

**Assessing nursing and midwifery students' attitudes toward abortion and  
contraception: Results of a national survey in the Occupied Palestinian  
Territories**

**Thesis**

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## **Résumé**

L'étude du conflit israélo-palestinien permet une meilleure compréhension de l'état actuel des droits sexuels et reproductifs des femmes palestiniennes. L'occupation militaire constante a été un facteur déterminant qui a entravé le développement de politiques et de programmes de santé complets et cohérents. Le résultat des Accords d'Oslo et de l'Accord intérimaire sur la Cisjordanie et Gaza en 1994 a mené à la création de l'Autorité Nationale Palestinienne qui a obtenu une autorité limitée sur certaines parties de la Cisjordanie et de Gaza. En 2007-2008, une équipe d'étude multinationale et multidisciplinaire a entrepris une étude nationale pour évaluer le contenu de la formation en soins infirmiers en matière de santé reproductive et identifier les lacunes dans la couverture et la mise en œuvre du programme d'étude. Une partie de ce projet comprenait l'exploration des attitudes des étudiants en soins infirmiers et obstétricaux de dernière année envers une multitude de questions reliées à la santé sexuelle et reproductive. La présente thèse analyse ces données et explore les facteurs démographiques, y compris le sexe, la région et la résidence, associés à l'attitude des étudiants en soins infirmiers face à l'avortement et aux lois et politiques reliées à la contraception. Nos conclusions suggèrent qu'il existe un besoin considérable d'incorporer des exercices de clarification de valeurs ainsi que des séances structurées concernant les lois et politiques qui dirigent la santé sexuelle et reproductive dans des programmes d'étude en Cisjordanie et dans la bande de Gaza. Nos résultats jettent un nouvel éclairage sur la dynamique qui détermine les attitudes face à l'avortement et à la contraception chez les étudiants en soins de santé dans les Territoires Palestiniens Occupés.

## **Abstract**

Understanding the history of the Israeli-Palestinian conflict is important for a greater understanding of the current state of sexual and reproductive rights of Palestinian women. Constant military occupation has been a determining factor hindering the development of comprehensive and coherent health policies and programmes. As a result of the Oslo Accords and the Israeli-Palestinian Interim Agreement in 1994, the Palestinian National Authority was granted limited authority over portions of the West Bank and Gaza. In 2007-2008 a multi-national, multi-disciplinary study team undertook a national study to assess the reproductive health content of nursing education and identify gaps in curricular coverage and implementation. One component of this project included exploring final year nursing and midwifery students' attitudes toward a range of sexual and reproductive health issues. This thesis analyzes these data and explores the demographic factors, including gender, region, and residence, associated with nursing and midwifery students' attitudes toward abortion and contraception-related laws and policies. Our findings suggest that there is a considerable need to incorporate values clarification exercises as well as structured sessions dedicated to laws and policies governing sexual and reproductive health into the formal curricula of programs in both the West Bank and the Gaza Strip. Our results also shed further light on the dynamics shaping abortion and contraception attitudes among health professions students in the Occupied Palestinian Territories.

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## Table of Contents

|   |    |
|---|----|
| <b>List of Acronyms and Abbreviations</b> .....   | vi |
| <b>Chapter 1: Introduction and Literature Review</b> .....  | 1  |
| Background on the Palestinian-Israeli conflict .....  | 1  |
| An overview of health services in the OPTs.....   | 2  |
| Health services in the post-Oslo Accords era .....  | 3  |
| Reproductive health in the OPTs .....   | 5  |
| Overall study rationale .....   | 8  |
| Objectives of the overall study .....   | 9  |
| Conceptual framework.....   | 10 |
| Outline of thesis .....   | 12 |
| <b>Chapter 2: Methods</b> .....   | 14 |
| Study population, study instrument and data collection .....  | 14 |
| Results of the overarching study .....  | 16 |
| Data used in this thesis .....  | 17 |
| Table 1: Attitudinal statements related to contraception and abortion (English).....                      | 18 |
| Data analysis .....   | 18 |
| Ethical considerations .....  | 20 |
| <b>Chapter 3: Results</b> .....   | 22 |
| Study participants .....  | 22 |
| Table 2: Respondent demographics .....  | 23 |
| Attitudes toward contraception and abortion .....   | 23 |
| Table 3: Percentage distribution of responses to statements pertaining to contraception and abortion..... | 24 |
| Statistically significant differences in attitudes toward abortion by demographic category.....           | 25 |
| Statistically significant differences in attitudes toward contraception by demographic category .....     | 28 |
| <b>Chapter 4: Discussion</b> .....  | 29 |
| <b>Overall findings</b> .....   | 29 |
| <b>Gender differences in attitudes toward abortion and contraception</b> .....                            | 31 |

|   |    |
|---|----|
| <b>Regional differences in attitudes toward abortion and contraception</b> .....  | 32 |
| <b>Differences in attitudes based on city, village, or refugee camp residence</b> .....   | 34 |
| <b>The role of nursing in reproductive health</b> .....   | 36 |
| <b>Significance, implications and future plans</b> .....  | 38 |
| <b>Limitations</b> .....  | 40 |
| <b>Statement of contribution</b> .....  | 42 |
| <b>Conclusion</b> .....   | 42 |
| <b>Bibliography</b> .....   | 44 |
| <b>Appendix A: Map of the Occupied Palestinian Territories</b> .....  | 52 |
| <b>Appendix B: Violence against women, direct and indirect pathways to unwanted pregnancy and sexually transmitted infections</b> ..... | 53 |
| <b>Appendix C: Protection, promotion and provision of rights in the delivery of reproductive health services framework</b> .....        | 54 |
| <b>Appendix D: Integrative model of behavior change</b> .....   | 55 |

## **List of Acronyms and Abbreviations**

|          |  |
|----------|--|
| AIDS     | Acquired immune deficiency syndrome                      |
| ANOVA    | Analysis of Variance                                     |
| HIV      | Human immunodeficiency virus                             |
| IPV      | Intimate partner violence                                |
| IRB      | Institutional Review Board                               |
| IUG      | Islamic University of Gaza                               |
| MOH-PHIC | Ministry of Health-Palestinian Health Information Center |
| NGO      | Non-Governmental Organization                            |
| OPT      | Occupied Palestinian Territories                         |
| PCBS     | Palestinian Central Bureau of Statistics                 |
| PNA      | Palestinian National Authority                           |
| SPSS     | Statistical Package for the Social Sciences              |
| STI      | Sexually transmitted infection                           |
| UNRWA    | United Nations Relief and Works Agency                   |
| WHO      | World Health Organization                                |

## **Chapter 1: Introduction & literature review**

### ***Background on the Palestinian-Israeli conflict***

Health systems and health care in the Occupied Palestinian Territories (OPTs) is intertwined with the complex political history spanning more than six decades. Constant military occupation has been a determining factor hindering the development of comprehensive and coherent health policies and programmes (Bosmans et al. 2008). Thus understanding the basic history of the Israeli-Palestinian conflict is essential for contextualizing the current state of sexual and reproductive rights of Palestinian women (Bosmans et al. 2008).

The Israeli-Palestinian conflict is a wide-ranging conflict dating back to 1948, where the Palestinian people have been displaced in a dispute with Israel over rightful land ownership, resulting in instability, insecurity, and limited resources (Asia & Georges 2010). Following the end of the British Mandate in 1947, the United Nations reached consensus over the specifics pertaining to the separation of the Palestinian Territory into a Jewish state and an Arab State (Bosmans et al. 2008). The State of Israel was subsequently established in 1948 which resulted in the first Arab-Israeli war and the displacement of hundreds of thousands of Palestinians (Hamdan & Defever 2002). Subsequent wars in 1967 and 1973 combined with violence and conflict during the inter-war periods resulted in the further displacement of Palestinians both inside and outside the country (Hamdan & Defever 2002).

In September 1993 the government of Israel and representatives of the Palestine Liberation Organization signed the Declaration of Principles on Interim Self-Government Arrangements also known as the Oslo Accords (Benvenisti 1993). The signing of the agreement marked an important step toward ending a long-lasting and complex conflict (Hamdan &

Defever 2002). The Oslo Accords were followed in 1994 with the Israeli-Palestinian Interim Agreement on the West Bank and Gaza Strip. As a result, the Palestinian National Authority (PNA) was granted limited autonomy over portions of the West Bank and the Gaza Strip and limited Palestinian self-rule was established. A number of disputed issues including the status of Jerusalem, Jewish settlements, the return of Palestinian refugees, control over borders and water, security arrangements, and foreign relations were tabled for a five-year period at which point “final status” negotiations were expected to commence (Hamdan & Defever 2002). To date, there has been no resolution on these issues and the conflict continues. For reference, **Appendix A** displays a map of the Occupied Palestinian Territories. This complex history has resulted in a range of legal statuses, including multiple generations of Palestinian refugees living in camps both inside and outside of the OPTs, displaced populations without refugee status, Palestinians with a Palestinian Authority issued passport, Palestinian residents of East Jerusalem, Palestinian populations with Israeli citizenship, and the Palestinian diaspora.

### *An overview of health services in the OPTs*

The current health system in the OPTs consists of fragmented services that developed and expanded over generations with different administrative bodies (Giacaman et al. 2009). In the 19<sup>th</sup> century, Christian missionaries from western nations began offering health services via religiously-affiliated hospitals, several of which are still functional in East Jerusalem to this day (Giacaman et al. 2009). From 1948 until 1967, the region of the West Bank was under the rule of Jordan while the Gaza Strip was under Egyptian administration (Bosmans et al. 2008). Consequently, Jordan and Egypt were responsible for the provision of health services to non-refugee Palestinians and the Israeli government was responsible for providing health services to

the population within its then borders. In 1967 the State of Israel, as a result of the Six-Day War, occupied the West Bank and the Gaza Strip and annexed East Jerusalem (Raviv, Bourgeois & Kaplan 1997). Consequently, as an occupying power, the Israeli Ministry of Defence became responsible for health service provision in the OPTs (Bosmans et al. 2008). Since the early 1950s, the United Nations Relief and Works Agency (UNRWA) has been responsible for providing health services for Palestinians residing in refugee camps both inside Palestinian-Israeli borders and in neighboring countries. Following the Oslo Accords, the PNA was given the authority to create and oversee a new Palestinian national health system, although health services for refugees continued to be provided by UNRWA. War, conflict, and occupation has had significant implications for the administration of health services in the OPTs (Hassan-Bitar & Narrainen 2011). However, it is striking, given these circumstances, that the OPTs have a relatively well-developed, comprehensive health system that has the capability of reaching most of the population (WHO 2012).

### ***Health services in the post-Oslo Accords era***

The health services in the Occupied Palestinian Territories are currently separated into two main categories: 1) Primary health care, covering all comprehensive and continuous health services such as diagnosis, primary care, health supervision, preventative health services, and chronic disease management; and 2) Secondary health care, consisting of hospitals responsible for the provision of diagnostic and curative services as well as surgeries (Palestinian Central Bureau of Statistics [PCBS] 2006). Notably, the majority of the specialized services are only accessible and available outside Gaza and the West Bank (WHO 2010). Patients are typically

referred to East Jerusalem, Jordan, Egypt, and Israel for tertiary care and highly specialized services (WHO 2010).

There are four distinctive types of health care providers working in the West Bank and the Gaza Strip (Mahmoud 2003):

1. The Palestinian Ministry of Health is considered the main health care provider with supervision of 63.6% of all primary health care centers (Ministry of Health-Palestinian Health Information Center [MOH-PHIC] 2006) and 35% of all hospitals in the OPTs (WHO 2012).
2. Non-Governmental Organizations (NGOs) are the second most significant health service provider in the OPTs (WHO 2012). NGO facilities represent 28.3% of all primary health care centers (MOH-PHIC 2006) and supervise over 35% of Palestinian hospitals (WHO 2012). NGOs play a significant role in health care service provision in the context of Israeli occupation, particularly in rural areas that have the marginalized and impoverished populations where services are provided for free or minimal charge (WHO 2012).
3. UNRWA is responsible for roughly 7% of all primary care clinics in the West Bank and the Gaza Strip, as well as one hospital in the West Bank (WHO 2012). UNRWA provides healthcare services to registered refugees at no charge.
4. The private sector comprises about 31% of the hospitals in the West Bank and Gaza (WHO 2012). There is a widespread perception that the private sector provides higher quality services than the government sector but service fees can be high (WHO 2012).

Although there have been efforts for decades to increase the coordination between different types of service providers, the health system remains fragmented. Further, the

Palestinian Ministry of Health is significantly dependent on support from multiple external donors who are driven by their own mandates and agendas and not necessarily a concern for establishing a sustained health system and supporting policy development (Bosmans et al. 2008). Further complicating the delivery of health services is the ongoing occupation and intermittent acute conflict. In recent years, the blockades of the Gaza Strip, the expansion of Israeli settlements in the West Bank, and the creation of the separation wall throughout much of the West Bank have restricted the movement of essential medicines, supplies, patients, and health care personnel which impedes access to existing services, diminishes the quality of care, and interferes with the professional development of health service professionals (WHO 2012; Vitullo et al. 2012).

### ***Reproductive health in the OPTs***

Maternal and child health services and reproductive health comprise a large and important part of health service utilization in the OPTs. The overall maternal mortality ratio remains relatively high compared to both Israel and neighboring Arab countries and in 2000 was estimated at 100 deaths per 100,000 live births (Al-Adili, Johansson & Bergstrom 2006). The overwhelming majority of deliveries take place in hospitals and hospital-based deliveries have long been prioritized by the different administrators of health services (Giacaman, Abu-Rmeileh & Wick 2007). However, in recent years in the West Bank there have been fluctuations in site of delivery, the presence of skilled attendants, and the type of delivery (vaginal versus Caesarean-section) due to restrictions on movement, curfews, and road closures (Azzouni 2010; Giacaman et al. 2005). Pre-natal care is nearly universal; 99.4% of married women aged 15-49 in the OPTs (99.5% in the West Bank and 99.3% in the Gaza Strip) reported receiving at least four prenatal

visits with qualified staff during their most recent pregnancy (PCBS 2012). Primary health care facilities provide prenatal care and high risk cases are referred to hospitals or specialty clinics, as required (Pfeifer 2001).

However, quality of services related to pregnancy and childbirth are widely regarded as inadequate (Hagiwara et al. 2013; Ward 2013; Hassan-Bitar & Wick 2007). A quality of care assessment in the Gaza Strip revealed that childbirth services were poorly managed, early discharge was common, and women lacked privacy during the delivery process (Ward 2013). Other studies also indicate that post-partum care is lacking and the majority of women do not receive recommended services (Abu Nabba et al. 2013; Pfeifer 2001). As a result the Palestinian Ministry of Health has supported the implementation of a midwifery-led model of care in order to improve care in the peri-partum period (Ward 2013).

The total fertility rate in the OPTs is high, at 4.4 children per woman in 2008-2009; 4.0 in the West Bank and 5.2 in the Gaza Strip (PCBS 2014). Although family planning services have long been available through UNWRA, government, and NGO facilities, unintended pregnancy is common (Donati, Hamam, & Medda 2000). In the early 2000s about 50% of married women of reproductive age used a modern method of contraception (Sweileh & Barham 2003) and in 2010 it was estimated that 20% of this population had an unmet need for contraception (Shaar 2012). Hormonal contraceptives, long-acting reversible contraceptive methods, and barrier methods (specifically male condoms) are available at a variety of service delivery points, but progestin-only emergency contraceptive pills are not widely available.

Unintended pregnancy is negatively associated with the social and health outcomes for both women and children (Hamdela, Gémariam & Tilahun 2012; Shaw 2012). This is especially true in contexts where abortion is severely legally restricted, as is the case in the West Bank and

the Gaza Strip. Based on the Jordanian Penal Code of 1960, abortion is only legally permissible in the West Bank to save the life or physical health of the woman (Jallad 2012; Azzouni 2010). Although some evidence exists that clinicians and pharmacists in the West Bank are providing misoprostol to women in certain circumstances (Daoud & Foster in press) little is known about abortion practices in the Gaza Strip.

Intimate partner violence (also referred to as domestic violence) is also part of the reproductive health landscape in the OPTs. Intimate partner violence can be comprised of physical aggression, forced sexual acts, psychological abuse, or any variation of controlling behaviors between members of a couple (Roth, Sheeder & Teal 2011; Garcia-Moreno & Stockl 2009). As is the case for many conflict and post-conflict settings, gender-based violence in the OPTs is influenced by overarching structural violence, war and occupation, economic hardship, and deprivation and frustration (Al-Adili et al. 2008). Intimate partner violence is also intertwined with unintended pregnancy, sexual transmitted infection acquisition, and childbirth outcomes (Heise, Ellsberg & Gottemoeller 1999); these relationships are showcased in **Appendix B**.

A body of work has demonstrated that limitations on movement, which include recurrent instatement of curfews and closures and the separation barrier in the West Bank, obstruct women's consistent access to reliable family planning services, prenatal and post-partum care, abortion care, and routine primary health services (Giacaman et al. 2005; Wick et al. 2005; Hassan-Bitar & Wick 2007; Daoud & Foster In press). However, in the absence of broader political reform, identifying mechanisms for improving reproductive health service delivery by Palestinian health service providers is critical. This includes the development and

implementation of national standards and guidelines and promotion of evidence-based practices (Hassan-Bitar & Wick 2007).

### ***Overall study rationale***

Following the Oslo Accords, the PNA established control of the administration and provision of health services in the West Bank and Gaza and became responsible for building a coordinated health system (Giacaman, Abdul-Rahim & Wick 2003). Almost immediately the need to increase the number of health service professionals was identified as a priority (Hamdan & Defever 2003a). In conjunction with professional bodies and the Ministry of Health, the Ministry of Higher Education took responsibility for the development and accreditation of new health professional training programs, with the specific goal of increasing the number of qualified nurses and midwives. Consequently, in the decade after the Oslo Accords the number of midwifery graduates more than quadrupled, from 37 in 1995-1999 to 141 in 2000-2003, and the number of nursing graduates increased by more than twenty percent (Hamdan & Defever 2003b).

Representing 33% of all healthcare personnel in the OPTs, nurses and midwives constitute the backbone of the primary health system (Hamdan & Defever 2003a). However, the rapid increase in the number of training sites and challenges inherent to multi-sectoral oversight coupled with the worsening political situation raised concerns regarding the comprehensiveness and uniformity of the curricula in these training programs. As nurses and midwives play an essential role in reproductive health care in the OPTs, not only as service providers but also as counselors, educators, and policy makers, understanding the reproductive health education and training of this population was identified as a priority. Understanding the reproductive health

content of nursing and midwifery education and training has the potential to impact the quality of services, reduce barriers to access, and serve as a baseline for evaluating future curricular reforms.

### ***Objectives of the overall study***

It is this overarching context that motivated the original study. In 2007-2008, a team of researchers from Ibis Reproductive Health (Cambridge, MA USA), the Faculty of Nursing, Bethlehem University (the West Bank), and the Faculty of Nursing, Islamic University of Gaza (the Gaza Strip) conducted an assessment of the reproductive health content of nursing and midwifery education and training in the OPTs (Principal Investigator, Dr. Angel M. Foster). The specific aims of the project were to:

1. Document and assess the reproductive health content of nursing education at all accredited baccalaureate nursing programs and a sub-set of midwifery programs in Palestine through a survey of Deans, faculty members, and final year students;
2. Identify gaps in curricular implementation through a comparison of education as expected (Dean and faculty reports) to education as experienced (student reports);
3. Compare the reproductive health content of nursing education across institutions and geographic regions;
4. Explore the relationship between the comprehensiveness of reproductive health training and reproductive health laws and policies; and
5. In collaboration with Deans, faculty members, and other key stakeholders, develop institutional, regional, and national level recommendations for curricular reform and expansion.

As I will discuss in more detail in Chapter 2, the study team also asked all final year health professions students included in the study a series of attitudinal questions regarding sexual and reproductive health laws, policies, services, and behaviours. My thesis focuses on this section of the survey and contributes to a broader understanding of the dynamics shaping nursing and midwifery education in the OPTs. Specifically, my project explores the following research questions:

1. What are nursing and midwifery students' attitudes toward abortion and contraception?
2. Are there significant differences based on gender, type of residence, or region (the West Bank versus the Gaza Strip)?

### *Conceptual framework*

Reyes et al. (2013) developed a conceptual framework dedicated to the protection, promotion, and provision of rights in the delivery of reproductive health services. Strongly influenced by both the theory of planned behavior and social learning theory, this conceptual framework guided my overall approach to the project and interpretation of the results.

The Reyes et al. (2013) model acknowledges that a host of factors influence the ways in which reproductive health learning is ultimately translated into practice. Exposure to reproductive health education and training is expected to: 1) increase health care provider knowledge about rights to reproductive health services; 2) lead to the adoption of attitudes and norms that support access and prevent barriers to reproductive health care; and 3) increase students' self-efficacy (their belief in their ability to perform tasks related to the protection and promotion of reproductive health care) (Reyes et al. 2013). Favorable attitudes, culture norms,

and increased self-efficacy will likely result in an increase of motivation to further protect access, and consequently, lead providers to protect and promote reproductive health care (Reyes et al. 2013).

As demonstrated in **Appendix C**, this conceptual framework suggests that contextual factors will affect intention to protect and promote rights pertaining to reproductive health, which will in turn impact behaviour/practice (Reyes et al. 2013). In the case of the OPTs, these contextual factors include not only laws, policies, and health infrastructure, which differ between the West Bank and the Gaza Strip, but also the overarching contextual factors of conflict, occupation, and socio-economic conditions. Support for rights in both proximal (colleagues) and distal environments (medical professional societies) and broader cultural attitudes and practices will likely also influence the provision, protection, and promotion of rights in the delivery of reproductive health services.

My approach to this project is also influenced by the integrative model of behaviour change (Yzer 2012). This theory assumes that there are numerous factors that can potentially play a role in the determination of health and the formation of desired behaviors, although the latter relationship is posited to be indirect (Yzer 2012). As shown in **Appendix D**, this model suggests that individual background/demographics, culture, and society are possible sources of beliefs, thus enhancing the cultural and contextual adaptability of the framework (Yzer 2012). This model makes clear that behaviour can be modified through changes in skills, intentions, and/or context (Yzer, 2012). This framework is significant to this study because it acknowledges that all contextual factors (demographics and other individual variables, culture, and society) play a role in the development of attitudes.

In drawing from these overlapping conceptual frameworks, my thesis seeks to explore the attitudes of nursing and midwifery students in the OPTs to reproductive health issues as well as place those attitudes within a localized context. In doing so, I aim to support the overarching study objectives to better understand the nursing and midwifery education in the OPTs and avenues for expanding comprehensive reproductive health education and training.

### *Outline of thesis*

This monograph thesis is divided into four chapters. The first chapter provides contextual information about the Palestinian-Israeli conflict, an overview of the health systems in the OPTs, and information about reproductive health in both the West Bank and the Gaza Strip. This chapter includes the rationale for and objectives of the overarching study, the specific objectives of my thesis, the conceptual models employed in the thesis, and the thesis outline.

Chapter two describes the methods. This includes a description of the overarching study (design, study population, implementation, and dataset) and a summary of the findings from the overall study. I then turn to a discussion of the data set used in this thesis, my analytic approach, including the statistical analyses performed, and a discussion of ethical considerations.

Chapter three is comprised of the results. I begin with a description of the study population and then present attitudinal results, thematically grouped into contraception and abortion. I have incorporated tables of the findings directly into the chapter.

In the fourth and final chapter I place the attitudinal findings context (with respect to policies and education/training). I explore how health training programs may play a role in the development of attitudes toward reproductive health and service delivery issues and I elaborate on the intersectional issues that impact opinions and practices of health service professionals in

training. Finally, this chapter explores the study limitations, provides a statement of contribution, and offers concluding remarks. The bibliography and appendices follow.

## **Chapter 2: Methods**

### ***Study population, study instrument and data collection***

Over the 2007-2008 academic year the study team assessed the curricular content of all baccalaureate nursing programs and a subset of midwifery programs in the OPTs. The study team asked all Deans, a purposively selected sub-set of faculty members at each program, all final year nursing students, and a subset of final year midwifery students to complete a survey dedicated to the didactic and clinical inclusion of seven core areas of reproductive health: Family planning/contraception, pregnancy loss/miscarriage, induced abortion, prenatal care, infertility, HIV/AIDS and STIs, and intimate partner violence (IPV)/domestic violence.

The survey instrument was divided into five discrete sections. Section 1 collected basic demographic information about the respondents (including gender, age, residence, religious identification, position/enrollment status, etc.) using multiple choice questions. Section 2 consisted of Likert type statements about the adequacy of the seven reproductive health topics as well as reproductive health overall. Section 3 asked respondents to estimate the number of hours dedicated to each of the seven core topics in both the didactic and clinical curricula. Section 4 asked respondents about the curricular inclusion of 64 specific topics and procedures in both didactic and clinical settings. Section 5 differed between the survey populations. For Deans and nurse educators, Section 5 asked respondents to report on reasons for the lack of curricular inclusion (if any) using both closed and open questions. For final year students, Section 5 consisted of 39 statements regarding various reproductive health laws, policies, and service delivery. Using five-point Likert items, this section of the survey touched on sex education, divorce and polygamy, abortion, HIV disclosure, and intimate partner violence screening. For Deans and faculty, Section 6 included the same attitudinal questions. At the end of all surveys the

study team invited respondents to comment on any/all issues related to reproductive health education and training.

In the West Bank the study team conducted the survey with Deans/Program Directors in August-September 2007. The researchers asked Deans to identify a subset of faculty members for participation in the study and encouraged Deans to refer for participation faculty members who specialize and teach in fields most closely related to reproductive health, including maternal child health/maternity, midwifery, and community health. The study team conducted the survey with final year baccalaureate nursing students at An-Najah University, Al-Quds University, Bethlehem University, Hebron University, and Ibn Sina College in January-February 2008. In consultation with Deans at each institution, the study team administered the survey at a time and place when final year students were expected to be in attendance. In addition to the five baccalaureate nursing programs in the West Bank, the study team also conducted the survey with a group of final year midwifery students at Ibn Sina College.

In the Gaza Strip, the study team completed the survey with both nurse educators and final year nursing students between March-April 2008. Deans/Program Directors from the nursing programs at both the Islamic University of Gaza (IUG) and Palestine College participated. The Dean of the Faculty of Nursing at IUG administered the survey at both institutions as the Principal Investigator and members of the study team based in the West Bank were not permitted to travel into Gaza for survey administration. Students in each setting were provided with snacks and drinks; no other incentives were offered. Members of the study team were accessible during the administration of the survey to answer questions; the survey was conducted in English and Arabic.

### ***Results of the overarching study***

In the spring of 2008, the study team convened a two-day meeting with Deans and nurse educators from all West Bank nursing programs, including a newly established program in Jenin. Representatives from the Ministry of Health, the Ministry of Education, and several reproductive health NGOs also attended. At that meeting, the study team presented the preliminary results in both aggregate (Foster et al. 2008) and by program. Throughout the workshop, key stakeholders discussed and worked with the findings, provided feedback to the study team regarding the findings and recommendations, and developed (and later implemented) a strategy for addressing curricular gaps.

As reported in Foster et al. 2008, the aggregate results were exceptionally consistent and revealed both strengths and weakness in the existing curriculum. Reports from Deans, faculty members, and students suggested that:

1. Students received routine didactic and clinical training in prenatal care topics, clinical training in the management of miscarriages, and didactic instruction in a range of contraceptive methods (emergency contraception was a notable exception);
2. Students' clinical exposure to the broad topical areas of contraception, abortion, infertility, HIV/AIDS and STIs, and IPV was minimal; and
3. Students lack didactic exposure to a number of specific issues, including emergency contraception, medication abortion, IPV related issues, counseling and sexual history taking, public health/health policy issues, and ethical, religious, and cultural issues in reproductive health.

These findings were generally consistent with the perceptions of curricular adequacy, with all three groups identifying issues related to IPV and cultural, religious, and ethical issues in reproductive health as particularly inadequate. The consistency of these results suggested that there are a number of inclusion gaps in nursing education in the OPTs and thus subsequent engagement with stakeholders centered on whether or not these topical areas should be prioritized (personal communication A. Foster 2015).

However, the findings also revealed discordance between educational and training expectations (as reported by nurse educators) and educational experiences (as reported by students). In all cases the direction of discordance was the same: educators believed that a topic was covered in the curriculum but students did not report receiving instruction or clinical exposure to the topic. The specific topics included didactic instruction in pregnancy loss and counseling and clinical exposure to counseling, abortion (in general), and HIV/AIDS/STIs. These findings identified implementation gaps and resulted in considerable discussion as to why the reports of students and nurse educators differed and what could be done to ensure full implementation of curricular objectives (personal communication A. Foster 2015).

### ***Data used in this thesis***

The overarching results combined with the stakeholder meeting in 2008 highlighted the need for more information about contraception and abortion education and training. As a result, members of the original study team recommended additional research in this area and undertook a number of projects related to this broader area of investigation (Foster, Daoud & Maqboul 2008; Daoud & Foster in press). Consequently, my thesis is dedicated to the attitudinal

component of the study survey and focuses specifically on the 14 questions related to contraception and abortion (see Table 1).

***Table 1: Attitudinal statements related to contraception and abortion (English)***

|  | Strongly agree | Agree | Neutral | Disagree | Strongly disagree | Don't know |
|--|----------------|-------|---------|----------|-------------------|------------|
| Non-permanent methods of contraception (e.g., pills) should be legally available to married women    |                |       |         |          |                   |            |
| Permanent methods of contraception (e.g. sterilization) should be legally available to married women |                |       |         |          |                   |            |
| A husband should be able to prohibit his wife from using contraception                               |                |       |         |          |                   |            |
| Contraception should be legally available to unmarried women   |                |       |         |          |                   |            |
| Abortion should be legally permissible to save the life of a woman                                   |                |       |         |          |                   |            |
| Abortion should be legally permissible in cases of rape  |                |       |         |          |                   |            |
| Abortion should be legally permissible in cases of incest  |                |       |         |          |                   |            |
| Abortion should be legally permissible in cases of fetal anomaly                                     |                |       |         |          |                   |            |
| Abortion should be legally permissible to preserve the physical health of the woman                  |                |       |         |          |                   |            |
| Abortion should be legally permissible to preserve the mental health of the woman                    |                |       |         |          |                   |            |
| Abortion should be legally permissible for socio-economic reasons                                    |                |       |         |          |                   |            |
| Abortion in the first trimester should be legally permissible for any reason                         |                |       |         |          |                   |            |
| An unmarried woman should be legally permitted to obtain an abortion                                 |                |       |         |          |                   |            |
| A husband must consent for a married woman to have an abortion                                       |                |       |         |          |                   |            |

***Data analysis***

In 2008, the study team entered data into a Microsoft Access Database and exported these data to SPSS 12.0. At that time the study team analyzed the curricular coverage data in aggregate and by program using descriptive statistics. The team also used threshold analysis to determine curricular coverage (Foster et al. 2008).

I analyzed the demographic questions (Section 1) and attitudinal questions (listed on Table 1) using SPSS version 22. The demographic information captured in the survey included gender (female or male), age, residence (city, village, refugee camp, or other), religion (Christian, Muslim, none, or other), and student status (part time or full time). All surveys were also coded for program and region (the West Bank or Gaza). We used descriptive statistics to capture the demographics of the survey respondents.

As shown in Table 1, the attitudinal section of the survey was comprised of Likert type item statements. This type of statement ensures that the participants include precision in their responses (Barua 2013). In other words, respondents indicate their degree of agreement or disagreement on a symmetric agree to disagree scale for all required statements (Barua 2013). For the purposes of this study, it is important to differentiate between Likert type items and Likert scale items. Likert type items are distinct statements that use more or less the same aspect of the original Likert response alternatives (Boone & Boone 2012). Even though there can be multiple statements or questions used in a questionnaire, the purpose is not to combine the responses from the items into a composite scale (such as is the case with Likert scale items) (Boone & Boone 2012). Individual responses are routinely treated as ordinal data because even though the response intensities do have relative ranking, it would not be responsible to assume that the respondents perceive the difference between adjacent levels to be equivalent, which is a requirement for interval data (Bertram 2006). In the case of ordinal data, analysis methods used for individual statements are non-parametric tests to determine differences between the means of comparable groups such as the Mann-Whitney U Test, Wilcoxon signed rank test or the Kruskal-Wallis test (Bertram 2006).

We used the Kruskal-Wallis one way analysis of variance by ranks, a non-parametric method, to compare the different groups within demographic variables, namely gender, age, religion (Muslim, Christian, other/none), region (West Bank, Gaza), student status (full time, part time), and residence (city, village, camp). We compared the Likert type item responses using the Kruskal-Wallis ANOVA of the rank order test. This test calculates the mean rank for each group in a particular variable to compare the different groups. Additionally, as part of this test, the chi-squared statistic was calculated in order to establish between-group differences for different items on the Likert-type scale.

For this portion of the analysis, we collapsed strongly agree and agree categories into one category of general agreement and, in the same way, collapsed the strongly disagree and disagree categories into one category of general disagreement. No response and “Don’t know” responses were removed for this test to properly rank levels of agreement for the statements. We also calculated the eta squared in order to determine the effect size attributed to the statistically significant demographic group in relation to the response to individual items of the Likert-type scale. The level of statistical significance was kept at  $P = 0.05$  for all the tests.

### ***Ethical considerations***

Western Institutional Review Board determined this study to be exempt from Institutional Review Board (IRB) approval (Olympia, Washington, USA). We received formal permission from Bethlehem University to conduct this study and we also received written permission from the Palestinian Ministry of Health to conduct the survey at government programs. The survey was completely voluntary and participants were repeatedly assured that their responses would in no way be personally identifiable. Indeed, no personally identifiable information was collected

from study participants. Funding for this project was provided by the Palestinian-American Research Center, the William and Flora Hewlett Foundation, and a third donor that provided general support for the Middle East and North Africa Program at Ibis Reproductive Health.

## **Chapter 3: Results**

### ***Study participants***

In 2008, the study team distributed surveys to all final year nursing students in the West Bank (n=141); all final year nursing students in the Gaza Strip (n=110) and a sub-set of midwifery students in the West bank (n=24). A total of 258 students returned the survey for response rates of 98.6%, 94.5%, and 62.5%, respectively. Respondents included 243 nursing students and 15 midwifery students consisting of 133 women (51.6%) and 125 men (48.4%). Their mean age was  $22.58 \pm 3.2$ ; the youngest participant was 19 and the oldest was 42 at the time of survey administration. Most students (76.3%) fell into the 19-22 age range and 23.7% of students reported being 23 year of age or over, a dynamic consistent with programs at the time to encourage mature students to return to school. The majority of the students attended institutions within the West Bank (59.7%), whereas 40.3% of the students attend institutions in Gaza. In terms of residents, 43.8% of respondents indicated that they resided in cities, 38.8% in villages, and 16% in refugee camps. Almost all students identified as Muslim (97.2%); 2.7% identified as Christian and all Christian students were enrolled in the same institution. The overwhelming majority of students were registered full time (91.5%) with only 8.5% registered part time. Table 2 presents the demographic information of study participants.

***Table 2: Respondent demographics***

| <b>Region</b>    | <b>Frequency</b> | <b>Percent</b> |
|------------------|------------------|----------------|
| West Bank        | 154              | 59.7           |
| Gaza             | 104              | 40.3           |
| <i>Total</i>     | 258              | 100            |
| <b>Religion</b>  |                  |                |
| Christian        | 7                | 2.7            |
| Muslim           | 251              | 97.2           |
| <i>Total</i>     | 258              | 100            |
| <b>Gender</b>    |                  |                |
| Female           | 133              | 51.6           |
| Male             | 125              | 48.4           |
| <i>Total</i>     | 258              | 100            |
| <b>Age</b>       | <b>Frequency</b> | <b>Percent</b> |
| 19-22            | 184              | 76.3           |
| 23+              | 57               | 23.7           |
| <i>Total</i>     | 241              | 100            |
| Minimum          | 19               |                |
| Maximum          | 42               |                |
| <b>Residence</b> | <b>Frequency</b> | <b>Percent</b> |
| City             | 113              | 43.8           |
| Village          | 100              | 38.8           |
| Refugee Camp     | 43               | 16.7           |
| Other            | 1                | 0.4            |
| No Response      | 1                | 0.4            |
| <i>Total</i>     | 258              | 258            |

***Attitudes toward contraception and abortion***

On Table 3 I have provided the frequency of responses to the 14 attitudinal questions related to contraception and abortion. With respect to contraception, the overwhelming majority of respondents agreed that non-permanent methods of contraception should be legally available to married women (69.4%) and disagreed that contraception should be available to unmarried

women (75.6%). Nearly half of respondents agreed that a husband should be able to prohibit his wife from using contraception (45.7%)

***Table 3: Percentage distribution of responses to statements pertaining to contraception and abortion***

|  | Agree |      | Neutral |      | Disagree |      | Don't Know |      | No Response |     |
|--|-------|------|---------|------|----------|------|------------|------|-------------|-----|
|  | n     | %    | n       | %    | n        | %    | n          | %    | n           | %   |
| Non- permanent methods of contraception should be legally available to married women | 179   | 69.4 | 32      | 12.4 | 37       | 14.3 | 9          | 3.5  | 1           | 0.4 |
| Permanent methods of contraception should be legally available to married women      | 88    | 34.1 | 28      | 10.9 | 128      | 49.6 | 13         | 5.0  | 1           | 0.4 |
| A husband should be able to prohibit his wife from using contraception               | 118   | 45.7 | 24      | 9.3  | 104      | 40.3 | 10         | 3.9  | 2           | 0.8 |
| Contraception should be legally available to unmarried women                         | 39    | 15.1 | 9       | 3.5  | 195      | 75.6 | 15         | 5.8  | 0           | 0   |
| Abortion should be legally permissible to save the life of a woman                   | 169   | 65.6 | 20      | 7.8  | 60       | 23.3 | 8          | 3.1  | 1           | 0.4 |
| Abortion should be legally permissible in cases of rape                              | 95    | 36.8 | 19      | 7.4  | 122      | 47.3 | 22         | 8.5  | 0           | 0   |
| Abortion should be legally permissible in cases of incest                            | 92    | 35.7 | 20      | 7.8  | 112      | 43.4 | 33         | 12.8 | 1           | 0.4 |
| Abortion should be legally permissible in cases of fetal anomaly                     | 125   | 48.4 | 27      | 10.5 | 78       | 20.2 | 26         | 10.1 | 2           | 0.8 |
| Abortion should be legally permissible to preserve the physical health of the woman  | 130   | 50.4 | 27      | 10.5 | 84       | 32.6 | 17         | 6.6  | 0           | 0   |
| Abortion should be legally permissible to preserve the mental health of the woman    | 108   | 50.4 | 27      | 10.5 | 84       | 32.6 | 17         | 6.6  | 0           | 0   |
| Abortion should be legally permissible for socio-economic reasons                    | 31    | 12.0 | 14      | 5.4  | 204      | 79.1 | 9          | 3.5  | 0           | 0   |
| Abortion in the first trimester should be legally permissible for any reason         | 36    | 14   | 13      | 5.0  | 195      | 75.6 | 14         | 5.4  | 0           | 0   |
| An unmarried woman should be legally permitted to obtain an abortion                 | 41    | 15.9 | 18      | 7.0  | 175      | 67.8 | 24         | 9.3  | 0           | 0   |
| A husband must consent for a woman to have an abortion                               | 113   | 43.8 | 20      | 11.6 | 89       | 34.5 | 25         | 9.7  | 1           | 0.4 |

With respect to abortion, the overwhelming majority of participants agreed that the procedure should be legally permissible to save the life of the woman (65.6%) and disagreed that abortion should be legally permissible on socio-economic grounds (79.1%), without restriction

as to reason (75.6%) or if the woman is unmarried (67.8%). Attitudes toward other indications were decidedly more mixed.

***Statistically significant differences in attitudes toward abortion by demographic category***

*The legal permissibility of abortion to save the life of a woman*

Men were more supportive of this statement than women [ $H(1) = 13.139$ ,  $p = 0.000$ ], representing 55% of total agreement and only 23.3% of total disagreement. All factors considered, 5.3% of the total variance in the mean responses can be attributed to the effect of gender.

*The legal permissibility of abortion in cases of incest*

Students from the West Bank were more supportive of this statement than students from the Gaza Strip [ $H(1) = 5.807$ ,  $p = 0.016$ ], representing 68.5% of total agreement and 51.8% of total disagreement. All factors considered, 2.6% of the total variance in the mean responses can be attributed to the effect of region.

*The legal permissibility of abortion in cases of fetal anomaly*

Students from the Gaza Strip were more supportive of this statement than students in the West Bank [ $H(1) = 10.349$ ,  $p = 0.001$ ], representing 49.6% of total agreement and 26.9% of total disagreement. All factors considered, 4.5% of the total variance in the mean responses can be attributed to the effect of region.

*The legal permissibility of abortion to preserve the physical health of the woman*

Female students [ $H(1) = 5.326, p = 0.021$ ], representing 58.5% of total agreement and 42.9% of total disagreement and students from the West Bank [ $H(1) = 9.071, p = 0.003$ ], representing 66.9% of total agreement and 45.2% of total disagreement, were more supportive of this statement. All factors considered, 2.2% and 3.8% of the total variance in the mean responses can be attributed to the effect of gender and region, respectively.

*The legal permissibility of abortion to preserve the mental health of the woman*

Female students [ $H(1) = 6.835, p = 0.009$ ], representing 59.3% of total agreement and 41.2% of total disagreement, students from villages [ $H(2) = 16.570, p = 0.000$ ], representing 51.2 % of total agreement and 25.5% of total disagreement, and students in the West Bank [ $H(1) = 26.019, p = 0.000$ ], representing 75% of total agreement and 40.2% of total disagreement, were more supportive of this statement. All factors considered, 2.9%, 10.9%, and 7% of the total variance in the mean responses can be attributed to the effect of gender, residence and region, respectively.

*The legal permissibility of abortion for socio-economic reasons*

Students living in villages [ $H(2) = 17.843, p = 0.000$ ], representing 67.7% of total agreement and 32.8% of total disagreement) and students in the West Bank [ $H(1) = 26.425, p = 0.000$ ], representing 93.5% of total agreement 51.5% of total disagreement, were more supportive of this statement. All factors considered, 10.7% and 7.3% of the total variance in the mean responses can be attributed to the effect of residence and region, respectively.

*The legal permissibility of first trimester abortion for any reason*

Students living in villages [ $H(2) = 22.565, p = 0.000$ ], representing 72.2% of total agreement and 31.3% of total disagreement and students from the West Bank [ $H(1) = 25.325, p = 0.000$ ], representing 94.4% of total agreement 50.8% of total disagreement, were more supportive of this statement. All factors considered, 10.4% and 9.4% of the total variance in the mean responses can be attributed to the effect of residence and region, respectively.

*The legal permissibility of an unmarried woman to obtain an abortion*

Female students [ $H(1) = 11.128, p = 0.001$ ], representing 70.7% of total agreement and 45.7% of total disagreement, students living in villages [ $H(2) = 22.044, p = 0.000$ ], representing 63.4% of total agreement and 30.3% of total disagreement, and students in the West Bank [ $H(1) = 24.955, p = 0.000$ ], representing 80.5% of total agreement 47.4% of total disagreement, were more supportive of this statement. All factors considered, 4.8%, 10.7% and 9.5% of the total variance in the mean responses can be attributed to the effect of gender, residence, and region, respectively.

*Requiring consent from the husband for a married woman to obtain an abortion*

Women [ $H(1) = 6.003, p = 0.014$ ], representing 59.3% of total agreement and 41.6% of total disagreement, were more supportive of this statement compared to men. All factors considered, 2.6% of the total variance in the mean responses can be attributed to the effect of gender.

***Statistically significant differences in attitudes toward contraception by demographic category***

*The legal availability of permanent methods of contraception*

Nearly half of all respondents (49.6%) disagreed that permanent methods of contraception (e.g., tubal ligation and/or vasectomy) should be legally available in the OPTs. Responses to this statement differ significantly by region. Students in the West Bank were more supportive of this statement [ $H(1) = 15.358, p = 0.000$ ], representing 71.6% of total agreement and 46.1% of total disagreement. All factors considered, 6.3% of the total variance in the mean responses can be attributed to the effect of region.

*The legal permissibility of a husband to prohibit his wife from the use of contraception*

Students from refugee camps [ $H(2) = 15.253, p = 0.000$ ], representing 27.1% of total agreement and as little as 7.7% of total disagreement, students from the Gaza Strip [ $H(1) = 44.344, p = 0.000$ ], representing 61.9% of total agreement and only 18.3% of total disagreement, and male students [ $H(1) = 10.555, p = 0.001$ ], representing 58.5% of total agreement and 36.5% of total disagreement, were more supportive of this statement. The percentages of the total variance in the mean of responses attributed to the effect of the residence, region and gender while controlling for other factors were 6.4%, 18.1% and 4.3% respectively.

*The legal availability of contraception to unmarried women*

Students in the West Bank group were more supportive of this statement compared to students from the Gaza Strip [ $H(1) = 25.235, p = 0.000$ ], representing 89.7% of total agreement and 51.3% of total disagreement. All factors considered, 10.4% of the total variance in the mean responses can be attributed to the effect of region.

## **Chapter 4: Discussion**

### ***Overall findings***

According to the most recent research, over 68 countries worldwide currently prohibit abortion entirely or only permit the procedure to save a woman's life (Finer & Fine 2013). A further 57 countries legally permit abortion to preserve the women's life or physical health (Finer & Fine 2015). Palestine is in the latter category (Jallad 2012; Azzouni 2010). The evidence unequivocally demonstrates that the provision of safe abortion procedures is an effective method in reducing maternal mortality and morbidity (Kapp et al. 2013).

However, our findings indicate that nearly one third of final year students do not agree that abortion should be legally permissible to save the life of the woman. This finding is not only discouraging, but is also inconsistent with the current abortion laws in the OPTs and stands in contrast with attitudinal surveys conducted with health professional in settings where abortion is similarly legally restricted. Further, the overwhelming majority of respondents believe that contraception should not be legally available to unmarried women. Again, this is not consistent with policy or the evidence surrounding contraceptive use. In fact, the evidence demonstrates that contraceptive methods reduce pregnancy-related mortality and morbidity as well as the risk of developing reproductive cancers and can be used to treat many menstrual related symptoms and disorders (Kavanaugh & Anderson 2013). Access to contraception is also a recognized priority in the adolescent reproductive health field and a major pillar of reproductive justice.

These findings are especially problematic when considering the gaps between the existing research and the use of this evidence within clinical health care practice. Evidence-based guidelines aim to assist health care providers and policy makers (Kapp et al. 2013). Health care

providers' attitudes and beliefs, among other individual and contextual factors, play a role in the implementation of evidence-based guidelines (Heiwe et al. 2011). In fact, a systematic review of individual determinants of research use among nurses found that attitudes were the principal factor related to evidence-based practice (Heiwe et al. 2011). Given the established association between health care providers' attitudes and beliefs and evidence-based practice, our findings are troubling as they suggest that these particular attitudes may impact their practice as health care professionals in a way that is inconsistent with evidence and current laws/policies in the OPTs.

Health care providers' decision-making regarding the provision of comprehensive reproductive health services ultimately determines whether services, including safe abortion services and a full range of family planning methods, are available. Further, provision decisions impact who can have access to those services. Recognizing the link between health professionals' attitudes/beliefs, provision, and access to services, there have been significant efforts in recent years to providing more information to trainees about professional roles and obligations and establishing clear guidelines regarding practice.

In addition, the vast majority of respondents do not believe that unmarried women, women specifying socio-economic reasons, or women in first trimester of pregnancy irrespective of reason should have access to safe abortion care. It is difficult to imagine that final year students with these attitudes who do not undergo significant values clarification exposure are going to be in a position to provide high quality, comprehensive reproductive health care to patients.

### ***Gender differences in attitudes toward abortion and contraception***

Overall, women appear to be more supportive of the legal permissibility of abortion for a wider array of reasons; women were more supportive compared to their male counterparts for making abortion legal in cases in which the pregnancy threatens the physical health of the woman, as well the mental health of the woman. Women were also more supportive of the legal permissibility of abortions for unmarried women as well as for requiring consent from the husband for a married woman to obtain an abortion. These results were all statistically significant. Interestingly, men were more supportive of the legal permissibility of abortion, namely that abortion should be available to save the life of the woman. This finding is somewhat surprising given the other findings related to abortion, but is not without precedent (Patel & Johns 2009). Regarding statistically significant gender differences related to contraception, our findings show that men were more supportive of the legal permissibility of contraception, namely that a husband should be able to prohibit his wife from the use of contraception. This finding does not represent an attitude that reflects best-practices and evidence based policies. We should also note that of all variables examined, gender was always found to have the smallest effect size responsible for differences in statement responses.

We also found that women generally offer greater support for abortion and contraception use as compared to men with the exception of the following statements: Non-permanent methods of contraception should legally available to married women, abortion should be legally permissible in cases of fetal anomaly and abortion should be legally permissible for socio-economic reasons. Though we expected women to offer greater support for these statements, it was somewhat surprising to see that statistically, there were no significant differences between responses from both genders.

### ***Regional differences in attitudes toward abortion and contraception***

Overall, our findings show that students from the West Bank were more supportive with statistical significance for the following statements: Legal availability of permanent methods of contraception, and the legal availability of contraception to unmarried women. The only contraception related statement in which students from Gaza were more supportive of was the legal permissibility of a husband to prohibit his wife from the use of contraception.

Regarding abortion, students from the West Bank appear to be more supportive of the legal permissibility of abortion for a wider array of reasons; these students were more supportive than their Gazan counterparts for making abortion legal in cases of incest, to preserve the physical health of the woman, to preserve the mental health of the women, for socio-economic indications, for first trimester abortion for any reason, and for unmarried woman to obtain an abortion. The only abortion related statement in which students from Gaza were more supportive of was the legal permissibility of abortion in cases of fetal anomaly

Given regional differences, it is important to note there are quite a few striking differences between the Gaza Strip and the West Bank that should be taken into consideration when interpreting these findings. From a legal and legislative framework perspective, it is important to note that the West Bank relies on civil or Jordanian law, whereas the Gaza Strip relies on Egyptian and British laws (Commission of the European Communities 2004). The first decree of the President of the PNA in 1994 stated that the legislative laws that were in effect prior to 1967 in the West Bank and Gaza Strip would remain to be valid (Palestinian Economic Policy Institute 2008). In addition, some Ottoman and Israeli laws remain authoritative in both settings (Commission of the European Communities 2004). Nonetheless, since the inception of the PNA, the PNA has made considerable efforts to unify the system, predominantly focusing on

law affecting the economy and the judicial system (Commission of the European Communities 2004).

From a demographic perspective, demographic differences also exist between the West Bank and Gaza. Namely, the proportions of refugees in both regions are not at all similar. Out of a population of roughly 4 million people, 43% are refugees. The vast majority of the refugees reside in Gaza (representing 68% of all refugees), while only 27% of refugees reside within the West Bank (WHO 2010). Particular to Gaza, the blockade enforced by Israel and Egypt since June 2007 is resulting in an increasing degradation of the health system and deterioration of the quality of care provided in the Gaza Strip.

From a political and governance perspective, governments also differ in both regions. In January 2006, Hamas won parliamentary elections. However, Hamas' victory was short-lived. In June 2007 governance of the OPTs was split by region and consequently Palestinian politics were marked by uncertainty (Brown 2012). Hamas took sole control in Gaza where it built a governing apparatus and worked to rebuild institutions (Brown 2012). Meanwhile, the PNA governed the West Bank while acting as the official representation of the Palestinian people on the international stage (WHO 2010).

While the respondents from the West Bank region appears to be much more supportive of abortion and contraception use for the majority of situations depicted in the statements as compared to respondents in Gaza, this may in part be explained by the conservative cultural and political dynamics in the Gaza Strip. This conservative influence considers motherhood to be the primary moral and national obligation of Palestinian women, often supporting this claim using references to religious texts (European Parliament 2011).

It is also worth noting that as much as 18% of differences in responses pertaining to the statement regarding the ability of a husband to prohibit his wife from the use of contraception can be attributed to the effect of the region (Gaza was more supportive). Equally striking, as much as 7% to 10% of the differences in responses can be attributed to the regional variable (with the West Bank being more supportive) for the following statements: Contraception should be legally available to unmarried women; Abortion should be legally permissible to preserve the mental health of the women; abortion should be legally permissible for socio-economic reasons; abortion in the first trimester should be legally permissible for any reason and lastly an unmarried woman should be legally permitted to obtain an abortion. These findings suggests that respondents from the West Bank (independent from other factors) possess a more liberal and open-minded approach when it comes to the permissibility of abortion and availability of contraception for women in comparison to respondents from Gaza. Differences between attitudes of the two regions are somewhat expected given the different political, socio-economic, and cultural dynamics. But this finding raises questions as to how a national curriculum, one that includes institutions in both the West Bank and Gaza, will be perceived and accepted by students and educators. Efforts to develop a standard sexual and reproductive health curriculum would benefit from recognizing this dynamic.

### ***Differences in attitudes based on city, village, or refugee camp residence***

Findings demonstrate that the respondent's residence has some sort of effect on the responses to statements regarding the legal permissibility of abortion while there were no statistically significant results for statements related to contraception. For all statements that demonstrated a statistically significant difference, respondents residing in villages were more

supportive compared to residents from either an urban or a refugee setting. Village residents were more supportive of the legal permissibility of first trimester abortion for any reason, of an unmarried woman to obtain an abortion, of abortion for socio-economic indications, and of abortion to preserve the mental health of the woman. The only exception was for the statement pertaining to the ability of a husband to prohibit his wife from the use of contraception where the mean ranks between these groups indicated that there was a statistically significant difference; the refugee camp group demonstrated stronger support toward this statement.

Overall, the village group displayed a more open-minded and liberal approach to abortion than city or camp groups. This finding is surprising given that the global literature consistently suggests that urban residents have more liberal attitudes toward sexual and reproductive health issues than their rural counterparts. In the OPTs use of urban/rural is complicated by the small geographic size of the territories, the absence of clear urban/rural distinctions, and considerable the population density (Gaza). These factors contributed to the study team's original decision to use city, village, and camp as a more meaningful categorical distinction. Our results suggest that residence may be associated with differences in attitudes toward abortion but city/village is distinct from the urban/rural binary that is often used in the literature.

When looking at the residence breakdowns of both regions we quickly come to realize that the vast majority of the refugees reside in the Gaza Strip (representing 68% of all refugees), while only 27% of refugees reside within the West Bank (WHO 2010). In the same way, the overwhelming majority of villages are located within the West Bank region. Due to the disproportionate distribution of residence types in both region, the results heavily reflect the attitudinal findings attributed to regions in the OPTs. However, for a number of statements, the region variable had a statistically significant result in the absence of a significant result in the

residence variable for that same statement. Further, for each statement where both the region and residence had a significant result, the residence variable always demonstrated a larger effect size. This seems to suggest that the residence variable, however linked to the region variable, is somewhat independent to some degree.

### ***The role of nursing in reproductive health***

Nurses play an important role in sexual and reproductive health and indeed nurses are widely recognized for providing a unique contribution to the provision of health care services (Campbell 2004). For example, the nursing profession underscores joint agreement rather than demanding compliance with the objective of increasing patient participation in the decision-making process that will in turn empower patients (Campbell 2004). Additionally, a major part of nursing care in this particular area is to empower patients to feel in control over their own bodies (Pillitteri 2010). Importantly, nursing also places significant importance on patient education and preventative health care (both of which are essential pillars within the area of sexual and reproductive health care (Campbell 2004). We often forget that in addition to the role of health care provider, the nurse's role also encompass that of educator, counselor, researcher, and evaluator of reproductive and sexual health care. In their role as reproductive and sexual health care evaluator, nurses must continuously assess and evaluate reproductive health care services because health education and services need to correspond and adapt to the change in circumstances and evolution of the patient's situation (Pillitteri 2010).

Furthermore, nurses are now correctly perceived as sophisticated professionals who attain and build a strong foundation of clinical expertise (Campbell 2004). Now more than ever, nurses are being equipped with the skill sets and technical abilities that, for a long time, solely belonged to physicians (Campbell 2004). The particular field of sexual and reproductive health services is

a model specialty where nurses have the opportunity to reveal their potential and take over the responsibilities that come with clinical roles that are more advanced (Campbell 2004). Although the literature underscores that the vast majority of the nursing and midwifery workforce is comprised of women (Campbell 2004), this is not the case in the OPTs. As evidenced by our dataset, both genders are almost evenly distributed among the final year students.

The role and importance of nurses in the medical professional continues to increase. Evidence largely demonstrate that services provided by nurses can accomplish favorable clinical results that are equally as effective and efficient as the care provided by physicians (Campbell 2004). For example, the availability of authorized prescriptions in the nursing profession allows nurses to effectively deliver comprehensive contraceptive care and provide a variety of proven treatments for sexually transmitted infections (Campbell 2004).

Despite this evidence, it is legitimate to question the likelihood of whether nurses can provide these comprehensive, quality services while holding attitudes contrary to evidenced-based practices and policies/laws (as our findings have indicated with respect to legal permissibility of abortions to save the woman's life and the legal availability of contraception for unmarried women). This is indeed a concern as it has been globally documented that medical professionals' refusal to provide reproductive health services, including but not limited to abortion, occurs and has resulted in the creation of barriers to women's access to abortion and other services (Halcombe, Berhe, & Cherie 2015).

Evidence pertaining to the degree of influence of personal attitudes on the provision of safe abortion care appear to be mixed. Some evidence indicates significant associations between willingness to provide abortion services and personal attitudes, qualities, and experiences (Halcombe, Berhe, & Cherie 2015). However, other research indicates that health care providers

can acknowledge the distinction between personal and professional attitudes toward safe abortion care, and personal opposition to the practice does not necessarily interfere with the provision of legal services, including non-directive counseling, referrals, and surgical and medication abortion care (Wheeler et al. 2012).

Recent research has come to find that there are adjustable characteristics that are associated with medical professionals' willingness to provide abortion services, including clinical abortion training and previous experience providing abortion care (Halcombe, Berhe, & Cherie 2015). This evidence suggests that in an effort to ensure and strengthen the professional responsibility of the nurses and midwives, particularly with respect to the provision of safe abortion care, it is critical to implement more comprehensive clinical abortion coverage in curricula across the OPTs. Further, the fact that a third of respondents demonstrated attitudes contrary to the law relating to the provision of safe abortion care suggests that academic institutions must do more in order to make certain that students not only understand the laws but also the responsibilities that direct their professional activities with respect to abortion care (irrespective of their personal views and beliefs). Despite our findings, nurses have a professional responsibility to provide nonjudgmental care to all patients. This responsibility includes ensuring the full range of family planning options and safe abortion care services when legally required.

### ***Significance, implications and future plans***

Given the tremendous role played by reproductive health practices on the overall health and well-being of Palestinian women and men, it is crucial to ensure that the students who are attending accredited health professional training (nursing and midwifery training in particular) are adequately educated and trained. Only with training can health service professionals provide

patients with the assistance required to take care of their reproductive and sexual health and address unmet needs. The activities of the original study team to develop and implement a strategic plan to support curriculum reform and expansion are certainly one step in this effort.

However, the results from this study suggest that final year nursing students hold a number of attitudes that may undermine the delivery of comprehensive reproductive health services. Importantly, many of the attitudes reported by students in this study are in conflict with current laws and policies in the OPTs. Although it is possible for health professionals to set-aside personal beliefs and biases to provide patients with the care they are legally entitled to, this is often difficult without concert efforts to help health professionals clarify values and understand professional responsibilities. As the overarching study results (Foster et al. 2008) indicate that curricular attention to cultural, religious and ethical issues in reproductive health is lacking, these attitudes may have a profound impact on future service delivery. Moving forward, incorporating values clarifications exercises into the didactic curriculum and formally discussing the laws and policies that govern reproductive health in the OPTs as well as the professional responsibilities of health service professionals working in primary appears warranted. Generally, values clarification refers to the activity of examining one's basic values and moral reasoning (Turner & Page 2008). It is a process undertaken to understand oneself; to ascertain what is important and meaningful (Turner & Page 2008). It encourages learners to relate their thoughts and their feelings in order to enhance their awareness of their own values. By recognizing that values affecting attitudes and beliefs about abortion and related issues can change over time in response to new experiences and more comprehensive understanding of the issues and context, values clarification specific to abortion attitude transformation aims to move participants toward support, acceptance and advocacy for comprehensive abortion care and related sexual and

reproductive health care and rights (Turner & Page 2008). I will be working with my supervisor in the months to come to share these findings with the overall study team and to disseminate the results of this portion of the study to researchers and health professions educators.

### *Limitations*

It is important to consider the nature of the content assessed in this study. For many, the comprehensive reproductive health issues, particularly abortion and contraception, may be perceived as sensitive or controversial. With this in mind, the social desirability bias may play a role (Grimm 2010). People have a tendency to endorse statements on the basis of their implicit social desirability rather than on their actual explicit content (Phillips & Clancy 1972). Although this was an anonymous survey, students may have felt compelled to report “desirable responses.” In 2008 in the OPTs, Hamas was the governing party and thus socially desirable responses were likely to be more conservative. Although the study team made a number of efforts to minimize this bias, including providing repeated assurance of the anonymity of the responses (Krumpal 2013), this is likely a dynamic that shaped responses.

Another limitation of this study is the period in which it was conducted, as these data were gathered over the 2007-2008 academic year. Medical advances are continuous and as new information becomes available, changes in practice, treatment procedures, and drug use follow (Wilson, Sanders, & Dumper 2007). Thus over the last six years curricular reform may have taken place, thereby addressing some of the gaps that served as the foundation for this project. Similarly, culture is not immutable and attitudes toward sex and sexuality are continuously challenged and levels of acceptance are very rarely permanent (Wilson, Sanders, & Dumper

2007). Thus a survey conducted with final year nursing and midwifery students today may yield different findings.

Regarding the study questionnaire, it is important to consider the limitations associated with Likert type statements. In particular, the central tendency bias where respondents may tend to avoid the extreme response options; lack of reproducibility; and the difficulty associated with demonstrating validity (are we measuring what we intend to measure?) (Bertram 2006).

Importantly, it also does not sufficiently address or account for instances in which respondents have sufficient knowledge about the subject matter, but do not have a response toward it or alternatively, the respondents are insufficiently knowledgeable about the subject matter, and therefore are not able to form a response (Chimi & Russel 2009).

Finally, there are both advantages and disadvantages to the Kruskal-Wallis test. The Kruskal-Wallis test is simple to use, makes fewer assumptions of the population studied, allows for interval and ratio level data to be calculated if coded into ordinal scale through ranking (Chan & Walmsley 1997), and can be used to compare two or more levels of an independent variable. The Kruskal-Wallis test is a non-parametric version of ANOVA and a generalized form of the Mann-Whitney Test method (Institute for Digital Research and Education: UCLA, n.d.). Despite these advantages there are also shortcomings. If the null hypothesis is rejected, the Kruskal-Wallis test method cannot single out which groups are significantly different from the others when three or more groups are compared. In other words, it only tests for differences that are collectively statistically significant (Chan & Walmsley 1997). For example, if a test is significant for the residence variable, you can conclude that there are statistically significant differences in the outcome of the mean responses among the three residence groups. The group with the lowest mean ranks demonstrates greatest support for the statement relative to the two other groups.

### ***Statement of contribution***

This thesis was completed in partial fulfillment of the requirements for the Master of Science in Interdisciplinary Health Sciences program at the University of Ottawa. This study was initiated by Dr. Angel M. Foster, DPhil, MD, AM along with other members of her study team including Francoise Daoud, MPN, BSN, RN, Etaf Maqboul, MSN, RN, Kelsey Otis, MA, Dr. Noor Ladhani, and Dr. Ashraf El-Jedi. These team members were responsible for the conception of the overall project, the design of the study instruments, the collection of the data, and the initial analysis of coverage of reproductive health related topics in nursing education. This team was responsible for the initial proposal as well as obtaining permission to conduct the study. However, for the analysis of nursing students' attitudes toward contraception and abortion, I developed the analysis plan, conducted the analysis, and interpreted the results.

### ***Conclusion***

The Occupied Palestinian Territories have long witnessed the cumulative negative effects of the conflict on children and women's health. Constant military occupation has been a determining factor hindering the development of comprehensive and coherent health policies and programmes (Bosmans et al. 2008). With the identification of several priority areas for curricular reform and/or expansion, particularly clinical coverage of topics outside of prenatal care and pregnancy loss, stakeholders have been working to implement changes at both the institutional and national levels. Our findings regarding the attitudes of nursing students suggest that there is a considerable need to incorporate values clarification exercises as well as structured sessions dedicated to laws and policies governing sexual and reproductive health into the formal curriculum. Furthermore, the identification of certain demographic factors and circumstances,

primarily gender and region, offers further insight into the dynamics shaping contraception and abortion attitudes in the Occupied Palestinian Territories.

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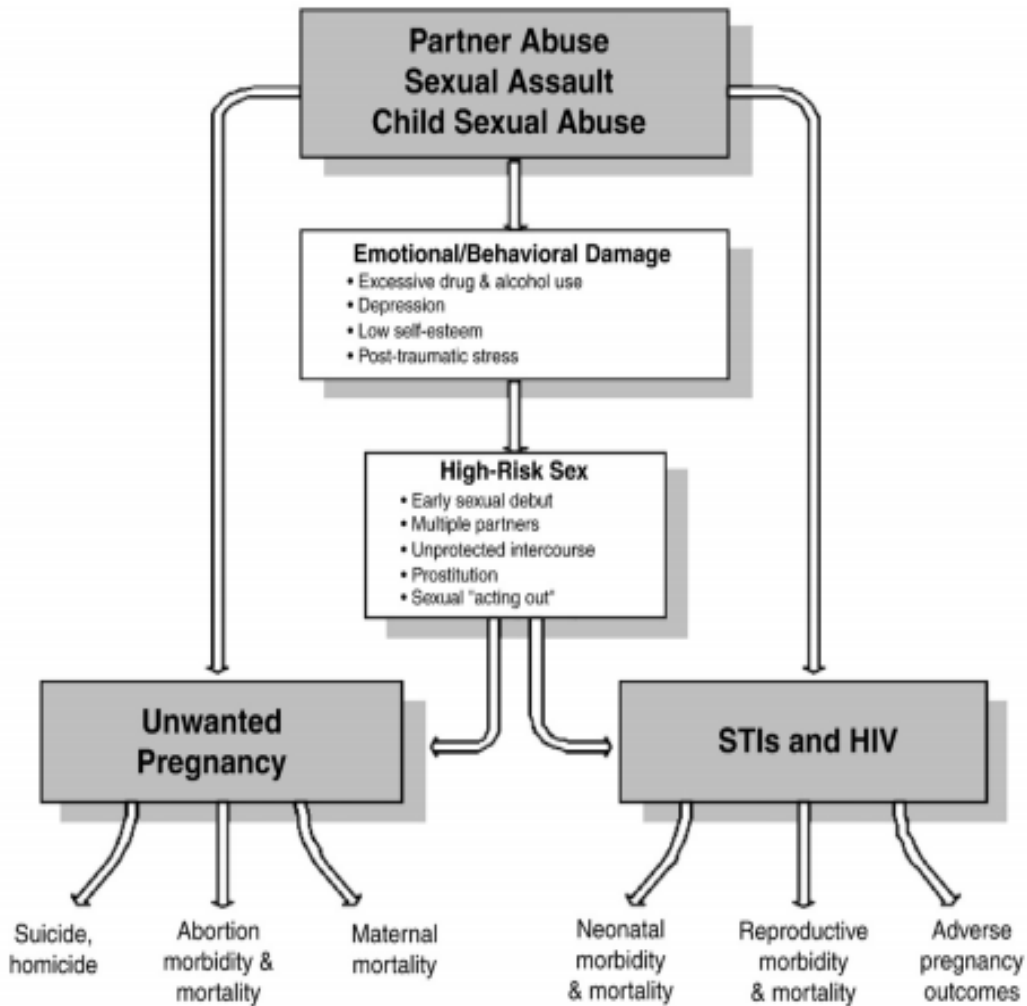
**Appendix A: Map of the Occupied Palestinian Territories (2007)**



Source:

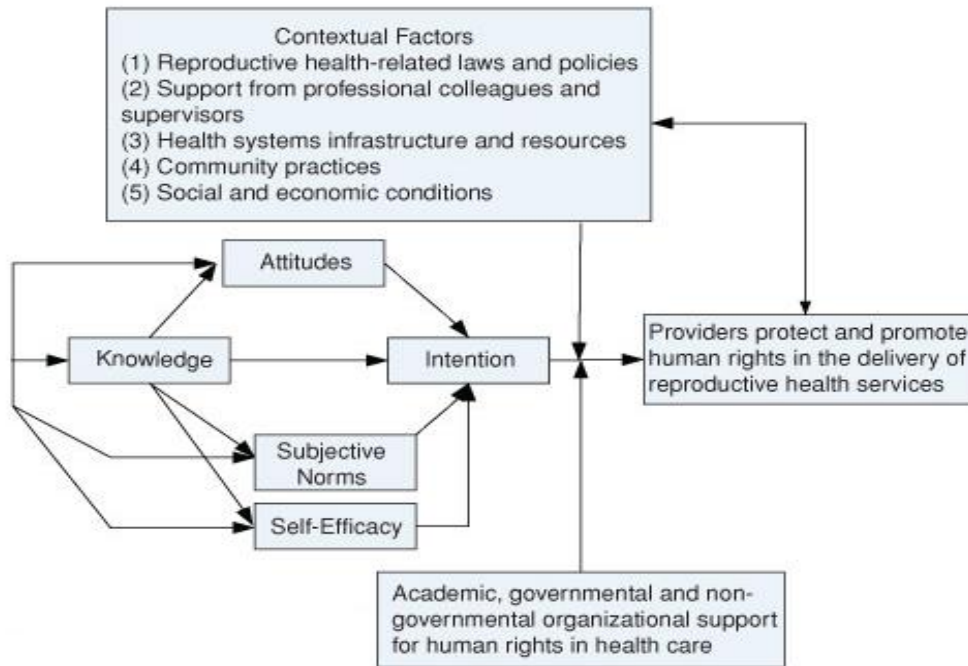
[http://upload.wikimedia.org/wikipedia/commons/6/6a/West\\_Bank %26\\_Gaza\\_Map\\_2007\\_\(Settlements\).png](http://upload.wikimedia.org/wikipedia/commons/6/6a/West_Bank_%26_Gaza_Map_2007_(Settlements).png)

**Appendix B: Violence against women, direct and indirect pathways to unwanted pregnancy and sexually transmitted infections**



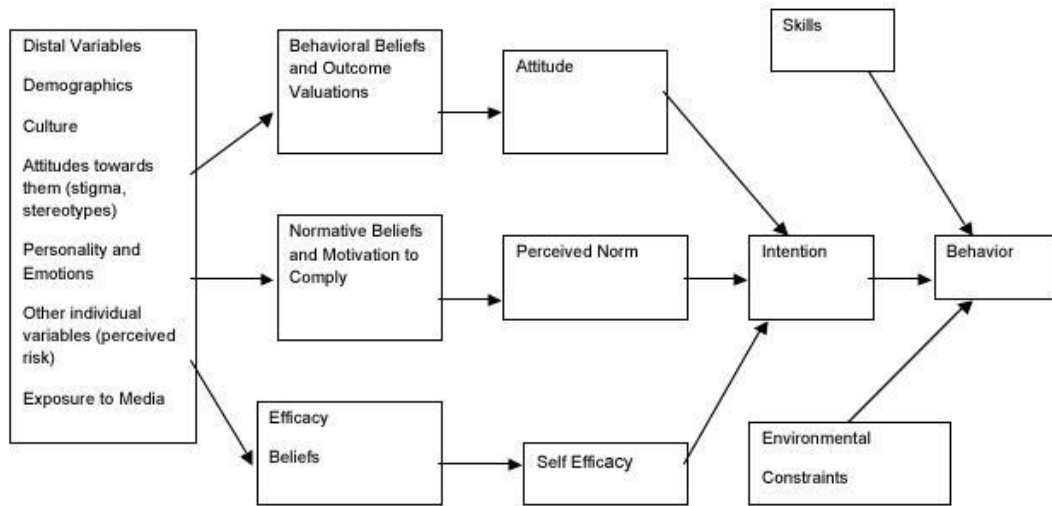
As presented in Heise, Ellsberg & Gottemoeller 1999

**Appendix C: Protection, promotion and provision of rights in the delivery of reproductive health services framework**



Adapted from Reyes et al. 2013

## Appendix D: Integrative model of behavior change



As presented in Yzer, 2012