Determining the Accessibility of plan B® in Ontario:
What Does a Pharmacist's Knowledge About and Attitudes towards Emergency Contraception Have To Do With It?

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Abstract

Research reveals that reasonable access to emergency contraception remains an issue. The aim of this thesis was to investigate whether or not Ontario pharmacist's knowledge about and attitude towards plan B® effects their distribution practices. Logistic regression analyses revealed that greater knowledge of plan B®'s regulation showed a marginally significant relationship to carrying the product over the counter. Overall attitude towards plan B® proved to be marginally significantly related to distribution practices. Further, logistic regression revealed a strong significant negative relationship between carrying plan B® over the counter and the belief that it is unnecessary for women to have an advance supply of emergency contraception. Although significant results were minimal, the findings discussed in this thesis highlight gaps in Ontario's commitment to women's reproductive rights that need to be addressed using a justice perspective in order to ensure that reasonable access to plan B® is actualized.
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Chapter 1:

Introduction
Having a healthy and satisfying sex life is generally linked to better sexual adjustment, high self-esteem and an overall sense of well-being (e.g., Leiblum & Rosen, 2000; Ventegodt, 1998; Health Canada, 1999). According to the World Health Organization, all women, irrespective of their life circumstances, should have the right to a safe, satisfying and pleasurable sex life (World Health Organization [WHO], 2002). For women, a contributing factor to having a satisfactory sex life, includes being able to prevent pregnancies that are either not wanted or are unintended (Black, Francoeur, & Rowe, 2004; Boston Women’s Health Collective, 2005; Gruszecki, Forchuk, & Fisher, 2005). Whenever engaging in heterosexual coitus the fear of pregnancy among women who are either not ready or not wanting to have children, remains a very real concern (Zilbergeld, 1992). A large part of taking control of one’s fertility requires the use of some form of contraceptive regime. Over the past 50 years, Canadian women have benefited from the legalization of birth control and the resulting expansion of the range of safe and effective contraception options available to them (McDonnell, 2003; Tong, 1989). With this increase in the choice and availability of contraceptive methods, it has become easier for most women to enjoy sex more freely with male partners without the added worry of becoming pregnant (Society of Obstetricians and Gynecologist of Canada [SOGC], 2005; Fabros, 1991). Some women’s life circumstances, such as poverty, homelessness, addiction, mental health, and abuse issues, make it difficult to practice regular birth control (e.g., Black, Francoeur, & Rowe, 2004; Gilberg, Lu, Leak, Andersen, Morgenstern, & Nyamathi, 2008). With this being said, even with perfect
use, no method of contraception is 100% effective (SOGC, 2005) which is why it is important to ensure that back up methods are reasonably accessible to women of reproductive age. Emergency contraception pills (ECPs) such as plan B® offer women this additional protection and with its deregulation in May of 2008, which made it legal to be sold over the counter (OTC) or off the shelf within Ontario pharmacies, accessibility should no longer be a concern. Despite this progressive policy change, pharmacists continue to possess autonomous decision making authority over where to store ECPs. As a result of this loop-hole in current policy, it can be speculated that certain traits held by individual pharmacists (such as knowledge about and attitudes towards emergency contraceptives) could influence their distribution practices and therefore impact the accessibility of plan B®. This thesis was designed to explore the relationships that may exist between pharmacists’ attitudes towards and knowledge of plan B® and their distribution of the drug within Ontario pharmacies with the intention of revealing the accessibility of this ECP since its deregulation.

Two types of ECPs are currently available in Canada. The first combines estrogen and progestin and the second contains progestin only (Pancham, & Dunn, 2007). Combination ECPs are only available through a physician’s prescription. This restriction renders combination ECPs less accessible and therefore less used than progestin-only pills. Among the most common combination ECPs are Yuzpe and Ovral®. Neither Yuzpe nor Ovral® has been formally approved for use as an emergency contraceptive method in Canada, yet both continue to be used for this
purpose across the nation. Two progestin-only ECP products are available for purchase without a physician’s prescription in Canada; their brand names are plan B® and Norlevo. To compare the two products, plan B® has been available in Canada since 2000 whereas Norlevo has only recently become available for purchase since 2009 (Bayer, 2009). Since both products have the same active ingredients (mainly: levonorgestrel) and contain identical dosage levels (0.75 mg each) (e.g., Dunn, & Guilbert, 2003; Fisher, & Black, 2007; Milne, 2009; SOGC, 2005), they are regulated equally and are both currently listed as over the counter (OTC) drugs which means they are allowed to be sold off the shelf within pharmacies. Despite the fact that Norlevo and plan B® are both listed as OTC drugs, this study has placed plan B® at the center of investigation, because this product is reported to be the most commonly used ECP in Canada (Eggerston, 2008; Soon, Levine, Osmond, Ensom, & Fielding, 2005). Intercontinental Marketing Services (IMS) for Health Canada, which tracks drug sales across the country, has reported that from 2005, when plan B® was deregulated to schedule II until its latest deregulation in May of 2008, over 280,000 units of the product have been sold (Harold, 2008). The reason for the higher popularity of plan B® over Norlevo is unknown, but speculation can be made that its popularity is related to the fact that it has been on the market longer and more advertising campaigns exist which promote its use.

Similar to other ECPs, plan B® prevents unintended pregnancies following unprotected intercourse or known contraceptive failure (Barrett & Harper, 2000; Cohen, Dunn, Cockerill & Brown, 2004). In order to be most effective, it is
recommended that plan B® be taken within the first 72 hours after unprotected sex (Dunn & Guilbert, 2003; Glasier, 1998; Okewole, Arowojolu, Odusoga, Oloyede, Adeleye, Salu, & Dada, 2007; Task Force on Postovulatory Methods of Fertility Regulation, 2000); however, evidence suggests its effectiveness up to 120 hours after unprotected intercourse (e.g., Arowojolu, Okewole, & Adekunle, 2002; Rodrigues, Grou, & Joy, 2001). Regardless of the debate over how long after coitus plan B® remains effective, it remains proven that plan B® is more effective the sooner it is taken after unprotected sex (e.g., Cohen et al., 2004). Given the immediacy with which plan B® must be taken in order to work optimally, it is crucial that the drug be made reasonably accessible to women across Canada. What is meant by reasonable access will be discussed in greater detail later in this introductory chapter.

Deregulating plan B® to OTC status was an essential step towards improved access; however, as this thesis indicates many pharmacists continue not to carry plan B® or to store the product behind the counter, out of sight, limiting access to women who are either unaware that the product exists or are uncomfortable requesting plan B® from a pharmacist directly. Both Canadian and international studies have indicated that women possess a low knowledge of the existence of plan B® (e.g. Fisher & Boroditsky, 2000; Dellbanco, Mauldon, & Smth, 1997; Golamreza, Jamali, & Mirmohammad, 2003; Jackson, Schwarz, Freedman, & Darney, 2000; Morgan & Denevis, 1997; Shoveller et al., 2007) which speaks to the need for the product to be kept on the shelf among other birth control options such as condoms to increase visibility and awareness. One Canadian study indicated that only 57% of pharmacists
knew that it was available in pharmacies (Fisher & Boroditsky, 2000). Regardless of a woman’s knowledge, or lack thereof, keeping plan B® on the shelf would limit the number of barriers a woman must face when attempting to access the drug, thus making it more accessible.

The Technical History behind the De-Regulation of plan B® in Canada

In 2000, plan B® became available in Canada as a schedule I drug meaning that it was only available through a doctor’s prescription (Dunn & Guilbert, 2003). For a detailed explanation of Canada’s drug scheduling system, please refer to Appendix A. At this time a plethora of research was published around the nation which highlighted that seeing a physician created a barrier for women in need of plan B® (e.g., Cohen, Dunn, Cockerill, & Brown, 2003; Soon, Levine, Osmond, Ensom, & Fielding, 2004; Trussell, Duran, Shochet, & Moore, 2000). The provincial government in British Columbia was among the first to take advocates for increased access seriously and in December of 2000, implemented the precedent setting legislation that granted pharmacists prescriptive authority over ECPs (Soon, Levine, Osmond, Ensom, & Fielding, 2004; Shoveller, Chabot, Soon, & Levine, 2007). Soon there after, Saskatchewan and Quebec were also granted prescriptive authority. With three provinces exercising independent prescriptive authority, in addition to the large amounts of lobbying efforts being done to deregulate the drug, the process of deregulation to schedule II was eventually underway. Drugs listed under schedule II status are available without prescription from a pharmacist. All schedule II drugs must be kept behind the counter (BTC) as it is understood that their use requires
vigilant monitoring; the drug contains a new ingredient that may cause unforeseen side effects, and its use is complicated and requires expert instruction (Erdman, & Cook, 2006).

The process to deregulate plan B® to schedule II did not happen over night; in fact, the formal deregulation process involved a 75-day consultation during which the drug’s safety and efficacy as well as its Regulatory Impact Analysis Statement (RIAS) were carefully reviewed by Health Canada. Briefly, the RIAS discussed the costs and benefits of deregulating levonorgestrel (the active ingredient in plan B®) to non-prescription status (Erdman, & Cook, 2006). The 75-day consultation process also involved, among other things, the solicitation of feedback on the RIAS from the deputy ministers of health in each province, registrars of provincial medical and pharmacy associations, professional and consumer health associations, as well as other major stakeholders across the country. After extensive review, in 2005 Health Canada approved the deregulation of plan B® to non-prescription status, meaning it would be available to women without a physician’s prescription stating that its occasional use was safe for virtually all women and that its need did not necessitate a physician’s approval (Erdman, & Cook, 2006).

After plan B®’s deregulation to schedule II or non-prescription status, all subsequent deregulations concern the conditions under which the drug is sold. Since Health Canada does not have the authority to determine the conditions and place of sale of drugs, this task and thus all subsequent deregulations fell on the National Association of Pharmacy Regulatory Authority’s (NAPRA) National Drug
Scheduling Advisory Committee (NDSAC) which does carry said authority. Since the NDSAC had already recommended that plan B® met the requirements for schedule II or BTC status in 2001, the association automatically supported Health Canada’s deregulation and in 2005 approved BTC sale of plan B® in all Canadian provinces with the exception of Quebec whose licensing body is in no way associated with NAPRA and has the sovereignty to make its own regulatory decisions (Harrold, 2008).

Despite the progressive change to schedule II in 2005, access to plan B® continued to be an issue (Canadians for Choice, n.d.; Canadian Women’s Health Network, 2006). For example, in an article written by Erdman and Cook (2006), pharmacist intervention was again stressed as a barrier to women seeking ECPs. Specifically, they argued that interaction with a pharmacist has the potential to deter women from seeking the contraceptive, especially when the interaction involves being questioned about their reason for needing the drug. Once again concerned about the accessibility of plan B®, this time as a schedule II drug, women’s groups, the Canadian Pharmacists association along with Paladin labs lobbied to the NDSAC to deregulate the ECP to schedule III (or OTC status); (Andrus et. al., 2007) and in May of 2008, plan B® was deregulated again to its current listing as a schedule III or OTC product (Eggerston, 2008). Briefly, schedule III, or over the counter (OCT) status, means that the product can be sold from the self-selection area of pharmacies where pharmacists can provide direct supervision and answer any questions regarding the product that a customer might have (NAPRA, 2005). The only difference
between schedule III drug and off-schedule drugs is that schedule III drugs cannot be sold in retail stores without pharmacist supervision.

Since the provincial pharmaceutical colleges (the institutions that act to regulate and license pharmacists provincially) operate independently from NAPRA, any decision regarding the scheduling status of a drug made by its NDSAC at the federal level is not binding across Canada. Rather, each provincial licensing body has the authority to either ignore or adhere to NDSAC’s recommendations (e.g., Erdman, & Cook, 2006; Harrold, 2008). Since the Ontario College of Pharmacists (the organizational body that regulates pharmacists in Ontario) is one of the five provincial regulatory bodies in Canada that has a policy in place to adhere to the national drug schedule as its provincial drug schedule with no time delay (Soon, Levine, Osmond, Ensom, & Fielding, 2004), plan B® has been approved as a schedule III or OTC drug in Ontario since May of 2008. Despite the fact that plan B® is currently listed as a Schedule III or OTC drug in Ontario, pharmacists can avoid dispensing the drug by exercising their right to moral conscience.

A pharmacists’ right to refuse to dispense is outlined in the College’s Position Statement on “Refusal to Fill for Moral or Religious Reasons.” In this statement it is written that “a pharmacist is permitted to decline providing certain pharmacy products or services if it appears to conflict with the pharmacist’s view of morality or religious beliefs and if the pharmacist believes that his or her conscience will be harmed by providing the product or service” (www.OCPinfor.com, 2009). For a detailed description of what this position statement entails please refer to Appendix
B. If pharmacists deny women access to plan B® based on this policy, they are legally obliged to direct them to another pharmacy from which they can purchase the drug. Despite the fact that pharmacists who object to dispensing plan B® must inform women of another pharmacy where they can purchase the drug, this policy has the potential to act as a barrier to access for women living in remote parts of the country such as any region north of the Trans-Canada highway, as the pharmacist who refuses to dispense plan B® may be working for the only pharmacy available to women for miles.

In addition to exercising their right to moral conscience, managing pharmacists at community as well as corporate pharmacies can limit a woman’s access to plan B® by refusing to adhere to NDSAC’s and the Ontario college’s decision that the drug can appropriately be sold OTC regardless of their moral beliefs. Specifically, once a drug has been deregulated to schedule III or OTC status by the NDSAC and supported by the Ontario College of Pharmacists, managing pharmacists in Ontario still have the legal right to decide for their store how they want to distribute the product (either BTC or OTC). Complicating matters even more, if individual pharmacists working within the same pharmacy disagree on where the product should be kept (either BTC or on the shelf) the product could be available for purchase off the shelf at times, and at others times, it will require a pharmacist’s consultation. Therefore, despite the fact that Ontario is among the five provincial colleges that have a policy set in place to adhere to the scheduling recommendations made by the NDSAC with no time delay, there is no guarantee that the new
scheduling of plan B® will mean that all pharmacists will begin to carry the product OTC. Since current policy grants Ontario pharmacists the right to refuse to dispense plan B® and the right to decide whether to sell the product BTC or OTC, it is possible that certain factors such as low knowledge about ECPs and a negative attitude towards the drug and the women who use it, could limit its reasonable access. By investigating the effect of pharmacists’ knowledge about and attitudes towards plan B® on distribution practices, this research illuminates the interconnections that exist between pharmacists’ values and beliefs and the accessibility of ECPs in Ontario. In fact, as will be seen from the results of the current investigation, pharmacists in Ontario continue to exercise their right to autonomous decision making authority over the distribution of plan B®. This continued gate-keeping behaviour, related to personal beliefs or attitudes towards ECPs and the women who use them, is limiting access to the drug across Ontario.

*Conceptualizing Reasonable Access*

Before a discussion can be had about what is meant by reasonable access, it is necessary to define the notion of accessibility. Despite popular confusion, accessibility and availability are two distinct constructs. In a synthesis report produced by the Centre for Excellence in Women’s Health, on *The State of Sexual and Reproductive Health Care in Canada*, authors Shroff and Clow (2003) illuminate the difference between availability and accessibility quite well. They argue that sexual and reproductive health services can be available, meaning open to the public,
but that a number of different factors which can either enhance or hinder its access determine true accessibility for women. Relating this understanding to plan B®, the drug can be considered widely available if it is sold in the majority of pharmacies across Ontario but it would not be considered highly accessible if most of the pharmacists who sold the drug enforced a number of restrictive distribution practices (ie., keeping the product behind the counter). With this understanding, it becomes clear that in order to measure the accessibility of plan B® within Ontario pharmacies, factors that act as barriers which impede women's ability to purchase the drug must be examined. In the literature, three types of barriers have been said to directly or indirectly hinder the accessibility of ECPs. Broken down, these categories are as follows: (1) barriers related to client characteristics such as age, homelessness, poverty, abuse, mental illness, and addictions; (2) barriers related to systemic or organizational characteristics such as restrictive regulatory polices, a pharmacists' right to consciously object to distribute ECP, and the lack of governmental coverage to cover the cost of the product; and finally (3) barriers related to service providers characteristics such as knowledge about and attitudes towards ECPs and the women who use them (e.g., Andrus, 2007; Espey, Ogburn, Howard, Qualls, & Ogburn, 2003; Foster et al., 2006). Given that this thesis is concerned with investigating the accessibility of plan B® in Ontario pharmacies and the fact that it is necessary to investigate factors that hinder access before one can report on the true accessibility of a product or service, it is perhaps not surprising that all three categories of barriers will be considered. With this being said, due to the exploratory nature of this thesis,
each category will not be explored to the extent that would be required in order to comprehend all of the complexities involved when discussing accessibility. Rather, the major focus has been placed on barriers to access that fall under the third category (ie. service provider’s knowledge about and attitudes towards ECPs and the women who use them).

Having made clear what is meant by the term accessibility and briefly reviewing the factors that can act as barriers to access, it is necessary to define what is meant by reasonable access. When considering the accessibility of plan B® within Ontario pharmacies, reasonable access would mean that the drug is not only available in all pharmacies within Ontario, but that it is sold off the shelf and for a price that is affordable to women from various income brackets. Understood in this way, reasonable access to plan B® requires an understanding on the part of policy makers and pharmacists that women have the capacity to make appropriate sexual and reproductive health decisions and that restricting distribution practice, such as a pharmacist’s decision to keep the product behind the counter, act to hinder appropriate access for women in Ontario. With this in mind, in order to make reasonable access a reality, recognition is required on the part of policy makers and practicing pharmacists regarding the complex diversity of women’s needs which are influenced by their interpersonal relationships, their social location, their mental health status, as well as the economic and political environment in which they live. In addition, in order for reasonable access to be actualized, an understanding of women’s needs has to be incorporated into service delivery and into the policies that
govern this delivery. What is more, in order for plan B® to become reasonably accessible, it would be helpful to have a policy set in place that reprimands pharmacists who unjustly restrict access to some women over others.

This chapter focused on the main themes and arguments of this thesis. Specifically discussed was the history of emergency contraception and the types of emergency contraception available in Canada. Then a review was made of the general function and efficacy of plan B®. In addition, this chapter focused on current policies that currently regulate the distribution of plan B® in Ontario. Finally, within this chapter, the distinction was made between what is meant by availability and accessibility. In the chapter that follows, a brief review of the relevant literature will be made. This review will begin by highlighting studies that have investigated pharmacists’ knowledge about and attitudes towards plan B®. Also reviewed in the coming chapter are studies that have looked at how health practitioner’s (including pharmacist’s) attitudes and knowledge relate to reasonable access to the drug. In addition, those studies which have investigated how location impacts the accessibility of ECPs will be discussed.
Chapter 2:

Literature Review
A plethora of literature exists on emergency contraception; however, the number of studies which focus on how pharmacists' knowledge of and attitudes towards plan B® effect it accessibility are limited. For the interest of the current investigation, this chapter will be dedicated to a discussion of those studies which have investigated pharmacists' knowledge of plan B® and how their knowledge relates to access. In addition, this chapter will review studies that have looked at pharmacists' attitudes towards emergency contraceptive pills (ECPs), and how their attitudes impact the distribution of ECPs. Finally, those studies which have investigated how location impacts the accessibility of ECPs will be discussed.

Knowledge

There have been a number of studies conducted which examine lay women’s knowledge of plan B® (e.g., Campbell, Busy, & Steyer, 2008; Fisher & Boroditsky, 2000; Haggstrom-Nordin & Tyden, 2000) Other studies have looked at the relationship between lay women’s knowledge about plan B® and their use of the drug (e.g., Babaee, Jamali, & Ali, 2003; Jamieson, Hertweck, & Sanfilippo, 1999). Fewer studies have considered pharmacists’ knowledge of ECPs in general (e.g., Neubauer, Suveges, Pillips, & Kolodziejak, 2004; Richman & Daley, 2009; Van Riper & Hellerstedt, 2005). Even fewer studies have examined pharmacists’ knowledge in relation to their distribution practices (Beckman et al., 2001; Van Riper & Hellerstedt, 2005). Among all of the studies that consider knowledge of ECPs (whether it be lay
people’s knowledge or professional’s), the majority have been performed on populations outside of Canada which makes the present study necessary.

Existing studies that have examined pharmacists’ knowledge of ECPs have focused on both function and use knowledge (e.g., Espey et al., 2003; Van Riper & Hellerstedt, 2005). For example, in one study pharmacists’ knowledge was tested by asking a few questions about how the drug functions and when it should be taken (Espey et al., 2003). Based on this definition, pharmacists’ knowledge about ECPs is reportedly low (e.g., Espey et al., 2003; Van Riper & Hellerstedt, 2005). For example, in a study performed in South Dakota on a sample of 501 pharmacists, it was found that 37% did not understand the product’s mechanism of action, 43% answered incorrectly to questions pertaining to the drug link to birth defects, and 21% did not understand the drug’s connections to health risks (Van Riper & Hellerstedt, 2005). Another study, which surveyed 228 Jamaican and 200 Barbadian health care professionals (which included pharmacists, physicians, and nurses), reported that although the majority of health care providers knew about emergency contraceptive pills, only five providers knew that it was safe to use as needed and few knew how long after unprotected intercourse the drug remains effective (Yam, Gordon-Strachan, Fletcher, Gracia, Becker, & Ezcurra, 2007). One other investigation, performed by the Planned Parenthood in New York City, also discovered that inner city pharmacists possessed limited knowledge of ECPs. In this particular study it was found that only 3% of the respondents surveyed were able to correctly identify all of the “key facts” about the product (Draunt, 2003).
Among Canadian pharmacists, a similar lack of knowledge appears to exist. In one telling Canadian study performed in Saskatchewan, it was revealed that among those pharmacists tested on their knowledge of plan B®, prior to attending an educational conference on the subject, the average score received on a quiz that tested their knowledge was 57.6% (Neubauer, Suveges, Pillips, & Kolodziejak, 2004). This level of knowledge was found to increase significantly once pharmacists completed the educational conference. If this is true, and knowledge is found to be linked to distribution practices as the current study sought to investigate, then the findings from this Saskatchewan study provide significant evidence for the need to increase educational training around ECPs in other Canadian provinces including Ontario if access is to improve.

Of particular interest to this research is the potential relationship between pharmacists’ knowledge about plan B® and their distribution practices. Much of social psychology theory on determinants of behaviour postulates that knowledge is not a strong predictor of action (e.g., Aronson, Wilson, & Akert, 2007). With this being said, studies on the distribution practices of health care professionals have illustrated a connection between knowledge and access (e.g., Beckman et al., 2001; Van Riper & Hellerstedt, 2005). For example, among two of the existing studies that have investigated this possible relationship, one illustrated a link between increasing the provider’s knowledge of the drug and increased distribution (Beckman et al., 2001), and the other study reported that pharmacists’ low level of knowledge of ECPs was related to low support for over the counter (OTC) status in rural communities.
(Van Riper & Hellerstedt, 2005). Both of these studies were performed in the United States and so the generalizability of their results to Canada, and more specifically to Ontario, is questionable. Mainly, generalizability is an issue here because of the differences in how emergency contraception is regulated and marketed in both countries. For example, not only is the product manufactured by a different drug company in the United States, the distribution of the product is also regulated by a different, and more restrictive, set of policies down South. For instance, in the Unites States the pill is kept BTC and is only available to women over the age of 17.

Beyond what has already been investigated in this field of research, the current thesis surveyed pharmacists on a new dimension of knowledge. Specifically, a survey was constructed not only to evaluate pharmacists' knowledge about the function and use of plan B®, but it also included items to test pharmacists' knowledge of the regulations that govern how the drug is to be distributed. A discussion of the results from this survey can be found in the “Findings” chapter of this report.

Attitudes

The concept “attitude” has been defined in many ways by different social psychologists (e.g., Eagly & Chaiken, 1993; Fazoi, 1995). Despite some variance in how it is defined, scholars seem to agree that reporting an attitude requires one to make an evaluative judgment about an issue, object or person (Maio & Haddock, 2010). It is also agreed upon that attitudes are not constant, that is they are understood
to fluctuate over time (Fazio & Petty, 2008). One of the most popular areas of research in the field of attitudes involves their relationship to behaviours. Scholars who have dedicated their research to this topic span generations and argue mix results. Among the most popular and influential of these academics are Ajzen and Fishbein, who together came up with the theory of reasoned action, or as it is known more recently the theory of planned behaviour (Maio & Haddock, 2010). The theory of planned behaviour states that the best predictors of an individual’s actions are the individual’s attitudes towards specific behaviours, subjective norms, and perceived behavioural controls (Aronson, Wilson, Akert, & Fehr, 2006). As this thesis in part concerns itself with investigating the relationship between a pharmacist’s attitudes towards plan B® and his or her distribution practices, this theory was considered when designing the survey and when analyzing the results.

Some of the studies that relate attitudes towards ECPs to their accessibility liken attitudes with values and beliefs (e.g., Cantor & Baum, 2008; Card, 2007). Since religion has a major influence on one’s core values and beliefs (e.g., Fazio & Petty, 2008; Maio & Haddock, 2010; Upmeyer, 1989), it is perhaps without surprise that many scholars have made this connection and have used religion as a lens through which to examine practitioners’ attitudes towards ECPs (e.g., Cantor & Baum, 2008; Card, 2007; Wynn et al., 2007). Other studies have used the concept of attitudes towards ECPs more broadly when attempting the same investigation to encompass religiosity while also tapping hidden prejudices such as feelings towards the women using the pill (e.g., Shoveller et al., 2007). To date, no Canadian, let alone
Ontario-based studies exist that examine whether or not a relationship exists between pharmacists' attitudes towards ECPs and their distribution of the drug.

Despite the lack of research investigating the possible relationship between pharmacists' attitudes towards plan B® and their distribution practices, one Canadian study performed by Shoveller and colleagues (2007) looked at how pharmacists' stigmatizing communication styles impact women seeking plan B®. In this study, conducted in British Columbia, it was found that negative attitudes towards those who use the drug act as a barrier to access (Shoveller et al., 2007). Specifically, this study found that pharmacists' negative attitudes made women feel guilty for seeking the drug and deterred them from accessing ECPs in the future. One of the women who took part in the study explained that she felt judged and scolded by the pharmacist when she requested it. A physician who acted as a key informant for this study echoed this woman's concern saying that indeed “some providers often view users of emergency contraception as irresponsible or promiscuous, and that such beliefs can be directly or indirectly communicated to patients, creating a barrier to use” (Shoveller et al., 2007, p. 17). What is more, arguments that more progressive regulation of ECPs will lead to an abandonment of regular contraceptive methods and to an increase in promiscuity have been used by health care providers to advocate against deregulation to schedule II or OTC status (Shoveller et al, 2007). This concern, although unsubstantiated (e.g. Martston, Meltzer, & Majeed, 2007; Moreau, Trussell, Mitchelot, & Bajos, 2009; Rain, Harper, Rocco, Fischer, Padian, & Klausner, 2005; Soon et al, 2005) is not unique to British Columbian health care
professionals. In fact, studies conducted in the United States and the United Kingdom have illustrated a relationship between the belief that more liberal access to ECPs would lead to abandonment of regular contraceptive and increased promiscuity and disagreement with provisions that would allow OTC distribution of ECPs with pharmacies (Winchester Brown, & Boulton, 1999; Barrett & Harper, 2000).

Although studies have been performed that investigate health care professionals’ attitudes towards ECPs and the women that use them, none have explored the relationship between attitudes and distribution practice in the way that was done for the current thesis. Specifically, this thesis was designed to investigate whether a relationship exists between Ontario pharmacists’ attitudes towards plan B® and the women who use it and their distribution practices of the drug within Ontario Pharmacies. In addition to analyzing the relationship between pharmacists’ overall attitudes and their distribution practices, the attitude measure was broken down into three sub-scales and the relationship between each one of these sub-scales and a pharmacist’s distribution practices was investigated. The three attitudinal sub-scales include 1) pharmacists’ attitudes towards the sexuality of women; 2) pharmacists’ attitude towards the use of ECPs, and finally; 3) pharmacists’ attitude towards giving women an advance supply of the drug. These three attitude subscales were revealed after running a factor analysis on the original 8-item attitude measure. Details about this measure and the knowledge measure can be found in the methods chapter.
Location

Location may limit women’s access to plan B®. More specifically, the population size of the town or city in which a pharmacy is located may limit women’s access to plan B® as there may be fewer pharmacies from which women can purchase the drug. This limitation may be particularly true for women living in small communities such as those located in more rural parts of Ontario where pharmacies are scarce or non-existent (Shroff & Clow, 2003). Despite the fact that many scholars have speculated that location does impact women’s access to ECPs (e.g., Panhcam & Dunn, 2007; Wynn et al., 2007), few have placed this barrier at, or even near, the center of their investigations. One study that has looked at location as a barrier to access was performed in Pennsylvania and compared the availability of ECPs in pharmacies located in less populated rural areas to its availability in pharmacies situated in densely populated urban centers (Chuang & Shank, 2006). The research generated from this thesis revealed no difference in the availability of ECPs between pharmacies located in rural versus urban areas. Rather, results generated from this study showed that availability of ECPs was poor irregardless of location. For example, it was reported that ECPs were available in only 32% of pharmacies in both jurisdictions (Chuang & Shank, 2006); however, these researchers did find that pharmacies in these rural settings were less likely to be open late and on weekends, which did impact access. One other study, performed in California, indicated that when women contacted pharmacists by phone to inquire about the availability of ECPs including plan B® the product was more likely to be available if the location of
the pharmacy being contacted was situated in a urban versus a rural area (Sampson, Navarro, Khan, Hearst, Marji, & Gold et. al., 2009). Specifically, callers were successful in their quest for ECPs when making phone calls to rurally located pharmacies 27% of the time whereas those who contacted urban based stores were successful 44% of the time.

One Ontario based study, conducted in London, Ontario and surrounding areas, looked at location as a variable of interest when determining the accessibility of plan B® within pharmacies. This particular investigation revealed that there was no significant difference in the accessibility between urban London and its rural surroundings (Andruf et. al, 2007). As will be evident in the results section of this thesis, there were similar findings in the present investigation.

The minimal amount of Ontario-based research exploring location as a possible barrier to accessing plan B® provides just cause for the inclusion of this variable in this thesis. Specifically, one aim of this thesis is to reveal if women living in less populated areas of Ontario are at a disadvantage to accessing ECPs than are women who live in a town or a city with larger populations.

In this chapter, literature on ECPs that has particular relevance to the present thesis was reviewed. This review began with a brief discussion of existing studies that have placed pharmacists' knowledge about and attitudes towards plan B® at the centre of investigation. This chapter also discussed studies that were interested in how health practitioners (including pharmacists) attitudes and knowledge about ECPs relate to the accessibility of plan B®. Finally, those studies which have investigated
how location impacts the accessibility of ECPs were discussed. In the chapter that follows, the theoretical frameworks and ideological discourses that lay at the foundation of this thesis will be outlined and discussed in full. In addition, an argument will be made for how these foundational constructs complement each other in such a way that when considered together they mesh with structural approaches to social work.
Chapter 3:

Theoretical and Conceptual Frameworks
Theory is a systematically organized collection of concepts and or relationships used to explain a certain phenomenon (Lundy, 2004). One’s understanding of a particular event, topic or situation is in large part due to the theory that is used to explain it. Theory also informs analysis, assessment and reform strategies. Two streams of feminist theory have been used to frame this thesis. The first, liberal feminist theory is used to understand the ways in which emergency contraception has been dealt with in Ontario. The second, Marxist feminist theory is drawn upon to understand how these practices fail to create gender equality and, in fact, sustain the inequalities that result from capitalism. Emerging from these theoretical perspectives are two conceptual frameworks; reproductive rights and reproductive justice. The reproductive rights perspective draws upon liberal feminism in understanding the problem of access to emergency contraception as an issue of individual rights. In contrast, the reproductive justice perspective draws upon Marxist Feminism and challenges us to understand the findings of this investigation as signs that we need to consider strategies for pulling emergency contraception out of the marketplace so access can be dealt with as an issue of justice for all women. In combination, these theories and conceptual frameworks provide the analytic foundation to understand how the current situation operates and what is necessary if real change is to occur.

For clarity purposes, this chapter will review each of the theoretical and the conceptual ideologies that frame this thesis separately. Specifically, this chapter will
provide an overview of the history of each theory and conceptual discourse and will highlight the points of each that most strongly resonate with this thesis.

*Liberal Feminist Theory*

Liberal feminist theory originated during the Enlightenment as one of the earliest forms of feminist thought that concerned itself with the issue of women's rights (Kolmar & Bartowski, 2000). At this time, women were not considered equal to men as persons nor as citizen who possessed rational thought (Hughes, 2002). Since women were not believed to be rational, a trait that was considered a prerequisite for participation in public life, they were relegated to the realm of domesticity where their aspirations were limited to wifedom and motherhood (Donavan, 2001). In addition to this preoccupation with rationality, the enlightenment was a time that revered the natural rights doctrine. By definition, natural rights are those that an individual possesses by virtue of being a person. Much to their detriment, women at this time were not considered to be persons and so were not believed to possess the same natural rights afforded to their male counterparts. Given this information, early liberal feminists believed that the only way to gain equal status, and thus become free and autonomous citizens, was to obtain the right to vote and so these early feminists fought long and hard for enfranchisement (Donavan, 2001).

The efforts of these early liberal feminists who fought for civil autonomy through the acquisition of enfranchisement, were influenced by the five basic tenets of liberal feminist theory. These tenets, which were shaped by the social and political
context of the 1800s are as follows: (1) a faith in rationality; (2) a belief that men and women possess the same natural ability to reason; (3) a belief in education; (4) an understanding that individuals are isolated beings and (5) a belief in the value of the natural rights doctrine (Donavan, 2001). Particularly relevant to the current thesis is the liberal feminist preoccupation with individual rights. The specific relevance of this aspect of early liberal feminist theory will be discussed after a brief review of more contemporary liberal feminist theory.

Contemporary liberal feminists sometimes discount the work of the earlier liberal feminist scholars, arguing that suffrage did not end women’s inequality and thus failed to eradicate their subordinate status to men (Tong, 1989). Liberal feminists continue to battle for equality in the public sphere believing that their work has not yet been completed. In agreement with earlier liberal feminists, modern liberal feminist theorists focus on the individual rather than on the collective rights of women. Their motto is to trust women and their ability to choose what is best for themselves. These feminist scholars believe that in order to have the freedom in decision making women must be granted basic human rights. As one liberal feminist said, “women, as individuals, need rights in order to stand on their own. Grant us minimal basic rights and then let us take care of ourselves, our property, our children and our homes” (Stanton, 1895, p. 683). To reiterate, for liberal feminist (past and present) there is no greater accomplishment than to gain self-sovereignty and the right to be considered equal to men before and under the law (Donavan, 2001). The rights that liberal feminists are interested in are those that are available within liberal
democracies. They are not interested in overthrowing the marketplace. Instead, they argue that women can achieve equality within the current capitalist society.

Particularly relevant to this thesis is the liberal feminist belief that in the absence of being granted their own rights, women’s ability to make informed decisions as autonomous beings will continue to be intercepted by an intermediary, who is often a male and always an authority figure. Women are often forced to make important personal decisions through a medium, having to trust others at times with their most intimate choices, such as when they are deciding whether or not to use emergency contraception to prevent an unintended or unwanted pregnancy. As was mentioned above, liberal feminists strongly believe in women’s right to autonomous decision making. For example, liberal feminist theory posits that “each individual is the expert in identifying her or his own interests” (Brown, 2002, p.23). In relation to the current project, the belief in women’s self-determination, which is articulated in liberal feminist theory with the granting of rights, is strongly supported and promoted. Specifically, as this thesis will highlight, the failure to have faith in a woman’s capability to choose appropriate birth control threatens its accessibility under the policy that currently regulates it. So, liberal feminists argue, the problems with access of emergency contraception can be resolved with changing our beliefs in the capabilities of women and, then, the marketplace will be an effective system for distribution.

At this point it is important to mention that although the value of granting women the freedom to choose to use plan B® through liberal reproductive rights and
trusting women to make their own choices regarding the use of plan B® is
emphasized within this thesis, discussions around the idea of constrained choices and
the existence of interpersonal, economic, social, political, and structural factors that
could and sometimes do obstruct women's ability to exercise true autonomy around
choice will also be considered. Indeed, there are a number of contemporary liberal
feminist scholars who have dedicated their work to the study of constrained choices
(e.g. Brown, 1993; Donavan, 2001; Kymlicka, 1988; Wendell, 1987). Such feminists
align themselves with the needs of the most subjugated women: indigenous,
immigrant, ethnic minorities, sexual minorities, and all other marginalized
populations and seek to expand the traditional rights model in order to draw on more
of a structural analysis such as that which is seen in Marxist feminist theory. They do
this in four ways 1) by shifting the burden of liberty from the individual to the
collective; 2) by acknowledging that individuals make their decisions within the
context of personal, political, and economic realities; 3) by understanding that
individuals make decisions within the context of their individual needs, and 4) by
appreciating the bearers of rights for who they are as self-defined, unique, complex
individuals with multiple identities, including diverse gender, racial and economic
realities (Donavan, 2001).

For contemporary liberal feminists, understanding women as autonomous
individuals is crucial when working to enhance the status of their rights. Despite a
number of criticisms to the contrary (e.g., Eisenstein, 1981; Jaggar, 1983), the notion
of individualism set forth by liberal feminist scholars is not meant to be abstract but
rather quite capable of expressing free will within various social contexts (Wendell, 1987). As Brown (1993) has made evident, even within liberal feminist theory "individuals" are considered in relation to their social and political environment; thus, are not understood as existing in a vacuum. Taking this argument even further, another defender of liberal feminist theory has argued that liberalism encourages individuals to question dominant social contexts and does not favour the abstract individual over the social world (Kymlicka, 1988). In sum, for the purposes of this thesis, liberal feminism will be drawn upon to understand the current situation in which feminists have argued to have plan B® available in private pharmacies as a way of addressing the problem of women's reproductive rights. This is largely an approach that relies on having faith that individual women can make effective decisions within the marketplace. Liberal feminism and the resulting rights based arguments will be used to understand how this model could be adapted to respond to the needs of marginalized women.

Reproductive Rights

Liberal feminism relies quite heavily on rights-based arguments for achieving equality. Historically, the control of women's reproduction predates Christianity (McDonnell, 2003). Publicly, the struggle for women's right to decide whether, when, and how they will have children began in the 1830s (Correa & Petchesky, 1994; Jayawardena, 1993). At this time, Margaret Sanger was one of the leaders of the reproductive rights movement in the West (Correa, 1994). The goal of this early
movement was to ensure that women were guaranteed the right to determine their own sexual and reproductive lives (Correa & Petchesky, 1994). It was Sanger who first formally argued that the legalization of birth control could lead to the social and political emancipation of women (Sanger, 1920). When making this point she argued that in addition to gaining bodily integrity, the legalization of birth control would grant women greater sexual satisfaction (Sanger, 1920). The push for women’s right to control their reproductive capacities gained momentum after the United Nations published its Universal Declaration of Human Rights in 1948 (Advicaci, 2003). It was at this time that reproductive rights were beginning to be understood as basic human rights. As the fight for reproductive rights progressed over the years, and more women from non-western countries became involved, more focus was placed on how oppressive structural conditions work to constrain women’s ability to make autonomous sexual and reproductive health decisions (Desai, 1994; Correa & Petchesky, 1994). Women were no longer considered to live in a vacuum, unaffected by social, economic, and political contexts. Instead, advocates for improved sexual and reproductive rights made a clear and purposeful connection between the rights women had to decide whether or not, and when, to bear children and their social, economic, and political environment which make it possible for these rights to be exercised (Women’s Global Network for Reproductive Rights, 1991). These factors often include structures such as poverty, racism, ageism, and sexism but can also include policies that regulate the accessibility of products marketed for controlling fertility, such as plan B® the emergency contraceptive pill.
The first highly influential rights doctrine to include the reproductive rights of women was the Universal Declaration for Human Rights (UDHR) set forth by the United Nations (UN) in 1948. Between this time and the early 90s, the reproductive rights movement gained considerable momentum and there was a large amount of activism taking place in the area of reproductive rights. For example, it was at this time that a number of different feminist groups fought for safe and accessible abortion services (McDonnell (2003). In addition, a number of different organizations, both national and international, constructed their own set of sexual and reproductive rights during this time period. The most notable of these rights documents, and the one that is most relevant to the current investigation, is that formulated in Cairo in 1994 by the International Conference on Population Development (ICPD). Among the long list of sexual and reproductive rights outlined by ICDP belong the promise of universal access to reproductive health services and medicines that are accessible, safe, and adequate for the entire population (Advocaci, 2003).

Today, thanks in part to the legislation of progressive rights documents; women have the right to make autonomous decisions regarding their bodies, which includes the right to decide which method of contraception they will use to prevent unintended pregnancies. This right along with other rights afforded to women are protected nationally and internationally under legislative documents such as the Canadian Charter of Rights and Freedoms (Erdman & Cook, 2006), the United Nations’ Universal Declaration of Human Rights mentioned above (Advocaci, 2003),
and by documents produced at the International Convention for Population Development (ICPD), and the International Conference on the Elimination of Discrimination against Women (Erdman & Cook, 2006). As was mentioned in the introduction of this thesis, women's ability to control their own fertility is not only fundamental to their autonomy as women, but it also contributes largely to one's ability to engage in and enjoy coitus with men without the worry of unintended pregnancy (The Boston Women's Health Collective, 2005). With this being said, it is integral to women's overall health and well-being that they be guaranteed the right to access safe and affordable contraceptive options (that includes plan B®).

Among the organizations that have more recently created their own set of sexual and reproductive rights are the International Planned Parenthood Federation, the World Association for Sexual Health and the World Health Organization. Rights common to all of these organizations included the right to decide whether or not and when to have children, the right to adequate sexual education, the right to the highest standard of sexual health care, and the right to privacy (IPPF, n. d.; WHO, 2002; World Association of Sexual Health, n. d.). All of these rights are directly relevant to the issue of inadequate access to plan B®; however, regardless of how many organizations decide to formulate their own rights charters, the fact remains that these rights, just as access to plan B®, are not guaranteed. That is, despite the existence of legislated rights documents that demand choice for women, current policies regulating the distribution of plan B® grants individual pharmacists independent authority over its distribution which means that access to the pill can be denied and its
distribution can be restricted by Ontario pharmacists for reasons that to some may seem unjustified. From this rights-based perspective, it is possible to understand the problem of access as one in which women (the consumers) do not have equal power to pharmacists (the provider) and, as a result, the strategy to achieve equality is to tinker with the system to shift power relations.

*Linking the Reproductive Rights Discourse with Access to Plan B®*

In order to de-regulate plan B® from its previous schedule II (or BTC) status to its current schedule III (or OCT) status, the NDSAC had to evaluate the product and establish that a women's need for it does not require identification by a professional; recognize the importance of the product to be made readily accessible; understand that its use does not require the instruction of a pharmacist; and acknowledge that it is not a new drug product containing new medical ingredients that would require professional monitoring. Given that these criteria have been met, and that the NDSAC has stamped its approval for the deregulated status of plan B® to schedule III (or OCT) the question becomes, why do the majority of pharmacists continue to keep the product behind the counter? This question is not easily answerable; however, some scholars have argued that the answer has complicated ties to the way that women have been systematically discriminated against historically in relation to their sexual and reproductive health needs which essentially denies women their basic human rights (e.g. Erdman & Cook, 2006; Wynn, Erdman, Foster & Tressell, 2007). As Erdman and Cook (2006) suggest:
Control over women’s bodies and minds has historically not been their own. Women were and continue to be viewed as incapable of responsibly engaging in sexual intercourse and deciding the course of their reproductive care. Their choices were and continue to be unreasonably questioned, verified and approved by male partners, health professionals and the state (p.155).

Siegel (1995) has also reflected on the history of men’s control over women’s reproductive capacities arguing: “Laws criminalizing abortion and contraception compel motherhood, and from a historical perspective can be understood as a form of gender status regulation” (p.154). That is, in the 19th century laws regulating the use of abortion and contraception were set in place to ensure that women fulfilled their wifely and womanly duty. Little has changed regarding the reasoning behind the continued existence of restrictive policies surrounding emergency contraceptives and plan B® in particular. That is, although its sale and subsequent purchase is not illegal, the current policies governing its accessibility grants individual pharmacists full authority and therefore control over its distribution. Given the current policies, pharmacists can refuse the sale of plan B® all together, and they also have the power to establish unfounded criteria for its distribution that quite possibly reflect their knowledge about and personal attitudes towards the drug and the women who use it. With the result of this study indicating that only a small portion of Ontario pharmacists are selling plan B® off the shelf, regardless of the fact that it is currently listed as a schedule III drug and therefore allowed to be sold over the counter or off
the shelf, one can speculate that pharmacists are being paternalistic and somewhat judgmental towards the women who seek ECPs.

Given the complicated way in which pharmacists continue to act as gatekeepers, unfairly limiting women’s reasonable access to plan B®, it is perhaps not surprising that feminist scholars have argued that women’s access to ECPs is a human rights issue (Erdman & Cook, 2006). For example, some feminists argue that keeping ECPs behind the counter is a direct violation of a woman’s security of the person under section 7 of the Canadian Charter and contravenes the principle of fundamental justice outlined in both section 15(1) of the Charter and in article 12(1) of the International Convention for the Elimination of Discrimination Against Women (CEDAW). Briefly, section 7 of the Charter states that “everyone has the right to life, liberty, and security of the person and the right not to be deprived thereof accept in accordance with the principles of fundamental justice;” section 15(1) of the Charter states that “every individual is equal before and under the law and has the right to equal protection and equal benefit of the law without discrimination, and in particular, without discrimination based on […] sex, age, […] or physical ability;” finally, article 12(1) of the CEDAW requires that “all members of the member states take all appropriate measures to eliminate discrimination against women in the field of health care in order to ensure, on the basis of equality of men and women, access to health care services, including those related to family planning.” With this in mind, scholars Erdman and Cook (2006) argued that unnecessary pharmacist intervention at the point of sale infringes a woman’s physical and psychological
integrity which violates section 7 of the Charter since limiting access or denying access has the potential to subject a woman to unintended (or perhaps unwanted) pregnancy which has shown to pose physical, psychological, emotional, and economic risks on women. Considering section 15(1) of the Charter and 12(1) of the CEDAW together it is argued that the unnecessary professional controls currently limiting women’s access to ECPs violate both section 15(1) of the Charter and 12(1) of the CEDAW by reinforcing gender stereotyping and failing to consider the unique needs of diverse women (Erdman & Cook, 2006). Understood in this way, it can be argued that BTC status fails to recognize women as equal members of Canadian society. What is more, limiting women’s access to ECPs by keeping the drug BTC assumes that women are not equally capable and deserving of consideration, respect and concern. In addition, placing unwarranted conditions on women’s access to ECPs discriminate women on the basis of sex labeling them less worthy than others to have adequate health care services.

After considering the rights that women are guaranteed as Canadian citizens, and more broadly as citizens of the world, it becomes clear that denying women’s reasonable access to plan B® in Ontario not only denies women basic reproductive health care but also denies women their basic human rights as outlined in the United Nations Universal Declaration of Human Rights (Sister Song, 2009). That is, women are entitled to political, social and economic conditions that will allow them to access safe, effective and affordable family planning options under the Charter and the CEDAW (Erdman & Cook, 2006). Women’s reproductive options should include
access to EC such as plan B® as well as any and all other safe and effective forms of birth control. As mentioned earlier, a women's ability to experience truly liberating and satisfactory sexual intercourse with men necessitates the ability to prevent unwanted conception. Speaking of this situation Margarete Sanger (1920) said: “As it is the right neither of man nor the state to coerce [a woman] into this ordeal, so it is her right to decide whether she will endure it” (p. 5). Guaranteeing women basic reproductive, and therefore human rights, is a pragmatic step in the right direction on the path to more accessible emergency contraception which includes reasonable access to plan B®. Rights are important as they allow the ability to hold policy makers and health professionals such as pharmacists accountable if and when they act as unjust gatekeepers.

Correa and Petchesky (1994) were two scholars who conceptualized women's access to emergency contraception as an issue based in the rights discourse. Together these two scholars define sexual and reproductive rights in terms of resources and power: to have power and resources to be able to make informed autonomous decisions about one’s own reproductive capacities including fertility, child rearing, sexual activity, and gynecological health. These authors, similar to early sexual and reproductive health rights advocates, held the principles of equality, personhood and bodily integrity or control over one’s own body, as paramount in the struggle for sexual liberation. Particularly, they argued that these three principles had to be met in order for women to truly be able to exercise their right to control their sexual selves. Similar to Russo and Denious (n.d.), Black, Francoeur and Rowe (2004) and Gilberg,
Lu, Leak, Andersen, Morgenstern and Nyamathi (2008), Correa and Petchesky (1994) recognize that structural realities such as poverty, racism, homophobia, and violence have the ability to severely impact women's ability to exercise their sexual and reproductive rights which include their ability to access plan B®.

After considering liberal feminist theory in conjunction with the liberal rights perceptive, the importance of having established legislative rights that aim to protect women's ability to access various sexual and reproductive health products and services without discrimination becomes evident in the battle towards improved access to plan B®. Put another way, the reproductive rights perspective offers a viable rhetorical platform upon which social and reproductive justice claims can be made and violators of rights can be held accountable (Correa, Petchesky & Parker, 2008). It is about how to achieve access within the current system of capitalism, rather than changing the system itself. With this understanding it becomes clear that rights based approaches to establishing reasonable access to plan B® within Ontario pharmacies is an important pragmatic tool for change. That is, rights provide a legislative document that can be used by individuals, policy makers, and advocates to hold pharmacists responsible when their actions are unjust towards those women who seek Plan B®.

When considered together, liberal feminist theory and the reproductive rights perspective offer a platform upon which one particular model of social policy can be understood. This social policy perspective is appropriately referred to as the liberal perspective. Liberal social policies are common within capitalist systems and gained
increasing popularity within Canada and internationally after the Second World War (Keith, 1999). Liberal models of social policy place the value of individualism and profit (which are two key concepts of liberal and capitalist theory), over the just distribution of needs to the many. Another important element of liberal social policies is the lack of state involvement which makes sense given its emphasis on the importance of individualism. Currently, in Ontario, plan B® is regulated under this liberal model of social policy. That is, under its status as a schedule III or OTC drug in Ontario, the availability and accessibility of plan B®, is not controlled by the state but rather by individual pharmacists who independently decide whether or not and how they wish to distribute the emergency contraceptive pill in their store; thus, under current regulatory policy, pharmacists hold full gate keeping power over the drug’s distribution within Ontario. These changes have been important for women in Ontario, but their effects are limited.

In addition to the liberal feminist perspective, which works well with the reproductive rights approach, there is another theory that must be considered when attempting to understand the problem of accessibility of emergency contraception. This theory is the Marxist feminist theory. Marxist feminist theory and the idea of reproductive justice suggest that we need to consider the entire way in which society is structured in order to address the problem of women’s access to emergency contraception. From this theoretical perspective, we can consider whether the current practices of distribution, within the private market, are perhaps fundamentally unequal and thus, unable to adequately respond to the needs of marginalized women.
From this perspective, another system of delivery, outside of the marketplace, needs to be considered.

From this perspective, we need to consider the fact that individual pharmacists have full authority to decide whether or not and how they wish to distribute the drug, and that we live in a paternalistic, patriarchal capitalist society that places the drive for profit over the needs of women. With this being said, it becomes clear that broader social change is needed in order for the accessibility of plan B® to be made truly accessible to all women. Both the theories of Marxist feminism and reproductive justice offer a lens through which the social, economic, and political change necessary to see improved access to plan B® can be seen and properly comprehended (Naiman, 1996). Before reviewing Marxist feminist theory and the reproductive justice perspective and discussing their relevance to the thesis at hand, it is necessary to first outline the implications that liberal feminist theory and the reproductive rights perspective have on the policy that regulates plan B® within Ontario.

Marxist Feminist Theory

Given the structure of our society as capitalist and patriarchal, it would not make sense to analyze any women’s issue without a consideration of Marxist feminist theory (Armstrong & Armstrong, 1985). Unlike liberal feminist theory which favors the individualist perspective, Marxist feminist theory adheres to the idea of collectivism and offers a critical lens for understanding how the current policy
regulating plan B® differentially affects those women most marginalized within Ontario. Marxist feminist theory also aids in the understanding of how various social, economic and political structures impact women’s lives (Armstrong & Armstrong, 1985). Marxist feminist theory was developed after the industrial revolution. Adhering to many of the socialist ideologies outlined by Karl Marx and more particularly the work of Fredrick Engels as outlined in his *Origins of the Family*, Marxist feminists believed that capitalist systems in combination with patriarchal ideology were responsible for women’s suppressed status to their male counterparts (Donovan, 2001). Specifically, Marxist feminism effectively examines the inequalities that are manifested as a result of the structure of our capitalist society by focusing both on capitalism (the drive for private profit) and patriarchy (male dominance and female subordination in political, economic, social, ideological spheres). Historically, and to some degree presently, six points of interest are commonly held by those who refer to themselves as Marxist feminists: (1) the belief in the concept of materialist determinism; (2) the conviction that all labour under capitalism is oppressive and (3) the understanding that female oppression stems from the creation of private property (4) the connection between women and class systems; (5) the role of the family and home in ideological socialization; and (6) the ideas of class consciousness and praxis (Donavan, 2001; Tongs 1989). While the basic tenets of early Marxist feminist theory continue to penetrate its more contemporary versions, newer theorizing tends to concentrate more on the disproportionate levels of oppression women experience under capitalism due to intersectional marginalization
related to certain personal characteristics such as the age, race, ability, and income level of the women in question (Tong, 1989). For example, Marxist feminist scholars have said that working class women "suffer more from sexism than do middle and upper class women. They have less reproductive freedom in that they have less access to abortion, contraception, and child care, and are often subject to sterilization abuse [...] Hence, the interests of working class women are more consistently opposed to sexism as well as capitalism than are the interests of middle – and upper-class women" (Holmstrom, 1981, p. 208). It is the concern for the differential oppression experienced by women from various backgrounds and life circumstances that is of particular interest with regards to the current thesis. This thesis is concerned with how access to plan B® should be regulated in order for it to be reasonably accessible to all women regardless of their level of marginalization.

As has already been mentioned, many Marxist feminists recognize that certain personal characteristics, the most pertinent being economic level, prevents true class unity among women (Tong, 1989). These same Marxist feminists understand that women who belong to different economic classes will experience oppression differently given the nature of the capitalist society in which we live. Specifically relevant to the current investigation, lower income earning women have less reproductive freedom because current policy fails to cover the cost of birth control methods and as a result they may not be able to afford contraceptives such as plan B® that can prevent them from experiencing an unintended pregnancy.
Some scholars have argued that, in direct contrast to liberal feminist theory, Marxist feminist theory focuses too heavily on the collective or group consciousness and as a result largely ignores the needs of the individual. Although many Marxist feminists stress that one should not and cannot lump all women into one category, others do not make such recognitions. For the purpose of the current thesis distinctions will be made when considering women’s access to plan B®. That is, the impact of ageism, racism, ableism, and sexism on women’s access to the drug will be considered and addressed in the discussion. What is more, it is also important to know that although Marxist feminist theory has tended to steer clear of issues related to sexuality in general and contraception in particular, this theory provides an appropriate lens through which to examine how intersectional oppression such as gender, class, and age affects reasonable access to plan B®. Most importantly, Marxist feminist theory allows for a contemporary intellectualizing of the construct of accessibility with regards to plan B® that fits nicely with the notion of reproductive justice which has been used to contextualize this project and will be discussed next.

From Choice to Justice

The most relevant impact of Marxist feminists for the development of this thesis was its focus on the differential needs of women with regards to what is needed to actualize reasonable access to plan B® for all women of reproductive age. Although the liberal feminist perspective to sexual and reproductive rights offers an important pragmatic element that can be used when advocating for increased access
to plan B® in Ontario, it is important to understand how rights serve to protect those
least marginalized the greatest and those most marginalized least, so that steps can be
taken to ensure the protection of all people. Basically, in order to exercise rights, you
need to have the power to make choices independent of external influences. This is
much more possible for members of society who traditionally hold power and
privilege. Some women, particularly those who are marginalized due to various life
circumstances, in combination with the oppressive socio-political environment in
which we live, are sometimes unable to make truly autonomous choices regarding
their sexual and reproductive health.

The critical constructivist approach offers a theory that enables a better
understanding of how individual behaviors and the social relations in which they are
located shape experiences (Tong, 1989). According to the critical constructivist view,
individual choices are socially constructed. That is, choices are seen as a function of
social, political, and legal realities over which individual women have little or no
control. Since choices are not considered something that all women can make
“freely,” critical constructivists feel that state or government involvement in assisting
in women’s reproductive rights is necessary. To use an example relevant to the
present investigation, critical constructivists for reproductive justice would suggest
that government take action in subsidizing the cost of plan B® for young women who
do not work as well as for older low income earners. As will be seen in the discussion
section of this thesis, government subsidies on emergency contraception can in fact
save both the state and the consumer money.
The term constrained choices used by Correa and Petchesky (1994) when discussing the discourse around women’s ability to make informed sexual and reproductive health choices, such as to practice safe sex and to use birth control regularly, fits well with the critical constructivist approach to reproductive justice. The two scholars highlight the complex realities of women’s lives and the structures such as poverty, sexism, and racism that strain women’s ability to truly exercise free choice. These women recognize that, since choices are not made in a vacuum, it is impossible for women to make decisions without being influenced by several factors at once. As mentioned in previous studies, when making the decision to access plan B® (or other emergency contraceptives) women’s current life situation can largely impact their decision making process. Statistics have shown that this process interlocks with age, violence, and unintended pregnancy rates. For example, in one study performed in Washington State, it was found that two thirds of teen mothers had been sexually abused as children and that 44% had experienced rape (Boyer & Fine, 1992). What is more, 11% of the rape victims reported becoming pregnant as a result of their rape (Boyer & Fine, 1992). This statistic under-represents the total number of unintended pregnancies among this population, as some portion of it would have either miscarried or sought an abortion to end gestation (Gazmmararian et al. 1995). For example, women’s ability to choose to access emergency contraception, or any contraceptive for that matter, is largely shaped by the nature of their intimate relationships especially when domestic violence of any kind is involved (Russo & Denious, n.d). In another study conducted in the U.S., it was discovered
70% of women who had experienced physical abuse within the last year, also experienced at least one unwanted pregnancy (Gazmbararian et al. 1995).

In addition, a women’s ability to choose to access EC is largely shaped by a women’s income level. As Fineman and Karpin (1995) aptly suggest, “reproductive decisions are socially constructed not only in the sense that they are a function of the social conditions that structure women’s lives but also in the sense that those conditions are themselves produced by government policies & practices” (p.4). Since it is impossible to make decisions in a vacuum, one’s choice of how to protect against unintended pregnancy which may include the use of ECPs, is heavily influenced by the social, political, and interpersonal context in which these decisions are made. What is more, the primary structures of oppression (including sexism, classism, ageism and racism) interlock, complicating the process of choice even more. Finally, due to pre-existing social inequalities, certain resources are less accessible to women who live on the margins which in turn can hinder their ability to exercise their sexual and reproductive health rights. Understanding that a woman’s choice is complicated by many factors (some personal, many political, and more structural), it is necessary to consider each of these factors when attempting to analyze women’s access to any product that a women can choose to protect herself from unwanted pregnancy which includes emergency contraceptive pills such as plan B®.

Reproductive justice offers a theoretical platform which can be used to better understand the idea of constrained choices in relation to the accessibility of plan B®. The construct or theory of reproductive justice was coined in 1994 during the
International Conference for Population Development (ICPD) in Cairo. Articulated by the women from an American organization Sister Song, reproductive justice was formulated to better address the sexual and reproductive health rights of individuals who experience intersectional oppression. Specifically, it was thought that the pro-choice paradigm that traditionally dominated the sexual and reproductive rights arena inadequately addressed the needs of those who experience oppression beyond that which is gender based. With this as their driving force the women of Sister Song, all of whom identified as women of colour and therefore as individuals who are subjugated on multiple levels, stressed the need for a new framework to guide the fight for sexual and reproductive rights that would adequately consider the complicated challenges that marginalized women face when attempting to exercise autonomous sexual and reproductive choices. More so than the mainstream pro-choice mantra, reproductive justice considers how systemic and structural forces work to hamper individual sexual and reproductive rights, which to reproductive justice advocates are considered human rights (Sister Song, 2006). The reproductive justice framework takes seriously the use and misuse of power in our society. As Sister Song has said, “we offer reproductive justice as a theory, strategy, and practice for organizing against the multiple, interlocking reproductive violence’s we face by placing Indigenous women and women of colour at the centre” (Sister Song, 2009). Although reproductive justice was originally formulated with the intention that it would be used as a lens to understand the sexual and reproductive plight of Indigenous women and women of colour, the theory or framework has since
expanded and has been used when attempting to understand the sexual and reproductive rights of all people, with a particular concentration of those who experience intersectional marginalization (Asian Communities For Reproductive Justice, 2005).

**Thinking Critically about Social Policy**

When considered together, the reproductive justice perceptive and Marxist feminist theory create a solid base for the critique of liberal social policies by recognizing inequalities that lie at the heart of how capitalist society is structured by focusing both on capitalism (the drive for private profit) and patriarchy (male dominance and female subordination in political, economic, social, ideological spheres). Before getting into more detail regarding how reproductive justice and Marxist feminist theory can add to the social policy debate surrounding the accessibility of plan B®, a quick review of the positive elements of liberal social policy is needed. First, it was argued that on a pragmatic level it is important that federal legislation cement women’s right to access plan B®, so that individual pharmacists can be held responsible for any unjust distribution behaviours. At this point, it should also be noted that on a more abstract level, granting women the right to access plan B® offers those that may feel disenfranchised a sense of power that could help them in their quest for the drug when needed. With this being said, given the inherently unequal capitalist and patriarchal system through which women must navigate in order to obtain plan B® in Ontario, it is important that reproductive
justice and Marxist feminist theory be considered when contemplating access. When
used in this way, Marxist feminist theory is a great tool as it sheds a much needed
light on the gaps in the liberal rights policy perspective. One such gap includes the
lack of consideration for the needs of women as unique individuals who experience
differential levels of oppression. What is more, the Marxist feminist perspective
when considered along side reproductive justice discourse strongly encourages, rather
than discourages, the support of the state in overriding the capitalist model of profit
for a subsidy structure that would grant more women access to plan B®.

Later on in the discussion section of this thesis an alternative social policy
perspective will be recommended for the regulation of plan B® within Ontario that
attempts to incorporates elements of both liberal and Marxist theory. At this point, to
conclude the chapter, the structural approach to social work will be outlined and a
brief discussion will be had regarding how this thesis fits within its confines.

Relevance to Structural Approaches to Social Work

The structural approach to social work was formulated in the late 60s and
early 70s at Carlton University by scholars from the social work department,
including but not limited to, Maurice Moreau (1979) and will be used in this thesis to
help explain some of the complexities behind the accessibility of plan B® in Ontario
pharmacies. In recent years, the structural approach has been advocated by
academics such as Colleen Lundy (2004) as the best theory to use when attempting to
address and understand complex social issues from a social work perspective. The
concepts behind structural social work have been adapted by scholars such as Ben Carniol (1992) into a direct practice model that incorporates techniques such as unmasking structures of oppression, consciousness raising, and empowerment. Briefly, the structural approach to social work practice combines Marxist and Feminist theory taking on a more radical approach to practice than traditional models. True to Marxist and feminist form, those who endorse the structural paradigm believe that patriarchal capitalism is responsible for causing the majority of social and individual problems (Carniol, 1992). Landing on the side of socialist-collectivist, structural theory rejects the notion that individuals are solely responsible for their own struggles (Payne, 2005). Rather, structural social workers feel that society is much more to blame than are individuals for the majority of human detriment (Moreau & Leonard, 1989). The structural approach is particularly concerned with how various structures of oppression impact individuals creating unnecessary burdens. Under this theory, primary and secondary structures of oppression are identified. Primary structures include the systems of patriarchy, capitalism, sexism, racism, heterosexism, ableism, and ageism, whereas the secondary structures of oppression include systems such as the family, schools, work, and so on (Hick, 2006). To borrow language from ecological systems theory (which has largely influenced the development of structural theory) the primary structures of oppression are associated with the macro-system within society, and the secondary structures of oppression are affiliated with the meso-system (e.g., Bronfenbrenner & Evans, 2000; Moreau & Leonard, 1989). When considering the primary structures together or the secondary
structures together, rather than viewing these systems of oppression in a hierarchical fashion, as other theories have, the structural perspective understands divisions of class, gender, age, race, ability, and sexual orientation to be in line with one another (Carniol, 1992). Structural theory posits that “inequality” 1) is a natural component of capitalism; 2) falls along the lines of gender, class, race, sexual orientation, age, and ability, 3) works to exclude the marginalized from participation in society and from a meaningful life and 4) is understood to be self-perpetuating. Finally, structural theory does not discriminate against rights or justice arguments for social change; rather, it sees the value in both doctrines and can be used in conjunction with either. For the purpose of the current investigation it will be used with both.

Particularly relevant to the current investigation is structural theory’s consideration of primary structures of oppression and how they work to complicate the distribution of plan B® in Ontario. Not only do primary structures such as sexism and patriarchy have the ability to influence pharmacists’ attitudes towards the use of plan B® which in turn can influence its accessibility, but these structures can potentially impact the policies that regulate the drug in the first place. As Lundy articulates structural theory when applied to social work “attempts to bridge the duality of the personal and the social, the individual and the community, and offers social workers an understanding of diverse populations in the context of social structures and social processes that generally support and reproduce social problems” (2004, p. 57).
In this chapter the theoretical frameworks and conceptual perspectives that underlie this thesis were discussed. Specifically, liberal feminist theory was explained with a particular emphasis on its articulation of the liberal rights discourse and the notion of individual choice as these aspects are most important to the development of this thesis. Next, the perspective of reproductive rights, as an extension of liberal feminism, was discussed in relation to the current investigation. Following this, Marxist feminist theory was explained with the major focus being on its preoccupation with the differential needs of women when considering their sexual and reproductive health. Next, a discussion was had regarding the complexities behind women's ability to make autonomous choices regarding their fertility. In addition, the reproductive justice paradigm, as evolving out of Marxist feminist theory, was covered in this chapter and it was made clear how this discourse provides a helpful lens through which to understand what is needed in order to establish reasonable access to plan B® for women. Finally, the structural approach to social work, as a contemporary expansion and application of Marxist feminism, was outlined and links between this approach to social work and the current investigation were addressed.

In the proceeding chapter, the methodologies for this study will be articulated in detail. Specifically, an explanation will be given as to why the quantitative survey approach was employed and the research questions that have guided this thesis will be outlined. Then, a discussion of the unique questionnaire constructed and used to measure pharmacists' knowledge about and attitudes towards plan B® will be had.
Included in this section is a review of the methods used to clean the unique survey and to ensure its reliability and validity. Following this, the sample included in both the pilot and provincial investigations will be reviewed at this point, and relevant demographic characteristics will be reported. Next, the procedures implemented in both the pilot and Ontario-wide investigation will be considered. In addition, procedures for the ethical protection of participants will also be reviewed. Finally, this chapter will close with an explanation for the chosen statistical tests used to analyze the data collected.
Chapter 4:

Methodology
As mentioned earlier, methodologies used in feminist research are vast and include both qualitative and quantitative options. What is more, many feminist scholars insist that no methodology fits perfectly with feminist values (Riger, 1992; Stanly & Wise, 1983). Given this information, feminist researchers advocate for plurality in methods, no longer relying on one single method when conducting research. Although feminist research does not impose one particular methodology, many feminist scholars prefer qualitative methods, arguing that they lend themselves more to the core values and principles of feminist practice than do quantitative methods. Although the decision as to which methodology to implement often depends on the researcher's comfort level with either qualitative or quantitative methods, feminist researchers tend to choose their methods based on appropriate fit with the research questions, the study's purpose, and the desired outcomes. By choosing a methodology based on appropriate fit with the research rather than solely on arbitrary preference, feminist scholars allow their research questions to guide their projects in ways that minimize bias and maximize validity. Based on this information, the explanation for why I chose the particular methodology I did is purely logical. That is, given my background in psychology with a concentration in women's studies and the fact that I am now working towards my master's degree at Carleton University in the structural school of social work, my comfort and loyalty to qualitative and quantitative methodologies are matched, so the choice to use a quantitative survey method was guided by practical fit. According to the literature, mail and telephone surveys are the most commonly used research methods when
attempting to research pharmacist's opinions, knowledge or attitudes (Westrick & Mount, 2007). This appears to be true regardless of the fact that surveys are notorious for yielding low response rates when issued by mail (e.g., de Vanus, 2002; Loewenthal, 2001). Interestingly, experts seem to disagree on what percentage range should be considered the standard for marking a response rate as low (Loewenthal, 2001; Neuman & Kreuger, 2003). The answer to why a survey may yield a low response rate is not clear cut and largely depends on the existence or nonexistence of several possible confounding factors. The following are examples of factors that could effect responding negatively: the subject matter being investigated is considered sensitive, the nature of the population being sampled is non-professional, the questionnaire itself is long and or time consuming, or a monetary reward is not offered for its completion. Many of these factors (plus a few extras including poor timing) were present in the current investigation, and thus mitigated the response rate both during the pilot and provincial investigations.

A school of feminist scholars exist who defend the use of quantitative methods and survey research in particular stating that the use of this method has just as much potential to facilitate progressive social change as do other methods (Miner-Rubino, Epstein Jayaratne, & Konik, 2007). The use of quantitative survey research is particularly emphasized in feminist research when the aim of a project is not to understand all the complexities of a phenomenon, but rather to engage in an exploratory investigation that aims to advance theory on gender or sexism (Chafetz, 2004). Given that survey research (similar to all other methodologies) is not
inherently feminist, in order to properly adapt this method to feminist practice, its
design, implementation and analysis must adopt feminist principles such as doing
research for women, rather than on women, and doing research that lends itself to
social change. This latter point (which aligns with the values of structural social
work) is most important, and what best distinguishes feminist survey research from
other, more traditional questionnaire methods. In addition, it is this latter point that
has made mail survey research more intriguing to use for the purpose of the current
investigation.

Some feminist scholars believe so strongly in the power of survey research to
advance practical action and social change for women and other marginalized groups
that they argue the possibility that it is more able to do so than are qualitative
alternatives (Miner-Rubino & Epstein Jayaratne, 2007), particularly when such
change necessitates collaboration with mainstream legislators and policy makers who
may be more comfortable with more traditional scientific investigations (Miner-
Rubino & Epstein Jayaratne & Konik, 2007). For example, some feminists argue that
by opting to use a quantitative methodology that mainstream professionals find more
legitimate, feminist scholars are able to research and report on hot topics (such as
pharmacist’s attitudes towards women’s right to access plan B®) in a way that is
accepted and therefore respected by feminists and non-feminists alike. What is more,
the same group of feminist scholars posit that survey research lends itself better to
non-feminists, lay persons, and policy makers than do qualitative studies, because
quantitative survey research uses the language of statistics that often enforces greater
impact, comprehension and recall. Finally, it has been argued that survey research can best aid in the understanding of specific attitudes, behaviours, or knowledge of a large population or group of individuals. Once such an understanding is achieved, an appropriate plan of action for change in favour of women’s advancement is possible.

From a practical point of view, conducting survey research by mail when researching a sensitive topic such as pharmacists’ knowledge of and attitudes towards plan B® makes good sense. Before discussing why survey research was the most practical choice of methodology for the current study, I would like to briefly explain why I have suggested that this research should be classified as sensitive. Primarily, research is considered sensitive if there is reason to believe that an individual’s response to one or more of the survey items places the respondent at risk (Pryor, 2004). The risk does not need to be overwhelming; rather, all that is required is the potential to endorse feelings of discomfort to be considered risky according to research ethics boards (REB, Carleton University, n.d.). Further, what one individual finds sensitive, another may not; thus, sensitivity is subjective and decided by individual respondents. One of the difficult aspects to conducting survey research by mail on a sensitive topic such as emergency contraception is getting the response rate you want or need to do your analysis (Renzetti & Lee, 1993). Despite this difficulty, research on sensitive topics is encouraged, even if you do not get the response rate you desire, because the simple act of conducting said research is enough to inform people that this is a topic of concern worthy of further investigations (Pryor, 2004).
Some of the advantages to using survey research for the current investigation include: it was inexpensive, it allowed me to reach a large sample area, it did not necessitate the use of research assistance (which would cost money and create more work), and it offered convenience to the pharmacists who participated.

This method of course does not come without its shortfalls. Indeed, as mentioned above, survey research distributed by mail yields low responding (Neuman & Kreuger, 2003). This certainly was the case for the current investigation. Despite this, there are numerous strategies that can be implemented to minimize low response and maximize return when performing sensitive survey research by mail on a population of pharmacists. Those that were utilized in the current investigation will be discussed in detail in a later section of this thesis.

The Provincial Investigation

The research questions at the center of this project are as follows: (1) What does the accessibility of plan B® look like in Ontario? (2) Does a pharmacist’s knowledge about plan B® affect his or her distribution of the drug? (3) Does a pharmacist’s attitude towards plan B® affect his or her distribution of the drug? (4) Are any demographic variables such as gender, age, or the location of the pharmacy itself related to the distribution practices of plan B®? The study’s purpose is to investigate the above research questions using two unique questionnaires designed specifically for this study with the intension of gaining a general understanding of some of the barriers that impede women’s access to plan B® within Ontario pharmacies. It is
desired that by investigating these research questions and reporting on the barriers to accessing plan B® within Ontario that this research will lend itself in some tangible way to progressive social change for women in relation to sexual and reproductive health. For the purpose of this study, it is desired that this research will help inform policy makers that amendments need to be made to the way in which drug deregulation is enforced within Ontario if improvements to women's access to plan B® is to be realized.

Given the sensitive subject matter of the research questions mentioned above, the exploratory nature of this project and the fact that this research has implemented newly created survey instruments, it was necessary to divide the research into two phases: (1) The pilot phase and (2) the Ontario-wide phase. In phase one, feedback was solicited from a small sample of Ottawa based pharmacists regarding the survey instrument with the intention that alterations would be made eliminating items that were either not a good fit for the study or which aroused unpleasant emotions in respondents. It was the researcher's intension to also use the pilot study to test for reliability and validity of the measures; however, due to a low number of completed surveys returned this was not possible and so reliability and validity was measured as part of the Ontario-wide study. In phase two, a large sample of Ontario-based pharmacists were surveyed in order to gain information related to my research questions. To reiterate, these questions were whether plan B® is reasonably accessible in Ontario, whether or not pharmacists’ knowledge about and attitudes towards the drug influence their distribution practices, whether or not the population
size of the town or city in which a pharmacy is located affects access, and weather or not demographic variables (such as age and gender) are related to distribution practices. From these core questions, two unique surveys were constructed and used to gather information for this study. Specifically, these two questionnaires were developed to aid in the exploration of some of the potential barriers faced by women attempting to access plan B® within Ontario pharmacies. These two surveys (which include questions about knowledge and attitudes towards plan B®) will be fully explained in the following section.

Measures

As mentioned earlier, this study implemented the use of quantitative surveys to gather information about the accessibility of plan B® in Ontario and some of the potential barriers that impede access. Although it is known that pre-existing and empirically validated instruments are best to use when conducting survey research (Fowler, 1984), this was not done for the current study because no measures exist that are a suitable fit with this study’s research questions. With this being said, a few studies have implemented the use of questionnaires to answer similar research questions to those asked in the current study, so elements from these surveys were borrowed to simplify the survey construction process. Surveys from which survey content was borrowed include: The Survey of Pharmacists Awareness of and Attitudes Towards Emergency Contraception (Alfred, Davis , & Brown, 2001), The Questionnaire for Emergency Contraception (Faculty of Family Planning and
Reproductive Health Care, 2006), and an untitled survey used by Campbell, Busby and Steyer (2008) which was used in a study that investigated medical patients attitudes towards and beliefs about emergency contraception. None of the items included in the surveys designed for the purposes of the current study were taken from the questionnaires mentioned above; rather, the above study’s surveys served more as a practical model that guided the types of questions asked in the present study’s surveys. Basic criteria regarding how to construct a psychometrically sound survey for quantitative research on knowledge and attitudes were considered when designing the two unique surveys. Some, but not all of the elements considered lend themselves to feminist research principles; however, most were connected to general psychometric properties universal across disciplines (e.g., sociology, psychology, anthropology).

The survey package itself was organized into three sections: (1) the beginning or introduction, which included demographic information questions, (2) the middle or body, which housed the knowledge and attitude surveys, and (3) the end or conclusion which contained general information questions about distribution practices. This organizational structure has been recommended by others (e.g. Alreck, & Settle, 1995) who state not only that surveys should be composed of the three sections outlined above, but that the sections should be ordered relative to their content placing items that are less likely to evoke emotional reactions in the beginning or introduction and placing the more difficult or emotionally loaded items near the end.
In addition to the organization of the survey, the wording of items and nature of response options were considered carefully when designing the instruments used for the present study. Briefly, wording was chosen to keep items short and simple and to ensure that they were not double-barrelled or too emotionally loaded. Closed-ended response options were chosen to facilitate ease of responding and to encourage a high rate of completion (Loewenthal, 2001). In fact, all items in the survey package were closed-ended save for one demographic item that inquired about the pharmacist’s gender. This item was left open ended on purpose to honour the many ways in which a person can choose to define their gender, ways that may not necessarily fit neatly into the category of male or female.

Although it has been argued that open-ended questions are better to use when researching a sensitive subject (such as the one being researched in the current thesis), closed-ended questions were chosen as evidence suggests that these types of questions elicited a higher response rate as they take less time and energy to answer (e.g. Frowler, 2002; Loewenthal, 2001, Neuman, & Kreuger 2003). Given that the target population for this study was pharmacists, and that pharmacists, like other health care professionals, are always busy and therefore pressed for time, this option seemed to fit the study’s purposes the best.

Survey Cleaning

Before piloting the survey package with Ottawa-based pharmacists in phase one of this study, feedback was sought from Carleton University’s research ethics
board (REB), from psychometrics expert Elizabeth Krisjenseen from the University of Ottawa, from statistics expert Craig Leth-Steensenn from Carleton University and from three of Canada’s leading sexual and reproductive health experts, all of whom have experience (either directly or indirectly) researching plan B®. These experts included Alex MacKay from the University of Guelph, William Fisher from Western University, and Jean Shoveller from the University of British Columbia. Briefly, the REB was uncomfortable with the two demographic items pertaining to the religiosity of respondents arguing that asking this question may bias the study’s findings. Feedback received from psychometric expert Krisjensen necessitated the rewording of several items to improve their simplicity and comprehension. The information attained from statistics expert Leth-Steensen led to the change in the number of response options for the attitude scale from four to five, with a neutral option in the middle. Finally, the three sexual and reproductive health experts, made the recommendation to change the structure of the knowledge survey from true and false questions to fewer multiple choice items, arguing that multiple choice items are more likely to access true knowledge. This suggestion was noted, and the appropriate alterations were made.

Pre-testing

When using new surveys to investigate a topic, it is important to pre-test the instruments before implementing them in practice, as doing so enhances their quality. For the purpose of the current study, pre-testing was done as part of the pilot phase of
this project, and followed standard pre-testing principles. Specifically, during the pilot a small sample of pharmacists working in the Ottawa area participated in pre-testing. Feedback given included alteration of the response options for some of the multiple choice items and the removal of one item that a couple of respondents said was confusing. Although the response for sampling a professional sample was what some would consider average at 16%, testing for reliability and validity could not be performed as only 6 of the 9 surveys returned from the sample of 60 were completed satisfactorily. As a result, testing of reliability and validity was postponed until provincial data from phase two was gathered.

**Instruments**

After careful planning and making several revisions based on feedback received from several different sources, the final version of the survey used in phase two of this study was created. To review any of the measures discussed in the following section, please refer to Appendix C.

**Knowledge Scale**

To measure pharmacists’ knowledge about plan B®, a brief survey was constructed. This survey consists of three subsections that test pharmacists’ knowledge regarding the regulatory status of the drug, the drug’s function, and finally its use. It is important to note that each subsection within the knowledge survey has been analyzed separately in the analysis phase. That is, the relationship between
distribution practices and regulatory knowledge, functional knowledge, and use knowledge has been assessed independently from each other.

The first subsection, investigating regulatory knowledge, consists of four multiple choice items rated on a dichotomous scales. For the purpose of this measure, regulatory knowledge can be defined as an awareness of the current provisions that regulate the distribution of plan B® in Ontario. An example of an item from this scale is “Plan B® is currently listed as: (a) Prescription only drug across Ontario; (b) Schedule III drug across Ontario; (c) Schedule II drug across Ontario; or (d) Off schedule drug across Ontario.” Each item on this subscale is scored as either a 0 or a 1 (where 0 stands for an incorrect response and 1 stands for a correct response). The minimum score for this subscale is 0 and the maximum score is a 4, where a lower score indicates less knowledge and a higher score indicates more knowledge.

The second subsection in the knowledge questionnaire was designed to measure pharmacists’ knowledge of the function of plan B®, its contraindications and side effects. A suitable explanation of what is meant by functional knowledge, in reference to this subscale, is an awareness of the way in which plan B® emergency contraception works to prevent unintended pregnancies when alternative methods of birth control were either not used or their use had failed. An example of an item from this section is “Which of the following statements is true: (a) Taking plan B® after a fertilized egg has attached itself to the wall of a woman’s uterus will result in the termination of a pregnancy; (b) plan B® works the same as RU-486; (c) plan B® acts similar to a oral hormonal contraceptive; (d) None of the above; (e) Both A and C.”
This subsection contains four items. Similar to the regulatory knowledge section, the scoring for each item will range from 0-1 (where 0 stands for an incorrect response and 1 stands for a correct response). The minimum score for this subscale is 0 and the maximum score is 4, where a lower score is indicative of less knowledge and a higher score of more advanced knowledge.

The final subsection of this scale was designed to measure pharmacists’ knowledge of the use of plan B®. The definition of use knowledge, for the purpose of this scale section is having an awareness of the way in which plan B® must be taken in order to work effectively. An example of an item from this section is “If plan B® is used more than 3 times a year: (a) it becomes less effective in preventing pregnancies; (b) It is just as effective as when it is only used once a year; (c) It has the potential to threaten a woman’s fertility; and (d) Both A and C.” Just as in the previous two subsections, this section contains four items. Again, a score of 0 is given for each incorrect response and a score of one is granted to each correct response. The minimum and maximum scores for this scale are 0 and 4 respectively, where 0 represent no knowledge and 4 represents perfect knowledge.

Given the design of the knowledge scale, reliability was not tested in the traditional way. That is, internal consistency was not tested using the usual Cronbach alpha measure. Instead we were concerned with the degree to which each item on the scale correlated to the total score. Put another way, we were interested in finding out if answering one item correctly or not was related to answering another item correctly or not. Since the items on the knowledge scales are dichotomously scored as correct
or incorrect, point biserial correlations were used to assess the relationships between items (Varma, 2010).

Content and face validity were determined for the knowledge scales. According to Loewenthal (2001) a test or measure has content validity if the test items appropriately reflect what is being measured. A test is said to have face validity if the items appear to be about what is being tested (e.g. Anastasi, & Urbina, 1997; Loewenthal, 2001). Content validity for this scale was determined in the early stages of its construction when I had three experts in the field review the scale and comment on whether they thought the items appropriately assessed what they were supposed to. It is recommended that those who evaluate the content validity of a scale are very knowledgeable about the subject or topic that the measure seeks to test (Loewenthal, 2001). Following the suggestion of Loewenthal (2001) that the judge of face validity be someone who belongs to the population from which the test is designed to evaluate, I called on a pharmacist to comment whether he thought that the items were getting at what I wanted to measure. Details about the specifics of how both content and face validity were evaluated are outlined in the procedure section of this thesis.

**Attitude Scale**

This scale was designed and used to measure pharmacists’ attitudes towards plan B®. More specifically, this scale measures the complexity of pharmacists’ attitudes towards the use of emergency contraception, the restrictions placed on its use, and the women who choose to use this method of back-up birth control. This
scale consists of 8 items that are rated on a 5-point Likert-type scale ranging from strongly disagree to strongly agree with a neutral category in the middle. A Likert-type scale was chosen for this measure as it remains the most effective tool for measuring attitudes since its original formulation in the 1920s (Maio & Geoffrey, 2010). Although it is argued that the absence of a neutral category adds strength to final analysis (Loewenthal, 2001), the experts that reviewed the survey explained that its inclusion may increase my response rate given the sensitive subject matter of the survey itself, so it was included. Each item on this scale is scored from 0 to 4 (where 0 stands for strongly disagree and 4 for strongly agree). Items 4, 5, and 6 have been reverse scored to minimize response set bias (Loewenthal, 2001). An example of an item from this scale is “My beliefs may prevent me from distributing plan B®.”

Although not the initial intention for this scale, after performing a factor analysis on the items it was revealed that the measure contained three subsections. The decision to run a factor analysis was made after initial reliability tests revealed a low Cronbach's Alpha co-efficient of .524 (see Table 1). Given the low initial reliability coefficient, a factor analysis was performed to see if reliability would be greater for any subgroups that may exist within the survey. This practice is typical when scales produce low reliability. Briefly, a factor analysis looks at the full set of correlations between the items, and indicates which items have scores that seem to vary together (i.e., people will tend to respond either high or low on all them). It does so by identifying the major “components” (also called factors) of variation in the scores. Items that load high on a component are related and together measure something
unique from the items that did not load high on that component. Factor analysis for the current study was performed using Principle Axis Factoring and Varimax rotation where all factors with eigenvalues greater than 1 were extracted (see Tables 2-3). Further, in this analysis, three rotated factors were extracted accounting for 24.5%, 18.5%, and 15.6% of the total variance in the attitude scores, respectively. The rotated factor solution results indicate that Items 1, 2, and 3 fit well together on the first factor (i.e., these three items represent some sort of subscale. Similarly, Items 4, 5, 8, and to some extent 6 seem to go together on the second factor; thus, they represent another subscale. Finally, Item 7 seems to represent its own subscale. Hence, on the basis of the results of the factor analysis, two new attitude subscale variables were derived by totalling the scores for (i) Items 1, 2, and 3 together (where for some reason Cronbach’s alpha for these three items alone was still only .566) and for (ii) Items 4, 5, 6, and 8 together (where Cronbach’s alpha for these four items alone was still only .506). The first subscale (containing items 1, 2, and 3) appears to test a pharmacist’s attitude towards the women who use plan B®. More specifically, it appears to test the degree to which pharmacists believe the women who take plan B® are sexually irresponsible. The second subscale (comprised of items 4, 5, 8 and 6) appears to measure the degree to which a pharmacist approves of the use of this drug by women. Finally, the third subsection (consisting of the singular item 7) clearly measures the degree to which a pharmacist feels it is necessary for a woman to have an advanced supply of emergency contraceptive pills.
The next section will be dedicated to a discussion of the participants and procedures involved in both the pilot and provincial investigation. For the sake of clarity, when discussing the participants and procedures, content relevant to the pilot study and the Ontario-wide investigation will be separated.

*Participants*

*Pilot*

Sixty registered pharmacists practicing in the Ottawa area were surveyed in the pilot portion of this study with the hope that at least forty-five would respond. This desired outcome is based on a piloting rule that advises one should survey five to ten times as many people in a pilot than there are questions if reliability and validity are to be tested (Anastasi & Urbina, 1997). Of these sixty, nine returned the survey package to Carleton University as requested. In order to participate in the pilot study pharmacists were required to meet certain criteria. First they had to be licensed and practicing Ontario pharmacists, and second they had to possess the authority to decide whether or not to carry plan B® and have the power to say whether it is sold BTC or OTC. Of the nine pharmacists who returned their survey packages, six indicated that they were practicing head pharmacists and that they had authority to decide whether or not to carry plan B® and therefore qualified to participate (two self-identified as male, two as female and two did not disclose a gender). This rendered a response rate for the pilot of 13.4% which fits within the typical range for survey research
which is estimated between 10-50% (Neuman, & Kreugre, 2003). Ages of these participants ranged from 20-60.

**Provincial Investigation**

Sixty-six out of 500 pharmacists surveyed returned their questionnaire packages. The same inclusion criteria that were placed on the pilot applied to the provincial study as well. Based on these criteria, four participants were excluded. In addition, three others were excluded for having returned blank survey packages. All remaining participants indicated having the authority to decide whether or not to carry and where to keep plan B® in their pharmacy leaving 59 participants (28 male, 30 female, and one undisclosed). Additional information on the accessibility of plan B® across Ontario was gathered from pharmacists who were part of the 500 surveyed initially, but who indicated that they were unable or unwilling to complete and return the survey package. Attempts were made to reach all 500 pharmacists in the sample; however, voice to voice contact was only made with 362 participants which indicated that 17.2% were unreachable. This number is said to be slightly better than average, as one source indicates that even with several call backs, a 20% no-contact rate is to be expected (Neuam, & Kreuger, 2003). For the remaining participants, 52 voice mail messages were left unreturned and 86 were unreachable due to wrong or out of service numbers and no answers (with no answering machine).
Procedures

Pilot Study

In order to pre-test the unique survey measures, a pilot study was conducted in the City of Ottawa. To recruit pharmacists for the pilot study random sampling was enforced. Briefly, random sampling ensures that each participant has an equal chance of being selected and that the selection of one participant does not affect the chances of another participant being selected (Graziano & Raulin, 2004). The Ontario College of Pharmacists’ (OCP) website was used in order to effectively draw the sample used for the pilot study. Briefly, the OCP’s website contains a comprehensive list of all registered pharmacies and licensed pharmacists currently working in Ontario. The format of the website allows the public to search for pharmacies or pharmacists a number of different ways (e.g., by city, by name, or by registration number). For the purpose of the pilot study, a pharmacy search was performed for Ottawa-based pharmacies by entering “Ottawa” in the website’s appropriate search engine. Once the list of Ottawa-based pharmacies appeared on the screen, each pharmacy was given a participant number that corresponded to the order in which it was listed on the website. For example, the first pharmacy that appeared on the site’s list was assigned a one and the numbers increased sequentially until all of the pharmacies listed were assigned a number. Once having assigned each Ottawa based pharmacy a number, each number was entered into a random number generator with instructions to list 60 numbers in random order. Finally, the 60 pharmacies listed on the OCP website that corresponded to the 60 numbers issued by the random number
generator were included in my sample and pilot survey packages were mailed to
them. Contact information was obtained from the OCP’s website (www.ocp.com,
2010) which is available for public access. In an effort to target pharmacists who had
the authority to decide whether or not to distribute plan B®, the package was
addressed, “Attention: Registered Manager.” Generally, it is the managers who have
this power (M. Burutski, personal communication, Sept 8, 2010).

The survey package itself contained four things: a self-addressed and stamped
return envelope, an information letter describing the purpose of the pilot study, the
questionnaires designed to test both pharmacists’ knowledge about and attitudes
towards plan B®, and an additional sheet asking pharmacists for their comments on
the scale.

The information letter and all the questionnaires were sampled together to form a
single 6-page, double-sided package. The information letter used for the pilot study,
which can be found in Appendix D, briefly outlines the purpose of the pilot study and
explains how information gathered would be protected and kept confidential. Contact
information was also listed in the letter in case participants had any questions or
concerns. The final sheet of the package requested participant feedback on the
knowledge and attitude measures. An example of one of the questions asked on this
sheet is “Which, if any items would you remove from the attitudes survey? Please
explain your answer in the space provided below.” To see a copy of this sheet, please
see Appendix E. Having a sample of pharmacists suggest which items they felt
should be modified, added or removed, helped eliminate items that were either unnecessary or that were too emotionally loaded.

Therefore, in an effort to increase responding, follow-up calls were made to those managing pharmacists who did not return the survey four weeks after initially mailing out the packages. Calls were not made sooner as the decision to perform a follow-up was made post hoc as a strategy for increasing the response rate. Making follow up calls has been sited as a possible way to increase responding when conducting survey research by mail (Smeeth, & Fietcher, 2002). A detailed phone log was keep during the Ontario study in which information about the date of the call and whether or not there was intention to return the survey. These phone calls were largely unsuccessful as many pharmacists indicated either not having kept the package or not having time to complete it. Lessons learned from the pilot were to make follow-up calls sooner and to implement an inexpensive incentive to encourage responding. In addition, based on the feedback from one participant, who indicated that it is the decision of corporate pharmacies to carry plan B® or not, the decision was made to do what was possible to exclude corporate stores from the Ontario-wide study.

Provincial Investigation

Five hundred pharmacists employed at various non-corporate pharmacies across Ontario were surveyed in phase two of the current research project with the hope of gaining valuable information about how certain variables (such as knowledge...
and attitudes) impact distribution of plan B®. Although seemingly a large number, the size was necessary given the fact that this population is prone to low responding (e.g. Westrick, & Mount, 2007). Similar to procedures outlined for recruitment during the pilot phase of this project, in order to generate the sample used in the Ontario-wide investigation, the use of the OCP website was essential. Differing from the pilot phase when recruiting for the Ontario study, purposive sampling was implemented before random selection. Briefly, purposive sampling is a type of non-random sampling where certain groups are targeted for participation based on particular characteristics (Neuman & Kreuger, 2003). Having learned in the pilot study that pharmacists employed in corporately owned stores do not have the authority to decide whether or not to carry plan B®, this choice to implement purposive sampling was strategic: the strategy was to give pharmacists who manage a non-corporate pharmacy a chance to be selected as a participant and therefore to increase my response rate. Once having eliminated all of the corporate pharmacies from the list of Ontario pharmacies presented on OCP website, a number was assigned to all of the remaining pharmacies just as was done in the pilot study. To reiterate, the first pharmacy listed on the OCP website (that was not corporate) was assigned a one and sequentially, all other non-corporate pharmacies were given a number. Once having assigned each Ontario-based pharmacy a number, each of these numbers was entered into a random number generator with instructions to list 500 numbers in random order. Finally, the 500 Ontario-based pharmacies listed on OCP
website that corresponded to the 500 numbers issued by the random number generator were included in my sample, and pilot survey packages were mailed to them.

With the goal of recruiting 500 pharmacists to participate in this study, survey packages were mailed to the managing pharmacists working at each of the pharmacies listed in the sample. The survey package used in the Ontario study was 5 pages (front and back) and included an information letter, the questionnaires to be completed, and a pre-addressed and stamped return envelope. A single tea bag was attached to each survey package in the Ontario study with a note expressing the researchers hope that the participants will find time to take a break and enjoy a cup of tea as they complete the survey. The tea bag was added to the survey package with the hope that it would improve the response rate. Although it has been suggested that a monetary reward proved most successful in increasing responding when surveying health professionals such as pharmacists (Smeeth & Fietcher, 2002), this project lacked the budget that would be necessary to include such an incentive; the tea was a compromise. Similar to the one distributed in the pilot phase, the information letter used for this phase briefly describes the purpose of my study and outlines how confidentiality is maintained. To review a copy of this letter, see Appendix F.

Informed consent was assumed based on participants’ willingness to complete and return the survey package.

In order to keep track of which pharmacies returned their survey, the same procedure that was followed in the pilot study was utilized again. That is, a number was placed on the pre-addressed return envelope, as well as on the second page of the
survey package. Again, these numbers were the same numbers that were assigned to the pharmacies and used to generate the sample. Similar to the pilot study, phone calls were made to those pharmacists who did not return the survey package. Unlike the pilot study, these calls began one week following the initial mailing of survey packages and continued until attempts to reach all 500 participants were made, which took two weeks. The intention was to make the calls sooner, in order to have a more successful return rate. Again, a detailed log was kept pertaining to the time of the call, and whether or not there was intention on the pharmacist’s behalf to return the survey. This time, when making the calls, all pharmacists who expressed that they were unwilling or unable to complete and return the survey (with the exception of those who sounded hostile) were asked if they carried plan B®, and if so, whether they kept it behind the counter or on the shelf. This additional information was recorded on the phone log, and it will be discussed in the results section of this thesis.

Although the response rate for the pilot study and the province-wide study was similar, the province-wide investigation proved to be more successful. This was a result of having made the follow-up calls only one week after mailing out the surveys, as opposed to four weeks after mailing out the surveys in the pilot study. This comparison is made after accounting for confounding circumstances, the most pertinent of which was the creation of a provincial governmental legislation on March 25th 2010 that threatened to disallow professional allowances or “kickbacks” that generic drug companies were offering to pharmacists who stocked their products (CBC news, 2010). Basically, if a client was covered under Ontario’s drug benefit
program, pharmacists could receive an allowance upwards to 20% of their generic
drugs sales to said client; however, if a client purchasing generic drugs was privately
insured or uninsured there was no cap on the allowance a pharmacist could receive
for a sale. If the legislation passed, pharmacists would lose this allowance, which
many feared would hurt them financially, and for some small community pharmacies,
it may mean forced closure (Chu, 2010). As a result of this scare, pharmacists were
less likely to respond to my survey stating that all their extra time was being spent to
lobby against the passing of this new legislation. This unsolicited information was
relayed to me during many of the follow-up conversations I had with pharmacists.

The final procedure implemented in the province-wide investigation took
place after data entry revealed an error in the way some pharmacists responded to the
demographic questions pertaining to their distribution practices. Mainly, it seemed as
though pharmacists were mistaken on what was meant by “Over the counter
distribution,” as some pharmacists reported distributing plan B® both BTC and OTC.
To clear this matter up and ensure I was getting accurate information, follow-up calls
were made to those who indicated distributing plan B® both BTC and OTC. What I
discovered in most cases was that pharmacists kept the drug behind the counter in all
cases except one. In the exceptional case, plan B® was indeed kept BTC and OCT.
More precisely, the drug was kept on the shelf when one pharmacist was working and
BTC when the other was working.
Protection of Participants

Informed consent was assumed for both the pilot and Ontario-wide study based on participants' willingness to complete the survey package and mail it back to Carleton University. In order to keep track of which pharmacists returned the surveys confidentially, the number assigned to each pharmacy during the recruitment phase of both the pilot and Ontario-wide studies was placed on the pre-addressed return envelopes and on the second page of the survey packages. To further protect the confidentiality of participants, instructions were given on the information letter telling participants not to place their name anywhere on the survey package or return envelope. What is more, all data gathered from both the pilot and Ontario-wide studies were kept in a locked cabinet in an office at Carleton University, further protecting confidentiality. The primary researcher was the only person with the key to this cabinet. Due to the fact that this study asks some potentially emotionally loaded questions, both my supervisor and I were made available by phone and email for any participants who wished to debrief before, during, or after the completion of the questionnaire. Anonymity was considered as a means to increase responding for the provincial investigation; however, a review of the literature suggested that anonymity does not necessarily increase responding when conducting a postal survey on a sensitive topic (Campbell, & Waters, 1990).
Data Analysis

Despite some feminist critiques, many feminists endorse quantitative survey research, arguing that if used correctly, statistical analysis can increase the probability that a study’s findings will be supported by the mainstream as valid (Jayaratne, & Steward, 1991; Reinharz, 1992). Furthermore, some feminist scholars suggest that the use of statistical analysis “can advance feminist research goals of achieving social justice and change for women” (Miner-Rubino, Jayaratne & Konik, 2007, p. 216). Regardless of whether one is for or against the use of statistical analysis when conducting feminist research, caution should always be taken to ensure that statistical tests are implemented properly and are not used to manipulate findings for the purpose of finding significance. In order to protect against wrongful use of statistics, proper techniques must be chosen for analysis, as a failure to do so has the potential to distort findings and in some cases produce false results (Graziano & Raulin, 2004). Consultation with a statistics expert from the school of psychology at Carleton University was sought during analysis to ensure that the appropriate use of statistical analysis of the data gathered in this study. After consultation, it was determined that frequency analysis be used to assess the accessibility of plan B® across Ontario. All frequencies will be reported as a percentage out of 100.

In order to determine whether or not a pharmacist’s knowledge about and attitudes towards the use of plan B® will affect their distribution practices (no distribution or distribution BTC versus distribution OTC), a combination of Chi-Square ($\chi^2$) and logistic regressions was employed. First, five separate Chi-Square
(χ²) contingency table analyses were performed on age, gender, location, population, and number of pharmacies in a given town or city, all of which were crossed with the variable of distribution practices (not carry or carry BTC versus carry OTC). In order to prevent the validity of the Chi-Square Contingency Table tests being compromised due to cells with too few counts, a few categories for the age, population, and number of pharmacies were collapsed before running these analyses. Next, three separate logistic regressions with the variable for distribution (not carry or carry BTC versus carry OTC) as the outcome (or dependent) variable and regulatory knowledge, function knowledge, and use knowledge as the predictors (or covariates), respectively, were run. Logistic regressions must be used when the independent variable is a binary categorical outcome. Otherwise, such analyses proceed and are interpreted in a manner that is very similar to standard linear regression analyses whereby negative regression slopes indicate that the odds of the outcome of interest occurring (i.e., carry plan B® OTC decreases as the value of the predictor increases (and vice versa for positive regression relationships). For each of these logistical regressions, note that no “true” covariates (such as age, gender, location) have been included since early analyses revealed none of them to be significantly related to the outcome variable (which is a necessary condition when using a variable as a covariate).

In this chapter, the various methodologies used in the current investigation were reviewed. Specifically, in this chapter the research questions that have guided this thesis were listed and the various procedures used to implement both the pilot and
provincial investigation were discussed at length. In addition, the measures used in the current investigation were reviewed. Finally, this chapter concluded with an overview of the statistical tests that were used to analyze all of the data collected. In the chapter to follow, the findings of this investigation will be reported. Please note that all of the relevant tables associated with the various analyses conducted and discussed in the next chapter can be found at the back of this thesis in the section titled “Tables”.

Chapter 5:

Findings
Pilot

Due to the low response rate for the pilot, frequency of type of distribution practices was the only factor recorded; therefore, no formal analyses were conducted on data gathered at this stage in the research. With regards to frequencies of distribution practice, of the 6 usable surveys returned in the pilot investigation, 5 pharmacists reported keeping plan B® behind the counter (BTC) while the other pharmacist failed to indicate how they distribute the drug.

Provincial Investigation

Frequency analyses were conducted for demographic variables pertinent to the present study. Of the 59 respondents, 28 (47.5%) self identified as male, 30 (50.8%) self-identified as female, and one respondent did not indicate a gender. Participants ranged in age from 20-61+ with the majority falling between the ages of 20-40 (37.3%). Sixty-one percent of the participants indicated owning the pharmacy that they work in while 37.3% indicated they did not; one participant left this item blank. In regards to the nature of the store, despite having taken measures to attempt to avoid surveying pharmacists who worked for chain stores, 78% of the pharmacists reported working in a pharmacy that was owner operated while 15.3% indicated working for a corporate store. Given that both those pharmacists working for owner operated and corporate stores indicated having the authority to decide whether or not and how they wish to distribute plan B®, those working for corporate pharmacies were not excluded from the analyses. Forty-one percent of participants disclosed that they
considered their pharmacy to be located in a rural community, while 56% indicated their pharmacy was situated in an urban centre, and two respondents did not indicate a location. The majority (26) of respondents disclosed that the population of the town or city in which their pharmacy is located was over 100,000. Nineteen indicated their pharmacy being located in an area with a population of under 10,000, 13 said their pharmacy was in a town with a population between 10,000 and 100,000, and 1 respondent left this item blank.

*General Accessibility*

Frequency analyses ran on returned surveys revealed that 93.2% of pharmacies (i.e., 55) carry plan B® while only 6.8% of the pharmacies in my sample (i.e., 4) do not carry plan B®. Follow-up calls with pharmacists who did not return their surveys indicated an additional 9 pharmacies that do not carry the drug in Ontario. Among those who indicated not carrying plan B®, 1 respondent indicated they do not carry it because doing so would go against their beliefs, 1 respondent disclosed that they fear it would be abused if they sold it, and 3 respondents said that they did not sell the drug because there was no demand for it in their town/city. During follow-up calls 4 additional pharmacists indicated no demand as their justification for not carrying the product. As one respondent said, “It is a small town, there is no demand” and another, “plan B® is more of a weekend drug and we are only open during the week.”
Among the 93.2% of pharmacists that indicated carrying the drug in their store, 81.4% said that they keep the product behind the counter (BTC) and only 13.6% said that they keep it on the self. When added together these last 2 percentages do not add up to 93.2% (which is the percentage of pharmacies in this sample that carry plan B®) because, as was indicated in the procedure section of this thesis, when follow up was done on those pharmacists who indicated distribution plan B® both BTC and OTC, it was discovered that at one location the drug’s distribution varied depending on which pharmacist was working. That is, at this particular location plan B® is kept on the shelf when one pharmacist is working and BTC when the other is working. Among the 81.4% of respondents who carry the drug but continue to keep it BTC despite its deregulation, 32.2% disclosed keeping it BTC because they worry it will be abused if sold off the shelf, 72% feared that the drug would be stolen if not kept BTC, and 4.7% indicated that they were waiting for the drug to be available in the one pill format before they make the switch. During follow-up calls to those who did not return the survey it was discovered that an additional 4 indicated that they thought that by keeping it on the shelf they risked it being stolen, 2 indicated that they felt it would be abused by customers, one indicated they were waiting for it to be in a different package and 4 indicated that there was no demand for it. Five respondents indicated in writing that they choose to keep it BTC because they feel it necessary to provide counselling to the women who seek it. As one respondent wrote, they keep it BTC “to be sure the patient can be counselled” and another “I want to provide adequate counselling.” An additional 5 respondents who did not return their survey
package, but who were contacted by phone during follow-up, indicated that they too keep the product BTC because they felt that the women who ask for it should receive counselling prior to its purchase and subsequent use.

Chi-Square analyses ran on five demographic variables of interest revealed no significant relationships (see Tables 4-8). What this means is that the probability of carrying plan B® OTC was not significantly related to the gender of the practicing pharmacist, Pearson $\chi^2 (1) = .432, p \leq .511$, and continuity corrected $\chi^2 (1) = .076, p \leq .783$. Also, the probability of carrying plan B® OTC was not significantly related to the location of the pharmacy, Pearson $\chi^2 (1) = 1.588, p \leq .208$, and continuity corrected $\chi^2 (1) = .764, p \leq .382$. In addition, the probability of carrying plan B® OTC was not significantly related to the age of the practicing pharmacists, Pearson $\chi^2 (2) = 1.23, p \leq .208$. What is more, the probability of carrying plan B® OTC was not significantly related to the population in which the pharmacy was located, Pearson $\chi^2 (2) = 3.727, p \leq .155$. Finally, the probability of carrying plan B® OTC was not significantly related to the number of pharmacies located in a particular town or city, Pearson $\chi^2 (2) = 2.904, p \leq .234$.

**Hours of Operation**

When considering the accessibility of plan B® within Ontario pharmacies it is necessary to report the hours of operation of those pharmacies which carry the product (whether it is kept BTC or on the shelf). Note that since there was such a low number of pharmacists who indicated not carrying plan B®, the frequencies reported
in this section do not include responses from pharmacists who indicated that they do not carry the drug. Through the week, the mean hours of operation range from 9.27 to 9.64. The hours are more limited on weekends and during holidays. For Saturdays, the mean hours of operation were reported to be 5.4 across Ontario. In addition to being opened for fewer hours on Saturdays, 25% of the pharmacists surveyed indicated that their pharmacy is closed on this day. The hours of operation are even more limited on Sundays. That is, the mean hours of operation are 1.48, with 69% of the participants indicating that they are closed on Sundays. Similar results were found for holiday hours. For example, the mean hours of operation for the holidays are 1.04 with 74.6% of respondents disclosing that they are closed during these times.

*Reported Cost of plan B®*

Another important factor which has the potential to impact reasonable access to plan B® within Ontario is the cost of the product. The current investigation revealed that the price of the drug varies ranged from $22.99 to $39.99 with a mode of $29.99. In addition to the retail cost of the drug, pharmacists were asked to report how much they charge for consultations. Twenty-four respondents left this item blank. Despite the high number of non-responses, some pharmacists did indicate that they charge a consultation fee when women request this product from them. The consultation fee was reported to range from $4.00 to $20.00. This added fee increases the price of an already expensive drug, sometime to a large extent.
Knowledge

Overall knowledge of plan B® among Ontario pharmacists varied among the different subscales (knowledge of its regulation, function, and use). The mean scores on the regulatory knowledge subscale and the function subscale were somewhat low at 2.75 out of 4, or 69%, and 2.51 out of 4 or 63% respectively. In addition, the mean score on the use subscale was 3.3 out of 4, or 83%.

Three separate logistic regressions with the dichotomous variables (not carry/carry BTC versus carry OTC) as the outcome variables and the three subscales of the knowledge scale (regulatory knowledge, functional knowledge, and use knowledge) as the predictor variables revealed mixed results. While knowledge regarding the function of plan B® was not significantly related to the likelihood of carrying plan B® OTC, Waldz = .047, \( p < .828 \) and knowledge of use was not significantly related to the likelihood of carrying plan B® Waldz = .288, \( p < .592 \), knowledge of plan B®’s regulatory status was significantly related (although only marginally so) to the likelihood of carrying plan B® Waldz = 2.74, \( p < .098 \), OR = 2.394 (see Table 9). Note that the 2.394 stands for the odds ratio, and it means that the odds of carrying plan B® OTC increases by 2.394 times for each 1-unit increase in the regulatory knowledge score.

Attitudes

Four logistic regression analyses were performed on the dichotomous outcome variable (not carry/carry BTC versus carry OTC) and the three attitude
subscales (identified by the factor analysis and defined in the measures section of this methods chapter) plus the total attitude score as the predictor variables. Many of the findings drawn from these analyses were not significant. That is, a high score on the first sub-scale, which is indicative of possessing a negative attitude towards the sexuality of women who seek plan B®, proved to be not significantly related to the likelihood of carrying plan B® OTC, Waldz = 1.599, p ≤ .206. In addition, a high score on the second subscale, which appears to indicate a discomfort with the use of emergency contraception, was not significantly related to the likelihood of carrying plan B® OTC, Waldz = .098, p < .754. On the other hand, logistic regression analysis performed on the total of all 8 attitude items revealed a marginally significant relationship between a pharmacist’s overall attitude towards plan B® and the likelihood of carrying this emergency contraceptive pill OTC, Waldz = 3.815, p ≤ .051. Interestingly, the total attitude score was marginally significant mainly because item 7 (which alone constitutes the third subscale for this measure) seemed to be a very strong negative predictor of the likelihood of carrying plan B® OTC, Waldz = 5.002, p ≤ .025, OR = .348 (where .348 indicates the odds of carrying plan B® OTC decrease by .348 times as scores on item 7 go up by one). Hence, it was no surprise to find a significant relationship between a high score on the third subscale of the attitude measure which measured a pharmacist’s disagreement that women should have an advanced supply of plan B® and the likelihood of carrying plan B® OTC, Waldz = 5.002, p ≤ .025 (see Table 10).
In this chapter the results generated from this thesis were reported. Particular attention was paid to the findings related to the relationships between pharmacists' knowledge about and attitudes towards plan B® and their distribution practices. Most interesting, was the finding that pharmacists' negative attitudes appear to be related (although only marginally) to their decision to keep plan B® BTC. In the chapter that follows, these findings will be explored in greater depth and the theoretical and conceptual frameworks that have shaped this thesis will be applied.
Chapter 6:

Discussion
The findings reported in this thesis highlight gaps in Ontario's commitment to women's reproductive rights that need to be addressed using a justice perspective in order to ensure women's ability to control their reproduction through the use of ECPs such as plan B®. The findings reported in the previous chapter also suggest a significant lack of reproductive justice for women as a group and for disadvantaged women in particular. In this chapter the results of the current investigation will be discussed in relation to how they impact women. Additionally, the findings generated from this research will be considered in relation to the more liberal feminist reproductive rights perspective and the more Marxist feminist oriented reproductive justice perspective. For simplicity, the order in which these findings are discussed below follow the same order in which they were presented in the previous chapter.

**General Accessibility**

As was reported in the previous chapter, 93.2% of the 59 Ontario pharmacists surveyed for this investigation indicated that they carry plan B® at their location. This finding is backed by previous research such as that performed in London Ontario which reported that 93% of the 40 pharmacists surveyed for their study disclosed that they carry plan B® (Andrus, 2007). At this point, it is important to review the difference between availability and accessibility. That is, the fact that 93.2% of Ontario pharmacists included in this study’s sample indicate carrying plan B® in their pharmacy, does not mean that the drug is reasonably accessible at these locations; rather, this percentage merely reflects its availability. This becomes clearer once
having considered that among the 93.2% who indicated carrying plan B®, 81.4% said that they keep the product BTC, thus restricting access to some degree. As was discussed in the introduction of this thesis, keeping plan B® behind the counter serves as a significant barrier to access, especially for women who, for personal reasons, fear having to consult with a pharmacist directly. This fear on the part of the customer is more than speculative as it has been substantiated by Canadian research performed in Ontario (Cohen, Dunn, Cockrill and Brown, 2004) as well as in British Columbia (Shoveller et al., 2007).

Among the 81.4% of respondents who carry the drug but continue to keep it BTC despite its deregulation, 72% (plus an additional 4 respondents who were contacted during the phone follow-up) claimed that they choose to keep the product BTC because they fear that the drug will be stolen if kept on the shelf. When provided the opportunity to expand on this rationale during follow-up calls, pharmacists stated equally that they are concerned about theft because of the small size of the package, and its high price point. Now consider the following: 1) efforts have been made by the drugs manufacturer, Paladin Labs, to appease pharmacist’s concern about the discrete packaging and so they swapped its small white casing for one that is quite large and bright blue in colour (Paladin Labs, personal communication, September 10, 2009). Despite their best efforts, even after being made available in the larger and more colourful box format, pharmacists across Ontario continue to justify their restrictive distribution practices by stating that they fear it will be stolen if kept on the shelf. 2) Although the cost of the drug can be quite
high, there are other pharmacy products (i.e., vitamins and allergy medication) that are just as expensive, if not more so, that are kept OTC, on the shelf. With all of these considerations, it is conceivable that more lies behind pharmacists’ belief that this particular product would be stolen if kept on the shelf. It can even be speculated that what lies beneath this justification is the assumption that the “type” of women who seek ECPs are untrustworthy and or irresponsible. It must be emphasized at this point, that what has been discussed in the latter part of this paragraph is speculative at best. With this being said, it does reflect findings from other studies such as that performed by Barrett and Harper (2000) who reported that pharmacists (and other health care professionals) do indeed consider women who use ECPs to be irresponsible. Specifically, the respondents included in their study considered the women who use ECPs to be “sexually irresponsible, chaotic and devious” (Barret & Harper, 2000, p. 203). All things considered, it would be interesting to see future studies investigate this hypothesis further as it could have major implications for the way in which the plan B® is distributed.

In addition to the 72% of pharmacists who claimed that their concern over theft prevents them from keeping plan B® on the shelf, 4.7% indicated that they kept the product BTC because it is only available in a two pill format. Specifically, these pharmacists disclosed that they were waiting for Paladin Labs to manufacture the drug in a one pill format before they make the switch to OTC distribution. What is interesting about this finding is that a similar excuse was made about plan B® before it was approved for women to take the two pills at once rather than having to take the
ECPs 12 hours apart (Paladin Labs, personal communication, September 9, 2009). That is, pharmacists were unwilling to keep the product on the shelf if the ECPs had to be taken separately. After careful thought, it seems as though this is an ill formed excuse on the part of paternalistic pharmacists who are not willing to relinquish their gate keeping power. As was mentioned in the previous paragraph, in order for this claim to be more than speculative further research is needed.

Perhaps the most terrifying statistic drawn from this section of findings is that 32.2% of pharmacists disclosed keeping plan B® BTC because they were concerned that women would abuse the drug if it was available off the shelf. Since the term abuse was not defined within the survey, pharmacists were left to interrupt this for themselves when answering this item on the questionnaire. With this being said, it is conceivable that when thinking of the term “abuse” pharmacists thought of overuse, incorrect use or irresponsible use (which may include the abandonment of alternate contraceptive options). Regardless of how respondents interrupted the term “abuse,” this finding was not surprising given the literature on this topic. That is, this finding reflects results reported in other emergency contraception studies performed in Canada and in the United States (e.g., Shoveller et al., 2007, Winchester, Brown, & Boulton, 1999; Barrett, & Harper, 2000). In fact, arguments that progressive provisions of ECPs will lead to an abandonment of regular contraceptive methods and an increase in promiscuity have been used by health care providers (including pharmacists) to advocate against the deregulation of plan B® to its current schedule II or OTC status (e.g., Shoveller et al, 2007; Winchester, Brown, & Boulton, 1999;
Barrett, & Harper, 2000). Many studies have illustrated the falseness of this concern, proving instead that when access to ECPs is increased, women do not abuse it by abandoning their regular birth control regimes (e.g. Martston, Meltzer, & Majeed, 2007; Moreau, Trussell, Mitchelot, & Bajos, 2009; Rain, Harper, Rocco, Fischer, Padian, & Klausner, 2005; Soon et al, 2005). Given that this fear has been proven false by multiple investigations the question of why pharmacists continue to hold onto this false justification becomes paramount. After careful thought, it seems conceivable that this illegitimate fear reflects entrenched prejudice that individuals hold regarding female sexuality. Such prejudice towards the sexuality of women has a history that appears to date back as far as the 19th century when contraception was thought to threaten the morality of women and was opposed by most members of the medical profession (Barrett & Harper, 2000; Hawkes, 1996; Nead, 1988; Weeks, 1989). From the findings noted here the argument can be made that fears about women’s sexuality, and pharmacists’ strong medical control over contraception, continue to limit reasonable access to plan B® within Ontario.

The findings discussed so far clearly situate the problem of access as one that is highly complex. That is, the problem of access has proven to span beyond an issue that pragmatic changes to women’s rights can address fully. Rather, it seems that in order for actual, useful change to occur, the problem of access needs to be considered with reference to a justice framework. Since having considered the general accessibility of plan B® within this study’s sample of Ontario pharmacists, it is evident how the policy that regulates the drug’s current distribution poses several
concerns relating to the role and rights of women to control their fertility.

Historically, Canadian women have been desexualized. Unable or unwilling to accept the fact that women are sexual, those in power (who are predominantly male) have done everything they can to ensure that women refrain from promiscuity (McDonnell, 2003). One of the ways that this has been done (and continues to be done) is by limiting women’s access to contraceptives which includes emergency contraception such as plan B®. Currently, liberal social policy that governs the regulation and hence distribution of plan B®, favours the rights of pharmacists over the needs of women in Ontario. Given the patriarchal and capitalist nature of our social economy this is perhaps not surprising.

**Hours of Operation**

As was reported in the findings chapter, the hours of operation appeared reasonably accessible during weekdays with mean hours of operation ranging from 9.27 to 9.64. Hours became more limited for weekends and holidays. Mean hours of operation were 5.4. What is more, 25% of respondents indicated that their pharmacy was not open at all on Saturdays. The state of affairs proved even worse for Sundays. That is, the mean hours of operation were 1.48, with 69% of the participants indicating that they were not open on Sundays. Similar results were found for Holiday hours. Mainly, the mean hours of operation were 1.04 with 74.6% of respondents disclosing that they were closed on holidays. This is interesting if you consider the arguments of feminist scholars regarding the first deregulation of plan
B®. They argued that the drug needed to be made available in pharmacies without a physician’s prescription so that it is more accessible during times when doctors offices are closed (which was weekends and holidays) (i.e., Armstrong, 2006; Barrett & Harper, 2000). Of course, the limited store hours reported in this thesis could be related to the fact that the majority of the pharmacies included in this study’s sample are owner operated and not corporate (78% to 15% respectively). That is, if I had surveyed more pharmacists working for corporate stores, it is conceivable that the hours of operation may not have appeared to be so limited during weekends and on holidays.

Under the liberal rights framework, the barriers that limited hours of operation impose on women who wish to purchase plan B® forces the following question: *Whose rights are more important, women’s or pharmacists?* That is, although women have the right to access plan B®, pharmacists have the right to control their hours of operation. A study conducted by Priddy and Reed (1996), suggests that there is a very real demand from customers for, what they refer to as “out-of-hours” access to emergency contraceptives. Given the for-profit liberal market economy that remains hegemonic across Ontario, working within the capitalist system while attempting to instigate reasonable access is next to impossible. That is, given the patriarchal capitalist society in which we live it would be very difficult to convince pharmacists to stay open when they may not make a profit, just in case a women needs to purchase plan B®. With this in mind, it becomes clear that in order to effectively improve access the problem of limited store hours needs to be considered.
within the justice framework. Under this framework one can see the value of making plan B® available in state funded facilities such as emergency departments and health care centers as these facilities are accessible during hours that pharmacies may not be, thus meeting the needs of women as a group more effectively.

Cost

Another important factor which has the potential to impact reasonable access to plan B® within Ontario is the cost of the product. This is not a new supposition but one that has been articulated by other scholars for increased access of plan B® across the nation (Erdman, Foster and Trusell, 2007; Shroff, & Clow, 2003). As was reported in the findings chapter, the price of the drug varies but remains quite high. Specifically, the cost as indicated by respondents ranged from $22.99 to $39.99 with a mode of $29.99. Given that pharmacists purchase the drug from Paladin Labs (the company that manufactures the drug) for $15.00 the mark up is often over 100%. Compared to a study conducted in London Ontario in 2007, which indicated the price range of plan B® to be between $26.00 and $45.00, it appears that the cost has been reduced, albeit marginally over the years (Andruf, 2007). For those women who identify as belonging to the middle or upper class and whose life circumstances do not hinder their ability to access finances, this price range does not seem unreasonable; however, this cost becomes an issue for those women who are low income earners, who do not have an income, or whose life circumstances restrict their access to their finances. This price could be understood as a potential barrier for
other groups of women; especially for those earning a low income, no-income, or for women whose life circumstance such as being in an abusive relationship or struggling with addictions or mental health issues does not allow them to be able to access the funds required to purchase the drug at its retail price without external support (such as a government subsidy). In addition to the retail cost of the drug, some of the pharmacists who continue to keep plan B®BTC reported charging women an additional $4.00 to $20.00 for this service. This added fee increases the price of an already expensive drug, sometimes to a large extent. Logically, it follows that pharmacists who charge a consultation fee also keep plan B® behind the counter, thus creating a double barrier to access for some women.

In addition to improved access, keeping the cost of emergency contraception down has been cited as an argument for its deregulation (Canadian Women's Health Network, n.d.; Women's Health Contribution Program, n.d.; Edman & Cook, 2006). Unfortunately, given the authority that pharmacists have to override such status changes, it appears as though at least in some cases the cost has not decreased at all since its deregulation to schedule II in 2008.

After discovering the price of plan B® when purchased within Ontario pharmacies, it becomes clear that some women will not be able to afford emergency contraception, which constrains their reproductive choices and thus their rights as specified by both the International Conference on Population Developments' reproductive rights document and The Canadian Charter of Rights and Freedoms. Since Ontario’s provincial health plan does not cover the cost of non-prescription
drugs (which includes plan B®) the price of this ECP can be understood as a very real barrier to some women. Health Canada recognizes that when plan B® was deregulated from a schedule I to a schedule II drug that its cost became a significant barrier, obstructing women from accessing emergency contraception (Erdman & Cook, 2006). Despite Health Canada's recognition that cost is a barrier, the organization claims that nothing can be done on their part as cost coverage is managed either privately or through public drug programs in collaboration with provincial pharmacy regulatory authorities and is therefore out of their jurisdiction (Canada Gazette, 2005).

Both the federal and the provincial government need to be aware of the cost barrier and also of the benefits to both the individual customer and the Ministry of Health in covering the cost of plan B®. To the consumer the benefits are clear, free access to this ECP will help to prevent women from having to deal with an unplanned or unwanted pregnancy and will grant them more control over their bodies and futures lives. To the Ministry of Health the benefits are financial. In a study by Trussell, Wiebe, Schet, & Guilbert (2001), it was reported that the Canadian Ministry of Health spends approximately $1,289.00 per unintended pregnancy. This amount represents the average weighted cost of an ectopic pregnancy, induced abortion, spontaneous abortion, and live birth. The average cost saving reported when giving advance supplies of plan B® from a physician was $6.77 per woman. Given that approximately 169,800 pregnancies occur in Ontario every year (Statistics Canada, 2005) and approximately half of all these pregnancies are unintended (Dunn, 2005), it
can be estimated that the Ministry can save around $23,673 annually by covering the cost of plan B® for women in need of it. Recall that the cost savings mentioned here relates to money saved by the Ministry of Health if a physician provides an advanced supply of plan B®. Given that plan B® is now available in the pharmacy, without a prescription, the Ministry’s saving would be even greater as they would simply have to cover the cost of the drug and not the cost of a doctors visit.

A compelling argument made by activist organizations regarding barriers to access around the deregulation of plan B® is the increased cost that follows from delisting ECPs as a prescription drug (CFSH, 2007; CWNH, n.d). The cost of plan B® varies and is dependent on where it is purchased. For instance, some community health organizations and many pro-choice drop-in centres provide clients with plan B® for free or at a subsidized rate. With this in mind, the argument that cost acts as a barrier to reasonable access to plan B® may seem trivial; however, despite the fact that ECPs are available at sliding rates at select locations, such facilities do not exist in every community which is why a push for state funded subsidies for plan B® purchased at pharmacies is crucially important. The lack of existing state funded facilities in which women can purchase ECPs speaks again to the value that our society places on the private market over the alternate public delivery system (hospitals and health centres). In order to both expand the public service sector delivery of plan B® and to encourage the government to provide women subsidies when it is not possible for women to access plan B® from the public service organizations, a justice oriented standpoint needs to be held.
Knowledge

Given the limited number of studies that have investigated how pharmacists' knowledge of ECPs relates to their distribution behaviours, it was exciting to find that at least some knowledge of plan B® on part of pharmacists is related to their individual distribution practices. Specifically, it was found that the more knowledge a pharmacist has of the regulation of plan B® the more likely they are to keep the drug on the shelf. What makes this finding particularly exciting is that this is the first study to include regulatory knowledge as a predictor for distribution behaviour. That is, existing studies that have examined pharmacists’ knowledge of ECPs have focused on both function and use knowledge exclusively (e.g., Espey et al., 2003; Van Riper & Hellerstedt, 2005). Given this finding, one strategy for improving access to plan B® could include educating pharmacists about the regulatory status of the drug.

In addition to informing pharmacists about the drug’s regulation, it is equally necessary to inform pharmacists about its use and function as this investigation revealed low to moderate scores on these sub-scales. Educating pharmacists on the use and function of plan B® is particularly important for those pharmacists who insist on counselling women on the ECPs function and use, because if pharmacists themselves have poor knowledge of its use and function, it is reasonable to speculate that they may not be effective in communicating factual information to the women who request the drug. The finding that Ontario pharmacists possess inadequate knowledge of plan B® use and function reflects findings in other studies. For example, as was discussed in the literature review chapter, South Dakota pharmacists
have equally low knowledge. That is in a sample of 501 pharmacists, 37% did not understand the product’s mechanism of action, 43% answered incorrectly to questions pertaining to the drug’s link to birth defects, and 21% did not understand the drug’s connections to health risks (Van Riper & Hellerstedt, 2005).

Of particular interest to this research is the potential relationship between pharmacists’ knowledge about plan B® and their distribution practices. Much of social psychology theory on determinants of behaviour postulates that knowledge is not a strong predictor of action (e.g., Aronson, Wilson, & Akert, 2007). With this being said, studies on the distribution practices of health care professional have illustrated a connection between knowledge and access (e.g., Beckman et al., 2001; Van Riper & Hellerstedt, 2005). To date, no Canadian, let alone Ontario-based studies exist that examine whether or not a relationship exists between pharmacists’ attitudes towards ECPs and their distribution of the drug. Despite the lack of research investigating the possible relationship between pharmacists’ attitudes towards plan B® and their distribution practices, the only Canadian study to date that came close to investigating this relationship was that performed by Shoveller and colleagues (2007). In this study, which was conducted in British Columbia, it was found that negative attitudes on the part of pharmacists towards women seeking plan B® act as a barrier to access (Shoveller et al., 2007). Specifically, this study found that pharmacists’ judgmental attitudes made women feel guilty for seeking the drug and deterred them from accessing ECPs in the future. As was discussed in the literature review chapter of this thesis, one physician, who acted as a key informant for this study, validated
these women’s concerns stating that “some providers often view users of emergency contraception as irresponsible or promiscuous, and that such beliefs can be directly or indirectly communicated to patients, creating a barrier to use” (Shoveller et al., 2007, p. 17).

This takes us back to the ill-founded belief that progressive provisions of ECPs will lead to an abandonment of regular contraceptive methods and an increase in promiscuity (e.g., Glasier & Baird, 1998). This finding bears semblance to what was reported by Barrett and Harper (2000), in their interview study. Mainly, they found that respondents (who consisted of nurses, physicians, and pharmacists) made assumptions that the women who used emergency contraception were sexually irresponsible. This finding speaks again to one reported earlier regarding pharmacist’s reasons for keeping plan B® BTC. That is, the assumption that given the opportunity women would not be able to rationally evaluate what is right for them regarding the use or non-use of ECPs and be able to assess when they need to ask for guidance on how to use the product is prejudicial and ludicrous. After accounting for the long and onerous process that goes into the deregulation of any drug in Ontario, and of this drug in particular, it can be said that this emergency contraceptive pill is safe, effective and easy enough to take without the unsolicited discretion of a medical professional otherwise it would still be classified as a schedule II product. This speculation is not unreasonable.

Marxist feminist theory would suggest that the task of making plan B® more accessible may have less to do with its deregulation at the market level, but rather an
issue of public versus private delivery methods. As was mentioned in the introduction and at several other points throughout this thesis, based on current policy, Ontario based pharmacists have the right to exercise their right to moral conscience when it comes to distributing plan B®. That is: “A pharmacist is permitted to decline providing certain pharmacy products or services if it appears to conflict with the pharmacists’ view of morality or religious beliefs and if the pharmacist believes that his or her conscience will be harmed by providing the product or service” (www.OCPinfo.com, 2009). Further, pharmacists (including those who work for corporate pharmacies) are granted independent authority over where they wish to keep their products. The result of this is that the rights of pharmacists seem to supersede the rights of women.

That is, once a drug has been deregulated to schedule III status, they can decide for themselves whether or not they want to continue to store a drug behind the counter or place it on the shelf for better consumer access. As can be seen from the results of this particular investigation, pharmacists are exercising their rights, and the majority are choosing to limit access behind the counter (BTC). Considered together, I feel that it is the existence of the current policy which grants pharmacists the right to refuse to provide plan B® sets up a battle of rights: those of the pharmacist against those of a woman. As we have seen in this thesis it appears that the rights of the pharmacists supersede those of women who wish to use emergency contraceptive pills such as plan B®. This is one of the risks of situating the provision of emergency contraception in the private market where individual economic and political rights are
set against one another. Although not tested directly in the current investigation, a previous study examined the impact that the policy which grants pharmacists the right to consciously object to distribute Plan B® has on accessibility of ECPs within a particular Ontario city. In this investigation, it was revealed that of the 40 pharmacies surveyed, 90.24% indicated that pharmacists employed at their store were supported in exercising their right to refuse to dispense Plan B® if it went against their beliefs. Of this 90.24%, 20% failed to have in place a referral policy which means for women attempting to access Plan B® from a location where the pharmacists refused to distribute the product based on morality, some would not even be told an alternate location from which they could purchase the drug. As was mentioned in the introduction of this thesis, this refusal not only hinders women’s right to access Plan B® but it also goes against current practice policy which requires that pharmacists who refuse to provide Plan B® based on moral or conscientious objection must refer customers to a pharmacy/pharmacist that can provide the drug. This suggests that the provision of emergency contraception, primarily through the market where individuals negotiate with each other, may not be the most effective way to meet women’s needs. Instead, it is possible that a public response is needed in which the actual provision of the drug comes under the responsibility of state funded institutions. More than 50 years have passed since the government decided that they had “no business in the bedrooms of the nation” and much has changed (CBC Archives, n.d.). Perhaps the state’s opinion about its involvement in the sexual and reproductive health matters of its women should change as well (CBC Archives,
It is only with the involvement of the state that the necessary improvements can be made to the distribution of plan B® in the public market that will allow for the actualization of reasonable access and in turn the actualization of a woman's right to control her fertility. If state funded institutions, such as public health centers, were to provide women with Plan B® we could start to see an actualization of women's rights when it comes to fertility control (Green, 1987; Krieger, 1987).

**Attitudes**

Perhaps the most exciting finding generated from this research was the relationship found between pharmacists' attitudes towards plan B® and the women who use it and their distribution practices. That is, it was discovered that the more negative a pharmacists attitude towards the ECP and the women who use it, the less likely they were to keep plan B® on the shelf within their pharmacy. This finding is supported by social psychology theories linking attitudes to behaviours such as the theory of reasoned action or planned behaviour discussed in the literature review chapter of this thesis (Fazio & Petty, 2008). Of particular interest within this section of results was the finding that item 7 (which alone constitutes the third subscale for this measure) proved to be the strongest negative predictor of the likelihood of carrying plan B® OTC and was mainly responsible for pushing the overall finding into significance. As a reminder, item seven (or the third subscale) measured a pharmacist's attitude towards providing women with an advanced supply of plan B®.
With this being said, it was no surprise to discover that the more a pharmacist agreed with the statement "It is unnecessary to have an advanced supply of plan B®" the greater the likelihood that they will keep the drug behind the counter (BTC). The fact that pharmacists do not believe in the necessity of granting women advanced access to plan B® is not new to the literature, nor are the patriarchal assumptions about women's sexuality that seem to be continuing to prevent more reasonable access to the contraceptive pills. For example, as has already been discussed in this chapter, a number of studies reported this finding discussing it in relation to pharmacists' belief that if given an advanced supply women will abandon regular methods of birth control and become more sexually promiscuous (e.g., Hawkes, 2000; Shoveller et. al., 2007).

Although a significant relationship between a pharmacist's attitude towards a women's sexuality (as indicated by the total score for subscale 1 of the attitude measure) and his or her distribution practices was not found in the current study, other information gathered, including the significant relationship between overall attitudes and distribution practices, suggests the possibility that a pharmacist's lack of trust in women to make their own sexual and reproductive choices interferes with reasonable access to plan B®, at least across Ontario.

From these findings, it seems evident that deregulating plan B® has done little to increase access. Rather, it appears that access continues to be a challenge. From the findings discussed above, it is clear that what hampers access, at least partially, are pharmacists' negative assumptions about women's ability to make responsible
choices regarding their sexuality and their contraceptive regime. That is, since negative attitudes towards ECPs and the women who use them have been shown to be related to more restrictive access, logically it follows that in order to increase access these negative attitudes need to be changed. Social psychologists contend that attitudes, when directed towards a group (i.e., women), are directly related to beliefs about a prototypical group (i.e., imaged women) (Lord, Lepper, & Mackie, 2008). When considering this point along with the results of this thesis, it can be argued that in order to change pharmacist’s behaviour one would have to alter their beliefs about the women who may use ECPs. This kind of change would require large shifts in how female sexuality is perceived by those in our society. That is, under the liberal social policy that continues to governs this ECP’s availability, large scale changes regarding the perception of female sexuality are needed in order for plan B® to become more accessible. The most pertinent assumption that needs to be tackled is the one about women being responsible decision makers when it comes to their sexuality. Ontario pharmacists who hold this prejudice hinders access to a certain degree. It is hoped that by altering the pharmacists’ attitudes towards plan B®, and towards women’s sexuality in general, that the drug will become more accessible. This speculation is not completely unfounded given that this study has proven that a more positive attitude is linked to OTC distribution among Ontario pharmacists. In terms of altering the attitudes of practicing pharmacists towards the drug itself, I feel that improved knowledge about its use and function may help. That is, the more knowledge they possess about the drug the more their attitude towards the drug might
change. Now this is speculative, but given that other studies have shown a link between knowledge and willingness to distribute plan B® OTC, it makes sense that greater knowledge (especially regarding the drugs function and use) could alter ones attitude which in turn could lead to greater access.

In summary

All things being considered, the findings of this study suggest that the regulation of plan B® in Canada has had more to do with politics than it has about science, or even about pragmatics. Specifically, given the results of the current investigation, it seems that so long as pharmacists continue to be offered the right to choose whether or not a product is sold over the counter (OTC) (which they are under the right to conscience objection) any policy implemented to deregulate reproductive medicines best kept secret seems ornamental. When considering the findings from this study (although limited) in conjunction with the clause that grants pharmacists independent authority over whether or not and how to distribute plan B®, it becomes clear how our political economy exercises control over women’s reproduction by way of restricting access to and knowledge about plan B®. Of course the revelation that our political economy exercises hegemonic control over women’s reproductive capacities is not new within Canada, rather, it is a theory that has been discussed by many feminist academics since the second wave in the 1960s. For example, Wynn and colleges (2007) suggests that the debate over the deregulation of plan B® in Canada is heavily weighted on the following 1) The distinctions between abortion and
contraception; 2) being able to make educated contraceptive choices; 3) the providers versus customer rights; and 4) the socioeconomic realities of women (including class, race, age, ability, place of residence, and sexual orientation).

Overall, the findings discussed in this chapter suggest that the barriers to emergency contraception are particularly problematic for disenfranchised women; namely, those whose income level and/or other life circumstances make it difficult if not impossible for them to access the drug under market-based liberal social policy that continues to limit its delivery. As such, the barriers that pharmacists have in place are not neutral, but instead are part of a complex and deep-seated system of injustice, creating increased vulnerabilities for women who are already carrying the burdens of inequality that are endemic in patriarchal, capitalist societies.

From Rights to Justice

It may seem odd to argue for both reproductive rights and justice within the same discussion as traditionally the two paradigms represent opposite sides of the advocacy spectrum. As was explained in the chapter of this thesis dedicated to theory, the reproductive rights paradigm is more pragmatic, focusing on the ideology of equality rather than difference and opts for the government to stay out of the bedroom. In contrast, the reproductive justice framework is more abstract, emphasizes the uniqueness of individuals rather then the power of the collective, and insists that some government involvement is necessary in private matters if large scale social improvements are to transpire. In spite of their differences and those that
see these two paradigms as opposing, after careful consideration of the results reported in this thesis, it is clear that both rights and justice are necessary in any attempt to incur the type of change necessary in order to ensure that reasonable access to plan B® is actualized.

The rights based argument for improving access to plan B® meshes well with liberal feminist theory which has helped frame this study and subsequently its findings. Current policy may be doing more than threatening a women’s right to make informed choices among all safe and effective contraceptive options (Wynn et al., 2007), it may also be preventing women from having a healthy, non-procreative sex life which, according to the World Health Organization contributes to one’s overall well being (WHO, n.d.). Since women’s accessibility to plan B® is largely a function of social political and legal factors “they can best be protected by establishing a set of laws and policies that eliminates inequality and thereby makes true reproductive self-determination possible” (Fineman & Karpin, 1995, p. 6). Unfortunately, establishing a set of laws and policies that eradicate inequality is not easily achievable. Sure, rights legislation, such as that produced by the International Conference on Population Development in 1994, discussed in the theory chapter of this thesis, which promises, among other things, universal access to reproductive health services and medicines that are accessible, safe, and adequate for the entire population, but as has already been discussed, the granting of rights does not guarantee anything, let alone reasonable access to emergency contraceptives. That is, so long as we live in a society that values capitalism and patriarchy over socialism
and humanism, rights are limited in what they can offer. Mainly, they act as a
pragmatic yet somewhat ornamental stepping stone towards social change. They
provide a template from which individuals and groups can attempt to hold
gatekeepers (such as pharmacists) responsible when they act in discord to its contents
and they can inspire justice movements to take action against that which is unfair and
works to hinder women's ability to make reasonable contraceptive choices. This
point was reiterated by Fineman and Karpin (1995) when they said that, “Too often,
in the reproductive rights area, the rights that law grants to women don’t serve the
function of assuring them meaningful and empowered reproductive lives” (p. 6). This
is particularly the case for those women who experience intersectional
marginalization and wish to purchase plan B® within Ontario pharmacies.

In terms of reproductive justice, the findings of this study suggest that there
remains a need for public education to change the social stereotypes that continue to
exist about women's sexuality, in particular, paternalistic concerns about
“promiscuity”, which remains a determining force driving pharmacists to control
access to emergency contraception. In particular, these concerns were articulated
through findings in which pharmacists refused to provide women with an advanced
supply of emergency contraception.

In this chapter the findings generated from the current investigation were
considered critically and links were made between them and the theoretical and
conceptual frameworks that have helped shape this thesis in its entirety. From the
discussions that unfolded within this chapter, it is clear that efforts towards improving
access to plan B® need to involve more than the entrenchment of rights for women, they need to incorporate the justice perspective as well. It seems as though the most effective strategy for ensuring reasonable access is to push for a shift from the liberal oriented market model that currently affects delivery towards a Marxist model that expands delivery through the public sector.

In the following chapter, which concludes this thesis, limitations will be addressed, and suggestions for future studies will be made. In addition, a section of this final chapter will be dedicated to illustrating the implications that this study’s findings have for structural social work at the levels of practice, advocacy and policy.
Chapter 7:

Conclusion
The findings generated from this project will be made available in the MacOrdrum Library at Carleton University and in an access report printed and published by Canadians for Choice. In addition, the findings from this study will be made more widely available through a series of conference presentations. As has been made evident in previous investigations and again here, it is clear that in order for truly women-centered policies to exist which ensure reasonable access to plan B®, serious political, contextual and structural shifts must take place. It is hoped that by sharing what has been discussed in this thesis as widely available as possible that fellow researchers, advocates, policy makers and health care professionals, interested in advancing the sexual and reproductive health rights of women will be inspired to examine what types of contextual and structural shifts necessary for Ontario and the rest of Canada to adopt a truly women-centered approach to the provision of plan B®. Once these needs are identified, then we can work towards mending current problems and implement changes that all women, even those most marginalized, can benefit from.

Although the findings generated from this research are limited, and those that were found to be significant mirror results from other studies, what is new about these findings is their specific relevance to the accessibility of plan B® within Ontario and that they speak to accessibility after the most recent change in schedule. In this section, limitations and future directions will be discussed and implications for structural social work will be reviewed.
Limitations and Future Directions

The current study contains a number of noteworthy limitations. The first and perhaps largest limitation of this study relates to its small sample size. As has been explained at length in the methodologies chapter of this thesis, a number of cautionary measures were taken to prevent low responding including the inclusion of an herbal tea bag as a small but thoughtful incentive, follow-up calls, and pre-addressed and stamped return envelopes. Despite these attempts, due to a number of unforeseen barriers, such as the timing of my mail out coinciding with the introduction of policy legislation that threatened the removal of allowances granted on the purchase of generic drugs, the sample size was stunted. Researchers who have a larger budget and no time constraints and who wish to study the same topic, are encouraged to predict a low response rate and to take extra steps to ensure the sample size is adequate.

In addition, similar to other studies that have sought to understand the barriers that prevent women from reasonable access to ECPs, this research project focused less on making recommendations for improving access and more on uncovering barriers to reasonable access within a particular setting. In order to correct this imbalance, future research projects should make an effort to understand what can be done to transform these barriers on a level that is structural and therefore justice oriented. That is, future studies should investigate what can be done to ensure that women’s sexual and reproductive right to accessible plan B® is respected, protected and enforced.
Another limitation of this study is that it failed to account for how the attitudes of other staff employed in a pharmacy may affect access. Albeit, a minor limitation, this is an especially important issue to consider in relation to pharmacies where plan B® is distributed over the counter, as many of the women seeking the product will more likely be interacting with non-pharmacist employees working within the pharmacy be it on the shelf or at the cash register. Future studies should investigate whether or not the knowledge and attitudes of other employees working within a pharmacy impact access to plan B®.

Implications for Structural Social Work

This research has direct implications for Ontario-based social workers who implement the structural approach to their practice. For front-line social workers, particularly those in the field of sexual and reproductive health who work with women of reproductive age, the results generated from this investigation may be used when preparing women who wish to access the drug from their local pharmacy. That is, they may take the information discussed here to warn women about the restraints they may face when attempting to access plan B® in their community. It is this researcher’s hope that this preparatory work with women will serve to minimize anxiety associated with accessing the product and the negative effects that such experiences can have.

In relation to advocacy, the findings presented in this thesis can be used to fuel consciousness raising efforts among various groups of women (which could
include both lay and professional people). The idea of consciousness raising, which originated in Marxist theory, and has since been adapted by Marxist feminists and more recently by structural theorists, recognizes the importance of being aware of issues that effect certain groups of individuals so that efforts can be made to move towards the goal of social justice and systemic change. Indeed, consciousness rising can be used as a tool to facilitate social justice. Paulo Freire, argues that since consciousness raising is simply undirected talking, any group of people can do it and do it well (Donovan, 2001). It is hoped that the research generated from this thesis can be used to jump start the consciousness raising effort around reasonable accessibility. Specifically, by bringing the issue of restricted access to emergency contraceptives in Ontario to the forefront, I hope to be part of a movement towards educating lay people, policy makers, pharmacists, and intermediaries about what lies behind its limited accessibility and impart information about why it is important to increase access to women in Ontario and beyond. Within these consciousness raising groups, attempts can be made to push for state involvement in justice oriented strategies to improve access (such as the state subsidy and wider availability of plan B® at public service centers and hospital emergency centers). It is hoped that such advocacy work will not only empower women, but that it will lead to a change in the way that the government involves itself in the bedrooms of the nation.

Perhaps the most valuable set of implications for structural social work drawn from this thesis fit into the category of social policy. From the findings drawn from this investigation it becomes clear that in order for reasonable access to be actualized,
policy needs to move away from its current liberal rights market model towards a more Marxist justice oriented state involved orientation.

Social workers involved with sexual and reproductive health policy development and implementation will be able to use the results generated from this research to aid in their attempts at improving accessibility of plan B®. That is, supporters of the OTC provision for emergence contraception can use the information reported here (specifically the finding that negative attitudes towards the drug and the women who use it is related to restrictive distribution practices) to push the Ontario College of Pharmacists to alter its policy to disallow pharmacists the right to ignore their choice to adhere to the National Drug Scheduling Advisory Committee’s (NDSAC) decision to allow the drug to be bought off the shelf.

This may help a little, but reasonable accessibility will remain an issue provided that its distribution is limited to the private market (i.e., within the pharmacy), as was illustrated from the findings of this investigation that limited hours of operation on the part of pharmacies will continue to hinder access to plan B® provided there is no alternative facility form which women can seek the ECP, and the fact that to a large extent pharmacists control the cost of the expensive drug. With this in mind, it becomes clear that the process of improving access to plan B® is highly complex, as are the recommendations for improving its access. Given the findings presented in this thesis, it is clear just how complicated the picture of access to plan B® is within Ontario. Just as access is complicated, so too are the policy recommendations for improving said access. As this study was formulated for a
masters thesis project, the intension was to avoid some of the complexities and to focus instead on the more simple preliminary findings that would come from this quantitative investigation; however, given the results, the complexities cannot be ignored.

As illustrated in this thesis, the liberal market based policy that currently underlies the distribution of plan B® within Ontario is not allowing for reasonable access to it, particularly for women who are marginalized. This particular model has no interest in overthrowing the for-profit capitalist system in which plan B® is currently being distributed. As has been illustrated through this thesis, this model seems only to benefit those women who are not marginalized. On the other hand, it would be faulty for this thesis to suggest that a truly Marxist model of social policy is possible given the patriarchal climate in which such a policy would have to exist. That is, in order for such a model to work, massive structural shifts related to the perceptions of women’s sexuality would be necessary. Such shifts are possible but as history suggests, take many years to achieve. With this in mind, policy makers must be innovating when theorizing a policy that will provide women with reasonable access. Such a model needs to be feminist. Feminist thinking, when injected into a model of social policy, places women and their needs at the centre, recognizing that mainstream social policy fails to adequately reflect the needs of women in their public and private lives (Pascall, 1997). A feminist social policy which aims to increase accessibility of plan B® needs to challenge hegemonic conceptualizations of female sexuality and their ability to make rational contraceptive choices. In addition,
for such a feminist policy to be successful in achieving its goal to actualize reasonable access to ECPs it needs to tackle dominant social structures that continue to suppress women’s ability to reasonable access to plan B®.

In Summary

Improving access to emergency contraception within Ontario will expand women’s contraceptive options across the province. Marketed for special use after unprotected intercourse, plan B® has the potential to decrease the number of unintended pregnancies that continue to occur among sexually active women of reproductive age. With more reasonable access to the drug, it will be easier for women to enjoy heterosexual coitus without the added worry of becoming pregnant. With this improved sex life follows an increased sense of well being. As mentioned in the introductory chapter of this thesis, the reality of some women’s life circumstances make it difficult or even impossible for them to practice regular birth control which is why it is vital that appropriate efforts be made to improve access to plan B®. The findings from the current study suggest that in order for reasonable access to be achieved advocacy work must not only consider rights based arguments, but more importantly, must include elements of social justice.
References


*Dispensing Plan B in London, Ontario One Year after Schedule II Status.*


needs in marital relationships. *Journal of Marital and Family Therapy, 31* (4), 313-325.


M., Burutski. (Personal Communication, Sept 8, 2010).


Direct access to emergency contraception through pharmacies and effect on
unintended pregnancies and effect on unintended pregnancy and STIs.

*Journal of the American Medical Association, 293, 54-62.*


Appendices
Appendix A: National Drug Scheduling System
National Drug Scheduling System

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Drug is only available with physicians prescription</td>
</tr>
<tr>
<td>II</td>
<td>Drug is available behind the shelf, and with the consult of a pharmacists (this consult may include a fee upwards to $40.00)</td>
</tr>
<tr>
<td>III</td>
<td>Drug is available off the shelf in pharmacies where a consult is available upon request</td>
</tr>
<tr>
<td>Off Schedule</td>
<td>Drug is available in any retail store for sale without consult</td>
</tr>
</tbody>
</table>
Appendix B: Position Statement on a Pharmacist's Right to Moral Conscience
Following is the position statement approved at the March 2001 Council meeting:

_Pharmacists shall hold the health and safety of the public to be their first consideration in the practice of their profession. Pharmacists who object, as a matter of conscience, to providing a particular pharmacy product or service must be prepared to explain the basis of their objections._

_Objecting pharmacists have a responsibility to participate in a system designed to respect a patient’s right to receive pharmacy products and services._

_The following clauses, reflect the need to meet a patient’s requirements for pharmacy products and services while respecting a pharmacist’s right of conscience:_

1. A pharmacist is permitted to decline providing certain pharmacy products or services if it appears to conflict with the pharmacist’s view of morality or religious beliefs and if the pharmacist believes that his or her conscience will be harmed by providing the product or service. Objections should be conveyed to the pharmacy manager not the patient.

2. The individual pharmacist must insure an alternate source, to enable the patient to obtain the service or product that they need. Any alternate means must minimize inconvenience or suffering to the patient or patient’s agent.

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Appendix C: Measures
PLAN B®:
A SURVEY PACKAGE FOR PRACTICING PHARMACISTS

INSTRUCTIONS: This survey seeks to measure your awareness of and thoughts about the emergency contraceptive pill plan B®. Please note that your responses on these measures will be kept confidential and will not have any affect on your licence as a pharmacist. This package is divided into several short sections. Please complete each section to the best of your ability. Thank you for your participation.

DEMOGRAPHICS

1) Do you have the authority to decide whether or not to carry plan B® at your pharmacy?
   YES □  NO □

2) Do you have the authority to decide where to store plan B® within your pharmacy?
   YES □  NO □

If you answered "NO" to BOTH of the above questions, you do not need to proceed with this survey. Please either give this survey to the pharmacist that does have said decision making authority or place the survey back into the pre-addressed and stamped envelope provided, and place it in the mail at your earliest convenience. Thank you for your time.

If you answered "YES" to either of the first two items, please complete the rest of the survey package.

3) Age: 20-30 □ 31-40 □ 41-50 □ 51-60 □ 61 and over □

4) Gender: ______

5) How many years have you been practicing as a licensed pharmacist in Ontario?
   ______

6) Do you own the pharmacy where you are presently employed?
   YES □  NO □
GENERAL INFORMATION

Please answer the following questions based on your experience:

Do you carry plan B® at your pharmacy?
  YES □   NO □

If you do NOT carry plan B® at your pharmacy, please skip to question number five.

1) Does the pharmacy at which you are presently employed keep plan B® behind the counter?
  YES □   NO □

2) Does your pharmacy distribute plan B® over the counter?
  YES □   NO □

3) What is the total cost to consumers of plan B at your pharmacy?

4) Does this cost include a consulting fee? If so please specify the breakdown of the two costs in the space provided:
   Consultation Fee _________  Retail Price _________

5) Do you work in an owner operated or corporate pharmacy?

6) What are your pharmacy’s hours of operation?
   Monday _________  Tuesday _________  Wednesday _________
   Thursday _________  Friday _________  Saturday _________
   Sunday _________  Holidays _________

7) Would you consider the pharmacy where you are presently employed to be located in a rural or urban center?
   Rural □  Urban □

8) What is the population of the town/city where your pharmacy is located?
   Under 10,000 ____  10,000-50,000 ____  50,000-100,000 ____  100,000-500,000 ____  Over 500,000 ____

8) Approximately how many pharmacies are there in your town/city?
   0 ____  1-5 ____  6-10 ____  11-15 ____  16-20 ____  more than 20 ____
INFORMATION ABOUT PLAN B®

Please complete the following section by circling the most correct response to each of the items listed below. Please only circle one response for each question.

1) Which regulatory body is currently responsible for regulating the schedule of plan B® in Ontario?

a. The National Association of Pharmacy Regulatory Authority’s (NAPRA) National Drug Scheduling Advisory Committee (NDSAC)
b. The Ontario College of Pharmacists (OCP)
c. Canadian Pharmacist Association (CPA)
d. Health Canada
e. None of the above
f. Both A and B

2) Which of the following statements is TRUE?

a. plan B® can only be sold to women over the age of 16 in Ontario
b. Pharmacists risk being fined if they allow a woman under the age of 16 to purchase plan B®
c. plan B® can be sold to women under the age of 16 if they have parental consent
d. plan B® can be sold to women of any age without needing parental consent

3) Which of the following statements is TRUE?

a. The Ontario College of Pharmacists adheres to drug schedule changes made by the NDSAC
b. Drug schedule changes are made by individual pharmacists
c. Once NDSAC changes the schedule of a drug, it takes at least 6 months for Ontario to adhere to this change
d. Both A and B

4) Plan B® is currently listed as a:

a. Prescription only drug across Ontario
b. Schedule III drug across Ontario
c. Schedule II drug across Ontario
d. Off schedule drug across Ontario
THE FUNCTION OF PLAN B®

Please complete the following section by circling the most correct response to each of the items listed below. Please only circle one response for each question.

1) Which of the following statements is TRUE?
   a. Taking plan B® after a fertilized egg has attached itself to the wall of a woman’s uterus will result in a termination of a pregnancy
   b. plan B® works the same way as RU-486
   c. plan B® acts like a hormonal oral contraceptives
   d. None of the above
   e. Both A and C

2) Which of the following statements is FALSE?
   a. After taking plan B®, a woman is protected against pregnancy until her next menses ends
   b. It is safe to use plan B® more than one time per menstrual cycle
   c. plan B® causes infertility in some women
   d. A and C
   e. All of the above

3) Which of the following is NOT a side effect of plan B®?
   a. Infertility
   b. Abdominal cramps
   c. Nausea
   d. Termination of existing pregnancy
   e. A and D

4) Plan B® is 95% effective if taken with the first ____ after unprotected sex.
   a. The first 24 hours
   b. The first 72 hours
   c. The first 120 hours
   d. Both A and B
   e. None of the above
USE OF PLAN B®

Please complete the following section by circling the most correct response to each of the items listed below:

1) Which of the following statements is TRUE?
   a. If provided in the 0.75 mg dosage, it is unsafe for women to take the two ECPs at once.
   b. If provided in the 0.75 mg dosage, it is best to take the two emergency contraception pills (ECPs) at once, as soon as possible after unprotected sex
   c. If provided in the 0.75 mg dosage, taking a single plan B® tablet after unprotected sex will prevent pregnancy
   d. All of the above
   e. None of the above

2) If plan B® is used more than 3 times a year,
   a. It becomes less effective in preventing pregnancies
   b. It is just as effective as when it is only used once a year
   c. It has the potential to threaten a woman’s fertility
   d. Both A and C

3) Plan B® should only be used as a backup method when other contraceptive methods have failed or were not used:
   a. Because of the drugs potentially dangerous side effects
   b. Because it is less effective than regular birth control methods
   c. Because it is not safe to use more than once every six months
   d. A and C

4) In order to be most effective, plan B® should:
   a. Be taken with food
   b. Be taken as soon as possible after unprotected sex
   c. Be taken after waiting at least 24 hours after unprotected sex
   d. A and C
THOUGHTS ABOUT PLAN B®

Please complete the following section by circling the response option that is true for you. Please note that there are no right or wrong answers to the items in this section:

1) It is important to screen women who seek plan B® for sexually transmitted infections.

- Strongly Disagree
- Somewhat Disagree
- Neither Agree or Disagree
- Somewhat Agree
- Strongly Agree

2) Women who seek plan B® should be counseled on alternative birth control methods.

- Strongly Disagree
- Somewhat Disagree
- Neither Agree or Disagree
- Somewhat Agree
- Strongly Agree

3) It is reasonable to assume that women who use plan B® more than twice a year do not use alternative contraceptives responsibly.

- Strongly Disagree
- Somewhat Disagree
- Neither Agree or Disagree
- Somewhat Agree
- Strongly Agree

4) Women should have the right to access plan B®.

- Strongly Disagree
- Somewhat Disagree
- Neither Agree or Disagree
- Somewhat Agree
- Strongly Agree

5) I support plan B® enough to recommend its use to people I care about.

- Strongly Disagree
- Somewhat Disagree
- Neither Agree or Disagree
- Somewhat Agree
- Strongly Agree

6) I am very sympathetic to women who request plan B® at my pharmacy.

- Strongly Disagree
- Somewhat Disagree
- Neither Agree or Disagree
- Somewhat Agree
- Strongly Agree

7) It is unnecessary for women to have an advanced supply of plan B®.

- Strongly Disagree
- Somewhat Disagree
- Neither Agree or Disagree
- Somewhat Agree
- Strongly Agree

8) My beliefs may prevent me from distributing plan B®.

- Strongly Disagree
- Somewhat Disagree
- Neither Agree or Disagree
- Somewhat Agree
- Strongly Agree
AVAILABILITY QUESTIONS

If you do NOT carry Plan B® in your pharmacy, please answer the following questions:

I do not carry Plan B® in my pharmacy because:

1) It is against my beliefs
   YES ☐ NO ☐

2) The drug could be abused by those who seek it
   YES ☐ NO ☐

3) There is no demand for the drug in my town/city
   YES ☐ NO ☐

If you keep B® behind the counter, please answer the following questions by circling the appropriate response.

I keep plan B® behind the counter because:

1) There is potential for this drug to be abused if it is made more accessible
   YES ☐ NO ☐

2) I am waiting for other pharmacies in the area to switch to over the counter status
   YES ☐ NO ☐

3) I am waiting for the drug to be available in the one pill format
   YES ☐ NO ☐

4) It may be stolen if it is not behind the counter
   YES ☐ NO ☐

END OF SURVEY.

Once you have completed this survey, please mail it back in the pre-addressed envelope provided. If you have any questions regarding this survey, please contact Justine McNulty at jmcnult2@connect.carleton.ca.

Thank you for your time.
Appendix D: Information Letter for Pilot Study
Dear valued pharmacist,

My name is Justine McNulty and I am a Masters of Social Work Student at Carleton University. I am currently working on a thesis project, under the supervision of Professor Sarah Todd Ed.D., from the School of Social Work, exploring pharmacists' knowledge about and attitudes towards plan B® emergency contraception. This project was reviewed and received ethics clearance by the Carleton University Research Ethics Board on November 26th, 2009.

I have mailed you this survey package in the hopes that you will help me in the pilot phase of this research. The pilot phase of this research is meant to assist me in testing the surveys that will then be used when I conduct my study across Ontario. As a participant in this pilot project you will be responsible for completing the questionnaires that this package contains and in addition you will be asked to answer a few questions pertaining to the surveys once you have finished. These additional questions can be found on the sheet labeled Key Informant Questions. After completing the questionnaire and the key informant questions please mail all completed document back to Carleton University in the pre-addressed and stamped envelope provided to you.

Keeping your information confidential is my top priority. You may have noticed that there is a number written on your return envelope. This number corresponds to the pharmacy for which you work and is necessary to help me keep track of who has returned the survey packages that were distributed and the area from which they were returned from. Please be aware that I will be the only person involved in this study who will know where each of the surveys has been returned from. Please note that your name as well as the name of the pharmacy for which you work will not be used in my final written thesis or in any subsequent publications that may follow from it. In order to ensure anonymity I would ask that you do not place your name or the name of your pharmacy anywhere on the survey package or on the envelope being returned to the school.

Unfortunately, you may only participate in this study if you are the head pharmacist within your store and have the authority to choose whether or not to carry plan B® in your pharmacy. If you do not indicate that you are the head pharmacist or that you have the authority to choose whether not to carry plan B® in your pharmacy in the demographic section of the survey package your data will not be included in any analyses. The only other time your information will not be included in the analyses would be if you suggest that that information provided to you in this information letter impacted your responding throughout the completion of the surveys as indicated on the last sheet of this package.

The surveys should take no longer than 30 minutes to complete in total. This time includes the time it will take you to answer the Key Informant Questions at the end. Each questionnaire has been uniquely designed and will ask you questions pertaining to your knowledge about and attitude towards plan B®.
Your participation in this study is completely voluntary; you may also refuse to answer any of the questions listed in the surveys provided in this package. Further, you may withdraw your participation after you have mailed your questionnaire package back to the school. If you wish to withdraw after you have mailed your completed survey package back to Carleton University please be aware that you have until December 15th, 2009 to do so. After this date it will be too difficult to remove your data as I will be well into the analysis phase of the project. In order to ensure that you are able to withdraw from the study at any point it is important that you take down your participant number (located on the survey package and the envelope) as this number will be used to keep track of participants. If you choose to withdraw from the study after you have mailed in your responses your survey package will be destroyed safely and confidentially. Please note that if you do decide to withdraw from the study after you have mailed in your survey package you will be relinquishing your anonymity as you will have to contact me by email to do so.

Results generated from this and additional projects using the same data may be published in journals, books, pamphlets and/or community access reports. In addition information may be shared through conference presentation or in presentation given at Carleton University. Information from this study will also be shared with Canadians for Choice, a charitable sexual and reproductive health organization. It is important to understand that despite the fact that this organization operates within a pro-choice framework, every effort will be taken to ensure that all information generated from this study that is shared with Canadians for Choice objectively reflects the findings of this research project.

Due to the fact that the surveys will be assessing your knowledge about and attitudes towards emergency contraception, there might be some discomfort in filling out the questionnaires themselves, as birth control can prove to be a sensitive topic for many people. Be warned that some of these questions may have an emotional impact on you. However, these questions have been reviewed carefully and measures have been taken to try and ensure that the emotional content of the questions is limited.

All data generated from this study will be kept for five years from now. For the first year data will be kept in a lock cabinet in 616 Dunton Tower to which I alone have a key. Come September 2010 data will be transferred to a locked cabinet in my home office to which I alone have a key. Data may be used again in further analyses for addition projects.

If at you have any questions or concerns, you may contact me at jmcnult2@connect.carleton.ca or by phone at (613)-520-2600 ext. 4498. My supervisor, Professor Sarah Todd Ed.D., at Carleton University will also be available to answer any questions you may have regarding this study. You can reach her at the Carleton School of Social Work at sarah_todd@carleton.ca or by phone (613)-520-2600 ext. 4498. You could also contact Prof. Antonio Gualtieri, Chair of Carleton University’s Research Ethics Board at (613) 520-2517 or ethics@carleton.ca.

Thank you in advanced or your time and consideration. I look forward to getting your package in the mail.

Sincerely,

Justine McNulty, B.A.; M.S.W. Candidate
Carleton University

Sarah Todd, Ed.D.
Carleton University
School of Social Work
Appendix E: Questions for Key Informants
Key Informant Questions

Congratulations! If you are reading this you have completed the survey portion of this pilot study. If you wish to continue please answer the following questions based on your own opinion of the surveys and the survey items:

1) Which items, if any would you remove from the section titled “Knowledge about plan B®? Please explain your answer in the space provided below:

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

2) Which items, if any would you remove from the section titled “Function of plan B®? Please explain your answer in the space provided below:

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

3) Which items, if any would you remove from the section titled “How to use plan B®? Please explain your answer in the space provided below:

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

4) Which items, if any would you remove from the section titled “Being Aware of Your Attitudes Towards plan B®? Please explain your answer in the space provided below:

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

5) Would you add any items to any sections? If so, what questions would you add and where?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Thank you for your time and assistance. Your insight is greatly appreciated.
Appendix F: Information letter for Ontario Wide Study
Dear valued pharmacist,

My name is Justine McNulty and I am a Masters of Social Work Student at Carleton University. I am currently working on a thesis project exploring pharmacists' awareness of and thoughts about plan B® emergency contraception under the supervision of Professor Sarah Todd Ed.D. This project was reviewed and received ethics clearance by the Carleton University Research Ethics Board on November 26th 2009.

For this study I am asking you take 30 minutes to complete the survey package attached. Each questionnaire has been uniquely designed and will ask you questions pertaining to your awareness of and thoughts about plan B®.

Your participation in this study is completely voluntary; you may also refuse to answer any of the questions listed in the surveys provided in this package. Further, you may withdraw your participation after you have mailed your questionnaire package back to the school. If you wish to withdraw after you have mailed your completed survey package back to Carleton University please be aware that you have until May 1st to do so. In order to ensure that you are able to withdraw from the study at any point it is important that you take down your participant number (located on the survey package and the envelope) as this number will be used to keep track of participants anonymously. Please note that if you do decide to withdraw from the study after you have mailed in your survey package you will be relinquishing your anonymity as you will have to contact me by email or phone to do so.

If you wish to participate, once you have completed the survey package please mail it back in the pre-addressed and stamped envelope provided Carleton University. Please note that you can expect a phone call from me in the next few weeks. I will be calling to ensure your receipt of this package and to answer any questions you might have for me at that time. Also be aware that I will be the only person involved in this study that will be reviewing the information on your survey. Please note that your name as well as the name of the pharmacy for which you work will not be used in my final written thesis or subsequent articles that may result from it. In order to ensure anonymity I would ask that you do not place your name or the name of your pharmacy anywhere on the survey package or on the envelope being returned to the school.

Unfortunately, you may only participate in this study if you have the authority to choose whether or not to carry plan B® within your pharmacy. If you do not indicate that you are able to make the decision to carry plan B® in the demographic section of the survey package, your data will not be included in any analyses.

Due to the fact that the surveys will be assessing your knowledge about and attitudes towards emergency contraception, there might be some discomfort in filling out the questionnaires themselves, as birth control can prove to be a sensitive topic for many people. Be warned that some of these questions may have an emotional impact on you. However, these questions have been reviewed.
carefully and measures have been taken to try and ensure that the emotional content of the questions is limited.

All data generated from this study will be kept for five years from now under lock and key at Carleton University. Come September 2010 data will be transferred to a locked cabinet in my home office. Data may be used again in further analyses for addition projects.

Results generated from this and additional projects using the same data may be published in journals, books, pamphlets and/or reports. In addition information may be shared through conference presentation or in presentation given at Carleton University.

If you have any questions or concerns regarding this study, you may contact me at jmcnult2@connect.carleton.ca or by voice mail at (613) 520-2600 ext 1392. My supervisor, Professor Sarah Todd Ed.D., at Carleton University will also be available to answer any questions you may have regarding this study. You can reach her at the Carleton School of Social Work at sarah.todd@carleton.ca or by phone (613)-520-2600 ext. 4498. You could also contact Prof. Antonio Gualtieri, Chair of Carleton University’s Research Ethics Board at (613) 520-2517 or ethics@carleton.ca.

Thank you in advanced or your time and consideration.

Sincerely,

Justine McNulty, B.A.; M.S.W. Candidate
Carleton University

Sarah Todd, Ed.D.
Carleton University
School of Social Work
Tables
Table 1

*Reliability Statistics for Whole Attitude Measure*

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<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>Cronbach’s Alpha Based on Standardized Items</th>
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Table 2

*Factor Analysis on Attitude Measure Initial Eigenvalues*

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<th>Factor</th>
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<td>0.853</td>
<td>10.432</td>
<td>69.104</td>
</tr>
<tr>
<td>5</td>
<td>0.739</td>
<td>9.237</td>
<td>78.341</td>
</tr>
<tr>
<td>6</td>
<td>0.664</td>
<td>8.303</td>
<td>86.644</td>
</tr>
<tr>
<td>7</td>
<td>0.578</td>
<td>7.222</td>
<td>93.866</td>
</tr>
<tr>
<td>8</td>
<td>0.491</td>
<td>6.134</td>
<td>100.000</td>
</tr>
</tbody>
</table>

Extracting method: Principle Axis Factoring
Table 3  

*Rotated Factor Matrix for Total Attitude Measure*

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.588</td>
<td>.084</td>
<td>-.009</td>
</tr>
<tr>
<td>2</td>
<td>.531</td>
<td>-.018</td>
<td>.113</td>
</tr>
<tr>
<td>3</td>
<td>.608</td>
<td>.048</td>
<td>-.024</td>
</tr>
<tr>
<td>4</td>
<td>.037</td>
<td>.568</td>
<td>.015</td>
</tr>
<tr>
<td>5</td>
<td>.215</td>
<td>.504</td>
<td>-.513</td>
</tr>
<tr>
<td>6</td>
<td>-.083</td>
<td>.299</td>
<td>.157</td>
</tr>
<tr>
<td>7</td>
<td>.214</td>
<td>.195</td>
<td>.708</td>
</tr>
<tr>
<td>8</td>
<td>.177</td>
<td>.543</td>
<td>-.014</td>
</tr>
</tbody>
</table>

Extracting method: Principle Axis Factoring  
Rotation Method: Varimax with Kaiser Normalization
Table 4

*Crosstabulation Frequencies for Location (Rural Vs. Urban) across Distribution Practices*

<table>
<thead>
<tr>
<th>Location</th>
<th>Distribution Practices</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Carry OTC</td>
<td>Carry OTC</td>
</tr>
<tr>
<td>Rural</td>
<td>Count</td>
<td>19</td>
</tr>
<tr>
<td>Urban</td>
<td>Count</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>49</td>
</tr>
</tbody>
</table>
Table 5

*Crosstabulation Frequencies for Age across Distribution Practices*

<table>
<thead>
<tr>
<th>Age</th>
<th>Distribution Practices</th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Carry OTC</td>
<td>Carry OTC</td>
<td></td>
</tr>
<tr>
<td>20-40</td>
<td>Count 19</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>% within Age 86.4%</td>
<td>13.6%</td>
<td>100.0%</td>
</tr>
<tr>
<td>41-50</td>
<td>Count 16</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>% within Age 84.2%</td>
<td>15.8%</td>
<td>100.0%</td>
</tr>
<tr>
<td>51, &amp; over</td>
<td>Count 15</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>% within Age 88.2%</td>
<td>11.8%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count 50</td>
<td>8</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>% within Age 86.2%</td>
<td>13.8%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Table 6

*Crosstabulation Frequencies for Gender across Distribution Practices*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Distribution Practices</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Carry OTC</td>
<td>Carry OTC</td>
</tr>
<tr>
<td>Male</td>
<td>Count</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>89.3%</td>
</tr>
<tr>
<td>Female</td>
<td>Count</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>83.3%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>86.2%</td>
</tr>
</tbody>
</table>
Table 7

*Crosstabulation Statistics for Population Size across Distribution Practices*

<table>
<thead>
<tr>
<th>Pop.*</th>
<th>Under 10,000</th>
<th>10,000 - 10,000</th>
<th>100,000 &amp; over</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>14</td>
<td>12</td>
<td>24</td>
<td>50</td>
</tr>
<tr>
<td>% within Pop.</td>
<td>73.7%</td>
<td>92.3%</td>
<td>92.3%</td>
<td>86.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distribution Practices</th>
<th>Not Carry OTC</th>
<th>Carry OTC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>14</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>% within Pop.</td>
<td>73.7%</td>
<td>26.3%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>


10,000-10,000 Count | 12 | 1 | 13 |
10,000-10,000 % within Pop. | 92.3% | 7.7% | 100.0% |

100,000 & over Count | 24 | 2 | 26 |
100,000 & over % within Pop. | 92.3% | 7.7% | 100.0% |

Total Count | 50 | 8 | 58 |
Total % within Pop. | 86.2% | 13.8% | 100.0% |

* Pop. Stands for population
Table 8

*Crosstabulation Frequencies for Number of Pharmacies across Distribution Practices*

<table>
<thead>
<tr>
<th>Distribution Practices</th>
<th>Not Carry OTC</th>
<th>Carry OTC</th>
</tr>
</thead>
<tbody>
<tr>
<td><em><em>N. Pharm.</em> 5 or less</em>*</td>
<td>Count 19</td>
<td>Count 5</td>
</tr>
<tr>
<td></td>
<td>% within N. Pharm 79.2%</td>
<td>% within N. Pharm 20.8%</td>
</tr>
<tr>
<td>6-20</td>
<td>Count 16</td>
<td>Count 2</td>
</tr>
<tr>
<td></td>
<td>% within N. Pharm 81.8%</td>
<td>% within N. Pharm 18.2%</td>
</tr>
<tr>
<td>20 or more</td>
<td>Count 22</td>
<td>Count 1</td>
</tr>
<tr>
<td></td>
<td>% within N. Pharm 95.7%</td>
<td>% within N. Pharm 4.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Count 50</td>
<td>Count 8</td>
</tr>
<tr>
<td></td>
<td>% within N. Pharm 86.2%</td>
<td>% within N. Pharm 13.8%</td>
</tr>
</tbody>
</table>

*N. Pharm. Stands for Number of other pharmacies*
Table 9

*Crosstabulation Frequencies for Knowledge of Regulatory Status across Distribution practices*

<table>
<thead>
<tr>
<th>Score</th>
<th>Distribution Practices</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Carry OTC</td>
<td>Carry OTC</td>
</tr>
<tr>
<td>1</td>
<td>Count</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>% within score</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Count</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>% within score</td>
<td>92.3%</td>
</tr>
<tr>
<td>3</td>
<td>Count</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>% within score</td>
<td>84.2%</td>
</tr>
<tr>
<td>4</td>
<td>Count</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>% within score</td>
<td>71.7%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>% within score</td>
<td>85.5%</td>
</tr>
</tbody>
</table>

* Only 55 cases were used in this tabulation because 4 had missing values on one of the last two items of this 4 item subscale.
Table 10

*Crosstabulation Frequencies for Attitude Towards Advance Supply across Distribution*

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Distribution Practices</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Carry OTC</td>
<td>Carry OTC</td>
</tr>
<tr>
<td>Strongly DA</td>
<td>Count</td>
<td>1</td>
</tr>
<tr>
<td>sub-1</td>
<td>% within sub-1</td>
<td>50.0%</td>
</tr>
<tr>
<td>Somewhat DA</td>
<td>Count</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>% within sub-1</td>
<td>75.0%</td>
</tr>
<tr>
<td>Neither A or DA</td>
<td>Count</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>% within sub-1</td>
<td>91.7%</td>
</tr>
<tr>
<td>Somewhat A</td>
<td>Count</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>% within sub-1</td>
<td>93.8%</td>
</tr>
<tr>
<td>Strongly A</td>
<td>Count</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>% within sub-1</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>% within sub-1</td>
<td>87.9%</td>
</tr>
</tbody>
</table>