concepts to the typology (Prus, 1996).

Prus (1996) identifies the need to apply social processes to other contexts. Generic social processes examine parallel activities across contexts to build on conceptual development and draw comparisons to arrive at a richer understanding of similar processes across a wide range of settings (Prus, 1996). The typology of sensemaking proposed in this study could also be explored with program directors other than those in ob-gyn and family medicine and with other curricular areas.

Last, future research could also explore social processes of leadership already developed such as optimizing and sensemaking to discover how they relate, overlap, merge, and or make unique contributions. Exploring general processes of leadership and sensemaking in other groups such as long term care home charge nurses, families, major league baseball managers, hospital management, etc. can promote the development of concepts that are applicable to broader social contexts (Prus, 1996). Expanding the scope of exploration to similar middle management/leadership positions such as charge nurses in long-term care homes could be fruitful. Charge nurses for example are in a similar leadership role where they are accountable to the home administrator and director of care, however, they must manage and lead staff and ensure the needs of their residents are met. Moreover, the typology may be extended to other fields of education and areas of healthcare.

## 8.6 Summary of Key Implications

There are many potential audiences for this thesis including those responsible for medical school standards and curriculum policy (e.g., within accreditation bodies, at medical schools), program directors, and medical education researchers. This section presents a summary of proposed key implications for these groups stemming from the results of this study.

### 8.6.1 Curriculum Policy

- Examining if curriculum policy that requires curriculum but allows it to be offered electively is appropriate and effective.
8.6.2 Medical School Leadership

- Curriculum committees should explore existing structures and processes to identify opportunities for improved standardization and reduced variability. For example, do preceptors need more than passive dissemination of program objectives? Are they able to translate effectively these objectives into practice? Do preceptors require more training and support systems (e.g., mentorship program)?

- Those appointing program directors should consider establishing and publishing criteria used to ensure they are effective leaders, managers, and administrators. In addition, a review of the support provided to program directors should be undertaken to see if it is sufficient (e.g., education/training, resources).

8.6.3 Program Directors

- Program directors need to find ways to network with others in similar positions in other medical schools to share ideas and to learn from each other’s experiences.

- Program directors might benefit from identifying and implementing modules developed elsewhere (e.g., Royal college module on contraception) and evaluating its effectiveness over time.

- The typology proposed in this study provides program directors with information as to how other program directors make sense of barriers (e.g., resources, faculty) and implement contraception counselling, unplanned pregnancy counselling, and abortion services curricula. This information can be used to assess their own current sensemaking and curriculum as well as to identify alternative options.

8.6.4 Researchers

- Further examination of the lived world experiences of program directors may help to identify further competencies required of program directors. Creating a research program to examine key leadership competencies for program directors, including training and resources to support program directors, might add value. Moreover, exploring key challenges program directors face, how program directors make sense of other situations
that create uncertainty or ambiguity would add to our knowledge of program directors' lived experiences.

- This typology adds to our knowledge of social processes of leadership. Building on this scholarship within medical education and in other sectors can further develop/test the sensemaking typology proposed in this study.

8.7 Concluding Remarks

This study identified existing contraception counselling, unplanned pregnancy counselling and abortion services curriculum and can be used to identify the gaps we have in Ontario medical school curriculum. In addition, it provides an information resource to medical schools when considering these curricular areas (e.g., evaluating, revising). This study contributes to our understanding of leadership as a social process and highlights the challenges program directors face and the strategies they use in their day to day process of developing, implementing and evaluating curriculum.

It is important to evaluate curriculum in a regular basis to ensure its quality and to identify opportunities for development and improvement. Standardized processes may be used to maximize our ability to ascertain if and what curriculum exists. Regardless of the curriculum topic, program directors must be certain that students/residents receive adequate exposure to and experience with competencies in their field.
References


Kavanaugh, K., & Ayres, L. (1998). “Not as bad as it could have been”: Assessing and mitigating harm during research interviews on sensitive topics. Research in Nursing & Health, 21, 91-97.


Appendices

Appendix A

Definitions of Common Terms used in this Dissertation

Abortion services: Includes providing information about the procedure itself, referral to appropriate medical or surgical services (if required) or performing the abortion procedure (surgical, medical, for various gestational ages), scheduling a follow-up appointment that includes assessing for any complications, physical and emotional concerns, and contraception follow up (Leslie, 2006).

Case based learning: Engages students in discussion of specific situations, real-world examples. This method is learner-centered, and involves interaction between the participants. The instructor’s role is that of a facilitator and the students collaboratively address problems from a perspective that requires analysis. Case-based learning focuses on the building of knowledge and the group works together to examine the case. Much of case-based learning involves learners striving to resolve questions that have no single right answer (http://www.queensu.ca/ctl/goodpractice/case/index.html).

Core Curriculum: A curriculum, or course of study, which is deemed central and usually made mandatory for all students of a school or school system (http://en.wikipedia.org/wiki/Curriculum).

Curriculum: All learning which is planned and guided by school, whether it is carried on in groups or individually, inside or outside the school (Kelly, 1999). In this study, curriculum includes education sessions and clinical training/exposure integrated into the medical school.

Didactic: Teaching method that follows a consistent scientific approach or educational style to engage the student’s mind.

Elective Rotations: Refers to educational sessions and/or practical training experiences that are available for students wishing to participate, but are not a requirement of the program.
**Integrated:** An experience that students or residents are alerted to in advance, either verbally or written format as part of the program (Espey, Ogburn, Chavez, et al., 2005).

**Non-integrated:** An experience where students who express interest can take the initiative to arrange their own experience (Espey, Ogburn, Chavez, et al., 2005).

**Problem-based learning:** A student-centered instructional strategy in which students collaboratively solve problems and reflect on their experiences. Characteristics of PBL are: learning is driven by challenging open-ended problems, students work in small collaborative groups, teachers take on the role as “facilitators” of learning, students are encouraged to take responsibility for their group and organize and direct the learning process with support from a tutor or instructor (http://en.wikipedia.org/wiki/Problem-based_learning).

**Rationalize:** To bring into accord with reason or cause something to seem reasonable: as a : to substitute a natural for a supernatural explanation of <rationalize a myth> b : to attribute (one’s actions) to rational and creditable motives without analysis of true and especially unconscious motives <rationalized his dislike of his brother> ; http://www.merriam-webster.com/dictionary/Rationalize

**Routine Education and Training:** Refers to education sessions (e.g., didactic lecture, tutorial, case based learning) and/or practical training experiences that are a regular, required, and an integrated part of the program (but may include opt out provisions and alternative curricula for those students/residents who do not wish to participate).

**Uncertainty:** A state of having limited knowledge where it is impossible to exactly describe existing state or future outcome, more than one possible outcome. http://en.wikipedia.org/wiki/Uncertainty

**Unplanned pregnancy Counselling:** Refers to providing non-judgmental, accurate, and thorough information about all available options (i.e., continue pregnancy, adoption, abortion) and relevant referrals for each option with attention to identifying potential support networks (personal, community) available/required. If this is not possible, providing a referral to another provider to perform this service (Leslie, 2006). Please note this does not include counselling for fetal anomalies.
Appendix B

Letter to Medical School Deans

June 21, 2007

[Address]

Dear [Insert Name],

I am the Principal Investigator for SAAS which is a series of studies on abortion services in our province funded by the Ontario Women’s Health Council. There is a SAAS sub-study being conducted as a PhD dissertation that explores curriculum and training in Ontario medical schools with respect to contraceptive and unintended pregnancy counselling as well as abortion services. This research involves interviewing Program Directors of Undergraduate Pre-Clerkship and Clinical Clerkship as well as Post-Graduate Family Medicine and Obstetrics & Gynecology Programs who agree to participate. This study is not a critical analysis of any university program; instead it offers an opportunity to view curriculum and training across Ontario.

The purpose of my letter is simply to let you know that Natalie Ceccato, a PhD student at the University of Toronto, will be contacting Program Directors in your Faculty and asking for their participation.

This research has been approved by the Sunnybrook Health Sciences Centre Research Ethics Board and by the Research Ethics Board at the University of Toronto.

If you have any questions concerning this research, please do not hesitate to contact us. We can be reached at ICES – Natalie Ceccato (PhD student) at (416) 480-4055, Ext. 7654 or Dr. Lorraine Ferris at (416) 480-4055, Ext. 3841.
Sincerely,

Lorraine E. Ferris, PhD., C.Psych., LL.M., LL.M.,
Principal Investigator, SAAS
Senior Scientist, ICES
Appendix C

E-mail to Program Directors

Dear [Program Director Name],

We are conducting a study examining abortion curriculum and training in Ontario medical schools. A sub-study is also being conducted as part of a PhD dissertation which will explore curriculum and training with respect to contraceptive and unintended pregnancy counselling as well as abortion services. I am writing to ask if you will consider participating in the research as it is essential to have input from Program Directors (your name was identified from your respective [public] university website).

We are asking for your participation in a one-on-one interview (scheduled at your convenience) lasting approximately 1 hour. The purpose of this interview is to obtain information on your university’s current medical curriculum and training in contraceptive counselling, unintended pregnancy counselling, and abortion services. The study is not intended to critically evaluate your program but, rather, to understand current curriculum and training in these areas. The interview questions were derived from consultations with a broad array of stakeholders (Program Directors, physicians, students, teaching faculty) and a review of the literature. The interview questions will be provided prior to the interview.

While our intent is not to publicly publish/report institution specific data, it may be possible readers will be able to identify an institution (and subsequently Program Directors) given that there are only 6 Ontario medical schools.

If you are willing to participate in an interview, please respond directly to this e-mail (or via administrative personnel) and we will schedule an interview at your convenience. Agreeing to be interviewed means you consent to participating.

We appreciate that you have competing interests for your time. However, we do hope that you will consider participating in an interview because no one but you can inform us about your experiences with and opinions of curriculum and training in these areas. Your input is a key
component to ensuring that a thorough understanding of current Ontario curriculum and training in family planning and abortion services is obtained.

If you have any questions or comments concerning this research, please do not hesitate to contact us. We can be reached at ICES – Natalie Ceccato (Research Coordinator) at (416) 480-4055, Ext. 7654 or Dr. Lorraine Ferris (Principal Investigator) at (416) 480-4055, Ext. 3841.
Appendix D

Undergraduate Medical School Program Directors (FM and Ob/Gyn) Interview Program

**Mail questions with reminder letter (1 week prior to interview)**

PROGRAM:

PRE-INTERVIEW

1. Introduction [Hello, thank you for agreeing to meet with me]
2. Small chat: (2 minutes)
3. “The purpose of this interview is to learn from you what currently exists in your school’s undergraduate MD curriculum in the areas of contraception counselling, unintended pregnancy counselling, and abortion services.”
4. Clarify that I will be asking about clinical experiences from Clinical Clerkship Directors and Post-Graduate Program Directors -- the focus here is on preclerkship curriculum [TAILOR TO SITUATION e.g., speaking with a Co-ordinator and/or Program Director)]
5. The interview will take about 1 hour
6. Re-iterate informed consent (You can stop at any time if you wish)
7. Permission to audiotape and take notes
8. Do you have any concerns or questions?
9. Would you like to proceed with the interview?

INTERVIEW

POST INTERVIEW

1. Review Purpose
2. Thank you (e.g., “thank you very much for taking the time to meet with me, I know you are very busy, I really appreciate all the information you have provided me”)
3. Is there anything else related to curriculum/training you would like to comment on or add that you think I should also know/hear about?
4. Are there any additional people that you think would be important for me to meet and speak with to better understand your medical school’s preclerkship program in these curricular areas?
INTERVIEW QUESTIONS

SECTION 1  DEMOGRAPHICS & BACKGROUND

1. How long have you been the Program Director in _____________ at (school)_______?

2. Please identify key features of your medical program that you think are important for me to be aware of (e.g., school philosophy, approach, program design, unique aspects)

3. Please describe what processes are followed when the pre-clerkship curriculum is reviewed and changed (clarify not referring to course changes but to curriculum change).
   a. How is curriculum change developed, implemented, and subsequently evaluated in your medical program?
   b. Probe further

4. When is your next medical school accreditation for undergraduate curriculum scheduled to occur?

SECTION 2  CONTRACEPTION EDUCATION & OPINIONS

“During the following questions I will be referring specifically to contraception education. By contraception education I mean [DEFINE]." (CONSENSUS on meaning)

1. Does your program include any compulsory preclerkship courses that address contraception?
   - Yes
   - No
   - Not Sure

If NOT SURE
   a. Are there other individuals in your medical school who you could refer me to for the answer to this question? If so, who are they?

If NO
   a. Is contraception addressed elsewhere in the medical school curriculum (e.g., electives, extra resources, later in the Clerkship)?
   b. Proceed to Question 4

If YES
   a. Continue to probe and proceed with questions (course #, course name(s), instructor name(s), amount, content)
b. Are the following contraception topics covered in preclerkship curriculum:

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<thead>
<tr>
<th>Yes/No</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Course Name/Amount/Type/ Education on: Frequency/Timing)</td>
</tr>
</tbody>
</table>

Available contraception methods

How to counsel patients

How to educate patients

How to make appropriate recommendations

(given life factors/contra indicators)

Follow up and monitoring

2. Is each “type” of contraception method (injectable, prophylactic, etc.) addressed?
   a. Probe: How is each type represented in the curriculum? What emphasis, attention and emphasis is there on each type (pill, injectables, IUD, etc.)?

3. Does the preclerkship curriculum at your school place on educating students to effectively discuss, prescribe, and monitor contraception (for patients of reproductive age)? Does this vary according to patient characteristics (e.g., age)?
   a. Explain (probe)

4. Are there any factors that influence the likelihood contraception counselling is included in the preclerkship curriculum at your school?
   a. Probe: Religious affiliation, LCME, policy, PDs, student demand, teachers

5. Do you have anything to add about teaching/curriculum relating to contraception counselling in your medical school’s preclerkship curriculum?
SECTION 3  UNPLANNED PREGNANCY COUNSELLING & ABORTION TRAINING & OPINIONS

“In the following series of questions I will be referring to abortion services [DEFINE].”

(Consensus on meaning)

1. Does your program include any compulsory preclerkship courses that address unplanned pregnancy counselling and abortion services?

If NOT SURE
   a. Are there other individuals in your medical school who you could refer me to for the answer to this question? If so, who are they?

If NO
   a. Is unintended pregnancy counselling and abortion education available and/or received elsewhere (e.g., elective, extra resources, later in the Clerkship). If so, please describe (how frequently offered, content, popularity with students)?
   b. Proceed to question 6

If YES
   a. Continue to probe (below) and continue with questions

If YES: Probe in the following areas and continue with questions 4-7:

<table>
<thead>
<tr>
<th>Topic</th>
<th>COURSE NAME (TIMING/DESCRIPTION)</th>
<th>FORMAT (PBL/LECTURE/SEM)</th>
<th>AMOUNT (EST. HR/MIN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy options counselling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal serum screening?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>abortion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; trimester surgical abortion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; trimester surgical abortion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and manage complications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post abortion counselling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical follow up</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Does preclerkship curriculum at your school address how to counsel patients presenting with an unintended pregnancy on all available pregnancy options (i.e., keep, adopt, abortion)?

   a. How is each of these addressed and what level of attention does each receive in your school’s preclerkship curriculum?

3. Do students ever opt out of classes that include contraception counselling, unintended pregnancy counselling and/or abortion services (If so, how many per year on average)? What protocol is followed?
4. Providing unbiased information on all available options (keeping baby, adoption, abortion) when patients present with an unplanned pregnancy is an essential component of your curriculum.

   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

5. Are students routinely evaluated on their ability to provide contraception counselling, unintended pregnancy counselling, and abortion services? Please describe:

6. Are there any factors that influence whether the preclerkship medical curriculum at your school includes education regarding unintended pregnancy counselling and abortion services?
   a. Probe: LCME, university policy, dean, program directors, faculty (available, willing), student interest, religious affiliation, time

### SECTION 4 GENERAL INFORMATION

1. What do you feel are the most important issues to focus curriculum on regarding women’s reproductive health during preclerkship?

2. Curriculum relating to contraceptive counselling, unintended pregnancy counselling, and abortion services at your school is comprised of up-to-date evidence based medicine/information?

   - Strongly Agree
   - Agree
   - Disagree
   - Strongly disagree

3. Do you discuss the content of contraception counselling and abortion services curriculum with Undergraduate, Clerkship and/or Post-Graduate Program Directors in your program?
   - Do you discuss with other programs (FM/OB/GYN)?
   - Do you discuss with other universities (FM/OB/GYN)?

4. Is there anything else you would like to add concerning contraceptive counselling, unintended pregnancy counselling or abortion services as it relates to the preclerkship curriculum at your medical school?
CLERKSHIP PORTION

SECTION 1  DEMOGRAPHICS & BACKGROUND

1. Is your Clinical Clerkship program affiliated with a religious hospital(s) or institution(s) where Clinical Clerkship students are placed?
   □ yes; if so, which one(s)? ______________________________________
   □ No

2. Please identify the key features of your (family med/obgyn) Clinical Clerkship rotation that you think are important for me to know (duration, topics, format, educational resources, student evaluations, etc.)
   a) Main objectives of the rotation (skills/knowledge expect students to acquire)
   b) How many students typically participate in the clerkship rotation?
   c) How do you develop, implement, and evaluate your clerkship rotation?
   d) How do you identify a need to change the content of the rotation?
   e) How are students evaluated throughout the rotation?

SECTION 2  CONTRACEPTION TRAINING & OPINIONS

“During the following questions I will be referring specifically to contraception counselling training. By contraception education and training I am referring to [DEFINE]”. (Consensus on meaning)

1. Does your (family medicine/obgyn) Clinical Clerkship rotation offer routine curriculum and training in contraception counselling?
   (DEFINE ROUTINE/ELECTIVE AND CONFIRM CONSENSUS IN MEANINGS)
   □ Yes
   □ No
   □ Not Sure

If NOT SURE
   a. Are there other individuals in your medical school who you could refer me to for the answer to this question? If so, who are they?
If NO

a. Is contraception counselling training offered in other ways (e.g., elective, medical rounds, seminar, educational resources)? If yes, please describe (estimate number who participate in elective)?
b. Proceed to question 8

If YES

a. Please describe the curriculum, please describe the experience in the rotation….Probe further (format [elective/routine], type [observe/perform], timing, frequency) and continue with questions

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exposure to:</td>
</tr>
<tr>
<td></td>
<td>All available contraceptive methods</td>
</tr>
<tr>
<td></td>
<td>Counselling patients on contraception (patient centered)</td>
</tr>
<tr>
<td></td>
<td>Sexual history taking</td>
</tr>
<tr>
<td></td>
<td>Identifying, educating and recommending patients appropriate contraception (given life factors/contra indicators)</td>
</tr>
<tr>
<td></td>
<td>Follow up and monitoring</td>
</tr>
</tbody>
</table>

2. Is each contraception type (I.U.D., injectable, pill, prophylactic) equally represented?
   a. Probe (including why/why not)

3. Does your Clinical Clerkship rotation reflect that contraception counselling is an essential skill students need to acquire in order to effectively care for patients?
   a. Probe

4. Do students ever opt out contraceptive counselling training (if so, indicate number), what policy is followed in this case?
5. Are students routinely evaluated on their abilities related to contraception counselling during their Clinical Clerkship rotation?
   a. Probe

6. How well does your Clinical Clerkship rotation prepare students to discuss, prescribe and monitor contraception for all patients of reproductive age? Discuss

7. Training students to counsel all female patients of reproductive age about contraception (that is to raise the topic and follow up with subsequent visits) is an important component to include during the rotation (and compared to other topics)?

   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree

8. How likely is it students will be exposed to contraception counselling during their rotation
   a. Highly likely
   b. Likely
   c. Neutral
   d. Unlikely
   e. Highly Unlikely

9. Are there any factors that influence whether contraception counselling training occurs in your Clinical Clerkship rotation? (e.g., competing competencies, hospital policy, patient (type), staff (availability, beliefs) not a priority)?

10. In addition to what we have already discussed, do you have anything to add about training students about contraception counselling?

---

**SECTION 3**

**UNPLANNED PREGNANCY COUNSELLING & ABORTION TRAINING & OPINIONS**

“In the following series of questions I will be referring to clinical experiences related to abortion services [DEFINE]”. (Consensus on meaning)

1. Are unintended pregnancy counselling and abortion services included as routine components of the clinical clerkship rotation curriculum and training?

If NOT SURE
   a. Are there other individuals in your medical school who you could refer me to for the
answer to this question? If so, who are they?

If NO

a. Are other training opportunities available (e.g., elective(s), education resources, rounds, seminar(s)). If so, please describe including timing, where (hospital), how often, how many clinical clerkship students participate in each typically per year)
b. Proceed to question 6

If YES

a. Probe further type of education and experience (see below) and proceed with questions

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>Frequency</th>
<th>Other Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy options counselling (on all options: keep, adopt, abort)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical abortion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st trimester surgical abortion (describe procedure type)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd trimester surgical abortion (describe procedure type)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and manage complications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post abortion counselling</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. How likely is it student will be exposed to unintended pregnancy counselling during the rotation?
   a. Highly likely
   b. Likely
   c. Neutral
   d. Unlikely
   e. Highly unlikely

3. Same but for abortion services

4. Do students ever opt out of training in unintended pregnancy counselling and/or abortion services (how many on average per year)? What protocol is followed?

5. Does the Clinical Clerkship (CC) rotation prepare students to counsel patients presenting with an unintended pregnancy on all available pregnancy options (keep, adopt, abortion)?
   a. Probe representation of each
   b. Level of importance

6. Does your CC rotation prepare students to discuss abortion services with patients requesting these services (e.g., discussing/educating on all options, referrals, follow-up [complications])? Discuss
   - [ ] Extremely well trained
   - [ ] Somewhat well trained
   - [ ] Not very well trained
   - [ ] Not at all trained

7. Are students in your CC rotation routinely evaluated on competencies related to unintended pregnancy counselling and abortion services?
   a. Probe

8. Are there any factors that influence if and how unintended pregnancy counselling and abortion services training occur during your CC rotation (hospital [policy, affiliation, resource, technology, size], patients [request, type], student [request], staff [available, willing, beliefs], school [LCME])?
   a. Probe
1. Do you discuss the contraception counselling, unintended pregnancy counselling, and abortion services content of your clerkship rotation with Undergraduate and/or Post-Graduate Program Directors in your program?
   a. Do you discuss with other programs (FM/OB/GYN)?
   b. Do you discuss with other universities (FM/OB/GYN)?
2. Do you have processes in place to ensure CC objectives are implemented by faculty (amount, depth, breadth)?
3. What are the most important issues to focus on during your CC rotation pertaining to women’s reproductive health?
4. Do you have anything else you would like to add concerning unintended pregnancy counselling and abortion services training provided during your clinical clerkship rotation?
5. Potential contacts??
Appendix E

Transcription Symbols

A system of symbols to indicate non verbal communication and verbal nuances was created based on the objectives of the study and related literature (Poland, 1995; Bird, 2005). This system of symbols is intended to improve the rigor of transcription from audio to print (Poland, 1995).

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>[</td>
<td>Point where speaker’s talk is interrupted (overlapped) by the other speaker</td>
<td>PD: They participate in-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NC: (overlapping) All students?</td>
</tr>
<tr>
<td>=</td>
<td>One equal sign at the end of a line and one at the start denotes no space between the two lines</td>
<td>PD: Yes (cough)</td>
</tr>
<tr>
<td>.......</td>
<td>Indicates long pause (more than 2 seconds)</td>
<td></td>
</tr>
<tr>
<td>...</td>
<td>Indicates short pause (less than 2 seconds)</td>
<td></td>
</tr>
<tr>
<td>:</td>
<td>Indicates prolongation of the immediate prior sound</td>
<td></td>
</tr>
<tr>
<td>CAPITAL</td>
<td>Denotes emphasis, higher volume relative to previous words</td>
<td></td>
</tr>
<tr>
<td>Ummm...</td>
<td>Indicates an “um”, “ah”, “hmm”,</td>
<td>“Oh no, no...”</td>
</tr>
<tr>
<td></td>
<td>Held for longer than 2 seconds</td>
<td></td>
</tr>
<tr>
<td>()</td>
<td>Denotes unspoken and spoken notes such as rolling eyes, run on sentences, words not understood, possible words spoken, laughing, coughing, interruption (-)</td>
<td>(run on)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PD: They participate in-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NC: (overlapping) All students?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PD: Yes (cough)</td>
</tr>
<tr>
<td>““”</td>
<td>Quotations are used to indicate when respondent is paraphrasing someone else or interpreting others</td>
<td>PD: He said “why is there so much coverage”</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>PD</td>
<td>Program Director being interviewed</td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>Interviewer</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Poland (1995)
Appendix F

Sample Code Book

(Version I November 21, 2007)

1. Academic (Education Sessions) Component
   - Seminar, lecture, didactic session can involve PBL, case base, role play
   - All students/residents exposed
   - Involves contraception counselling, unplanned pregnancy counselling, and/or abortion

2. Clinical (Practical) Component
   - Time spent in clinic, hospital, office interacting with patients as routine part of program/rotation
   - Involves contraception counselling, unplanned pregnancy counselling, and/or abortion

Factors to consider:

3. Objective
   - Is it (contraception counselling, unplanned pregnancy counselling, and/or abortion services) a formal objective of the program/rotation

4. Examination
   - a. Is it (contraception counselling, unplanned pregnancy counselling, and/or abortion services) included (or is there a possibility it included) on a student evaluation component (e.g., MC exam, short answer exam, clinical evaluation, OSCE, oral structured exam question, etc.)

5. Student
   - a. Motivation to acquire knowledge/skills in the area
   - b. Religious beliefs
   - c. Consumer demand changes the program structure/content
   - d. Comfort level influence level of involvement and skill acquisition
   - e. Make extra education/training available (e.g., Family Physician Interest Group)
   - f. It is an objective so it is student responsibility to ensure adequate exposure
   - g. If interested can seek out an elective

6. Program Director Knowledge and Perspective
   - a. Knowledge about their program and contraception, unplanned pregnancy, and abortion services
   - b. Degree of importance
   - c. Perception of how well currently covering topic
d. Attitude

e. Not our territory

f. If they want they can do it elsewhere

7. Time and Structure
   a. So many topic to cover at this level
   b. Limited time
   c. Family Medicine is so broad
   d. Longitudinal courses
   e. PBL, experiential learning basis

8. Hope
   a. Hope they get it later/earlier in program
   b. Hope they get it elsewhere (family med/obstetrics)

9. Tracking required on the topic(s)
   a. Encounter cards
   b. Log books
   c. Software

10. Location
    a. Religious affiliation
    b. Patient profile
    c. Urban/rural
    d. Women’s health focus

11. Preceptor
    a. Practice profile
    b. Approach to patients/style
    c. Beliefs, attitudes, practices

12. Communication
    a. With other Program Directors within university
    b. With other Program Directors within other universities

13. Evaluation of the Program/Rotation
    a. Level of structured self-evaluation
    b. Evaluation of preceptors
    c. Student evaluations included
Appendix G

Sample Typologies

Model 1: April 2009

- MODERATORS
  - Values (group/individual)
  - Discourse
  - Experience/efficacy
  - Attitude
  - Self-Reflection
  - Politics
  - Policy
  - Resources
  - Student

- Blindness

- Cognitive Dissonance
  - Active Management
  - RATIONALIZE/ JUSTIFY
  - DEFLECT ACCOUNTABILITY

- Deflectors

- Curriculum Design, Implementation, Evaluation
  - Communication with other leaders
  - Advocacy
  - Policy
  - Self-Reflection
# Appendix H

## Overview of Each Medical School Curriculum

### Medical School A

<table>
<thead>
<tr>
<th>Program</th>
<th>Overview of Content</th>
</tr>
</thead>
</table>
| **Preclinical years**         | - 120 minutes on contraception, half is didactic lecture other half is cased (role playing involving contraception method decision making with a case of a postpartum woman and a 17 year old woman post termination).  
                                 | - 60 minutes on unintended pregnancy includes an overview of Plan B, history, side effects, RU486, how to counsel, and abortion methods available.  
                                 | - 120 minutes watch a movie about abortion in different contexts followed by a discussion on why abortion is not illegal and the Canadian Medical Association code of ethics  |
| **Ob-gyn clerkship**          | - There is a contraception counselling education session but not for unplanned pregnancy counselling or abortion services. This consists of 60 to 120 minutes of a 240 minute seminar which includes contraception in small group learning, go through methods, physical interaction with contraception devices, discuss pros, cons, contra-indicators, and decision making around contraception.  
                                 | - Clinical exposure depends on site; contraception counselling they cannot guarantee but it is a goal. For unplanned pregnancy counselling and abortion services, one site students would have to arrange for themselves. Two sites include routine rotations consisting of a half day in a termination clinic. The experience focus on counselling and decision making around abortion, students can get procedure (1st tri surgical) exposure to abortion procedures if they sign up for extra time, medical and 2nd trimester abortion exposure is unlikely. |
| **Family medicine clerkship** | - No education sessions  
                                 | - No routine clinical training included—students are likely encounter contraception counselling, not likely unplanned pregnancy counselling and abortion services exposure |
### Obstetrics and Gynecology Residency

- Yes, there is a three hour lecture each year that addresses contraception counselling, unplanned pregnancy counselling and abortion services. This education session is conducted by staff consultants who are abortion providers and also experts on contraception.
- An on-call schedule in outpatient clinics and in the operating room (OR) provides exposure to contraception management issues and complications of pregnancy termination. There is no routine abortion training. An elective rotation is available; approximately 10-20% of residents participate in the elective.

### Family Medicine Residency

- There is a routine 3 hour seminar devoted to prescribing contraceptives; unplanned pregnancy counselling and abortion services are not included.
- Contraception counselling is a required competency routinely included via family medical center experience; unplanned pregnancy counselling occurs in family medicine centres (infrequently) and abortion services are not included.

### Medical School B

#### Preclinical Years

- 60 to 120 minute didactic lecture and some role playing on contraception. This includes methods, pros, cons, contraindications, (not direct counselling but indirectly on what to do if a pill is missed). Emphasis related to how common methods are and focus on the pill and IUD
- 60 minute didactic seminar on pregnancy termination. Objectives of lecture include how to counsel a pregnant woman regarding options available, indications for abortion, abortion methods available, abortion complications, importance of counselling and follow up

#### Ob-gyn Clerkship

- Routine education sessions include: a routine 60 minute case based seminar on contraception that includes: discussion on all contraception methods, side effects, risk, cost, efficacy, work through a case that includes obtaining a physical history that would be required before discussing contraception with a patient and then method choice is focused on, remaining time is devoted to oral contraception. There is a 60 minute case based unplanned pregnancy counselling and abortion services seminar building on preclerkship seminar. Application of knowledge obtained in preclerkship in a case that includes available options for a patient with an unplanned pregnancy, possible choices and complications, includes counselling.
- Clinical training is a random experience: contraception exposure occurs as frequently as anything else, likely to occur; there is a random assignment to an abortion clinic routinely included in the program. Students assigned to this rotation will encounter
<table>
<thead>
<tr>
<th>Family medicine clerkship</th>
<th>counselling, 1st trimester D&amp;C and medical abortion for 1 session per week</th>
</tr>
</thead>
</table>
| Family medicine residency | - There is no routine education session or clinical training  
- Program director could not guarantee thought it was likely students would encounter contraception counselling and unplanned pregnancy counselling (less frequent than contraception, once per month estimated)  
- No elective  
- There is a routine education session on contraception counselling (1 to 2 hours on contraceptive choices and contraception counselling); there is not for unplanned pregnancy counselling and abortion services  
- Clinical training includes contraception counselling; in the family medicine block they spend a half day in a clinic that involves contraception. There is no routine unplanned pregnancy counselling or abortion services |

**Medical School C**

| Preclinical years | - There is a 60-90 minute lecture from a nurse practitioner discussing all contraception methods available (not include contraception counselling)  
- 60 to 90 minute tutorial on contraception, early pregnancy and pregnancy termination  
- 60 minutes on ethical issues in reproduction where abortion is included in this time |
|-------------------|--------------------------------------------------------------------------------------------------|
| Ob-gyn clerkship  | - There is a 90 minute seminar that includes contraception methods review, identifying, educating, and recommending patients appropriate contraception methods, follow up and monitoring are discussed however the focus is on contraception options. This time includes identifying options available for women presenting with an unplanned pregnancy, and a basic review of all abortion procedures available. Referral, identifying, managing complications are not discussed  
- Clinical training: contraception counselling highly likely; Students are not routinely exposed to unplanned pregnancy and/or abortion services  
- Program director was neutral regarding whether clerks are likely exposed to unplanned pregnancy and abortion counselling and unlikely abortion procedure  
- Students spend 4 weeks in a community placement where exposed to a range (contraception counselling and unplanned pregnancy counselling) |
<table>
<thead>
<tr>
<th>Family medicine clerkship</th>
<th>• Elective is available in a clinic with an abortion provider typically, this would consist of a ½ day in an abortion clinic focus on how to assess, what the procedure is like and what the atmosphere is like (not formally built into program). No medical abortion performed.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• There is not education sessions allocated to this curriculum. The program holds</td>
</tr>
<tr>
<td></td>
<td>• 1 tutorial per week (3 hours of PBL) for a total of 6 sessions if a clerkship student raises a case in tutorial then it will be discussed</td>
</tr>
<tr>
<td></td>
<td>• Every tutorial has a communication component where counselling could be discussed</td>
</tr>
<tr>
<td></td>
<td>• Program director could not guarantee clinical training exposure</td>
</tr>
<tr>
<td></td>
<td>• One half day per week students spend in a family medicine practice for 6 to 12 weeks in a family physician office. For one half day students can select to spend the time in a location of their choice; could be a women’s health clinic.</td>
</tr>
<tr>
<td></td>
<td>• Women’s health exam and pregnancy termination are competencies included in student log book to experience but no confirmation this occurs</td>
</tr>
<tr>
<td></td>
<td>• Program director thought it was highly likely students experience contraception counselling and that unplanned pregnancy counselling and abortion clinical encounters are whatever the “statistics are” for them occurring</td>
</tr>
<tr>
<td>Ob-gyn residency</td>
<td>• Weekly academic half days are part of the program; contraception is a regular topic. Approximately four academic half days over the past year were based on contraception. One of these sessions presented the Society of Obstetrics and Gynecology of Canada contraception workshop</td>
</tr>
<tr>
<td></td>
<td>• One academic ½ day session per year focuses on issues around abortion, indications for the procedure, techniques, complications</td>
</tr>
<tr>
<td>Family medicine residency</td>
<td>• Three hour case based (workshop) and 2 hour problem based learning on contraception counselling</td>
</tr>
<tr>
<td></td>
<td>• No unplanned pregnancy counselling and abortion services (counsel and referral included in other sessions)</td>
</tr>
<tr>
<td></td>
<td>• Every resident exposed to clinical contraception counselling</td>
</tr>
<tr>
<td></td>
<td>• Likely residents exposed to clinical unplanned pregnancy counselling (abortion counselling &amp; referral) but not likely abortion procedures</td>
</tr>
</tbody>
</table>
### Medical School D

| Preclinical years | 90 minute didactic lecture, purpose to provide an overview of all available contraception methods (touches on contraception counselling), includes unplanned pregnancy options, abortion procedures, complications, and contextualization of abortion (history/incidence/prevalence).
|                  | 240 minute case based learning around a teenage woman discovering she is pregnant (opportunity for discussion pregnancy termination)
|                  | 60 minute “Ethics in Obstetrics” session includes a panel discussion of family medicine and ob-gyn with pro life to pro choice perspectives and impact on practice |

| Ob-gyn clerkship | 60 minute seminar on contraception and pregnancy termination. Standard objectives are provided to each location however the precise content and format for delivery differ according to site (e.g., didactic or case based) as students can be placed at numerous sites
|                  | No formal clinical requirement --depends on site.
|                  | PD confident contraception counselling occurs, less likely unplanned pregnancy and abortion services
|                  | Can spend elective time (typically ½ to 1 day) in a clinic where exposed to contraception counselling, unplanned pregnancy counselling, and abortion services (1st trimester surgical procedure and maybe medical) |

| Family medicine clerkship | No routine education sessions. Each site conducts own seminars (decentralized) so there is no guarantee. It is highly probable contraception seminar occurs because it is a common seminar topic however uncertain if unplanned pregnancy counselling and abortion services seminar occurs; depends on the location
|                           | No routine clinical training. Contraception counselling is a common practice in the family physician’s office however it depends on the preceptor’s practice
|                           | Clerks do not have required encounters |
### Ob-gyn residency

- Routine education sessions include contraception counselling as a didactic teaching session. There are also some workshops and skills labs such as inserting an IUD.
- Three to six hours of didactic teaching (and surgical skill lab) is provided to address unplanned pregnancy counselling and abortion services is included in the program. This includes: unplanned pregnancy counselling, 1st and 2nd trimester surgical abortion, medical abortion.
- Routine clinical training: Yes for contraception counselling—every resident spends at least 6 consecutive weeks and one to two days per month in a physician’s office where contraception counselling may occur.
- Unplanned pregnancy counselling and abortion services training not required. Opportunity to participate in unplanned pregnancy counselling and abortions services exists within the program. Resident exposure is variable from no training exposure to technical skills training.

### Family medicine residency sessions

- Routine education session: Cannot guarantee (contraception counselling, unplanned pregnancy counselling, and abortion services. Contraception counselling is highly likely (didactic and case based discussion). Unplanned pregnancy counselling and abortion services more likely discuss in case based discussion time of practice encounters
- Routine clinical training: Yes contraception counselling in family medicine and ob-gyn blocks and various clinic rotation locations—Yes, unplanned pregnancy counselling and abortion counselling and referral—No, for abortion procedures
- Can spend elective time in an abortion clinic

### Medical School E

### Family medicine clerkship

- There are no routine seminars operating from the university during the family medicine clerkship rotation
- Depends on site, no required clinical encounters (contraception counselling, unplanned pregnancy counselling, abortion services are objectives of the rotation and are possible exam questions but only contraception counselling is included on the exam
- Program director felt contraception counselling was covered well but unplanned pregnancy counselling and abortion services were not
- Elective time can be spent in a family planning clinic where exposure to this curriculum would occur
| Ob-gyn residency | • Every second year there is one contraception education session  
• Every second year there is one didactic lecture on abortion procedures (does not include unplanned pregnancy counselling)  
• In the future there will be an afternoon contraception session (through the Association of Professors of Obstetrics and Gynecology [APOG]) that will include counselling  
• All resident do a clinical rotation with a contraception expert where they learn how to provide contraception and counselling. They also get contraception counselling in their ambulatory rotation  
• No required unplanned pregnancy counselling or abortion services clinical training, an elective is available (most residents participate in medical abortion procedures but few surgical through gynecology rotations) |
|---|---|
| Family medicine residency | • Yes contraception counselling, unplanned pregnancy counselling, and abortion services (not aware of exact curriculum) education sessions are included.  
• Yes contraception counselling clinical training occurs in family medicine centres and women’s health clinic  
• No unplanned pregnancy counselling and abortion services are not a required part of clinical training |