INTIMATE PARTNER VIOLENCE AND FAMILY PLANNING PRACTICES IN SELECTED SOUTH ASIAN COUNTRIES

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FACULTY OF BUSINESS AND ECONOMICS
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ABSTRACT

Intimate partner violence (IPV) and family planning (FP) practices are critical public health concerns in the less developed regions, including South Asia, yet their interconnection remains underexplored. Collaborative efforts between governments and international bodies have aimed to promote FP, but universal access to contraception and addressing unmet needs remains a challenge in many less developed countries. This study focuses on IPV prevalence, contraceptive use, and unmet need for FP in four South Asian countries: Afghanistan, India, Nepal, and Pakistan. Specifically, this study aims to 1) investigate the prevalence of IPV, contraceptive use, and unmet need for FP across South Asian countries; 2) examine the association of IPV and socio-economic variables with contraceptive use in South Asian countries; 3) examine the association of IPV and socio-economic variables with unmet need for FP in South Asian countries. Using data from the Demographic and Health Surveys (DHS), this study concentrates on married women aged 15-49 who responded to the domestic violence module. Crosstabulations and Fisher's exact tests/chi-square tests were used to examine the bivariate relationships, while multinomial logistic regression was employed to analyze the net effect of each independent variable on FP practices. Eight regression models explore the impact of different IPV types (physical, sexual, emotional, and combined types of IPV) on FP practices. Findings indicate that physical violence is predominant in Afghanistan, India, and Nepal, while emotional violence is more prevalent in Pakistan. Across the countries, Afghanistan had the highest prevalence rate of all forms of violence, as well as controlling behaviors by husbands. India had the highest contraceptive prevalence rate (CPR) of any modern contraceptive method, while Afghanistan had the lowest modern CPR. The multivariate analysis reveals that the relationship between IPV and FP practices varies across South Asian countries. In Afghanistan, women who experienced any form of violence and husbands' controlling behaviors were more likely to use modern

contraceptive methods. However, in India, women who experienced sexual violence and husbands' controlling behaviors were less likely to use modern contraceptive methods. Conversely, Indian women who experienced emotional violence and husbands' controlling behaviors and Pakistani women who experienced physical and emotional violence have a higher unmet need for spacing. Similarly, Indian women who experienced sexual violence have a higher unmet need for limiting. However, Afghan women have lower unmet need for spacing and limiting among those who experienced physical and emotional violence. Additionally, the study identifies several key predictors of FP practices, including women's education, employment, household wealth, and exposure to FP messages through media. Generally, women who were educated, employed, from wealthy family, and had FP exposure were more likely to use modern contraceptive methods and less likely to have unmet need for FP. Notably, in Afghanistan, women with higher education and from wealthier backgrounds exhibit poorer FP practices compared to their lesser educated and poorer counterparts in other countries, especially India. The study emphasizes the importance of initiatives that enhance women's education, create employment opportunities, boost empowerment, and confront deep-seated cultural barriers to address IPV and unmet need for FP in South Asia.

Keywords: Intimate partner violence, contraceptive use, unmet need for family planning, South Asia, family planning

ABSTRAK

Keganasan pasangan intim (IPV) dan amalan perancangan keluarga (FP) adalah isu kesihatan awam yang penting di kawasan kurang membangun, termasuk Asia Selatan, tetapi hubungan di antara keduanya masih belum kaji sepenuhnya. Walaupun kerjasama antara kerajaan dan badan antarabangsa telah berusaha untuk mempromosikan FP, akses universal terhadap kontrasepsi dan menangani keperluan perancang keluarga yang tidak dipenuhi (unmet need) masih menjadi cabaran besar di banyak negara kurang membangun. Kajian ini memberi tumpuan kepada prevalen IPV, penggunaan kontrasepsi, dan unmet need di empat negara Asia Selatan: Afghanistan, India, Nepal, dan Pakistan. Kajian ini bertujuan untuk 1) menyiasat prevalen IPV, penggunaan kontrasepsi, dan unmet need di semua negara Asia Selatan; 2) mengkaji hubungan antara IPV dan pembolehubah sosio-ekonomi dengan penggunaan kontrasepsi di negara Asia Selatan; 3) mengkaji hubungan antara IPV dan pembolehubah sosio-ekonomi dengan unmet need di negara Asia Selatan. Dengan menggunakan data dari Survei Demografi dan Kesihatan (DHS), kajian ini memberi tumpuan kepada wanita yang berkahwin berumur 15-49 tahun yang menjawab modul keganasan domestik. Jadual silang dan ujian Fisher's exact/chi-square digunakan untuk mengkaji hubungan bivariat, manakala regresi logistik multinomial digunakan untuk menganalisis kesan setiap pembolehubah tak bersandar terhadap FP. Lapan model regresi meneroka kesan jenis IPV yang berbeza (fizikal, seksual, emosi, dan gabungan jenis IPV) terhadap FP. Hasil kajian menunjukkan bahawa penderaan fizikal adalah dominan di Afghanistan, India, dan Nepal, manakala penderaan emosi lebih kerap berlaku di Pakistan. Afghanistan mempunyai kadar prevalen tertinggi bagi semua jenis penderaan dan kawalan tingkah laku oleh suami. India mempunyai kadar penggunaan kontraseptif (CPR) tertinggi bagi kaedah kontrasepsi moden, manakala Afghanistan mempunyai CPR moden terendah. Analisis multivariat menunjukkan bahawa hubungan antara IPV dan FP berbeza di semua negara Asia Selatan. Di

Afghanistan, wanita yang mengalami semua jenis penderaan dan kawalan tingkah laku oleh suami lebih cenderung menggunakan kaedah kontrasepsi moden. Walau bagaimanapun, di India, wanita yang mengalami penderaan seksual dan kawalan tingkah laku oleh suami kurang cenderung menggunakan kaedah kontrasepsi moden. Sebaliknya, wanita India yang mengalami penderaan emosi dan kawalan tingkah laku oleh suami dan wanita Pakistan yang mengalami penderaan fizikal dan emosi mempunyai unmet need untuk penjarangan yang lebih tinggi. Demikian pula, wanita India yang mengalami penderaan seksual mempunyai unmet need untuk pembatasan yang lebih tinggi. Walau bagaimanapun, wanita Afghanistan mempunyai unmet need untuk penjarangan dan pembatasan yang lebih rendah di kalangan mereka yang mengalami penderaan fizikal dan emosi. Selain itu, kajian ini mengidentifikasi beberapa faktor penting bagi FP, termasuk pendidikan wanita, pekerjaan, kekayaan rumah tangga, dan pendedahan kepada mesej FP melalui media. Secara umumnya, wanita yang berpendidikan, bekerja, dari keluarga berada, dan terdedah kepada mesej FP lebih cenderung menggunakan kaedah kontrasepsi moden dan kurang menghadapi unmet need. Perlu diberi perhatian bahawa di Afghanistan, wanita yang berpendidikan tinggi dan dari latar belakang yang lebih kaya menunjukkan FP yang lebih rendah berbanding dengan mereka yang kurang berpendidikan dan lebih miskin di negara lain, terutamanya India. Kajian ini menekankan kepentingan inisiatif yang dapat meningkatkan pendidikan wanita, mencipta peluang pekerjaan, memperkasakan wanita, dan mengatasi halangan budaya yang mendalam untuk menangani IPV dan unmet need di Asia Selatan.

Kata kunci: Keganasan pasangan intim (IPV), penggunaan kontrasepsi, kebutuhan keluarga berencana yang tidak terpenuhi (unmet need), Asia Selatan, perancangan keluarga

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF SYMBOLS AND ABBREVIATIONS

AfDHS	:	Afghanistan Demographic and Health Survey
AFGA	:	Afghan Family Guidance Association
AIDS	:	acquired immune deficiency syndrome
BPHS	:	Basic Package of Health Services
CDR	:	crude death rate
CPR	:	contraceptive prevalence rate
CSO	:	Central Statistics Organization
DFID	:	Department for International Development
DHS	:	Demographic and Health Surveys
EAs	:	enumeration areas
EB	:	enumeration block
EPHS	:	Essential Package of Hospital Services
FP	:	family planning
FP/MCH	:	Family Planning and Maternal and Child Health
FP2020	:	Family Planning 2020
FPAN	:	Family Planning Association of Nepal
FPAP	:	Family Planning Association of Pakistan
FPP	:	family planning program
GDP	:	gross domestic product
GII	:	Gender Inequality Index
HBM	:	Health Belief Model
HDI	:	human development index
HIV	:	human immunodeficiency virus
ICF	:	Inner City Fund
ICFP	:	International Conference on Family Planning

ICPD	:	International Conference on Population and Development
IIPS	:	International Institute for Population Sciences
IMR	:	infant mortality rate
IPV	:	intimate partner violence
IRB	:	Institutional Review Board
IUDs	:	intrauterine devices
LMICs	:	low- and middle-income countries
NDHS	:	Nepal Demographic and Health Survey
NFHS-4	:	National Family Health Survey
NGO	:	non-governmental organizations
PDHS	:	Pakistan Demographic and Health Survey
PSUs	:	primary sampling units
SDG	:	Sustainable Development Goals
TFR	:	total fertility rate
TGP	:	Theory of Gender and Power
UN	:	United Nation
UN DESA	:	United Nations Department of Economic and Social Affairs
UNDP	:	United Nations Development Programme
UNFPA	:	United Nations Population Fund
UNICEF	:	United Nations Children's Fund
USAID	:	United States Agency for International Development
WHO	:	World Health Organization

CHAPTER 1: INTRODUCTION

1.1 Background of the Study

Family planning (FP) plays a vital role in managing population growth and ensuring maternal and child health, reproductive health and rights of women and family well-being, especially in developing countries where access to family planning services is often limited, leading to uncontrolled population growth, and subsequent socio-economic challenges. In the case of South Asian countries, it is essential to emphasize the importance of FP in promoting the health, rights, and well-being of individuals and communities, as well as in helping to manage population growth. The population in South Asia has grown from 600 million in 1961 to 2.0 billion in 2021 and is expected to reach approximately 2.2 billion by 2030 and 2.5 billion by 2050 (UN DESA, 2022b). Although the pace and rate of fertility decline vary across countries, family planning programs (FPP) have proven effective in reducing fertility rates in the region. Over the years, there has been a substantial decrease in the total fertility rate (TFR) in South Asia. The TFR for South Asia as a whole has dropped from 6.14 children per woman in 1961 to 2.23 children per woman in 2021, indicating a remarkable decline of 63.7% (UN DESA, 2022b). Meanwhile, population growth in South Asia has slowed from 2.4% in 1961 to 1.0% in 2021 (World Bank, 2021).

Nevertheless, South Asia is home to 42.3% of the Asian population (UN DESA, 2022b), and with this large number of populations, these developing countries face major challenges in providing their citizens with essential services, including health care, education, and employment opportunities. The urgent need to address the issue of expanding population size in developing countries has led to a greater focus on promoting the use of FP, particularly among vulnerable and marginalized populations. FP is a way for individuals and couples to make informed decisions about their reproductive health and to have the means to carry out those decisions. It comprises a variety of methods,

such as the use of contraception, including condoms, birth control pills, intrauterine devices (IUDs), and sterilization, as well as natural FP methods that rely on monitoring a woman's menstrual cycle to determine the most fertile days for conception. In addition to preventing unintended pregnancies, FP can benefit individuals, families, and societies. For example, it can reduce the risk of maternal and infant mortality, improve maternal and child health outcomes, promote gender equality and women's empowerment, support economic development by enabling individuals to better plan and invest in their futures and help to address environmental and population concerns.

FP services are typically offered by healthcare providers, including doctors, nurses, and other trained professionals, and through community-based programs and outreach efforts. These services may include counseling, education, and support for choosing and using the most appropriate contraceptive methods for an individual's needs and preferences. Despite an effective disease and death prevention program, unrestrained births result in large-scale population growth, burdening society, and individual families. As a result, a health program should be implemented alongside the FP program to ensure a feasible correspondence between fertility level and country development.

While death rates have decreased significantly due to the introduction of modern medicine for disease prevention and control, fertility rates in developing countries such as Afghanistan and Pakistan remain high due to low contraceptive prevalence rate (CPR), high unmet need for FP, and other factors such as lower female education, political and economic systems, social structure, and religious beliefs. Governments and international organizations around the world have collaborated and demonstrated a solid commitment to FP promotion through various initiatives such as the 1994 International Conference on Population and Development (ICPD) in Cairo (UN, 1995), the 2012 London Summit on Family Planning, the inclusion of FP in the Millennium Development Goals (UN, 2003) and the Sustainable Development Goals (SDGs) (UN, 2015), and Nairobi Summit

ICPD+25 (United Nations Population Fund, 2020). However, despite these efforts, achieving zero unmet need for FP and widespread contraceptive use remains an unfinished agenda in these initiatives.

FPP implemented by governments and organizations have been critical in increasing access to contraception and decreasing unmet need for contraception. These programs focus on providing accessible and affordable contraceptive services, raising awareness about FP methods, and addressing cultural and social barriers to contraceptive use. FPP have made significant contributions by increasing the availability of contraceptive methods, training health care providers, and establishing clinics and outreach programs in remote areas. The programs also address socio-cultural norms and gender inequalities that frequently act as barriers to contraceptive use, empowering women to take control of their reproductive lives. As a result, the prevalence of contraceptive use has increased, resulting in positive outcomes such as lower fertility rates, improved maternal and child health care, and faster socio-economic development, among other improvements.

This study examines the prevalence of intimate partner violence (IPV), contraceptive use, and unmet need for FP in four South Asian countries: Afghanistan, India, Nepal, and Pakistan. The study also explores the associations of IPV and socio-economic variables with FP practices, specifically, contraceptive use and unmet need for FP. These countries were chosen based on their population size, availability of the Demographic and Health Surveys (DHS) data, and patriarchal system with high Gender Inequality Index (GII[1]) ranking. Women aged 15-49 who were married or in a union and answered the domestic violence module were included in the study, while Bangladesh and Maldives were excluded due to the absence of the domestic violence module in the DHS. The study addresses a notable research gap by delving into the intricate connection between IPV and FP practices across and within South Asian countries, an area that has not been

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[1] GII measures gender disparities and inequalities within a country in three dimensions: reproductive health, empowerment, and labor market participation.

extensively explored. The study aims to provide novel insights that could inform targeted policies and interventions, contributing to improved reproductive health outcomes and progress towards SDGs related to health and gender equality.

1.2 The Role of Family Planning Programs on Family Planning Practices

The role of FPP in FP practices has evolved significantly since the 1960s. In the 1960s to 1970s, many developing countries launched the FPP to curb rapid population growth, which negatively impacted economic growth. At that time, FPP were primarily focused on controlling population growth through birth control methods. FPP were implemented without much consideration for cultural or religious values, and there was often little involvement from local communities. In many countries, especially in the developing world, the concept of FP was new and often met with resistance due to cultural and religious beliefs. For instance, Muslims believed that FP services were used to suppress their population (Najimudeen, 2020). Furthermore, the deference to God's will and the resulting lack of intention to use contraceptives are frequently cited as Islamic ideologies to discourage contraceptive use (Agha, 2010). On the other hand, Hindus do not usually impose such restrictions. Contraception decisions are generally considered personal matters in Hinduism, particularly from the perspective of women, and are not frequently subject to religious mandates (Iyer, 2002). Over time, FPP shifted towards a more comprehensive approach, which included promoting contraceptive use and addressing broader issues related to reproductive health, such as maternal and child health, gender-based violence, and adolescent health. This approach recognized that FP was not just about preventing pregnancy but also promoting healthy pregnancies and addressing the broader needs of women and families.

Governments of developing countries and international organizations have increasingly recognized the importance of FP in achieving sustainable development and

improving individual and community well-being in recent years. Many South Asian countries have formally recognized the importance of FP and implemented policies and programs to encourage it. These official positions reflect a shift towards a more holistic and rights-based approach to reproductive health, emphasizing the importance of empowering individuals, particularly women, to make informed reproductive health decisions.

The objective of Family Planning 2020 (FP2020), announced during the 2012 London Summit, was to attain an increase of 120 million more individuals using modern contraceptive methods by 2020 in the poorest countries globally (Brown et al., 2014). However, despite implementing national FPP for over 50 years in some South Asian nations, they still experience a low CPR and a significant unmet need for FP. The contraceptive prevalence trend in developing countries increased from an average of about 10% in the mid-1960s to over 50% in the late 1990s (Ross et al., 1999). In 69 FP2020 focus countries across Africa, Asia, and Latin America, about 23% more women began utilizing modern contraceptive methods in 2020 compared to 2012 when FP2020 was launched (Family Planning 2020, 2020). Throughout the 2010s, the CPR in South Asian countries ranged from 18% to 61%, which was comparatively lower than East and Northeast Asia (39.8% – 79.6%), Southeast Asia (26.1% – 78.4%), and North and Central Asia (27.9% – 68.0%). Meanwhile, the unmet need for FP in South Asia during the same period ranged from 7.5% to 31.4%, which was notably higher than in other parts of Asia where the majority of countries had an unmet need ranging from 10% to 20%, according to reports by the UN (UN DESA, 2012; UN DESA, 2020). Despite maintaining contraceptive use levels above 50% in some developing countries over the past two decades, there remains a significant unmet need for FP in those nations.

Upon close examination of the trend of unmet need for FP in selected countries in South Asia, the overall unmet need for each nation had decreased since the 1990s. While

the unmet need for FP has reduced in India, Pakistan, and Nepal since the 1990s, it remains relatively high in some countries, such as Afghanistan. Despite efforts to increase contraceptive use, many women still lack access to FP services or face other barriers, such as social stigma or lack of education.

FP is a crucial component of efforts promoting reproductive health, gender equality, and sustainable development. By improving access to and use of FP services, individuals, especially women, can make informed choices about their reproductive health and achieve their desired family size and spacing, leading to better health outcomes and improved quality of life.

1.3 Family Planning Programs in South Asian Countries

The national FP program has been proven to be successful in helping women to satisfy their reproductive needs in developing countries (Sedgh & Hussain, 2014). In line with the SDGs target 3.7 to ensure universal access to FP by 2030, the government of each South Asian country has made considerable efforts to improve access to FP services and reduce the unmet need for FP. The Afghan Family Guidance Association (AFGA), a non-profit organization, was founded in Afghanistan in 1968 to offer counseling on sexual and reproductive health and contraceptives to families, particularly women (Zaki, 1974). Access to primary, secondary, and tertiary healthcare services had improved significantly through the Basic Package of Health Services (BPHS) and Essential Package of Hospital Services (EPHS), which were launched in 2003 and 2005, respectively (Ajmal et al., 2018). FP services are one of the critical elements of the BPHS and EPHS. Besides, non-governmental organizations (NGOs) such as AFGA, Marie Stopes International, and Afghanistan Social Marketing Organization have actively supported the private sector for FP services (UNFPA & USAID, 2016). One of the challenges in promoting FP in Afghanistan is the perception of the ideal family size. Married women, husbands, and

mothers-in-law believe having more children will make their families happier, help care for elderly parents, and compensate for potential losses from war and disease. Other challenges include perceptions of FP as a religious taboo, discouraging women from using contraceptives, and fear of side effects like pain, bleeding, weight change, and mood swings (Shafiqullah et al., 2018).

FP program in Nepal was initiated by the NGO of the Family Planning Association of Nepal (FPAN) in 1958, focusing on individual needs to control fertility (Lamichhane, 2017). The government stepped up to provide government-supported FP services in 1968 through the formation of the Nepal Family Planning and Maternal and Child Health (FP/MCH) Board to tackle the rapid population growth in the country (Tamang et al., 2010). The FP/MCH Project engaged strategies such as mobile camps and door-to-door services to provide FP services, especially sterilization, in the 1970s. At the same time, the project was exploring various means to deliver FP services in rural areas (Robinson & Ross, 2007). Besides FPAN, other NGOs such as Marie Stopes International also provided FP services to the locals, while Nepal Contraceptive Retail Store Company and Population Services International assisted in social marketing and acted as contraceptive distributors to the public and private sectors (Tamang et al., 2010).

India was the first country in the world to launch a state-sponsored national FP program in 1952. The main objective of the program was to control population growth and lower fertility through a target-based approach in India (Chaurasia & Singh, 2014). The government attempted to change from a clinic-based program that began in the early 1950s to a public health-based outreach program in the early 1960s. However, the attempt was ineffective due to applying the same approach to a population with different characteristics and lacking sufficient training for FP workers (Robinson & Ross, 2007). The program was later transformed into a decentralized community-based approach in 1996. The health and demographic indicators were integrated into the reproductive and

child health component under the National Rural Health Mission launched in 2005 (Chaurasia, 2014; Chaurasia & Singh, 2014). Despite the failure of the FPP to lower the fertility rate between the 1960s and 1970s, there was a strong political will from the government to confront the population growth issue, which was found lacking in other countries. The current aims of the FP program in India are to empower women, reduce maternal and infant mortality rates, and control population growth.

Before the independence of Bangladesh in 1971, Bangladesh and Pakistan belonged to the same country, known as East and West Pakistan. Volunteers introduced the FP services in East Pakistan in 1950 (Khuda & Barkat, 2010), whereas the FP movement in West Pakistan began by the Family Planning Association of Pakistan (FPAP) in 1953 (Rukanuddin & Hardee-Cleaveland, 1992). Following this, FP services were introduced in the government's First Five-Year Plan (1955-1959) through the FPAP and other voluntary associations which focused on developing the nation's economy. It was until the Second Five-Year Plan (1960-1964) fertility and population growth issues started to receive attention from the government. The government has allocated adequate funds for FPP, and at the same time, international groups such as the Ford Foundation and the Population Council have offered technical support to the country (Robinson & Ross, 2007). Subsequently, population control became the main agenda in the Third Five-Year Plan (1965-1969), which aimed to reduce the birth rate from 50 to 40 per 1000 population by 1970 (Adil et al., 1968). The two wings followed the same policies and program structure and experienced similar results from these efforts. The anti-FP sentiment was found among the conservative Islamic population and was more likely to be greater in West Pakistan than in East Pakistan. Although most women had heard of FP, the plan failed to achieve its objective as CPR had not increased, and fertility remained unchanged in both wings. Nevertheless, the practice of clinical and surgical methods of contraception was more popular in East Pakistan than in West Pakistan (Robinson & Ross, 2007). Such

failure has reduced political support and a new approach, the continuous motivation system, was launched in 1970.

After 1972, the new Pakistani government showed no interest in the FP program. The ineffectiveness of the FPP can be attributed to several factors, including poor integration within the program, the religious conflict caused by the politicization of some Islam-based NGOs, and a lack of activities for information, education, communication, evaluation, and monitoring processes (Lai, 2021).

1.4 Trends and Patterns of Family Planning Practices in South Asian Countries

The DHS reports have shown that the CPR for married women in South Asia varies between 19% and 54%, with the Maldives having the lowest, followed by Afghanistan (23%), Pakistan (34%), Nepal (53%), and India having the highest. The reports also showed that the unmet need for contraception was the lowest in India (13%), followed by Pakistan (17%), Nepal (24%), Afghanistan (25%), and Maldives (31%) (Central Statistics Organization et al., 2017; International Institute for Population Sciences (IIPS) & ICF, 2017; Ministry of Health (Maldives) & ICF, 2018; Ministry of Health (Nepal) et al., 2017; National Institute of Population Studies (Pakistan) & ICF, 2019).

In Afghanistan, low CPR and high unmet need for FP were observed. In 2015-16, the CPR for any method was 22.5% (19.8% modern methods and 2.7% traditional methods), and the total unmet need was 24.5% (17.5% unmet need for spacing and 7.0% unmet need for limiting) (UN DESA, 2021). This indicates that a significant percentage of women in Afghanistan were not using contraceptives, and a high percentage of women had an unmet need for FP, either for spacing or limiting births. No trend could be described for CPR and unmet need for FP in Afghanistan due to a lack of data availability.

India had the highest CPR and the lowest unmet need for FP among the countries under study. Over time, India's CPR experienced a significant increase, rising from 40.7% (36.5%

modern methods and 4.3% traditional methods) in 1992-93 to 53.5% (47.8% modern methods and 5.7% traditional methods) in 2015-16. Meanwhile, the total unmet need witnessed a noteworthy decline, decreasing from 20.3% (12.2% unmet need for spacing and 8.1% unmet need for limiting) to 12.9% (5.7% unmet need for spacing and 7.2% unmet need for limiting) (UN DESA, 2021).

Nepal, like the other countries under study, had a low CPR and a high unmet need for contraception. Over the years, Nepal has witnessed a significant increase in CPR, rising from 24.1% (24.1% traditional methods) in 1991-92 to 46.7% (44.2% modern methods and 2.5% traditional methods) in 2019. However, in terms of reducing the total unmet need, Nepal experienced the smallest decline compared to the other countries, decreasing from 27.7% (12.4% unmet need for spacing and 15.3% unmet need for limiting) in 1991-92 to 24.7% (9.8% unmet need for spacing and 14.9% unmet need for limiting) in 2019 (UN DESA, 2021).

Historically, Pakistan had lower CPR and higher unmet need for FP than other countries in the region. However, there have been efforts to increase the use of contraception among women over time. CPR has increased significantly, from 11.8% (9% modern methods and 2.8% traditional methods) in 1990-91 to 34.2% (25% modern methods and 9.2% traditional methods) in 2017-18. Meanwhile, the total unmet need fell from 30.5% (15% unmet need for spacing and 15.4% unmet need for limiting) to 17.3% (9.5% unmet need for spacing and 7.8% unmet need for limiting) (UN DESA, 2021).

Upon close examination of the trend of CPR and unmet need for FP in selected South Asian countries excluding Afghanistan, the overall CPR had increased, and the unmet need had decreased across all countries since the 1990s. While CPR in India, Nepal, and Pakistan has increased since the 1990s, it remains low compared to other Asian countries. The observed inter-country variations in contraceptive use and unmet need for FP can be attributed to various socio-cultural, economic, political, and healthcare-related factors.

Despite efforts to increase contraceptive use and reduce unmet need for FP, many women continue encountering obstacles such as limited access to FP, social stigma, and lack of education. In addition, IPV is a significant factor that may influence contraceptive use and the unmet need for FP in these countries. The relationship of IPV with contraceptive use and unmet need for FP will be explored further in subsequent sections. By thoroughly investigating these factors, it is possible to gain a more comprehensive understanding of the complex dynamics surrounding FP practices and IPV in each country, allowing for the identification of potential interventions and strategies to address challenges and promote reproductive health and rights.

1.5 Intimate Partner Violence in South Asian Countries

IPV is a major public health problem that severely impacts women's health and well-being. IPV refers to behavior within an intimate relationship that causes physical, sexual, or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse, and controlling behaviors inflicted by both current and former spouses and partners (WHO, 2012). Women and adolescent girls in South Asia are the ones who are most severely affected by IPV. It is estimated that almost one-third (27%) of all ever-married/partnered women of reproductive age worldwide have experienced either physical and/or sexual violence at least once in their lifetime (WHO, 2021).

Women in developing countries generally have higher rates of IPV than those in developed countries. The least developed countries (37%) and three subregions of Oceania (Melanesia, 51%; Micronesia, 41%; Polynesia, 39%) had the highest lifetime prevalence of IPV, followed by Southern Asia region (35%) and Sub-Saharan Africa region (33%) (WHO, 2021). Regional estimates showed that the prevalence of IPV was the lowest in Central Asia (18%) and the highest in South Asia (35%) within Asia. The DHS (conducted in Afghanistan, India, Nepal, Pakistan, and Maldives) and Bangladesh

Violence Against Women Survey (conducted in Bangladesh) reported that the lifetime IPV among ever-partnered women in South Asian countries ranged between 16.3% and 54.2%, with the lowest in Maldives, followed by Pakistan (24.5%), Nepal (25%), India (28.8%), Afghanistan (50.8%) and the highest in Bangladesh (Bangladesh Bureau of Statistics, 2016; Central Statistics Organization et al., 2017; International Institute for Population Sciences (IIPS) & ICF, 2017; Ministry of Health (Maldives) & ICF, 2018; Ministry of Health (Nepal) et al., 2017; National Institute of Population Studies (Pakistan) & ICF, 2019). Studies have shown that IPV brought about adverse sexual and reproductive health problems in women, such as unmet need for contraception, unwanted pregnancies, induced abortion, low birth weight, contraceptive non-use, and human immunodeficiency virus (Parmar & Sharma) infection (Anand et al., 2017; Forrest et al., 2018; García-Moreno et al., 2013; Gomez, 2011; Pallitto et al., 2013).

1.6 Country Profiles

1.6.1 Afghanistan

Afghanistan is a landlocked country with a population of approximately 40 million people. Afghanistan has a population density of around 61.8 people per square kilometer, making it one of the least densely populated countries in the world (UN DESA, 2022b). The country's population has been increasing steadily over the past few decades, and it has the highest estimated population growth rate of 2.9% in 2021 among the four selected countries. Afghanistan has a low level of urbanization, with only around 26.3% of the population living in urban areas in 2021. However, the urban population is growing rapidly, with an annual growth rate of about 4% (World Bank, 2021). Afghanistan is a diverse country with a variety of ethnic groups. The Pashtuns is the largest ethnic group, followed by Tajiks, Hazaras, Uzbeks, and others. Islam is the official religion of Afghanistan, and the majority of the population is Muslim, accounting for approximately

99.7% of the population. Among the Muslim population, Sunni Muslims make up between 85% and 90%, while Shia Muslims constitute between 10% and 15% (Central Intelligence Agency, 2023).

Afghanistan had the lowest gross domestic product (GDP) per capita of around $368.8 in 2021 among the four countries under study, and it is considered one of the poorest countries in the world (World Bank, 2021). The country's economy relies heavily on foreign aid, agriculture, and natural resources such as minerals and gas. The ongoing conflict and political instability have hindered economic development and foreign investment. Compared to the other three countries under study, Afghanistan had the highest poverty rate below the national poverty line, with approximately 54.5% of the Afghan population living below the line in 2016 (World Bank, 2021).

Afghanistan had a low human development index (HDI[2]) ranking of 180th out of 191 countries in 2021, with a HDI score of 0.478, which was the lowest score across the countries under study. This is due to factors such as low levels of education, health, and income. Besides, Afghanistan ranked 167th on the GII, which was the lowest rank across the countries under study, with a score of 0.678 in 2021 (UNDP, 2022). Women's empowerment is a major issue in Afghanistan, where gender inequality and discrimination are widespread. Women face significant barriers to education, healthcare, and employment and are often subjected to violence and harassment.

In 2022, Afghanistan's crude death rate (CDR) was approximately 6.9 deaths per 1,000 population, and the infant mortality rate (Mahmud et al.) was around 40.8 deaths per 1,000 live births. Afghan women have a higher life expectancy at birth than men. Female life expectancy at birth in Afghanistan was approximately 66.2 years, while male life expectancy at birth was 59.8 years. Afghanistan had the highest TFR among the countries under study, with 4.5 children per woman (UN DESA, 2022b). Education levels in

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[2] HDI is measured based on three components: life expectancy, education, and gross national income per capita.

Afghanistan are low, with a high illiteracy rate, particularly among women and girls. The adult literacy rate was around 37.3% in 2021, with higher rates among men (52.1%) than women (22.6%). Afghanistan had the lowest female literacy rate of the four countries under study. The female labor force participation rate was the lowest in Afghanistan among the four countries examined, with females having a participation rate of only 23.3%, much lower than the male participation rate of 77.1% in 2021 (World Bank, 2021). The gender gap in labor force participation is a global issue beyond Afghanistan's borders. Women worldwide face barriers and challenges that prevent them from entering the labor force and limit their economic opportunities.

1.6.2 India

India is the 7th largest country in the world in terms of land area, with a population of approximately 1.41 billion as of 2021. Regarding population size, India surpassed China to become the world's most populous country in 2023 (UN DESA, 2023). The population density is estimated to be around 469.7 people per square kilometer. The population growth rate has been declining in India recently and was the lowest among countries under study, at about 0.8% in 2021. India is undergoing rapid urbanization, with an estimated 35.4% of the population living in urban areas as of 2021, a notable increase from 27.9% two decades ago (World Bank, 2021). Approximately 10% of India's population lived in poverty in 2021 (World Bank, 2023). India is a diverse country with a variety of ethnic groups. The largest ethnic group is the Indo-Aryans, followed by Dravidians, Mongoloid, and other groups. India, known for its religious diversity, is home to several major religions including Hinduism, Islam, Christianity, Sikhism, Buddhism, Jainism, and others, with Hinduism (79.8%) being the largest religion, followed by Islam (14.2%), Christianity (2.3%), and various other indigenous belief systems and faiths contributing to the country's complex religious landscape. (Central Intelligence Agency,

2023). India has significant diversity in terms of development levels and population growth rates, and this diversity varies significantly from state to state, often resulting in differences in FP practices.

India is a developing country with a mixed economy. According to the World Bank (2021), India had the highest GDP per capita of around $2256.6 in 2021 among the four selected countries. Furthermore, India had the highest HDI value of 0.633 among the four countries under study in 2021, ranking 132nd out of 191 countries and placing it in the medium human development category. Women's empowerment in India has been the focus of various government and non-government initiatives, including the Beti Bachao, Beti Padhao (Save the Daughter, Educate the Daughter) campaign, and the Mahila E-Haat (online marketing platform for women) initiative. However, gender inequality remains a significant issue in India, as indicated by a high GII value of 0.49 in 2021, positioning the country at the 122nd rank (UNDP, 2022).

In 2022, the CDR in India was about 9.1 deaths per 1,000 population, while the IMR was around 26.3 deaths per 1,000 live births. The female life expectancy at birth was around 69.4 years, higher than the male life expectancy of 66.3 years. India had a TFR of 2.0 children per woman (UN DESA, 2022b). As of 2018, India has made significant progress in education, having the highest female literacy rate among the countries under study, with a female literacy rate of 65.8% and a male literacy rate of 82.4% (World Bank, 2021). Nonetheless, India's education system still faces numerous challenges, including unequal access to education, underfunding, and poor educational quality in public schools (Kumar & Rustagi, 2010). India's labor force participation rate was around 51.2% in 2021. However, the female labor force participation rate (27%) was much lower than the male labor force participation rate (75.1%) (World Bank, 2021).

1.6.3 Nepal

Nepal is a landlocked country, bordered by China to the north and India to the south, east, and west. The estimated population of Nepal in 2021 was 30 million, with a population density of 204.7 people per square kilometer. The population growth rate was 2.3%, and most of the population lives in rural areas. The level of urbanization is the lowest across countries under study, with only 21% of the population living in urban areas (World Bank, 2021). Nepal is a diverse country with over 100 ethnic groups, each with its language, customs, and traditions. The largest ethnic group is the Chhetri, followed by the Brahman-Hill, Magar, Tharu, Tamang, Newar, Gurung, and others. Despite the diversity, the Nepali language is widely spoken throughout the country. Nepal is a religiously diverse country, with Hinduism (81.2%) as the majority religion, followed by Buddhism (8.2%), Islam (5.1%), Kiratism (3.2%), Christianity (1.8%), and others (Central Intelligence Agency, 2023).

Agriculture is the economy's largest sector, employing more than two-thirds of the workforce. Other major sectors include tourism, manufacturing, and services. Nepal is a developing country with a GDP per capita of $1208.2 in 2021 (World Bank, 2021). Nepal remains one of the world's poorest countries, and poverty is still a major problem in rural areas and among marginalized groups. In 2010, approximately 25% of the population lived below the national poverty line (World Bank, 2023). In recent years, Nepal has achieved advancements in enhancing its HDI. As of 2021, Nepal's HDI value reached 0.602, positioning the country at the 143rd rank among 191 nations. Women empowerment in Nepal has been a significant focus in recent years, with efforts to improve women's education, healthcare, and economic opportunities. Nepal ranked the highest among the countries under study in terms of GII, with a GII value of 0.452, placing Nepal at the 113th rank in 2021 (UNDP, 2022).

Additionally, Nepal has made significant progress in reducing its CDR and IMR in recent years. As of 2022, Nepal's CDR was 6.7 deaths per 1,000 population, and the IMR was 20.3 deaths per 1,000 live births. In Nepal, women tend to have a longer life expectancy than men, with female life expectancy at birth of 72.4 years compared to male life expectancy of 68.6 years. TFR in Nepal has been declining over the past few decades, and it was 2.0 children per woman in 2022 (UN DESA, 2022b). In 2021, the literacy rate was around 71.2%. However, there was still a significant gender gap in literacy rates, with men (81%) having a higher literacy rate than women (63.3%). Nepal, on the other hand, had the lowest gender gap in the labor force participation rate, with the highest rate of female participation among the countries under study. In 2017, Nepal's labor force participation rate was approximately 39.9%, with the male participation rate at a significantly higher level of 55%, almost double the female participation rate of 27.9% (World Bank, 2021).

1.6.4 Pakistan

Pakistan is the world's fifth-most populous country, with a diverse population and various ethnic and linguistic groups. According to the latest estimates from the World Bank (2021), Pakistan's population in 2021 was around 231.4 million, with a population density of 294.7 people per square kilometer. Meanwhile, the population growth rate was 1.8%. Pakistan has the highest rate of urbanization among selected countries, with 37.4% of the population living in urban areas in 2021 (World Bank, 2021). The ethnic makeup of Pakistan is complex and diverse, with Punjabi being the majority, followed by Sindhi, Saraiki, Pashtu, Urdu, and others. Pakistan is a Muslim-majority country, with Islam (96.5%) being the majority religion, while there are smaller religious minorities including Christians, Hindus, Sikhs, and others. Sunni Muslims account for between 85% and 90%

of the Muslim population, while Shia Muslims constitute between 10% and 15% (Central Intelligence Agency, 2023).

Pakistan's economy heavily depends on agriculture, which accounts for around 20% of its GDP and employs nearly half its workforce. Other major industries in Pakistan include textiles, manufacturing, and services. In 2021, Pakistan had a GDP per capita of $1505 (World Bank, 2021). Poverty remains a major issue in Pakistan, with an estimated 21.9% of the population living below the national poverty line in 2018 (World Bank, 2023). Pakistan's HDI score has risen over time, but the pace has slowed. Pakistan's HDI increased from 0.400 to 0.544 between 1990 and 2021, placing it at 161st out of 191 countries. Pakistani women face significant challenges in terms of empowerment and gender equality. The GII value for Pakistan in 2021 was 0.534, putting it in 135th place (UNDP, 2022).

Pakistan's CDR was 7.0 deaths per 1,000 population, and the IMR was 51.8 deaths per 1,000 live births in 2022. Compared to the male life expectancy at birth of 64.1 years, the female life expectancy at birth of 68.9 years was higher in Pakistan. TFR for Pakistan dropped significantly from 5.0 children per woman in 2002 to 3.4 in 2022 (UN DESA, 2022b). Although Pakistan has improved education and literacy rates over the years, there is still a significant gender gap. In 2019, the literacy rate for individuals aged 15 and above was 58%. Nonetheless, the literacy rate among females was 46.5%, comparatively lower than the male literacy rate of 69.3% in the same year. Moreover, a notable gender gap exists in terms of labor force participation. In 2021, the overall rate of participation in the labor force was 52.7%, with females having a lower rate of 24.5% compared to males, who had a rate of 80.7% (World Bank, 2021).

1.7 Problem Statement

The unmet need for FP in developing countries is regarded as a major impediment to the development of its people, particularly vulnerable groups such as women and children. Addressing the unmet need for FP is one of the unfinished goals of the Family Planning 2020 initiative. The commitment to zero unmet need for FP information and services was also one of the unfinished commitments made at the 2022 International Conference on Family Planning (ICFP). This commitment is a recognition of the importance of FP in promoting reproductive health, reducing maternal and child mortality, and enabling individuals to make informed choices about their own lives and futures. The concept of unmet need emphasizes the need to provide women with access to various contraceptive options and information on their usage. It recognizes that women may want to use contraception to prevent unintended pregnancies but may face barriers to accessing and using these methods.

In South Asia, low CPR and high unmet need for FP are major concerns that can be attributed to several factors. These include restricted availability of FP services, cultural and social norms, insufficient education and awareness, ineffective government policies, and inadequate funding (Chaudhury, 2001; Najafi-Sharjabad et al., 2013). In several regions, the availability of facilities offering FP services is insufficient, and even in places where they exist, the supply of contraceptives and trained personnel is inadequate to provide quality services. Consequently, women face significant challenges in accessing and using FP services, which leads to a high unmet need for contraception. The right to access FP services and contraceptive methods is a fundamental human right and is critical for attaining various SDGs, such as SDG 1: no poverty, SDG 3: good health and well-being, and SDG 5: gender equality.

The unmet need for FP in South Asia is strongly influenced by patriarchal norms and values limiting women's control over their reproductive health. In societies where men

hold dominant positions of power, women are often viewed as the property of their husbands, and their primary role is seen as that of a wife and mother (Hapke, 2013; Sultana, 2010). As a result, women's reproductive health is closely tied to their perceived value in these roles. Limited autonomy and decision-making power in reproductive health matters makes it challenging for women to access FP services (Lai & Tey, 2020). As a result, women may face pressure to have children and be discouraged from contraceptives or seeking FP services. Additionally, women who use contraceptives may face stigma and discrimination, as their use of contraception may be seen as challenging patriarchal norms (Chaudhury, 2001; Najafi-Sharjabad et al., 2013).

Patriarchal norms in South Asia contribute to IPV, where men are expected to have power and control over their partners. IPV, which encompasses behavior within an intimate relationship that results in physical, psychological, or sexual harm to a partner, is prevalent in the region. In Asia, the prevalence of IPV was the highest in South Asia, with a regional rate of 35% (WHO, 2021). Studies demonstrate that women who experience IPV are more likely to have an unmet need for FP (Kaneda & Smith, 2015; Silverman & Raj, 2014). This is due to various reasons, such as limited access to FP services, insufficient decision-making authority, and concern about violence.

Firstly, women who experience IPV may be unable to leave their homes without their partner's permission, making accessing FP services difficult. Additionally, IPV can lead to social isolation, making it challenging for women to access health facilities or seek help. Secondly, women who experience IPV may be unable to decide about contraceptive use or fear violence if they suggest using contraceptives. In some cases, women may also face reproductive coercion, where their partners force them to have children or prevent them from using contraceptives. Finally, IPV can lead to fear and anxiety, which may deter women from seeking help or using contraceptives. Women may also fear retaliation from their partners if they suggest using contraceptives or seeking help.

According to an estimate in 2019, one in every four or 218 million women in low- and middle-income countries (LMICs) who want to avoid pregnancy have an unmet need for modern contraception (Sully et al., 2020). The risks of disease and death associated with pregnancy and childbirth are high, especially in developing countries (WHO, 2018). Girum and Wasie (2017) reported that developing countries account for almost 99% of maternal deaths. Among these, South Asia accounted for nearly a third of these deaths. Afghanistan had the lowest CPR among the countries under study, whereas India had the highest CPR. Conversely, India had the lowest unmet need for FP, while Afghanistan had the highest unmet need for FP. In these South Asian countries, low contraceptive use and high unmet need pose significant threats to the health and welfare of women, children, families, and communities.

Unintended pregnancy was significantly more common among women with unmet need than among women without unmet need (Bishwajit et al., 2017; Yaya & Ghose, 2018). Unintended pregnancy is a worldwide public health problem that imposes a great socio-economic burden on a country. It not only increased maternal mortality and morbidity rate (Mohllajee et al., 2007; Tsui et al., 2010), but also caused women to suffer from maternal health complications (Dehingia et al., 2020), experience poor antenatal care (Abame et al., 2019; Dehlendorf et al., 2010) and other negative consequences which include mental illnesses, risk of miscarriage, physical and emotional violence, and delayed access to prenatal care (Yazdkhasti et al., 2015). Furthermore, high rates of unintended pregnancy can contribute to exacerbating poverty and environmental challenges. Between 2015 and 2019, around 121 million unintended pregnancies worldwide, of which 61% resulted in abortions (Bearak et al., 2020). If modern contraceptives were fully accessible in LMICs, unintended pregnancies would decline by over two-thirds, from 111 million to 35 million annually, and maternal deaths would drop

by 23% each year, even without improvements in pregnancy-related care (Sully et al., 2020).

Addressing the unmet need for FP can help achieve the goals of SDGs, such as good health and gender equality. Preventing unintended pregnancies and promoting healthy childbirth practices through addressing the unmet need for FP can lead to various positive outcomes, such as reducing maternal and child mortality rates, improving maternal and child health, and contributing to achieving SDG 3 targets. Furthermore, promoting FP can support women's reproductive rights, increase their decision-making power, and promote economic and social empowerment. FP practice can contribute to reducing gender-based inequalities, promoting gender equality, and achieving the targets of SDG 5.

1.8 Research Questions

The research in question centers on women between the ages of 15 and 49 who were married or in a union and completed the domestic violence component. The following are the research questions for this study:

1. How does the prevalence of IPV, contraceptive use, and unmet need for FP differ across and within South Asian countries?

2. What is the association of IPV and socio-economic variables with contraceptive use in South Asian countries?

3. What is the association of IPV and socio-economic variables with unmet need for FP in South Asian countries?

1.9 Research Objectives

This study aims to examine how IPV, and socio-economic variables relate to FP practices, which are contraceptive use and unmet need, in specific countries in South Asia. The following are the study's research objectives:

1. To investigate the prevalence of IPV, utilization of contraceptives, and the extent of unmet needs for FP across and within four South Asian countries

2. To examine the association of IPV and socio-economic variables with contraceptive use in South Asian countries.

3. To examine the association of IPV and socio-economic variables with unmet need for FP in South Asian countries.

1.10 Research Hypotheses

With reference to the research objectives, the hypotheses tested in this study are:

Hypothesis 1a: There is a significant variation in the prevalence of IPV by socio-economic variables in selected South Asian countries.

Hypothesis 1b: There are significant variations in the prevalence of contraceptive use and unmet need for FP by IPV and socio-economic variables in selected South Asian countries.

Hypothesis 2a: There are significant negative associations between IPV variables and contraceptive use.

Hypothesis 2b: There are significant associations between socio-economic variables and contraceptive use.

Hypothesis 3a: There are significant positive associations between IPV variables and unmet need for FP.

Hypothesis 3b: There are significant associations between socio-economic variables and unmet need for FP.

1.11 Scope of the Study

This study analyses the prevalence of IPV, contraceptive use, and unmet need for contraception for various socio-economic sub-groups of the population in four South

Asian countries: Afghanistan, India, Nepal, and Pakistan. This paper also examines the associations of IPV and socio-economic variables with FP practices, specifically, contraceptive use and unmet need for contraception. These four countries were chosen for several reasons. First and foremost, these four countries are among the largest and most populous in the region, accounting for more than 90% of the population of South Asia in 2021. Second, the selection of these countries is based on the availability of DHS data. Furthermore, women between the ages of 15 and 49 who were married or in a union and had answered the domestic violence module were included in this study. Bangladesh is excluded from this study because the 2014 Bangladesh DHS does not include the domestic violence module. Third, the patriarchal system, which is often linked with IPV, exists in all four countries. As the study focuses on IPV, only South Asian countries with high GII and a ranking of more than 100th are chosen. Maldives has a GII of 0.348 and a ranking of 83rd and thus is excluded from the study (UNDP, 2022). In comparison to the other four countries under study, Maldives has a very small population and a low prevalence of IPV (4.9% physical violence, 0.5% sexual violence, and 6.5% emotional violence) (Hoo & Lai, 2023b).

1.12 Significance of the Study

Despite ongoing efforts to promote FP practices, the unmet need for FP remains high in some South Asian countries. To improve the existing initiatives aimed at raising the prevalence of contraceptive use and lowering the unmet need for FP in these nations, it is crucial to recognize and comprehend the factors that pertain to the specific setting and impact FP practices. However, there has been comparatively less research conducted on these developing countries. This study aimed to fill the research gap by identifying the factors that significantly influence FP practices and evaluating any differentiating effects of these factors on FP practices in developing nations, particularly those in South Asia.

The link between IPV and FP practices in South Asian countries remains underexplored in the literature, and the inconsistent findings across previous studies suggest a lack of clarity regarding their relationship. While past studies have explored the association between these two variables in other regions, such as Sub-Saharan Africa and Latin America, only a handful of them have investigated this relationship in the context of South Asia (Dalal et al., 2012; Raj & McDougal, 2015; Singh & Shukla, 2017). In fact, research on the relationship between IPV and unmet need has been far less extensive than research on contraceptive use. More research is needed to comprehensively understand the connection between IPV and FP practices in South Asian countries and to create effective policies and interventions that address these issues. By understanding how IPV and FP practices intersect, interventions can be developed that comprehensively address women's reproductive health and rights in abusive relationships.

Research has been scarce in South Asian countries investigating combination types of IPV and controlling behaviors as explanatory factors of FP practices. This gap is noteworthy because IPV is prevalent in the region, which has been linked to FP practices. Additionally, controlling behaviors in intimate partner relationships are prevalent, reflecting entrenched gender roles and patriarchal norms that often require women to be submissive to their male partners. Gaining more insights into the impact of combination types of IPV and controlling behaviors on reproductive health can enable the creation of specific policies and interventions to enhance women's reproductive health outcomes in the region.

Previous research on FP practices determinants mainly focused on a specific region or country. The association between socio-economic factors and contraceptive use (Aslam et al., 2016; Hossain et al., 2018; Islam et al., 2016; Osmani et al., 2015; Rasooly et al., 2015) and association between socio-economic factors and unmet need for FP (Ajmal et al., 2018; Asif & Pervaiz, 2019; Mehata et al., 2014; Raveendran & Vijayakumar, 2017;

Sivaraman & Das, 2018) at the national level for each South Asian country were well established. However, very few studies compared developing countries on contraceptive use and the unmet need for FP together. While earlier studies addressed the unmet need for FP in the South Asia region as a whole (Chaudhury, 2001; Kapoor, 1995; Pachauri, 1998), these studies, which were carried out two decades ago, were specifically focused on particular nations in the region.

While the unmet need for FP is typically most prevalent among marginalized and vulnerable women (Anik et al., 2022; Teshale, 2022), there is a lack of research on their unique experiences and needs, especially IPV. Thus, this study utilizes the DHS data to investigate how IPV and socio-economic factors are linked to FP practices among women of reproductive age in South Asian countries. This research aims to fill the gap left by previous studies, which relied on earlier versions of DHS data (Kumar & Singh, 2013; Lamichhane, 2017; Majumder & Ram, 2015; Osmani et al., 2015; Siddique et al., 2019). While past studies focused on socio-demographic and economic determinants of contraceptive use and unmet need, this thesis aims to highlight the prevalence of IPV in South Asia, and the impact of the different kinds of gender-based violence on contraceptive use, which in turn affect childbearing and the welfare of the family. By providing new insights into reproductive health in developing countries, this study aims to help policymakers improve existing FP policies and address the high unmet need among specific population groups. Two of the 17 SDGs to be accomplished by 2030 are promoting good health and well-being and achieving gender equality. This study's results are expected to shed light on how to expedite progress towards eliminating unmet need for FP and sexual and gender-based violence to achieve the incomplete goals outlined at the 2019 Nairobi Summit on the ICPD.

1.13 Organization of the Thesis

This dissertation is divided into five chapters. Chapter one introduces the background and provides an overview of the research. Chapter two discusses the theories related to FP practices, past studies on IPV and FP practices, and factors associated with FP practices. Chapter three describes the study's data sources, conceptual framework, statistical techniques, and all the study variables. Chapter four presents the study's findings, beginning with a description of the respondents' socio-economic backgrounds in each survey. The results are then analyzed and discussed for each research hypothesis. Finally, in chapter five, the findings of this study are discussed. It highlights significant findings, makes recommendations to relevant parties and policymakers, and identifies this study's limitations and future research directions.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Social and environmental factors often limit women's power in deciding their health and that of their children, weakening their abilities to decide independently and freely on their reproductive and sexual choices. While most prior research had examined the influence of socio-economic factors on contraceptive use and unmet need for contraception separately, few studies have been conducted on both, particularly at a regional level.

Wide variations exist in the pattern of contraceptive prevalence and unmet need between countries and even at sub-national levels. Past studies have shown that many demographic, biological, socio-economic, and behavioral variables influenced the levels of contraceptive use and unmet need. The associated factors of contraceptive use and unmet need in the literature will be discussed in this chapter, focusing on the literature mainly in South Asia and developing countries. This chapter begins by introducing the main theories used in this study. It proceeds to discuss the various dimensions of access to FP services, the underlying reasons for unmet need for FP, the risk factors associated with IPV, and its impact. Additionally, it explores the relationship between IPV and FP practices and the association between husbands' controlling behaviors and FP practices. Subsequently, an overview of the existing literature on the factors that influence FP practices is presented. Lastly, the chapter outlines the theoretical framework employed in the study and highlights the research gaps addressed.

2.2 Main Theories of IPV and FP Practices

Many scholars have proposed several theories to study women's behavior concerning FP. These social-structural theories describe how internal and external factors shape women's lives. IPV is widely acknowledged to impact women's FP practices significantly.

IPV not only harms women's physical and mental health, but it also impairs their ability to make reproductive health decisions. The integration of these theories explains the connections between the constructs of IPV and FP practices.

2.2.1 The Theory of Gender and Power

Robert Connell developed the Theory of Gender and Power (TGP), a social structural theory to explore gender-based inequities and disparities at the societal and institutional level (Connell, 1987). According to TGP, three fundamental social structures explain gendered relationships between men and women: sexual division of labor, which discusses economic disparities, sexual division of power, which discusses imbalance and abuse of authority in relationships and the structure of cathexis, which discusses cultural norms and affective component of relationships. These three structures were used to describe gender roles assumed by men and women in society.

Connell (1987) stated that these structures exist at the societal and institutional levels. Due to regular gender-based segregation through various historical, social, and political forces over a long time, these structures are deeply rooted in society and often taken for granted. These structures also manifest at the institutional level through social mechanisms such as unequal pay, imbalance of power in relationships, and constraints in expectations, creating inequities in economics and power and restrictive norms for women. Social institutions include work sites, schools, families, relationships, and media. Each structure will expose women to risk factors that adversely influence their health and increase their risk for diseases such as human immunodeficiency virus (Parmar & Sharma, 2020).

TGP can be used to describe a patriarchal society with gender-based discrimination. In South Asia, laws, policies, religion, culture, and violence against women uphold the system and structure of patriarchy (Nainar, 2013). Heise (1998) stated that the

perpetration of IPV was driven by patriarchal cultures that perceive violence as acceptable. The belief that males have supremacy over women was linked closely to IPV (Johnson & Ferraro, 2000).

2.2.1.1 Sexual Division of Labor

The sexual division of labor refers to allocating women and men to specific types of work. Women are often assigned different work than men, which causes women to suffer from lower status and compensation due to the gendered nature of work (Wingood & DiClemente, 2000). At the institutional level, women are delegated unpaid care work such as childcare and housework. Although there is an increase in women's labor force participation, it is still lower than that of men, and gender-based employment segregation remains high. Economic inequality that favors men perpetuates women dependence on men financially and makes them more susceptible to diseases and violence (Wingood & DiClemente, 2000).

2.2.1.2 Sexual Division of Power

The sexual division of power refers to the power differential between the genders. It happens because of the abuse of power and control by men within relationships (Raj et al., 1999). Men tend to be much more controlling in relationships as they perceive women as their property (Adams, 1991; Dobash & Dobash, 1979; Schechter, 1982). Male sexual possessiveness usually happens in a controlling relationship which can be expressed through sexual jealousy (Dobash & Dobash, 1979). This power imbalance often results in physical and sexual violence against women (Connell, 2013; Raj et al., 1999; Wingood & DiClemente, 2000).

2.2.1.3 Structure of Cathexis

The structure of cathexis is described as the constraint on women's sexual behavior by social norms and expectations and is distinguished by their emotional and sexual attachment to men (Connell, 1987; Raj et al., 1999; Wingood & DiClemente, 2000). At the institutional level, men's and women's sexual behaviors are governed by cultural practices and beliefs, such as premarital sex is forbidden for women and they should have sex solely for procreation. These rules of behaviors will limit women's desired sexual practices and disempower women in relationships and become more vulnerable to partner abuse (Raj et al., 1999).

2.2.2 Social-Ecological Model

Bronfenbrenner's 1958 ecological model, later modified in 1977, 1979, and 1986, looked at how children develop with their environments. It has been modified to consider various health and psychosocial outcomes (Bronfenbrenner, 1977, 1979; Heise, 1998). Four domains make up Heise's social-ecological model: individual, relationships, community, and society (Figure 2.1). According to the model, interactions between people and their social environments shape behavior, and interactions at different levels of social organization lead to the development of behavior (Bronfenbrenner, 1994; Dasgupta, 2001; Dobash & Dobash, 2004; Heise, 1998). This model acknowledges that IPV has a variety of causes that may function at various levels. The framework also considers how various factors in each domain interact with one another.
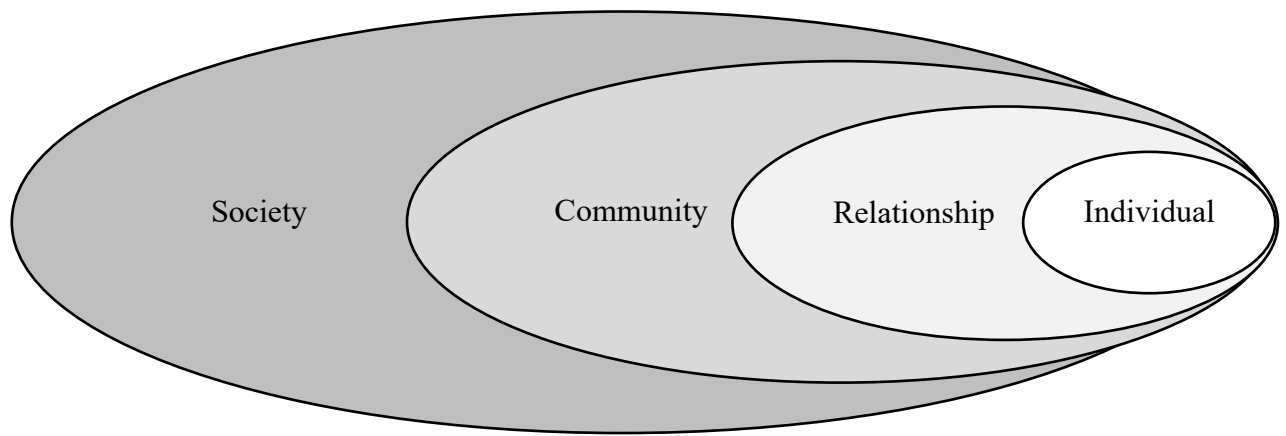
Figure 2.1 Adapted socio-ecological model for IPV

Source: Heise (1998)

Understanding the influences at each level is crucial for altering someone's or a community's behavior. The model aids in understanding the factors that expose women to violence or keep them from experiencing or engaging in it. The model also suggests that actions must be taken simultaneously at various levels of the model to prevent violence.

2.2.2.1 The Individual Domain

The first domain consists of an individual's traits and how those traits interact with their immediate surroundings (Bronfenbrenner, 1994, 1999). This level outlines the biological and historical components that raise the risk of becoming a victim of violence. Age, education, income, access to FP information and contraceptives, and abuse history are among the socio-economic traits included in the individual domain for women experiencing IPV (Ali & Naylor, 2013). For instance, young age at marriage has been identified as a critical factor in getting involved in abusive relationships (Glass et al., 2003). If a woman has never had sex education, she might not have the knowledge she needs to avoid getting pregnant, increasing her risk of getting pregnant. It is impossible to analyze individual circumstances in total isolation; instead, they are influenced by higher tiers of the social structure.

2.2.2.2 The Relationships Domain

The second level considers the people a woman may interact with within her family or community who may increase her chances of becoming a victim of violence. A woman's closest peers, partners, and family members have an impact on her behavior and experience. A significant contributor to the risk of IPV in relationships is the disparity between women and their partners. Women may be more likely to experience violence due to male control over the family's financial resources, unequal decision-making autonomy, and partners' controlling behaviors (Antai & Adaji, 2012; Blanc, 2001).

Past studies measure relationship inequality primarily by comparing the couple's characteristics, such as differences in earnings and educational attainment (Blanc, 2001). These differences have been found to impact the likelihood of abuse in particular societal contexts. For instance, women who make more money or have higher education levels than their husbands may be more susceptible to control and abusive behaviors in certain circumstances (Devries et al., 2013).

2.2.2.3 The Community Domain

The third domain investigates the environments in which social relationships take place, such as workplaces, schools, and neighborhoods, with the goal of identifying the characteristics of these environments that are associated with becoming a victim of violence. This domain investigates how a person's community influences interactions with peers and relationships. Social networks and norms are also considered community-level influencing factors that advocate violence as a legitimate form of conflict resolution. Norms and values interact to influence sexual or reproductive behaviors, such as the use of contraception (Tudge et al., 2009).

2.2.2.4 The Society Domain

The fourth domain examines the broad societal elements that contribute to promoting or suppressing violence. Local, state, and federal laws and policies are involved at this level and may impact an individual's behavior. The role and responsibilities of parents, societal norms, and larger economic, social, and health structures are identified as factors associated with women's behaviors.

2.2.3 Health Belief Model

The Health Belief Model (HBM) was initially introduced by Rosenstock (1974) to examine the paradoxical, widespread public rejection of disease prevention and screening services. The model explains health behavior as "any activity undertaken by a person who believes himself/herself to be healthy to prevent disease or detect disease in an asymptomatic stage" (Kasl & Cobb, 1966). It has been widely used to discuss differences in women's contraceptive behaviors from the 1970s until now (Chernick et al., 2015; Eisen et al., 1985; Hall, 2012; Hester & Macrina, 1985; Johnson et al., 2021; Mohsen et al., 2016; Nathanson & Becker, 1983). Figure 2.2 shows the model's five key constructs: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and self-efficacy, which are influenced by modifying factors such as knowledge, socio-demographic and socio-psychological factors (Glanz et al., 2008), including IPV (e.g., emotional violence).
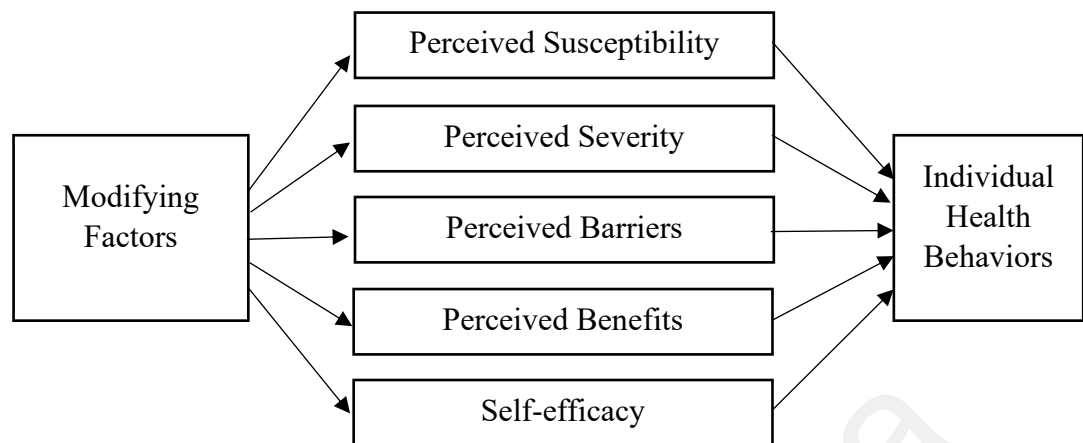
Figure 2.2 Health Belief Model components

Source: Glanz et al. (2008)

Perceived susceptibility refers to the feelings of personal vulnerability to illness or disease. For instance, women must first believe that she is susceptible to pregnancy. Perceived severity or seriousness refers to individuals' feelings concerning the consequences of getting or failing to treat an illness or disease. This construct includes medical consequences such as disability and death and social consequences such as impact on work and family. In this case, women must be aware that the pregnancy may have serious consequences, such as pregnancy complications and the possibility of losing a job due to increased child-rearing responsibilities.

Perceived barriers relate to the potential adverse outcomes of using FP. The perceived negative thoughts, such as side effects, inconvenience, cost, and limited access, may hinder individuals from practicing contraception. The perceived benefits, in contrast to perceived barriers, consider the perception of positive outcomes resulting from practicing contraception. Self-efficacy is the belief in one's ability to act. Individuals must think that engaging in a specific activity will result in a desired outcome and their ability to do that behavior. Women must realize that the potential negative outcome is avoidable by using contraception, and they can do it. They are more likely to take specific health actions if they believe the benefits outweigh the barriers.

Even though many scholars supported the use of HBM in explaining preventive health behaviors (Condelli, 1986; Janz & Becker, 1984; King et al., 2016; Nathanson & Becker, 1983; Zhao et al., 2012), many others criticized the model is not suitable for FP studies (Conner & Norman, 2005; Fisher, 1977; Gillam, 1991; Maiman et al., 1977). For instance, Fisher (1977) argued that applying the model in FP is inappropriate since pregnancy is not always viewed as a condition to be avoided. However, other researchers still considered the model helpful as the constructs of the model do not require health conditions to be constantly miserable and unwanted (Chernick et al., 2015; Eisen et al., 1985; Hester & Macrina, 1985; King et al., 2016; Laraque et al., 1997; Nathanson & Becker, 1983).

2.3 Dimensions of Access to FP Services

Bertrand et al. (1995) designed a framework specifically for FP introducing five dimensions of access to FP services: geographic or physical accessibility, economic accessibility, administrative accessibility, cognitive accessibility, and psychosocial accessibility. Bertrand's framework was widely used in past studies related to FP (Choi et al., 2016; Jain & Hardee, 2018; Price & Hawkins, 2007; Stephenson & Hennink, 2004).

Geographic or physical accessibility focuses on the users' geographic proximity to FP services. The location of FP services should be accessible by most of the FP users within their efforts. Economic accessibility is the cost incurred to reach service delivery points and acquire FP services within FP users' economic capacity. The cost to obtain contraceptive methods can pose an economic barrier that limits the access of potential users from practicing contraception and causes contraceptive discontinuation for existing users.

Administrative accessibility refers to irrelevant rules and regulations that obstruct contraceptive use. For instance, limited clinic operating hours for FP may result in denial

of contraceptive use. Cognitive accessibility represents the awareness of potential FP users about the location of service delivery points and the availability of services within those locations. Psychosocial accessibility emphasizes the influence of psychological, attitudinal, or social factors such as fear of contraceptives' side effects, myths, misconceptions about contraceptive methods, and cultural norms on the potential FP users' adoption of contraception.

2.4 Reasons for Unmet Need for FP Causal Framework

A causal framework developed by Machiyama et al. (2017), as shown in Figure 2.3, examines the reasons for the unmet need for FP based on five aspects: weak or inconsistent or ambivalent fertility preferences, generic disapproval of preventing pregnancy, method-specific barriers to use, perceived low risk of getting pregnant and partner-related factors. This framework was also incorporated into other studies (Machiyama et al., 2018; Obare et al., 2020; Odwe et al., 2019; Odwe et al., 2020).
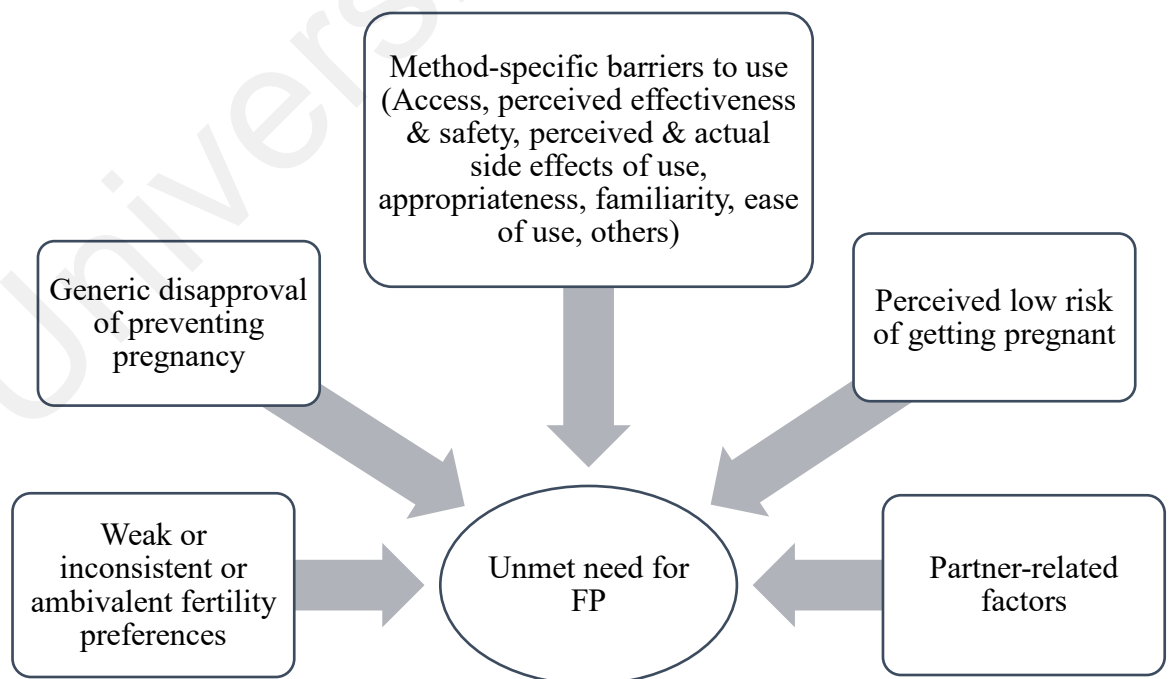
Figure 2.3 Causal framework for the causes of unmet need for FP
Source: Machiyama et al. (2017)

Ambivalent fertility preference is the main reason for contraceptive nonuse and unmet need for contraception. Women may have a weak commitment to their stated fertility preferences (Speizer et al., 2009). Women with unmet need have little motivation to practice contraception due to their inconsistent fertility preferences. This phenomenon is more likely to happen among women who desire to postpone childbirth than those who want to stop giving birth completely (Westoff & Bankole, 1995).

The second reason for the unmet need for FP is the generic disapproval of preventing pregnancy. Despite women having sufficient knowledge and motivation to use contraception, several social, cultural, and economic obstacles that could be generic disapproval of contraception or related to specific methods may hold them back from practicing contraception. Due to the lack of basic knowledge and accessibility of FP services, particularly in low contraceptive use settings, the intention to control pregnancy through contraception may trigger anxiety or hostile behavior among the public (Machiyama & Cleland, 2013).

Method-specific barriers to using contraception include a) issues related to information, geographical location, financial accessibility, and ease of acquisition when needed; b) the perceived efficacy in preventing pregnancy; c) the perceived safety of short- and long-term usage, along with concerns about future fertility; d) perceived and actual side effects of usage; e) the appropriateness of contraceptive methods for users; f) users' familiarity with contraception, as influenced by their social network and personal experiences; and g) usability aspects, including the potential for discreet use. They are concerned over the use of specific methods such as fear of side effects and health matters, whether based on rumor, personal experience, or others' experience, would significantly affect the use of a specific contraceptive method (Bradley et al., 2009; Ochako et al., 2015).

The fourth reason for the unmet need for FP is the perceived low risk of getting pregnant. Women's beliefs that they are infecund and sub-fecundity (Bradley et al., 2009;

Casterline et al., 1997) or at low risk of pregnancy (Sedgh & Hussain, 2014) may discourage them from practicing FP. Regardless of women's fertility preferences, this belief could happen due to permanent factors such as infertility or temporary factors such as lactational amenorrhea and sexual abstinence.

Partner's perception of contraception and fertility preference may impact women's contraceptive use decision-making. Partners' disapproval of contraception may lead to contraceptive nonuse among women (Casterline et al., 1997; Casterline et al., 2001). Disagreement in fertility preferences between couples will also reduce contraceptive use (Bankole & Audam, 2011; Baschieri et al., 2013).

2.5 Risk Factors for IPV and Its Impact

Much research has been done on the factors associated with IPV, especially in the context of developing nations. Many studies have examined the demographic, social, and structural elements contributing to gender-based violence in developing countries. The high prevalence of IPV in the majority of low-resource countries is caused by high gender inequality, patriarchal society, relationship conflicts, early marriage, poverty, and low literacy (Coll et al., 2020; Ghoshal et al., 2023; Gibbs et al., 2018; Jewkes, 2002; Krug et al., 2002). In South Asia, it was discovered that IPV was linked to several factors at three different levels: i) individual levels such as women's and husbands' literacy, experiencing or witnessing abuse as a child, smoking habit of husbands, ii) household/relationship level such as women's economic power, socio-economic status, number of children, decision-making autonomy, and iii) community levels such as religion, social norms and beliefs (Ali et al., 2014; Atteraya et al., 2015; Begum et al., 2015; Dadras et al., 2022; Samuels et al., 2017). These three domains were adapted from Heise's (1998) social-ecological model.

In South Asia, patriarchal norms and values reinforce unequal power dynamics between men and women, often justifying male dominance and control within relationships (Sultana, 2010). Women are typically subordinate in such a system, with limited autonomy and decision-making power. This power imbalance fosters IPV by allowing men to assert control and maintain dominance over their partners (Jewkes et al., 2015). The patriarchal system not only reinforces gender inequality but also cultivates an environment where violence against women in intimate relationships is normalized. Furthermore, the stigma associated with seeking help or disclosing violent experiences can exacerbate the problem by discouraging victims from seeking assistance and accessing resources (Abeya et al., 2012; Naved et al., 2006).

Relative resource theory has been applied to the study of IPV. This theory proposes that IPV may arise when one partner feels that their relative level of resources (e.g., power, status, income) has been threatened or diminished by the other partner. Research has found support for relative resource theory in the context of IPV, suggesting that inequalities in power and resources between partners can contribute to violent behavior (Conroy, 2014; Jewkes, 2002; Jewkes et al., 2002). For example, if a man perceives that his partner is earning more money or has more social influence than him, he may feel emasculated and become more likely to use violence to exert power and control over her.

Numerous studies have shown that those who experience IPV are much more likely to experience serious health issues and, in the worst scenarios, an early death, with IPV being a primary factor in both morbidity and mortality for women (Campbell, 2002; Coker et al., 2002; García-Moreno et al., 2013; Lagdon et al., 2014; Lutwak, 2018; Miller & McCaw, 2019). There have been countless reports of mental health issues among IPV victims, including depression, post-traumatic stress disorder, and suicidal thoughts. Additionally, it has been connected to a wide range of issues with sexual and reproductive

health, including unintended pregnancies, abortions, and sexually transmitted diseases (including HIV/AIDS).

2.6 IPV and FP Practices

The relationship between IPV and FP is very complex and remains debatable. Several studies have reported that one of the reasons women do not use contraceptives is disapproval or fear of violent reprisals from their husbands (Bergmann & Stockman, 2015; Fakeye & Babaniyi, 1989; Ghule et al., 2015; Krug et al., 2002; Raj & McDougal, 2015; Stephenson et al., 2008). The perception of the woman as a man's property whose role it is to bear children, being morally and sexually weak and thus subject to the man's control, and the social acceptance of violence against women as a justifiable means for a man to assert his position over the woman, all serve as impediments to women accepting and using contraception even when they do not want to have more children.

Prior empirical research has shown a significant relationship between IPV exposure and contraceptive use. However, studies have produced contradictory findings, with three distinct patterns: i) a negative association between IPV and contraceptive use, ii) a positive association between IPV and contraceptive use, and iii) the association varies by type of IPV. Various explanations exist for the direction and causal mechanisms underlying these relationships, indicating that patterns are highly context-specific and produce various outcomes. On the one hand, many papers reported that women exposed to some form of IPV had limited control over their fertility preferences or lower contraceptive prevalence (Bishwajit & Yaya, 2018; Gomez, 2011; Kusunoki et al., 2018; Laanpere et al., 2013; Maxwell et al., 2018; Maxwell et al., 2015; Paul & Mondal, 2022). On the other hand, there was an abundance of literature that revealed contrary findings (Alio et al., 2009; Dalal et al., 2012; Fan & Loria, 2020; Kabir & Kordowicz, 2021; Siddique et al., 2019; Silverman et al., 2020; Singh & Shukla, 2017; Tsai et al., 2016).

Previous research has identified two potential explanations for the negative association between IPV and contraceptive use, including male reproductive control and the undermining of self-efficacy. Women who experience IPV are less likely to use contraception because IPV significantly prevents women's access to or use of contraceptives (Fanslow et al., 2008; Williams et al., 2008). Williams et al. (2008) discovered that uncertainty about contraceptive approval or fear of violence by partners was sufficient to deter contraceptive use. Stephenson et al. (2008) conducted a prospective cohort study in rural India to investigate the relationship between married women's recent IPV experience and their current use of contraception. According to the study, there was a 15% lower chance of adopting contraception for women who experienced IPV. These studies revealed that husbands used contraceptive decision-making power to exert more control over their wives. As a result of IPV, female fertility control may also be impacted by male reproductive control, such as pregnancy coercion (where male partners force women to become pregnant) and birth control sabotage (where partners interfere with contraception), both of which increase the risk of unintended pregnancy (Laanpere et al., 2013; Miller et al., 2010).

However, the use of contraceptives and various forms of IPV have been shown to have positive associations by some researchers. A 2005-06 National Family Health Survey study found that women who experienced physical violence had higher odds of using contraception than those who did not experience IPV in rural India (Singh & Shukla, 2017). In another study conducted by Silverman et al. (2020), married adolescent girls in Niger who experienced physical IPV or reproductive coercion were more likely to utilize FP methods without their husbands' knowledge than those who did not experience such forms of violence. The rationale behind this positive relationship is that women who experience IPV do not view marriage life as a healthy environment in which to raise a child, which affects their FP behaviors and lessens their desire to have more children in a

dangerous and vulnerable environment (Alio et al., 2009; Baird et al., 2017; Engnes et al., 2012). Salazar et al. (2012) posited that pregnancy and parenthood increase women's vulnerability and reliance on violent partners, restricting their options for leaving these abusive relationships and reducing their autonomy. Due to these increased risks, women would be more likely to practice contraception.

Moreover, studies have shown that different forms of IPV associate differently with contraceptive use. For instance, O'Hara et al. (2013) discovered that there was a negative association between women who ever experienced severe physical IPV and contraceptive use, a positive association between women who ever experienced severe sexual IPV and contraceptive use, and no association between emotional IPV and contraceptive use in Jordan. In contrast, Williams et al. (2008) discovered that physical and emotional IPV were negatively related to contraceptive use in a case-control study in Boston.

Similar to contraceptive use, different results were found between IPV and the unmet need for FP. IPV was found to have positive association (Ahinkorah et al., 2020; Clark et al., 2017; Deyessa & Argaw, 2018; Gomez, 2011; McCleary-Sills, 2013), negative association (Dadras et al., 2022) and no significant association (Ogunjuyigbe et al., 2010; Pack et al., 2014; Tsai et al., 2016) with unmet need for FP. For instance, Ahinkorah et al. (2020) discovered that women who had experienced sexual violence in the past 12 months were more likely to have an unmet need for contraception in sub-Saharan Africa. Evidence from a study conducted in China further supports the claim by highlighting how sexual violence lowers women's knowledge of sexual and reproductive health, ultimately resulting in unmet need for contraception (Lim et al., 2015).

In contrast, a recent study conducted by Dadras et al. (2022) found that women who experienced violence in Afghanistan were 30% less likely to have unmet need for FP than those who did not experience violence.

2.7 Controlling Behaviors and FP Practices

Controlling behaviors are common in intimate relationships, reflecting ingrained gender roles and patriarchal norms that frequently impose submissive expectations of male partners on women. However, few studies have examined the relationship between husbands' controlling behaviors and FP practices (Clark et al., 2017; Deyessa & Argaw, 2018; Paul & Mondal, 2022). These behaviors can manifest in a variety of ways, including limiting a woman's autonomy, isolating her from social networks, monitoring her activities, and asserting power and dominance over her decision-making, which influence her ability to make choices regarding contraception and FP. Previous studies have shown that husbands' controlling behaviors often coexist with various forms of IPV (Aizpurua et al., 2021; Antai, 2011; Mukherjee & Joshi, 2021). As a result, these behaviors create barriers to accessing contraception, leading to an increase in unmet need for FP. Women who encounter controlling behaviors may experience fear, intimidation, or coercion, further limiting their role in reproductive health decisions, potentially reducing contraceptive use, or choosing less effective methods. Furthermore, the impact of such behaviors goes beyond the individual, contributing to social norms that perpetuate gender inequality, reinforcing traditional gender roles, and marginalizing women from FP.

2.8 Socio-economic Factors Associated with FP Practices

Although developing countries have made progress in meeting FP needs in the past few decades, determinants of FP still need to be more emphasized. Several past studies analyzed the socio-economic factors associated with contraceptive use and unmet need in developing countries in sub-Saharan Africa and South and Southeast Asia. The associated factors will be discussed as follows.

2.8.1 Age

A strong association exists between women's age and utilization of contraceptive methods. The likelihood of practicing contraceptive methods increased with age (Debebe et al., 2017; Islam & Thorvaldsen, 2012; Mahato et al., 2020; Mandiwa et al., 2018; Osmani et al., 2015; Singh et al., 2020). Women are more likely to achieve the desired number of children or wish to space their births when age increases. Increased contraception usage could also be linked to increased awareness of birth control methods from peers or relatives. Nevertheless, young women were revealed to have higher odds of using contraception in Malawi, Afghanistan, and Bangladesh (Islam, 2018; Palamuleni, 2013; Rasooly et al., 2015). A study in Bangladesh reported that women over 24 years were less likely to use contraceptives than those aged 15-24 years, regardless of their employment status (Islam et al., 2016).

Studies have shown that younger women have a greater unmet need for spacing than older women, while older women have a greater unmet need for limiting than younger women in Nepal (Mehata et al., 2014) and Pakistan (Asif & Pervaiz, 2019). This situation could be true as young women wish to postpone their subsequent pregnancy, while older women want to use contraceptives for limiting since most of them have completed their families but did not use a method due to various reasons. Kumar and Singh (2013) and Lamichhane (2017) explained that the unmet need for FP decreased with advanced age due to better knowledge and experience in contraceptive methods. These findings were in line with the claim that young women were more likely to have unmet need (Hoo & Lai, 2023b; Nyauchi & Omedi, 2014; Ojakka, 2008; Singh et al., 2020; Solanke, 2016; Vohra et al., 2014) because they are more sexually active, and keen to prevent pregnancy, but less motivated to practice contraception. Older women are less likely to involve in sexual activity, and this, in turn, reduces the contraceptive needs for either spacing or limiting births. However, a positive relationship was found between age and unmet need

in a cross-sectional study in Pakistan (Hameed et al., 2011), Baghdad (ALmeen & AL-Ayoubi, 2016), and Indonesia (Wilopo et al., 2017).

2.8.2 Age at first marriage

Early marriages are pretty common in South Asia. The singulate mean age at marriage in South Asia countries ranged from the lowest of 18.8 in Bangladesh (2014) to the highest of 23.9 in Sri Lanka (2016) (UN DESA, 2022b). Despite that, few studies have included age at first marriage as an explanatory variable in the analysis of contraceptive behaviors among married women. A study in Bangladesh found a positive relationship between modern contraceptive use and age at first marriage (Islam, 2018). The likelihood of using modern methods of contraception increased with age at first marriage among young women below 25 years. No association was found between contraceptive use and age at marriage among married women in Afghanistan, but a negative association was found between the unmet need for FP and age at marriage instead (Ajmal et al., 2018).

Education, premarital employment, and place of residence significantly impact the age at first marriage, with women who are less educated and not employed and residing in rural areas more likely to marry at a younger age than their counterparts (Aryal, 2007; Hoq, 2013; Mahdaviazad et al., 2019; Rasul et al., 2022). Researchers revealed that women who married younger tend to have a higher unmet need for FP (Ali & Okud, 2013; ALmeen & AL-Ayoubi, 2016). This may be due to limited decision-making power in FP use among those who marry young, have lower educational level, or are not working. On the contrary, age at first marriage was positively associated with overall unmet need and unmet need for spacing in Ethiopia (Hailemariam & Haddis, 2011). Additionally, women who married at age 15 years and above were more likely to have unmet need than those who married before 15 years in Bihar, India (Kumar & Singh, 2013). This situation is expected because it is uncommon for women below 15 years to give birth to children.

Nonetheless, women who marry later tend to be more knowledgeable about FP methods, know the risks of early childbearing, and wish to prevent pregnancy using contraceptive methods. Lamichhane (2017), however, did not discover any significant relationship between unmet need and age at marriage in Nepal.

2.8.3 Place of Residence

The odds of using contraception among women residing in rural areas were lower than those residing in urban areas (Hossain et al., 2018; Islam, 2018; Islam et al., 2016; Mandiwa et al., 2018; Osmani et al., 2015; Palamuleni, 2013; Rasooly et al., 2015). On the other hand, women in rural areas were more likely to have unmet need for contraception than their counterparts in urban areas (ALmeen & AL-Ayoubi, 2016; Asif & Pervaiz, 2019; Hailemariam & Haddis, 2011; Lamichhane, 2017; Mehata et al., 2014). Such groups of women generally have limited financial resources and access to contraceptive methods (Nyauchi & Omedi, 2014), which explains the lower contraceptive use and higher unmet need among rural women than urban women. Another possible reason is that FP services are more easily accessible in urban than rural areas.

While most studies found that urban women were more likely to practice contraception, a few studies discovered that utilization of contraception was higher among rural women. Alemayehu et al. (2015) and Wondie et al. (2020) found that the odds of using long-acting contraceptives were higher among married women in rural areas than their urban counterparts in Ethiopia. Furthermore, women living in rural areas were more likely to use modern contraceptives than those in urban areas in Indonesia (Gayatri & Utomo, 2019; Kistiana et al., 2020). Similarly, recent research conducted in Malaysia and Pakistan found that women residing in rural areas had a higher likelihood of using modern methods than traditional methods, as compared to women residing in urban areas (Hoo & Lai, 2023a). Factors contributing to this pattern may include the availability of FP services

through national FPP and community health centers in rural areas and the role of community health workers in providing sexual and reproductive health education and access to contraceptives to rural women.

A study from Eritrea found that urban women had a higher likelihood of unmet need for limiting and spacing (Woldemicael & Beaujot, 2011). Another study in Afghanistan showed that women who lived in rural areas were less likely to use traditional methods than nonuse and had lower unmet need for FP (Ajmal et al., 2018). A recent study also found that rural women had lower levels of unmet need than urban women in Afghanistan (Hoo & Lai, 2023b) and sub-Saharan Africa (Ahinkorah et al., 2020). It could be that urban women are more aware of method-related issues such as health concerns, fear of side effects, and high cost than rural women, and therefore not using contraceptives (Kumar & Singh, 2013).

2.8.4 Education level

It is undeniable that education plays a vital role in shaping women's contraceptive behaviors, irrespective of economic status (Majumder & Ram, 2015). Higher-educated women were more likely to practice contraceptive methods than lesser-educated women (Ajmal et al., 2018; Lwelamira et al., 2012; Mandiwa et al., 2018; Osmani et al., 2015; Palamuleni, 2013; Rasooly et al., 2015; Singh & Shukla, 2017). The odds of using contraception for women with higher levels of education were higher than their illiterate counterparts, regardless of employment status in Bangladesh (Islam et al., 2016). There was also evidence that higher odds of using any contraceptive method among women with any level of education compared to women with no education in Bangladesh (1996-97 & 1999-2000), India (1992-93 & 1998-99), and Nepal (1996 & 2001) (Majumder & Ram, 2015). It is undebatable that women with higher education levels understand the importance of practicing contraception. However, better-off women having secondary

and above education were significantly less likely to practice FP compared to women who had no education in India (2005-06) (Majumder & Ram, 2015), which was supported by previous studies (Arokiasamy, 2009; Bhat, 2002; McNay et al., 2003). This finding was not due to literate women using less contraception than illiterate women but rather due to changes in illiterate women's reproductive behavior. In order to provide a better quality of life for their children, illiterate women have begun to make a tradeoff by controlling family size through contraception.

Higher-educated women tend to have lower unmet need for FP (Ahinkorah et al., 2020; Bhusal & Bhattarai, 2018; Hailemariam & Haddis, 2011; Hameed et al., 2011; Nyauchi & Omedi, 2014; Solanke, 2016; Wilopo et al., 2017). Nevertheless, education was negatively associated with the unmet need for limiting but positively associated with the unmet need for spacing in Nepal (Mehata et al., 2014). Education provides a platform for women to interact with one another, exchanging the latest information on FP matters, and this fosters contraceptive use among better-educated women. Braghi et al. (2013) and ALmeen and AL-Ayoubi (2016) clarified that education enhances women's knowledge of FP and empowers them to be the primary decision maker in childbirth-related matters. Besides, women with higher education levels have higher employment rates and better career prospects (Ali & Jalal, 2018; Faridi et al., 2010; Yabiku & Schlabach, 2009). Due to globalization, such women are equipped with new knowledge and skills to meet the labor market requirements. Interestingly, Kumar and Singh (2013) found that women who had higher education were more likely to have unmet need for FP than those with no education in India, which was similar to the results of another study in Eritrea (Woldemicael & Beaujot, 2011). Lamichhane (2017) found that the unmet need for FP was positively associated with women's education attainment in Nepal. A recent study in Pakistan also showed that educated women had higher unmet need for limiting and spacing (Asif & Pervaiz, 2019).

2.8.5 Employment Status

Women's employment status significantly influenced FP service utilization (Gizachew Balew et al., 2015). Working women were more likely to practice contraception than non-working women (Hossain et al., 2018; Mandiwa et al., 2018; Palamuleni, 2013; Singh et al., 2020). Moreover, Navaneetham and Dharmalingam (2002) found that employment status influenced contraceptive use in South India, and the results were supported by Majumder and Ram (2015) in a subsequent study. The possible explanation is that working women are preoccupied with work and with higher opportunity costs of bearing children, and hence may use contraceptives to prevent pregnancies. Furthermore, such women are generally more educated, exposed to contraceptive information, and know the importance of contraceptive practices.

Besides, the odds of unmet need for FP was lower among women who had a job compared to those who were jobless (Ali & Okud, 2013; ALmeen & AL-Ayoubi, 2016; Nyauchi & Omedi, 2014; Ojakka, 2008; Singh et al., 2020; Solanke, 2016). Additionally, women working in non-agricultural sectors are less likely to have unmet need for FP than those unemployed in Nepal (Lamichhane, 2017). While most studies showed an association between employment status, contraceptive use, and unmet need, a study in Afghanistan found no association between them (Ajmal et al., 2018). Evidence suggested that female occupation increased women's autonomy by reducing gender inequality and improving financial decision-making within a household (Knibbs & Price, 2009; Miller, 2010; Roudi-Fahimi et al., 2012). They have greater control over financial resources to obtain contraceptives and fulfill the needs of contraception, hence a higher prevalence rate of contraception and lower unmet need for FP.

2.8.6 Number of living children

The number of living children is one of the critical determinants of contraceptive use and the unmet need for FP in many studies. Contraception was negatively associated with the number of living children (Mohammed et al., 2014; Palamuleni, 2013; Singh et al., 2020). However, numerous past studies showed that women with more children had a higher likelihood of using modern contraception (Hoo & Lai, 2023a; Islam, 2018; Lwelamira et al., 2012; Mostafa Kamal & Aynul Islam, 2010; Osmani et al., 2015; Rasooly et al., 2015). Specifically, women with three or more living children were more likely to use contraception (Agyei & Migadde, 1995; Kabir & Kordowicz, 2021; Lasee & McCormick, 1996; Lwelamira et al., 2012). Considering the challenging economic circumstances, this group of women will likely experience increasing pressure due to their expanding family. Consequently, they are more likely to practice contraception to limit or space their births. Surprisingly, as the number of living children increased, Afghan women were more likely to use either modern or traditional methods of contraception, and at the same time, they had a higher level of unmet need for FP (Ajmal et al., 2018).

Several studies found that the unmet need for contraception increased with the number of living children (Ahinkorah et al., 2020; Hameed et al., 2011; Hoo & Lai, 2023b; Kumar & Singh, 2013; Lamichhane, 2017; Nyauchi & Omedi, 2014). Higher odds of unmet need for contraception among women with more living children may indicate a greater desire to stop pregnancy as they are more likely to achieve desired family sizes but cannot use contraception due to a lack of supply or access to FP services. Therefore, such a higher likelihood of unmet need for FP suggests more unmet need for limiting than for spacing births. High-parity women are older, and they may perceive themselves to be subfecund, thus not seeing the need to use contraceptive methods. However, there were some contrary findings presented that the unmet need for FP is inversely related to parity (Bhusal & Bhattarai, 2018; Vohra et al., 2014).

2.8.7 Wealth Index

Wealth status greatly influences women's contraceptive preferences as it measures women's abilities to afford contraceptive methods. Past studies showed that contraceptive use is positively associated with household wealth, in which women from the richer household had a greater likelihood of using contraception (Aslam et al., 2016; Mekonnen et al., 2017; Osmani et al., 2015; Palamuleni, 2013; Rasooly et al., 2015; Singh et al., 2020; Singh & Shukla, 2017). A recent study in Afghanistan revealed that household wealth is positively associated with modern and traditional contraceptive methods and inversely associated with unmet need for FP (Ajmal et al., 2018).

On the other hand, several past research had documented an inverse association between household wealth and unmet need for FP (Ahinkorah et al., 2020; ALmeen & AL-Ayoubi, 2016; Kumar & Singh, 2013; Mehata et al., 2014; Nyauchi & Omedi, 2014; Solanke, 2016; Wilopo et al., 2017; Woldemicael & Beaujot, 2011). The unmet need for FP was higher among poor women than better-off women in Bangladesh, India, and Nepal (Majumder & Ram, 2015). Women from wealthier households usually are more educated and exposed to various FP methods. Such women will not face financial obstacles in obtaining FP services and, therefore more willing to use contraception and have lower unmet need. Conversely, poor women may have higher odds of unmet need due to lack of basic FP information, limited contraceptive choice, and inability to access FP services in time.

2.8.8 Mass Media Exposure

Mass media exposure is crucial in increasing knowledge of contraceptives, acceptance, and practicing FP methods among married women. Women regularly exposed to mass media such as television, radio, newspapers, and magazines are more likely to obtain contraceptive-related information and have higher contraceptive knowledge (Cheng,

2011; Hameed et al., 2019). A recent study found that women exposed to media were more likely to use modern contraceptive methods, while no association was found between traditional contraceptive methods and the unmet need for FP in Afghanistan (Ajmal et al., 2018). Exposure to mass media has also been found to have a positive association with any contraceptive method (Islam et al., 2016; Majumder & Ram, 2015) and modern contraceptive methods (Achyut et al., 2016; Navaneetham & Dharmalingam, 2002; Osmani et al., 2015) in previous studies.

Women who were exposed to mass media had lower levels of unmet need for FP compared to those without exposure (Asif & Pervaiz, 2019; Hailemariam & Haddis, 2011; Nyauchi & Omedi, 2014; Solanke, 2016; Vohra et al., 2014). Publicity of FP messages through mass media helps raise women's knowledge of FP and create awareness of the importance of FP to maternal and child health, gradually changing their attitudes towards contraception and thus increasing the prevalence of contraception and lowering the unmet need for FP.

2.9 Theoretical Framework

The theoretical framework of this study was developed by adapting the TGP, HBM, and socio-ecological model concepts. These theories offer a comprehensive framework for understanding the interaction of gender dynamics, power imbalances, and FP outcomes. The relationship between IPV constructs and FP practices is described by incorporating these theories, as shown in Figure 2.4.

According to the TGP, gender-based power imbalances in intimate relationships and society at large have a significant impact on decision-making processes, access to resources, and autonomy in reproductive health choices. The power imbalance between husbands and wives would either encourage women to maintain autonomy by using contraception despite their husbands' opposition or discourage women from maintaining

autonomy and thus not using contraception. Sexual division of labor can be measured through women's employment which may determine financial dependency in a relationship. Being financially dependent will cause women more vulnerable to violence (Wingood & DiClemente, 2000). Power imbalances in relationships can also influence the structure of cathexis. When one partner has more power and control, often due to societal gender norms, it can lead to power abuse, such as using violence to maintain control over the partner, which can affect FP practices. The structure of cathexis includes appropriate ways for women to involve in sexuality-related behaviors, which can be examined through sexual violence questions.

The social-ecological model by Heise (1998) examines the relationship between IPV and contraceptive use. The model proposes that behavior is shaped by interactions between individuals and their social surroundings. The socio-ecological model can be used to investigate the various levels of influence that contribute to IPV and its relationship to contraceptive use. This relationship can be understood by examining the following levels of influence within the model.

At the individual level, education, income, personality disorders, and substance abuse are all factors that contribute to the likelihood of experiencing or committing violence. In addition, certain factors, such as a history of childhood abuse or witnessing marital violence, can predict a woman's risk of developing IPV (Heise, 1998). Past trauma, unresolved conflict, and substance abuse can all affect coping mechanisms and communication styles and lead to aggressive behavior. Attitudes and beliefs about gender roles, power, and violence influence IPV. Traditional gender norms, justifications for violence, and acceptance of violence as a method of conflict resolution all contribute to the formation of IPV. At the individual level, IPV victims may face barriers to accessing and using contraception due to fear, a lack of information, and a lack of control over reproductive health decisions. In relationships where IPV exists, the perpetrator may exert

control over reproductive choices, resulting in limited autonomy for the victim. Fear of retaliation or escalating violence can prevent victims from discussing or negotiating contraceptives with their abusive partners, limiting their ability to obtain and use contraception consistently and effectively.

At the relationship level, various relationships, such as friendships, family, and intimate partnerships, including those in the workplace, influence the risk of committing or accepting violence. Inequality within marital relationships, such as unequal decision-making power, male control of household wealth, and controlling behaviors, increases the likelihood of IPV (Antai & Adaji, 2012; Blanc, 2001; Heise, 1998). Previous IPV experiences in a relationship can also contribute to a cycle of ongoing violence unless interventions and support services are provided. At this level, IPV can result in a power imbalance in which the perpetrator controls the victim's reproductive health decisions. This control can be demonstrated through actions such as tampering with contraception, pressuring the victim into unwanted pregnancies, or preventing them from using contraception. Communication about contraception can be hampered in relationships affected by IPV, resulting in misunderstandings, misinformation, and inconsistent contraceptive use. Furthermore, IPV victims may lack the social support and resources to access and use contraception effectively.

At the community level, some factors can create obstacles to contraceptive use for victims of IPV. These include limited access to resources and services and cultural values that accept or tolerate violence. Unemployment, social isolation of the woman and her family, and the influence of delinquent peers are also risk factors for IPV at this level (Heise, 1998). In communities with inadequate support networks, it can be difficult for victims to seek help, escape abusive situations, or access necessary support, thus perpetuating the cycle of violence. On the other hand, communities with robust social support systems can provide resources, information, and assistance to individuals

experiencing IPV, positively impacting their ability to access and use contraception. Moreover, communities that uphold traditional patriarchal norms reinforce gender inequalities and accept violence within relationships tend to have higher rates of IPV. These norms can also shape attitudes towards contraception, creating barriers to its use and limiting access to reproductive health services. The presence of healthcare facilities, including FP clinics and reproductive health services, within the community, is also influential in contraceptive use among individuals experiencing IPV. Limited availability and accessibility of these services can restrict opportunities for obtaining contraception and receiving support for reproductive health decisions.

At the societal level, the emphasis is on the larger structures and systems of society and culture that influence the lives of individuals. Risk factors for IPV at this level will affect the factors and structures further down the model. For example, societal norms of male dominance can influence power dynamics in community institutions and the decision-making authority in interpersonal relationships. Several factors contribute to IPV at this level, including ineffective policies, economic inequality, cultural norms that support gender inequality, and the use of violence to resolve conflicts. These factors make it difficult for IPV victims to use contraception. Higher rates of IPV commonly happen in societies with unequal power dynamics, discriminatory practices, and limited opportunities for women. At this level, societal norms and gender disparities contribute to IPV and contraceptive use disparities. Gender inequality, discrimination against women, and a lack of resources can limit women's ability to make contraceptive decisions and protect themselves from IPV. Comprehensive IPV laws and policies promoting reproductive health and rights can significantly impact contraceptive use. Legal frameworks, enforcement mechanisms, and policies prioritizing women's safety and agency can assist in mitigating the adverse effects of IPV on contraceptive use.

All factors at these four levels and socio-economic factors will influence access to and use of contraception. Overall, the relationship between IPV and FP practices is complex and influenced by multiple levels of influence. To effectively address this issue, it is critical to consider the root causes at all levels and develop interventions considering these multiple levels of influence.

The HBM can explain how IPV is related to FP practices. According to the HBM, people's health behaviors are influenced by their beliefs about the severity of a health problem, their vulnerability to it, the benefits of taking action, and the barriers they perceive. The HBM suggests that the following factors affect IPV and FP practices.

The first factor, perceived susceptibility, indicates that individuals who have experienced or are at risk of IPV may perceive themselves as vulnerable to reproductive coercion or control by their abusive partner. This perception may influence their motivation to use contraception to protect themselves and have lower unmet need for FP.

The second factor, the perceived severity of IPV, can influence an individual's decision to prioritize their safety and well-being. If someone believes that the consequences of IPV are severe, such as physical harm or emotional distress, they may be more motivated to use contraception to prevent or limit the potential adverse outcomes associated with IPV and have lower unmet need for FP.

The third factor of perceived Benefits, recognizing the benefits of contraception, can motivate people to use it, even if they are suffering from IPV. The advantages include avoiding unwanted pregnancies, controlling reproductive health, and lowering the risk of sexually transmitted infections.

The fourth factor, perceived barriers, can impede preventive behaviors. Fear of partner retaliation, limited decision-making autonomy, limited access to contraception, and concerns about partner interference may all be barriers to contraceptive use. Addressing

these barriers is critical for increasing contraceptive use and reducing unmet need for FP among IPV victims.

Lastly, self-efficacy is critical in helping IPV victims overcome contraceptive use barriers. The presence of IPV influences individuals' sense of empowerment when making contraception decisions. Higher self-efficacy can assist individuals in overcoming obstacles, seeking support from healthcare providers, exploring alternative contraception access methods, developing strategies for consistent and effective use, and subsequently reducing unmet need for FP.
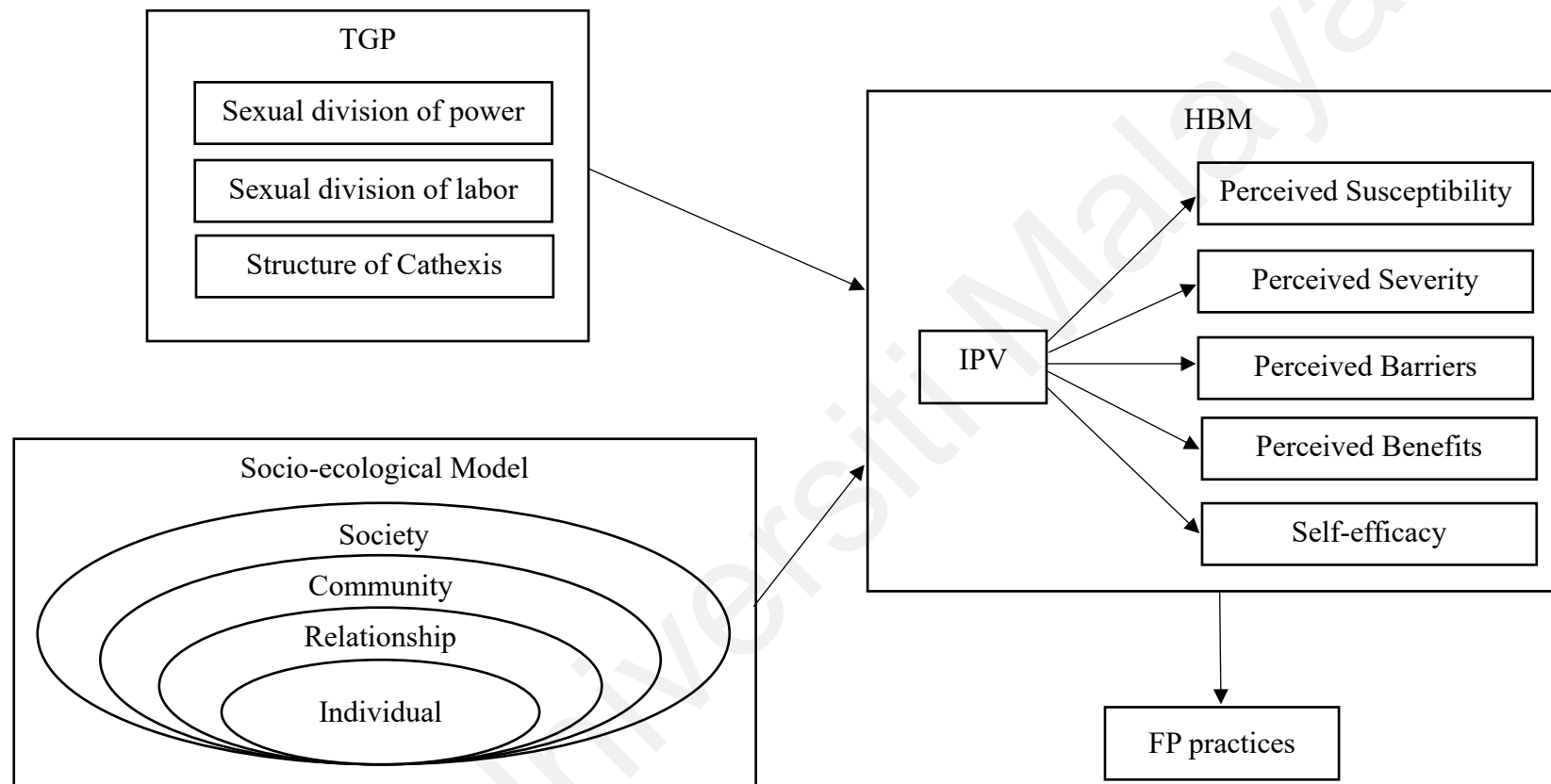
Figure 2.4 Theoretical Framework

Source: Connell (1987); Glanz et al. (2008); Heise (1998)

2.10 Research Gaps

Despite continuous efforts to promote FP in South Asian countries, significant research gaps hinder a comprehensive understanding of the factors influencing FP practices in this region. Firstly, while studies have investigated the association between IPV and FP practices in other regions, there is a lack of clarity and limited research specifically focused on South Asian countries (Dalal et al., 2012; Raj & McDougal, 2015; Singh & Shukla, 2017). As a result, the unique dynamics and factors that may shape the relationship between IPV and FP practices in South Asia still need to be explored. Exploring the relationship between IPV and FP practices in South Asia would provide a more comprehensive understanding of the barriers, challenges, and opportunities for women seeking to exercise their reproductive rights. This knowledge can inform the development of contextually appropriate interventions, programs, and policies that address the complex relationship between IPV and FP practices in South Asian countries.

Secondly, there need to be more comparative studies that examine the determinants of FP practices across developing countries. While individual studies have established associations between socio-economic factors and contraceptive use (Aslam et al., 2016; Hossain et al., 2018; Islam et al., 2016; Osmani et al., 2015; Rasooly et al., 2015) or unmet need for FP (Ajmal et al., 2018; Asif & Pervaiz, 2019; Mehata et al., 2014; Raveendran & Vijayakumar, 2017; Sivaraman & Das, 2018) within specific South Asian countries, there is a lack of comprehensive comparative research that explores the variations and similarities in these factors among countries in the region. Comparative studies would enable a better understanding of the contextual differences and similarities in FP practices, shedding light on the factors that contribute to successful FP programs and those that hinder progress.

Furthermore, a significant research gap exists regarding the impact of the combination of types of IPV and husbands' controlling behaviors on FP practices in South Asian

countries. Despite the high prevalence of IPV and husbands' controlling behaviors in the region, limited attention has been given to understanding how these factors influence reproductive health outcomes and FP practices. IPV can have implications for FP decision-making, access to contraceptives, and the overall reproductive health of women. Additionally, controlling behavior within intimate partner relationships reflects entrenched gender roles and patriarchal norms, which can further limit women's autonomy and agency in making FP choices.

Lastly, there needs to be more research on the unique experiences and needs of marginalized and vulnerable groups, particularly concerning IPV and FP practices. This research could bridge the existing research gap by providing a more accurate and timely understanding of the factors influencing FP compared to previous studies that relied on earlier versions of DHS data (Jayaraman et al., 2009; Kumar & Singh, 2013; Lamichhane, 2017; Majumder & Ram, 2015; Mostafa Kamal & Aynul Islam, 2010; Osmani et al., 2015; Saleem & Pasha, 2008). Understanding the relationship between IPV and FP practices in South Asian countries is crucial for developing targeted interventions and policies that address the specific needs and challenges women face in abusive relationships. By filling these research gaps, policymakers and stakeholders can gain valuable insights into the intersection of IPV and FP practices, formulating effective strategies to enhance women's reproductive health and rights within abusive relationships, thereby contributing to achieving the SDGs related to health and gender equality.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter presents the research methodology used for this research. It covers the description of data sources, concepts and measurements of FP practices, conceptual framework, description of study variables, and data analysis techniques.

3.2 Data Sources

This paper is based on the analysis of micro data extracted from individual recode of the DHS in South Asia, and these include Afghanistan (2015), India (2015-16), Nepal (2016), and Pakistan (2017-18). The primary objective of DHS was to provide reliable national estimates for demographic and health information such as fertility, FP, nutrition status of children and women, maternal and child health, and domestic violence. DHS uses standardized sampling designs, sampling procedures, questionnaire designs, and variable definitions, allowing data pooling across surveys conducted in different years and countries. With high response rates and standardized procedures, DHS offers nationally representative insights for LMICs (Corsi et al., 2012). The DHS program is committed to maintaining the highest standards in data collection, processing, and analysis. To achieve this, it continuously evaluates data quality and incorporates input from international experts to develop the best possible health interview tools (Pullum, 2019; Rutstein et al., 1990).

This paper focused on women of reproductive age (15-49 years) who are married or in a union and answered the domestic violence module. Using a cross-sectional study design, these women were interviewed about their socio-economic characteristics and experience of violence by intimate partners. Table 3.1 shows the number of respondents in each survey.

Table 3.1 Sample size by country

	2015 Afghanistan DHS	2015-16 National Family Health Survey	2016 Nepal DHS	2017-18 Pakistan DHS
Number of households interviewed	24,395	601,509	11,040	14,540
Number of ever-married women interviewed	29,461	699,686	12,862	15,068
Number of married or in-union women interviewed	28,671	511,373	9,875	11,831
Number of married or in-union women who answered the domestic violence module	20,793	58,480	3,447	3,192

3.2.1 The 2015 Afghanistan Demographic and Health Survey (AfDHS)

The CSO and the Ministry of Public Health conducted the 2015 Afghanistan Demographic and Health Survey (AfDHS) from June 2015 to February 2016. The survey was technically assisted by Inner City Fund (ICF) through the DHS Program, which is funded by the United States Agency for International Development (USAID), and its implementation was facilitated by the United Nations Children's Fund (UNICEF).

The sampling framework used for the 2015 AfDHS is a revised edition of the Household Listing Frame by the CSO, originally created in 2003-2004 and subsequently updated in 2009. The 2015 AfDHS used a two-stage stratified sampling design. The first phase was to choose clusters of enumeration areas (Machiyama et al.) provided by the CSO. The EAs were categorized based on region and whether they were urban or rural. The sample of EAs from each stratum was then selected using the probability proportional to size method. Nine hundred fifty clusters were chosen, with 260 in urban areas and 690 in rural areas. Systematic household sampling was done in the second phase. Twenty-seven households per cluster were identified using an equal probability systematic selection process, for a total sample size of 25,741 households, with 24,941 occupied during the survey fieldwork. A total of 24,395 occupied households were successfully

interviewed, yielding a response rate of 98%. All ever-married women between the ages of 15 and 49 who were either full-time occupants of the chosen households or guests who stayed there the night before the survey were eligible to participate in the face-to-face interview.

3.2.2 The 2015-16 National Family Health Survey (NFHS-4)

The 2015-16 NFHS-4 was the fourth survey in the NFHS series implemented under the Ministry of Health and Family Welfare, Government of India. It was technically supported by ICF and funded by USAID, the United Kingdom Department for International Development (DFID), the Bill and Melinda Gates Foundation, the UNICEF, the United Nations Population Fund (UNFPA), the MacArthur Foundation, and the Government of India.

The sampling frame for NFHS-4 was obtained from the 2011 Census. The stratified sample for NFHS-4 was drawn from the sampling frame in two stages. Stratification was achieved by dividing each district into urban and rural areas. In the first step, 28,586 Primary Sampling Units (PSUs) were chosen independently with a probability proportional to size in each sampling stratum. A household listing operation was conducted, segmenting the chosen PSUs into groups of 100–150 households for each segment with an estimated number of households greater than 300. The survey was divided into two segments, with the probability proportional to the segment size. A NFHS-4 cluster is thus a PSU or a portion of a PSU. In the second step, twenty-two households per cluster were chosen randomly from a newly created household listing with an equal probability. The sample included 628,900 households, with 616,346 of them occupied. A total of 601,509 occupied households were successfully interviewed, yielding a response rate of 98%. All eligible women between the ages of 15 and 49 who lived in

the selected households regularly or visitors who stayed the night before the survey were identified and interviewed in person.

3.2.3 The 2016 Nepal Demographic and Health Survey (NDHS)

The 2016 NDHS was the fifth national survey conducted by New ERA under the supervision of the Ministry of Health from June 2016 to January 2017. ICF technically assisted the survey through the DHS Program, which USAID funded.

The National Population and Housing Census, conducted in 2011, served as the basis for the sampling frame used for the 2016 NDHS. The 2016 NDHS sample was stratified, with rural areas being chosen in two stages and urban regions being selected in three stages. Each province was divided into urban and rural areas, resulting in 14 different sampling strata. Ward samples were independently selected in each stratum in two phases. Three hundred eighty-three wards were independently chosen with a probability proportional to ward size from each sampling stratum. A single EA was selected randomly from each of the sample urban wards in the second stage of sample selection due to the massive size of the urban wards. Finally, from the newly created household listing, thirty households per cluster were chosen using systematic sampling in the last selection round. The sample included 11,473 households, of which 11,203 were occupied. A total of 11,040 occupied households were interviewed, yielding a response rate of 99%. All women aged 15-49, whether permanent residents of the selected households or visitors who had stayed in the households the night before the survey, were eligible to participate in face-to-face interviews.

3.2.4 The 2017-18 Pakistan Demographic and Health Survey (PDHS)

The 2017-18 Pakistan Demographic and Health Survey (PDHS) was the fourth nationally representative survey conducted from November 2017 to April 2018. The

National Institute of Population Studies operated it under the Ministry of National Health Services, Regulations, and Coordination supervision. It received support from ICF and DFID of UNFPA and was funded by USAID through DHS Program.

The PDHS 2017-18 sampling frame is enumeration blocks (EBs) introduced for the Pakistan General Population and Housing Census 2017, with 55,365 EBs in urban areas and 113,578 EBs in rural areas. The PDHS 2017-18 sample was stratified into two stages. Each of the eight regions was stratified by dividing them into urban and rural areas. A total of 16 sampling strata were formed from the eight regions in Pakistan. A two-stage selection process was used to select samples independently in each stratum. The first stage involved setting 580 EBs with a probability proportional to EB size (the number of households residing in the EB at the time of the census).. EBs with more than 300 households were segmented, and only one segment was chosen for the survey with a probability proportional to the size of the segment. Only the selected segment of households was listed. As a result, a PDHS 2017-18 cluster is either an EB or a subset of an EB. Twenty-eight households were randomly chosen in each cluster during the second selection stage using a systematic sampling procedure. A total of 15,671 households were selected for the survey, with 15,051 occupied. A total of 14,540 occupied households were interviewed successfully, yielding a response rate of 96%. All ever-married women between the ages of 15 and 49 who were either full-time occupants of the chosen households or guests who stayed there the night before the survey were eligible to participate in face-to-face interviews.

3.3 Ethical Consideration

The survey protocols and questionnaires for the 2015 AfDHS received approval from the ICF Institutional Review Board (IRB) and the Ministry of Public Health of Afghanistan. Similarly, the 2015-16 NFHS-4 survey protocol, along with the content of

all survey questionnaires, obtained approval from the IIPS IRB and the ICF IRB. The 2016 NDHS survey protocol underwent review and approval by the Nepal Health Research Council and the ICF IRB. Additionally, the survey protocol for the 2017-18 PDHS was reviewed and approved by the National Bioethics Committee, Pakistan Health Research Council, and ICF IRB.

The DHS surveys strictly adhere to protocols ensuring informed consent, wherein participants are informed about the study's nature, objectives, potential risks, and benefits. Prior to data collection, participants are explicitly made aware of their rights, including the right to refuse participation or withdraw at any stage without repercussions. Emphasizing voluntariness, the informed consent statement highlights that participation is entirely voluntary. Moreover, to ensure privacy protection, only one eligible woman per household was randomly selected to respond to questions in the domestic violence section, adhering to ethical requirements.

Given the sensitive nature of the research topic, the DHS surveys incorporate safety protocols to mitigate potential risks associated with disclosing experiences of IPV. These protocols include providing information on support services and available resources for individuals experiencing violence, as well as referrals to local organizations trained to handle IPV cases.

3.4 Concepts and Measurements of FP Practices

CPR is defined as the percentage of women currently using at least one contraceptive method, regardless of the method used (UN DESA, 2022a). Modern contraceptive methods include sterilization (consists of male and female sterilization), condoms, oral hormonal pills, IUDs, injectables, implants, vaginal barrier methods (including the diaphragm, cervical cap, and spermicidal foam, jelly, cream, and sponge), lactational amenorrhea method and emergency contraception and other modern methods not reported

separately. Traditional contraceptive methods include rhythm methods (e.g., fertility awareness-based methods, periodic abstinence), withdrawal, and other traditional methods not reported separately. CPR is typically reported as a percentage with reference to married or in-union women of reproductive age (from 15 to 49 years). The formula of CPR is as follows.

$$\text{CPR} = \frac{\text{Number of women of reproductive age who are married or in union and who are currently using any method of contraception}}{\text{Number of women of reproductive age who are married or in union}} \times 100\% \quad (3.1)$$

The unmet need for FP refers to the percentage of women who desire to postpone or stop childbearing for at least two years but are not utilizing any contraception (UN DESA, 2022a). The standard definition of unmet need for FP includes the following categories: i) women who are fecund, sexually active, and express a desire to stop or delay having more children for at least two years or are uncertain about the timing of their subsequent pregnancy, but are not currently using any contraceptive method, ii) pregnant women who are married or in a union and whose pregnancies were unintended or mistimed at the time of conception, iii) postpartum amenorrheic women (married or in a union) who are not using FP and whose last birth was unintended or mistimed. Women who wish to limit the number of children they have are categorized as having an unmet need for limiting, while those who desire to delay childbearing for at least two years but are not currently using contraception are categorized as having an unmet need for spacing.

Infecund women are excluded from the numerator. Women are assumed to be infecund under the following conditions: i) if they got married more than five years ago, have not given birth in the past five years, are not currently pregnant, and have never used any form of contraception, or ii) if they self-report being infecund or menopausal, having had a hysterectomy, never experiencing menstruation, or being postpartum amenorrheic for five years or more, or iii) for non-pregnant or non-postpartum amenorrheic women, if they report that their last menstrual cycle occurred six months or more before the survey.

Women who have not experienced a menstrual period since the birth of their most recent child and whose last child was born within 0 to 23 months of the survey interview are said to be postpartum amenorrheic. Women are considered fecund if their period has not come back and their most recent child was born 24 months or more before the interview unless they fall under one of the infecund categories. The formula of unmet need for FP is as follows.

Unmet need for FP =

$$\frac{\text{Number of women of reproductive age who are married}}{\text{Total number of women of reproductive age}} \times 100\% \qquad (3.2)$$

Figure 3.1 displays the procedure set out by DHS for computing the number of women of reproductive age who have unmet need for FP. All women in union (married or living together) are divided into two groups based on the utilization of FP services. The women who do not use FP are further divided into two groups: those who are pregnant or postpartum amenorrheic and those who are not. Pregnant or amenorrheic women are categorized as not needing FP (if their pregnancy or most recent birth was intended), needing spacing (if the timing was poor), or needing to limit their family size (if unwanted). The fertility intentions of the women who are not pregnant or postpartum amenorrheic are used to determine their unmet need status, excluding those who are infecund. Women who want to get pregnant in the next two years are said not to need FP, whereas those who do not want any more kids have need to limit birth. Others are deemed to have unmet need for spacing if they wish to become pregnant after two years or are not sure if or when they will.
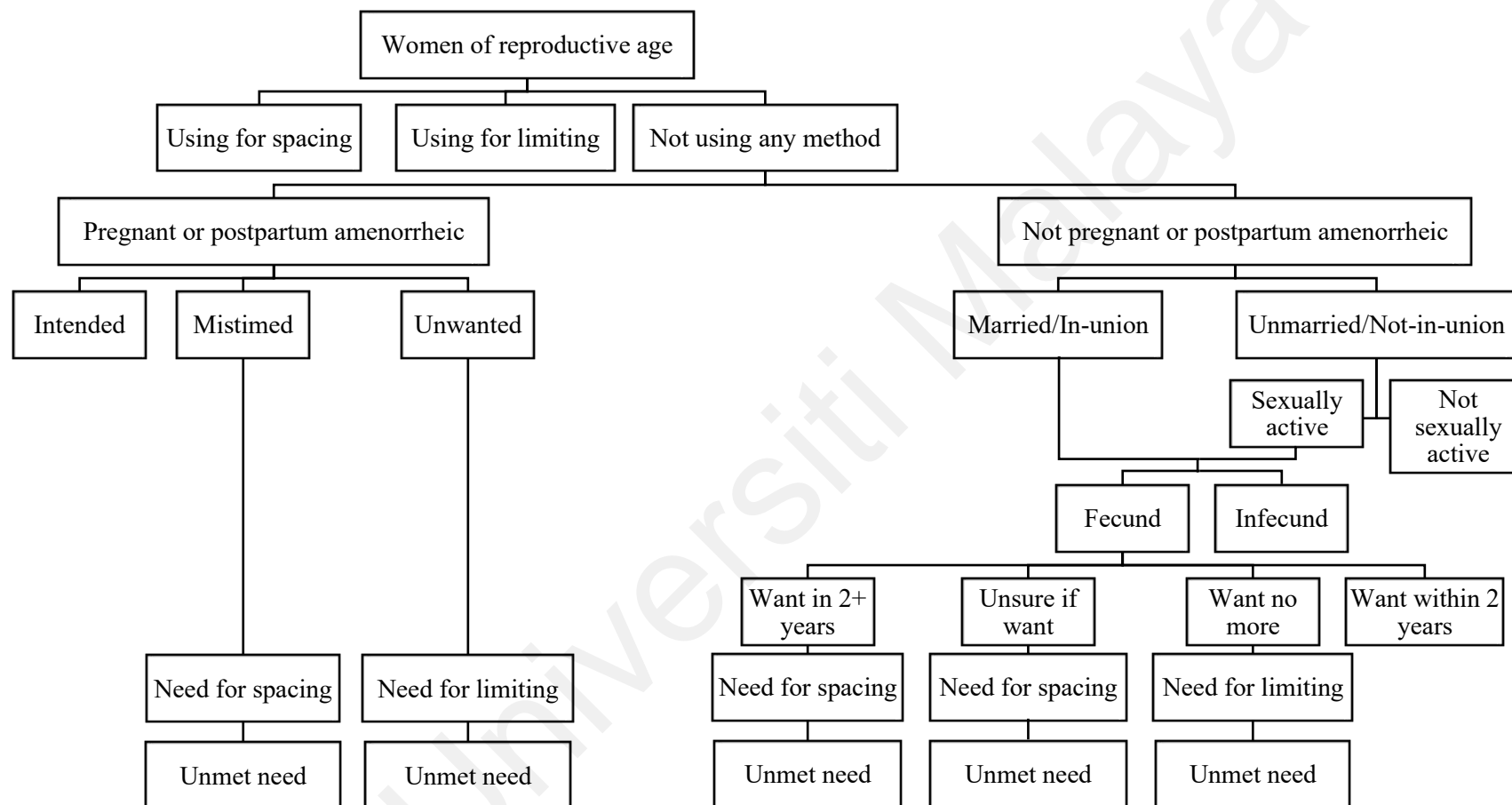
Figure 3.1 DHS 2012 revised definition of the unmet need for FP indicator

Source: Bradley et al. (2012)

3.5 Conceptual Framework

The conceptual framework used in this paper is shown in Figure 3.2. IPV and women's socio-economic characteristics were selected as the factors associated with FP practices, particularly contraceptive use and unmet need for FP. In previous studies, husbands' controlling behaviors were frequently linked with IPV and may be more common in violent relationships (Clark et al., 2017; Deyessa & Argaw, 2018; García-Moreno et al., 2013; Lundgren & Amin, 2015). Therefore, this study will include husbands' controlling behaviors as one of the explanatory variables. All the independent variables have a direct influence on the dependent variables. This framework establishes a straightforward description of the factors associated with FP practices.

IPV
- Physical violence
- Sexual violence
- Emotional violence

Husbands' controlling behaviors

Socio-economic characteristics
- Age
- Age at first marriage
- Place of residence
- Education
- Employment
- Number of living children
- Household wealth index
- Exposure to FP via mass media

FP practices
- Contraceptive use
- Unmet need for FP
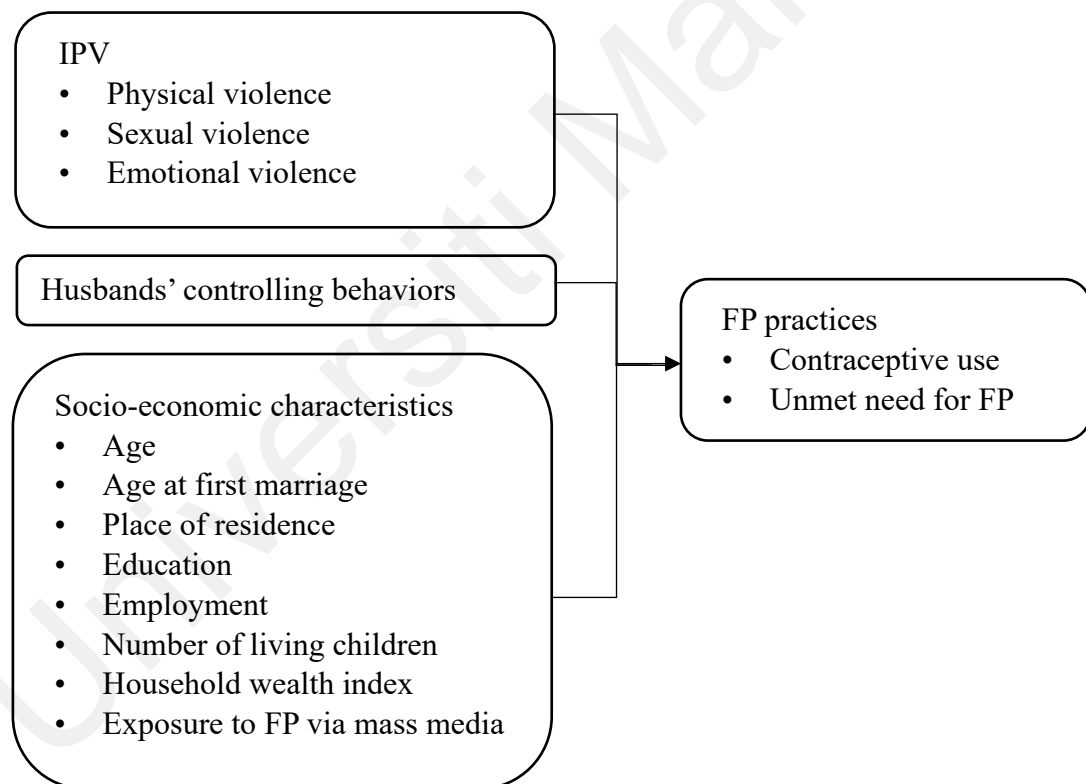
Figure 3.2 Conceptual framework

3.6 Study Variables

The study has two dependent variables: contraceptive use and unmet need for FP. Ten independent variables are used in the study, which includes IPV, controlling behaviors by

husbands, age, age at first marriage, place of residence, education, employment, number of living children, household wealth index, and exposure to FP via mass media.

3.6.1 FP Practices

FP practices in this study refer to contraceptive use (percentage of currently married women using any contraceptive method, also known as contraceptive prevalence rate or CPR) and unmet need for FP (percentage of currently married women who have an unmet need for any contraceptive method). CPR refers to the use of a current contraceptive method, whether it be a modern or traditional contraceptive method. Contraceptive use was considered categorical with three levels: not using, modern contraceptive method, and traditional contraceptive method. Contraceptive users refer to the sum of modern and traditional method users. On the other hand, the unmet need for FP was also treated as categorical with three levels: no unmet need, unmet need for spacing, and unmet need for limiting. Total unmet need is the sum of unmet need for spacing and unmet need for limiting.

3.6.2 Types of IPV

IPV was measured through three dichotomous variables indicating experience of three forms of IPV: physical violence, sexual violence, and emotional violence in the past 12 months. Physical violence was measured through seven questions. Women were asked how frequently the following acts of spousal physical violence happened during the past 12 months: i) pushed her, shook her, or threw something at her, ii) slapped her, iii) twisted her arm or pulled her hair, iv) punched her with his fist or with something that could hurt her, v) kicked her, dragged her, or beat her up, vi) tried to choke her or burn her on purpose, vii) threatened or attacked her with a knife, gun, or other weapons. Women who answered "often" or "sometimes" for any acts of spousal physical violence were considered as having experienced spousal physical violence in the past 12 months, whereas those who

responded "never", "yes, but not in the last 12 months", or "yes, but frequency in last 12 months missing" were classified as not having experienced such violence in the past 12 months.

The following three questions measured sexual violence: i) physically forced her to have sexual intercourse with him when she did not want to, ii) physically forced her to perform any other sexual acts she did not want to, iii) forced her with threats or in any other way to perform sexual acts she did not want to. Women who answered "often" or "sometimes" for any acts of spousal sexual violence were categorized as having experienced spousal sexual violence in the past 12 months, whereas those who responded "never", "yes, but not in the last 12 months", or "yes, but frequency in last 12 months missing" were classified as not having experienced such violence in the past 12 months.

Emotional violence was assessed through the following three questions, and women were asked how frequently their husbands/partners: i) said or did something to humiliate her in front of others, ii) threatened to hurt or harm her or someone she cared about, or iii) insulted her or made her feel bad about herself. Women who answered "often" or "sometimes" for any acts of spousal emotional violence were treated as having experienced spousal emotional violence in the past 12 months, whereas those who responded "never", "yes, but not in the last 12 months", or "yes, but frequency in last 12 months missing" were classified as not having experienced such violence in the past 12 months.

3.6.3 Husbands' Controlling Behaviors

Controlling behaviors displayed by husbands or partners were measured through five questions. Women were asked if their husbands or partners: i) showed jealousy when they talked to other men, ii) frequently accused them of being unfaithful, iii) prohibited them from meeting female friends, iv) attempted to limit their contact with family members, or

v) insisted on knowing their whereabouts at all times. Women who reported experiencing any of the above were considered to be facing controlling behaviors by husbands or partners.

3.6.4 Socio-economic Characteristics

Age was a continuous variable measured in years during the interview. Age at first marriage refers to the age of respondents measured in the year they first got married. This paper categorized places of residence as urban and rural areas. Respondent's education was coded as a categorical variable with four levels: no education, primary, secondary, and higher. The employment status of respondents was categorized as currently working and not working.

The number of living children was a continuous variable measuring the total number of living children the respondent had at the time of the interview. The household wealth index is an indicator of the economic status of households, which was constructed using household asset data via principal components analysis. It was treated as categorical with five levels: poorest, poorer, middle, richer, and richest. Mass media exposure was measured by whether women heard FP messages on the radio, saw FP messages on television, or read FP messages in the newspaper or magazine in the past few months. Women who reported exposure to at least one of the media above were deemed to have exposure to FP messages.

3.6.5 Summary of Variables Used

There was a total of twelve variables used in this study. Table 3.2 shows the coding used for each variable.

Table 3.2 Summary of variables used and their codes

Variables	Codes
Contraceptive use	1 = Not using
	2 = Modern contraceptive method
	3 = Traditional contraceptive method
Unmet need for FP	1 = No unmet need
	2 = Unmet need for spacing
	3 = Unmet need for limiting
IPV (physical, sexual, and emotional)	0 = No experience of such violence
	1 = Experience of such violence
Controlling behaviors	0 = No
	1 = Yes
Age	Continuous variable
Age at first marriage	Continuous variable
Place of residence	1 = Urban
	2 = Rural
Education	1 = No education
	2 = Primary
	3 = Secondary
	4 = Higher
Employment	0 = Not working
	1 = Working
Number of living children	Continuous variable
Household wealth index	1 = Poorest
	2 = Poorer
	3 = Middle
	4 = Richer
	5 = Richest
Exposure to FP via mass media	0 = No
	1 = Yes

3.7 Data Analysis Techniques

All analyses were carried out using SPSS version 25. Prior to the analyses, all data were weighted to ensure each sample represented the entire population, considering the uneven distribution of samples among various provinces, as well as their urban and rural areas, and potential variations in response rates. This study uses the weight for domestic violence, coded as D005 in the DHS dataset, as a weighting factor for the subset of women who were randomly selected and interviewed for the domestic violence module. Descriptive analyses were carried out to examine the distribution of all variables, such as the frequency and percentage distributions. Continuous variables were regrouped to show

the data distribution in frequency and percentage forms. Next, the bivariate association between the dependent variables and each independent variable was measured using crosstabulations and the Chi-square test. Multivariate logistic regression was used to determine the net effect of independent variables on each dependent variable. Multinomial logistic regression was used since contraceptive use and unmet need for FP were measured in three levels. Studies showed that different forms of IPV are associated differently with contraceptive use and unmet need (O'Hara et al., 2013). While one type of IPV is positively associated with contraceptive use or unmet need (Ahinkorah et al., 2020; Deyessa & Argaw, 2018; Murshid, 2017; Silverman et al., 2020; Tsai et al., 2016), another type of IPV may show negative association (Chen et al., 2020; Laanpere et al., 2013; Maxwell et al., 2015). Therefore, the effect of each type of IPV (i.e., physical, sexual, and emotional violence) on contraceptive use and unmet need for FP was analyzed separately.

Moreover, the effect of the combined type of IPV on FP practices was analyzed. Four multinomial logistic regression models were conducted using the same dependent and independent variables but with different types of IPV (physical violence, sexual violence, emotional violence, and combined type of IPV) at a time. A p-value of less than 0.05 was considered to be statistically significant.

3.7.1 Multinomial Logistic Regression

Multinomial logistic regression is a statistical technique used to examine the relationship between a categorical response variable and one or more explanatory variables. Multinomial logistic regression is an extension of binary logistic regression that allows for more than two categories of the dependent variable (Chan, 2005). Similar to binary logistic regression, multinomial logistic regression uses maximum likelihood estimation to evaluate the probability of response variables based on multiple independent

variables. The independent variables can be either categorical or continuous. Logistic regression has several advantages (Tabachnick et al., 2013). First, logistic regression does not assume a linear relationship between the dependent and independent variables. Second, the error terms known as residuals do not need to be normally distributed. Third, homoscedasticity is not required. Furthermore, it does not require the predictors to be unbounded. Finally, the dependent and independent variables in logistic regression need not be interval or ratio scales.

According to Hosmer et al. (2013), the multinomial logistic regression model is as follows: Assume that the outcome variable, Y, is categorized as 0, 1, or 2. In the binary logistic regression model, the binary outcome variable is represented by the logit of $Y = 1$ compared to $Y = 0$. However, a model with three outcome categories requires two logit functions. Next, one of the outcome categories will be used as the reference group. One common approach is to use $Y = 0$ as the reference group and form logit functions that compare each of the other categories to it.

To develop the model, assume we have p covariates and a constant term, denoted by the vector $\mathbf{x}$, of length $p + 1$, where $x_0 = 1$. The two logit functions are defined as

$$g_1(\mathbf{x}) = \ln\left[\frac{\Pr(Y = 1|\mathbf{x})}{\Pr(Y = 0|\mathbf{x})}\right]$$

$$= \beta_{10} + \beta_{11}x_1 + \beta_{12}x_2 + \cdots + \beta_{1p}x_p$$

$$= \mathbf{x}'\boldsymbol{\beta}_1 \tag{3.3}$$

and

$$g_2(\mathbf{x}) = \ln\left[\frac{\Pr(Y = 2|\mathbf{x})}{\Pr(Y = 0|\mathbf{x})}\right]$$

$$= \beta_{20} + \beta_{21}x_1 + \beta_{22}x_2 + \cdots + \beta_{2p}x_p$$

$$= \mathbf{x}'\boldsymbol{\beta}_2 \tag{3.4}$$

It follows that the conditional probabilities of each outcome category given the covariate vector are

$$\Pr(Y = 0|\mathbf{x})$$

$$= \frac{1}{1 + e^{g_1(\mathbf{x})} + e^{g_2(\mathbf{x})}} \tag{3.5}$$

$$\Pr(Y = 1|\mathbf{x})$$

$$= \frac{e^{g_1(\mathbf{x})}}{1 + e^{g_1(\mathbf{x})} + e^{g_2(\mathbf{x})}} \tag{3.6}$$

and

$$\Pr(Y = 2|\mathbf{x})$$

$$= \frac{e^{g_2(\mathbf{x})}}{1 + e^{g_1(\mathbf{x})} + e^{g_2(\mathbf{x})}} \tag{3.7}$$

Following the binary model convention, let $\pi_j(\mathbf{x}) = \Pr(Y = j|\mathbf{x})$ for $j = 0$, 1, 2. Each probability is a function of the vector of $2(p + 1)$ parameters $\boldsymbol{\beta}' = (\boldsymbol{\beta}'_1, \boldsymbol{\beta}'_2)$.

A general expression for the conditional probability in the three-category model is

$$\pi_j(\mathbf{x}) = \Pr(Y = j|\mathbf{x}) = \frac{e^{g_j(\mathbf{x})}}{\sum_{k=0}^{2} e^{g_k(\mathbf{x})}}$$

where the vector $\boldsymbol{\beta}_0 = 0$ and $g_0(\mathbf{x}) = 0$.

An odds ratio is the ratio of the chances of an event happening in a treatment group to the chances of an event happening in a reference group. An adjusted odds ratio is one that has been adjusted to take other predictor variables into account in a model. It is beneficial for understanding how a predictor variable affects the likelihood of an event occurring after controlling for the effect of other predictor variables. The significance for β was examined using the Wald test, and a p-value of 0.05 was used as a cut-off for statistical significance.

CHAPTER 4: RESULTS

4.1 Introduction

This chapter reports the results of the data analysis. It begins with the profile of respondents, followed by the prevalence of IPV, husbands' controlling behaviors, contraceptive use, and unmet need for FP. Next, the prevalence of IPV, contraceptive use, and unmet FP need by independent variables are shown. Finally, the relationships between independent variables (IPV and socio-economic variables) and FP practices (contraceptive use and unmet need for FP) are discussed.

4.2 Profile of Respondents

Table 4.1 shows the frequency and percentage distribution of respondents by socio-economic variables. The total number of respondents for each country was 20,793 Afghan, 58,480 Indian, 3,447 Nepalese, and 3,192 Pakistani married women in this study. In all the countries except India, the highest percentage of women were aged less than 25 years, ranging from 22.0% to 27.2%. As the age group increased, the percentage gradually decreased. Over half of the women married between 15 and 20 years in each country. Child marriage is the most prevalent in Nepal, with 55.7% of the respondents married before the age of 18, followed by Afghanistan (49.9%), India (43.2%), and Pakistan (35.5%). More than half of the respondents were from rural areas in Afghanistan (77.8%), India (65.6%), and Pakistan (62.7%), as compared to only 39.9% of Nepalese women. Except for India, a high percentage of married women had no education. Afghanistan (83.4%) has the highest rate of illiteracy, followed by Pakistan (49.7%) and Nepal (41.5%). Close to 44% of Indian women completed their secondary education, at least twice as high as the percentages in Pakistan (20.6%) and Afghanistan (6.9%). However, the proportion of women with higher education was found to be the highest in Pakistan (14.6%), followed by Nepal (11.6%) and India (10.7%), and lastly in Afghanistan (1.9%).

Afghanistan had the highest percentage of women with no education and the lowest percentage of women with primary, secondary, and higher education among all countries.

Over 70% of married women in Afghanistan, India, and Pakistan were unemployed, whereas nearly 70% of Nepalese women were employed. The proportion of married women with 1-2 children was found to be the highest in India (54.4%), Nepal (51.2%), and Pakistan (32.0%), as compared to only one-quarter of Afghan women. Most Afghan women had more than five children (39.1%). The percentage of respondents by household wealth index was evenly distributed across all the countries. Concerning exposure to FP messages through mass media, most of the married women had no exposure in Afghanistan (61.4%), Nepal (52.4%), and Pakistan (73.7%), while the contrary happened in India (36.2%).

Table 4.1 Frequency and percentage distribution of respondents by socio-economic variables

Socio-economic Variables	Afghanistan		India		Nepal		Pakistan	
	n	%	n	%	n	%	n	%
Overall	20,793	100.0	58,480	100.0	3,447	100.0	3,192	100.0
Age								
<25	5,657	27.2	11,147	19.1	819	23.8	703	22.0
25-29	4,462	21.5	11,760	20.1	660	19.1	666	20.8
30-34	3,114	15.0	10,519	18.0	635	18.4	619	19.4
35-39	3,161	15.2	9,647	16.5	563	16.3	513	16.1
40-44	2,075	10.0	8,070	13.8	455	13.2	341	10.7
45-49	2,324	11.1	7,337	12.5	315	9.2	350	11.0
Age at first marriage								
<15	2,852	13.7	7,578	13.0	449	13.0	249	7.8
15-17	7,518	36.2	17,636	30.2	1,473	42.7	886	27.7
18-20	6,546	31.5	18,313	31.3	937	27.2	949	29.7
21-23	2,545	12.2	9,295	15.9	377	10.9	608	19.0
≥24	1,332	6.4	5,658	9.7	211	6.1	500	15.7
Place of residence								
Urban	4,607	22.2	20,125	34.4	2,073	60.1	1,189	37.3
Rural	16,186	77.8	38,355	65.6	1,374	39.9	2,003	62.7
Education level								
No Education	17,349	83.4	18,549	31.7	1,430	41.5	1,586	49.7
Primary	1,625	7.8	8,238	14.1	634	18.4	482	15.1
Secondary	1,428	6.9	25,459	43.5	982	28.5	657	20.6
Higher	391	1.9	6,234	10.7	401	11.6	467	14.6

Table 4.1 continued

Employment status								
Not working	18,090	87.1	40,777	70.5	1,056	30.6	2,602	81.5
Working	2,686	12.9	17,037	29.5	2,391	69.4	590	18.5
No. of living children								
0	2,096	10.1	5,944	10.2	356	10.3	440	13.8
1-2	5,121	24.6	31,798	54.4	1,766	51.2	1,022	32.0
3-4	5,449	26.2	16,792	28.7	999	29.0	986	30.9
≥5	8,127	39.1	3,946	6.7	326	9.5	744	23.3
Wealth index								
Poorest	4,239	20.4	9,871	16.9	597	17.3	559	17.5
Poorer	4,365	21.0	11,250	19.2	690	20.0	624	19.6
Middle	4,236	20.4	11,995	20.5	730	21.2	629	19.7
Richer	4,124	19.8	12,436	21.3	755	21.9	661	20.7
Richest	3,829	18.4	12,928	22.1	675	19.6	719	22.5
Exposure to FP via mass media								
No	12,771	61.4	21,164	36.2	1,805	52.4	2,353	73.7
Yes	8,022	38.6	37,316	63.8	1,642	47.6	839	26.3

Note: Missing values have been excluded from the analysis.

4.3 Prevalence of IPV and Husbands' Controlling Behaviors

Table 4.2 shows respondents' frequency and percentage distribution by IPV and husbands' controlling behaviors variables. In each country physical violence was the most frequent form of violence experienced by women in Afghanistan, India, and Nepal, but emotional violence was more prevalent in Pakistan. Across the countries, the experience of physical violence in the past 12 months was higher in Afghanistan, where almost half (45.9%) of married women reported that they experienced it, while less than one-quarter had reported in India (22.5%), Nepal (10.1%) and Pakistan (14.0%). Less than 10% of the respondents had experienced sexual violence in the past 12 months in each country. Afghanistan reported the highest prevalence rate of sexual violence (6.1%), followed by India (5.6%), Nepal (4%), and Pakistan (3.7%). The percentage of married women experiencing emotional violence in the past 12 months was the highest in Afghanistan (34.4%), followed by Pakistan (21.1%), India (11.2%), and Nepal (7.7%). Afghanistan also had the highest percentage (68.9%) of married women who reported controlling

behaviors by husbands or partners, whereas less than half were reported in India (46.2%), Nepal (34.1%), and Pakistan (27.6%).

Afghanistan (28.6%) recorded the highest percentage of reported cases involving both physical/sexual and emotional violence, surpassing the rates in Pakistan (10.6%), India (8.5%), and Nepal (5.3%). Moreover, Afghanistan (17.6%) and India (15.3%) had relatively higher percentages of reported cases of physical or sexual violence only compared to Nepal (6%) and Pakistan (4.3%). In Pakistan, the proportion of married women experiencing emotional violence only or both physical/sexual and emotional violence was equal, at 10.6% each. Furthermore, Pakistan (10.6%) had the highest percentage of reported cases involving emotional violence only, followed by Afghanistan (5.8%), India (2.7%), and Nepal (2.3%).

Table 4.2 Frequency and percentage distribution of respondents by IPV and husbands' controlling behaviors variables

IPV Variables	Afghanistan		India		Nepal		Pakistan	
	n	%	n	%	n	%	n	%
Overall	20,793	100.0	58,480	100.0	3,447	100.0	3,192	100.0
Physical violence								
No	11,253	54.1	45,345	77.5	3,100	89.9	2,746	86.0
Yes	9,540	45.9	13,135	22.5	347	10.1	446	14.0
Sexual violence								
No	19,515	93.9	55,206	94.4	3,310	96.0	3,075	96.3
Yes	1,278	6.1	3,274	5.6	137	4.0	117	3.7
Emotional violence								
No	13,641	65.6	51,936	88.8	3,182	92.3	2,517	78.9
Yes	7,152	34.4	6,544	11.2	265	7.7	675	21.1
Controlling behaviors								
No	6,462	31.1	31,482	53.8	2,271	65.9	2,311	72.4
Yes	14,331	68.9	26,998	46.2	1,176	34.1	881	27.6
Combination type of IPV								
No	9,989	48.0	42,984	73.5	2,976	86.3	2,379	74.5
Physical or Sexual only	3,652	17.6	8,952	15.3	206	6.0	138	4.3
Emotional only	1,204	5.8	1,561	2.7	81	2.3	338	10.6
Physical/sexual and emotional	5,948	28.6	4,983	8.5	184	5.3	337	10.6

4.4 Prevalence of Contraceptive Use and Unmet Need for FP

Table 4.3 shows the prevalence of contraceptive use and unmet need for FP in the four countries under study. In terms of contraceptive use, India had the highest prevalence of any method use (55.1%), followed by Nepal (52.6%), Pakistan (34.9%), and Afghanistan (22.8%). Most respondents practiced modern rather than traditional methods in each country. Prevalence rates of traditional methods remained at less than 10% for each country. However, a considerable proportion of married women used traditional methods based on the low prevalence rate of any method in Pakistan.

Regarding unmet need for FP, the table reveals that Nepal had the highest overall unmet need (23.8%), followed by Afghanistan (23.5%), Pakistan (17.1%), and India (12.7%). Unmet need for spacing was the highest in Afghanistan (16.7%), followed by Pakistan (9.4%), Nepal (8.5%), and India (5.6%). Unmet need for limiting was the highest in Nepal (15.3%), followed by Pakistan (7.7%), India (7.0%), and Afghanistan (6.8%). Overall unmet need was high in Nepal due to the high unmet need for limiting, while it was resulted from the high unmet need for spacing in Afghanistan.

Table 4.3 Prevalence of contraceptive use and unmet need for FP

	Afghanistan	India	Nepal	Pakistan
Any method	22.8	55.1	52.6	34.9
Modern method	20.1	48.8	42.9	25.5
Traditional method	2.7	6.3	9.7	9.4
Total unmet need (any method)	23.5	12.6	23.8	17.1
Unmet need for spacing	16.7	5.6	8.5	9.4
Unmet need for limiting	6.8	7.0	15.3	7.7

Table 4.4 presents the method mix of contraception among married women aged 15-49 in each country. The most common modern contraceptive method in Afghanistan was the pill (30.8% of contraceptive users), followed by injection (22.1%) and condom (15.0%). However, sterilization was the most widely used modern method among Indian (67.1%) and Nepalese (38.7%) contraceptive users. Meanwhile, about one-quarter of the contraceptive users in Pakistan used condoms (28.2%) and sterilization (26.1). Among

the traditional contraceptive methods, withdrawal was most commonly used in Afghanistan (11.4%), Nepal (16.5%), and Pakistan (23.9%), whereas periodic abstinence was most preferred in India (6.7%).

Table 4.4 Contraceptive method mix among married women aged 15-49 for each country

	Afghanistan	India	Nepal	Pakistan
Modern method				
Pill	30.8	7.4	8.8	4.0
IUD	5.9	2.7	2.9	6.2
Injection	22.1	0.3	17.2	6.6
Condom	15.0	11.0	7.4	28.2
Sterilization	8.3	67.1	38.7	26.1
Other modern methods	6.0	0.1	6.6	2.0
Traditional method				
Periodic Abstinence	0.2	6.7	1.7	2.7
Withdrawal	11.4	4.7	16.5	23.9
Other traditional methods	0.3	0.0	0.2	0.3

4.5 Hypothesis Testing

In this section, the study's findings are presented and analyzed to test the hypotheses introduced in Chapter 1. This section aims to provide evidence and insights that either support or refute the proposed hypotheses. The findings will be discussed concerning the research questions and objectives, emphasizing the key findings.

4.5.1 Hypothesis 1

The differentials in IPV, CPR, and unmet need for FP by socio-economic variables for each country are analyzed using crosstabulations. The bivariate relationship between each independent variable and FP practices was then investigated using the chi-square test or Fisher's exact test (for 2*2 contingency table).

4.5.1.1 Differentials in Prevalence of IPV by Socio-economic Variables

Table 4.5 presents the prevalence of IPV by socio-economic variables. All three types of violence were discovered to be the most prevalent in Afghanistan, followed by India across all age groups. Generally, physical and emotional violence prevalence increased with age in Afghanistan. Within each country, the oldest group of Afghan women (aged 45 to 49) was found to have the highest percentage experiencing physical and emotional violence (52.2% and 38.9%, respectively), followed by Indian women aged 35 to 39 (23.3% and 11.9%, respectively), and Pakistani women aged 30 to 34 (19.5% and 27.1%, respectively). On the other hand, women aged 25 to 29 in Afghanistan (7.6%) and India (6%) reported the highest percentage of experiencing sexual violence across age groups.

The prevalence of any form of IPV decreased with age at first marriage in all countries except Afghanistan. Across all age at first marriage groups, physical violence against women who were married before the age of 15 is most common in India (28.7%), Nepal (14%), and Pakistan (22.3%), but not in Afghanistan, where it was most common against those who were married between the ages of 21 and 23 (49.6%). Across the countries, sexual violence was found to be most prevalent among women married before the age 15 in Pakistan (8.4%), followed by India and Nepal (6.7% each). Emotional violence was experienced by approximately one-third (32.8%) of Pakistani women married before the age of 15, which was significantly higher than in India (13.8%).

From the perspective of residential areas, rural women were more likely than urban women to experience physical violence in Afghanistan and Nepal, all three types of violence in India, and physical and emotional violence in Pakistan. Almost half (48.5%) of Afghan women living in rural areas had experienced physical violence, which is more than twice the percentages in India (24.7%), Nepal (11.6%), and Pakistan (16.1%). The rate of rural Pakistani women who experienced emotional violence (23.5%) is twice that of rural Indian women (11.9%).

Overall, the prevalence of all forms of violence decreased as women's education levels increased in all countries. Nearly half (48.5%) of the uneducated women faced physical violence in Afghanistan, followed by India (30.7%), Pakistan (17.9%), and Nepal (12.5%). India was found to have the highest percentage of uneducated women who experienced sexual violence (7.7%), followed by Afghanistan (6.6%), Nepal (4.3%), and Pakistan (4.2%). Uneducated women in Afghanistan, on the other hand, have the highest prevalence rate of emotional violence (35.9%), followed by Pakistan (24.8%), India (15%), and Nepal (9.6%). Across the countries, the prevalence rate of physical and sexual violence among higher educated Afghan women was much higher than those of uneducated women in Nepal and Pakistan. Similarly, the prevalence of emotional violence was much higher among higher educated Afghan women than among uneducated women in India and Nepal.

In all the countries except Nepal, the study discovered that working women experienced higher prevalence rates of all three types of violence than their non-working counterparts. Across the countries, Afghanistan had the highest prevalence of all three types of violence among working women (physical, 50.6%; sexual, 7.6%; emotional, 38.3%), followed by India (physical, 28%; sexual, 7.1%; emotional, 14.5%) and Pakistan (sexual, 5.3%).

In general, the prevalence of violence increased with the number of living children in all the countries. In each country, physical violence was more prevalent than other forms of violence across all number of living children groups in Afghanistan, India, and Nepal. However, emotional violence was more prevalent than other forms of violence across all number of living children groups in Pakistan. Half (49.8%) of Afghan women with at least five children reported experiencing physical violence, which is significantly higher than the percentages in India (28.1%), Pakistan (19.5%), and Nepal (12.3%). Similarly, the prevalence of emotional violence was higher among Afghan women with at least five

children (36.6%), followed by Pakistan (26.2%) and India (13.2%). However, the prevalence of sexual violence among women with at least five children was the highest in India (7.3%), followed by Afghanistan (6.3%) and Pakistan (5.4%).

Overall, the prevalence of all three types of violence decreased as the wealth index increased, with the results being more pronounced in India, Nepal, and Pakistan. Nearly half (48.2%) of Afghanistan's poorest women experienced physical violence, which was higher than in India (33.5%), Pakistan (20.2%), and Nepal (11.9%). Emotional violence was also reported to be higher among women from the poorest group in Afghanistan (32.9%), followed by Pakistan (23.6%) and India (16%). Across all wealth indices, less than 10% of women reported sexual violence, with the poorest women in India reporting the most (9.8%), followed by Afghanistan (9%).

In India, Nepal, and Pakistan, it was discovered that women exposed to FP through the media experienced lower prevalence rates of violence, but the opposite was true in Afghanistan. Women with FP exposure reported the highest prevalence of emotional violence in Afghanistan (36.8%), more than twice the prevalence rate in Pakistan (18%) and India (10.7%). Comparing the prevalence rates of physical violence across countries, Nepal (7.8%) had a lower prevalence than Pakistan (11%) and India (20.6%) among women with exposure to FP. In terms of sexual violence, India (5.0%) had a prevalence approximately twice the prevalence rate in Pakistan (2.4%), but the opposite was true for the prevalence of emotional violence, where Pakistan (18%) had a much higher prevalence than India (10.7%) among those with exposure to FP.

Table 4.5 Prevalence of IPV by socio-economic variables

Variables	Afghanistan			India			Nepal			Pakistan		
	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Age	***	***	***	***	**	*				***		**
<25	37.9	5.4	28.1	20.8	5.5	10.5	11.0	5.4	6.2	11.2	3.8	17.8
25-29	48.1	7.6	37.8	23.2	6.0	10.7	10.9	4.1	7.9	14.1	3.6	20.7
30-34	49.1	6.6	35.2	23.2	5.9	11.4	10.7	3.3	7.4	19.5	5.2	27.1
35-39	49.0	5.7	35.6	23.3	5.8	11.9	10.8	3.7	10.3	14.6	4.3	22.0
40-44	46.1	5.8	36.0	22.9	5.0	11.3	6.2	2.9	6.6	12.0	1.8	20.2
45-49	52.2	5.5	38.9	21.2	5.0	11.6	8.6	3.5	8.9	10.6	2.0	17.7
Age at first marriage	***			***	***	***	***	*		**	***	***
<15	44.4	6.8	35.1	28.7	6.7	13.8	14.0	6.7	7.8	22.3	8.4	32.8
15-17	46.5	6.2	34.5	25.3	6.3	12.4	11.5	3.9	8.2	14.0	4.1	21.9
18-20	44.6	5.7	34.3	22.6	5.8	11.3	7.4	3.0	6.8	13.6	3.4	21.5
21-23	49.6	6.2	33.9	16.3	4.4	8.4	8.2	4.5	8.8	12.7	3.3	18.3
≥24	44.5	6.4	34.0	14.8	3.4	8.1	6.7	2.4	5.7	12.2	1.8	16.8
Place of residence	***			***	***	***	*			***		***
Urban	36.5	5.8	33.8	18.3	4.1	9.8	9.0	3.5	7.2	10.4	2.9	17.1
Rural	48.5	6.3	34.6	24.7	6.4	11.9	11.6	4.7	8.4	16.1	4.1	23.5
Education level	***	***	***	***	***	***	***	**	**	***	***	***
No Education	48.5	6.6	35.9	30.7	7.7	15.0	12.5	4.3	9.6	17.9	4.2	24.8
Primary	37.9	4.6	26.9	26.4	6.6	12.4	12.0	6.3	7.7	16.6	5.8	25.5
Secondary	29.4	2.9	27.7	18.4	4.6	9.6	8.2	2.6	5.0	8.7	2.6	14.6
Higher	25.1	4.9	23.8	9.5	2.2	5.0	2.7	2.5	7.5	5.4	1.1	13.7

Table 4.5 continued

Employment status	***	***	***	***	***	***					**	
Not working	45.2	5.9	33.8	20.1	5.0	9.7	9.1	3.5	6.7	14.1	3.3	20.9
Working	50.6	7.6	38.3	28.0	7.1	14.5	10.5	4.2	8.1	13.4	5.3	22.1
No. of living children	***	**	***	***	***	***	**			***	**	***
0	25.9	4.5	20.4	14.4	4.4	8.6	10.4	2.8	6.2	8.0	3.6	12.0
1-2	44.9	6.6	33.2	20.8	4.9	10.5	8.3	3.9	7.4	12.4	2.2	21.4
3-4	48.6	6.0	37.7	27.1	7.0	13.0	12.3	4.2	8.3	14.1	4.0	21.1
≥5	49.8	6.3	36.6	28.1	7.3	13.2	12.3	4.9	8.9	19.5	5.4	26.2
Wealth index	***	***	***	***	***	***	***	*		***	***	***
Poorest	48.2	9.0	32.9	33.5	9.8	16.0	11.9	5.2	8.4	20.2	3.4	23.6
Poorer	46.5	6.4	34.1	28.1	6.8	13.6	12.2	5.4	6.8	20.0	6.7	29.2
Middle	52.3	4.8	37.1	23.5	5.7	11.9	12.6	3.2	9.6	13.8	4.6	22.9
Richer	46.4	4.8	34.1	19.0	4.2	9.5	9.4	4.0	7.3	10.1	3.0	19.1
Richest	34.9	5.7	33.7	11.6	2.7	6.5	4.3	2.5	6.5	7.5	1.0	12.7
Exposure to FP via Mass Media			***	***	***	***	***			**	*	**
No	46.1	5.9	32.9	25.8	6.6	12.1	12.1	4.2	8.0	15.0	4.2	22.3
Yes	45.5	6.5	36.8	20.6	5.0	10.7	7.8	3.8	7.4	11.0	2.4	18.0

Notes:

Chi-square test/Fisher's exact test significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Tables 4.6, 4.7, 4.8, 4.9, 4.10, 4.11 and 4.12 present the prevalence of IPV across various socio-economic variables by employment status. Across the countries, Afghanistan had the highest prevalence rate of physical and emotional violence across all age groups among working and non-working women. The prevalence rate of IPV (physical, sexual, and emotional) is higher among working women than non-working women aged less than 35 in Afghanistan, and across all age groups in India. Among non-working women, the prevalence of physical violence was found to be the highest among women aged 45 to 49 in Afghanistan, followed by women aged 25 to 29 in India, women aged 30 to 34 in Pakistan, and women aged 25 to 29 in Nepal. Women aged 25 to 29 reported the highest percentage of sexual violence in Afghanistan (7.6%) and India (5.3%) across age groups. Additionally, the oldest group of Afghan women (aged 45 to 49) was found to have the highest rate of experiencing emotional violence (39.9%), followed by Pakistani women aged 30 to 34 (25.9%).

On the other hand, among working women, the experience of physical violence was most prevalent among Afghan women aged 25 to 29 (54.9%) and Pakistani women aged 30 to 34 (22.9%). Pakistan had the highest prevalence rate of sexual violence among women aged 30 to 34 (8.5%). Across the countries, the prevalence of emotional violence among Afghan women was much higher than that among Pakistani women across all age groups.

Generally, women marrying at a younger age were associated with higher prevalence rates of IPV, especially physical and sexual violence across all countries. Furthermore, working women generally tend to report higher rates of violence compared to non-working women, particularly among those who marry at a younger age. Afghanistan consistently showed the highest prevalence rates of physical violence across all age at first marriage groups among working and non-working women, followed by India, Nepal, and Pakistan. From the perspective of non-working women, physical violence against

women who married before the age of 15 was most common in India (26.6%) and Pakistan (23%), but not in Afghanistan, where it was most common against those who married between the ages of 21 and 23 (49.5%). Across the countries, the prevalence rate of sexual violence was found to be the highest among Nepalese women married before the age of 15 (9.5%), followed by Pakistani women married before the age of 15 (7%) and Indian women married between the ages of 15 and 17 (6%). Meanwhile, women who married before the age of 15 reported the highest rate of experiencing emotional violence in Pakistan (35.3%) and India (12.3%).

On the other hand, when examining working women, nearly half (55.8%) of the women who married before the age of 15 experienced physical violence in Afghanistan, a rate significantly higher than in India (31.4%) and Nepal (15.2%). India had the highest prevalence rate of sexual violence among women who married between the ages of 18 to 20 (8.2%). Across the countries, the experience of emotional violence was most prevalent among Afghan women who married before the age of 15 (52%), followed by Pakistani women who married between the ages of 18 to 20 (28.8%) and Indian women who married between the ages of 15 to 17 (15.6%).

The study found variations in the prevalence of IPV based on the place of residence, with women living in rural areas generally experiencing higher rates of IPV compared to those living in urban areas. Across all countries, physical violence is most prevalent among working and non-working women in both urban and rural areas, followed by emotional violence and sexual violence. Moreover, working women generally reported higher rates of IPV compared to non-working women, particularly in rural areas. When examining non-working women, the prevalence rate of physical violence was discovered to be the highest among rural women in Afghanistan (47.7%), followed by rural women in India (22%), and rural women in Pakistan (16.4%). Additionally, women living in rural areas in India reported a higher rate of experiencing sexual violence compared to those

living in urban areas. The rate of rural women experiencing emotional violence in Pakistan (23.7%) is twice that of rural women in India (10.4%).

Meanwhile, from the perspective of working women, rural women reported the highest percentage of experiencing physical violence in Afghanistan (54.4%), followed by India (29.7%) and Nepal (12.5%). Similarly, compared to urban areas, women living in rural areas reported a higher rate of experiencing emotional violence in Afghanistan (8.9%) and India (7.4%).

Overall, higher education levels were associated with lower rates of IPV among both working and non-working women across all countries. Working women generally reported higher rates of IPV compared to non-working women, particularly among those with lower education levels. Among non-working women, those with secondary and higher education levels consistently reported lower rates of IPV compared to those with no education or primary education. The prevalence rate of physical violence was found to be the highest among women with no education in Afghanistan (47.7%), followed by India (27.6%), Pakistan (18.8%), and Nepal (11.7%). In addition, the prevalence rate of sexual violence was found to be the highest among women with no education in India (6.9%) and Afghanistan (6.3%), and among women with primary education in Pakistan (6%). Across the countries, Afghanistan had the highest prevalence rate of emotional violence among uneducated women (35.1%), followed by Pakistan (25.7%), India (13.3%), and Nepal (11.2%).

On the other hand, from the working women's point of view, women with no or primary education reported higher rates of IPV across all countries, similar to non-working women. The prevalence rate of physical and sexual violence was found to be the highest among uneducated women in Afghanistan (54.3% and 8.9%, respectively) and India (35.2% and 8.6%, respectively), and among women with primary education in Nepal (13.4% and 6.8%, respectively). Uneducated women in Afghanistan faced the

highest rate of emotional violence (41.4%), which was more than twice that in India (17.2%).

The study discovers that the prevalence rate of IPV generally increased with the number of living children among both working and non-working women, with women having more children reporting higher rates of IPV. Additionally, working women generally reported higher rates of IPV compared to non-working women, irrespective of the number of living children. From the perspective of non-working women, as the number of living children increased, the prevalence of IPV generally increased across all types of violence and all countries. Women with at least five living children tended to report the highest rates of IPV in all countries, with a few exceptions. The prevalence rate of physical violence was found to be the highest among women with at least five children in Afghanistan (49.1%), followed by India (25.2%) and Pakistan (19.9%). However, the highest rate of physical violence happened among women without any child in Nepal (14.2%). Besides that, women with at least five children reported the highest rate of sexual violence in India (6.4%), followed closely by Afghanistan (6.3%) and Pakistan (5%). The prevalence rate of emotional violence was found to be the highest among women with three to four children in Afghanistan (37.5%), followed by women with at least five children in Pakistan (27.2%) and India (12.5%), and women with three to four children in Nepal (11.4%).

Similarly, for working women, those with more children generally reported higher rates of IPV in all the countries. Half (55%) of the women with at least five children reported the highest rate of physical violence in Afghanistan, significantly higher than in India (32.7%) and Nepal (12.7%). The prevalence of sexual violence was higher among women with one to two children in Afghanistan (10.6%), and equally high among those with three to four children and those with at least five children in India (8.4% each). Close

to one-third (29.9%) of women with one to two children had reported experiencing emotional violence in Pakistan.

In general, the prevalence rate of IPV decreased as the wealth index increased, both for working and non-working women in all countries. There was no significant difference in the prevalence rates between working and non-working women across the countries. For both working and non-working women, the richest women consistently reported the lowest rates of physical violence across all countries, with the results being more pronounced in India. From the perspective of non-working women, across the countries, the prevalence rate of physical violence was found to be the highest among women from the middle group in Afghanistan (51.4%), followed by women from the poorest group in India (31.2%) and Pakistan (22.3%), and women from the poorer group in Nepal (16%). Less than 10% of women reported experiencing sexual violence, with the poorest women in India reporting the most (9.8%), followed by the poorest women in Afghanistan (8.2%) and poorer women in Pakistan (6.3%). Nearly one-third (32.9%) of the poorest women experienced emotional violence in Afghanistan, which was higher than in Pakistan (26.2%) and India (14.9%).

On the other hand, when examining working women, half (51.3%) of the poorest women reported experiencing physical violence in Afghanistan, which was significantly higher than in India (37%) and Pakistan (16.1%). Furthermore, Afghanistan had the highest prevalence rate of sexual violence among the poorest women (15.6%), followed by India (9.8%). The prevalence rate of emotional violence was found to be the highest among poorer women in Afghanistan (48.4%), followed by Pakistan (34%) and India (17.4%). Notably, the study discovers that the richest women experienced lower rates of IPV across all types of violence and all countries for both working and non-working women, with only one exception. Among working women, the richest women experienced a higher rate of emotional violence than the poorest women in Afghanistan.

In general, exposure to FP via mass media was associated with lower rates of all three types of violence among both working and non-working women across all countries, with a few exceptions. However, there was inconsistency in the prevalence rate difference between working and non-working women. In some instances, working women with FP exposure experienced lower rates of IPV, while in others, there was little discrepancy or even higher rates among those exposed compared to non-working women. Among non-working women, those exposed to FP via mass media experienced lower rates of IPV in India and Pakistan, but the opposite was true in Afghanistan. When comparing the prevalence rate of physical violence across countries, women with FP exposure reported a higher rate in India (18.3%) than in Pakistan (10.8%). The prevalence rate of sexual violence was higher among women with FP exposure in Afghanistan (6.4%) compared to India (4.3%). Meanwhile, women exposed to FP via mass media experienced the highest prevalence rate of emotional violence in Afghanistan (37.3%), more than twice the prevalence rate in Pakistan (17.5%) and India (9.1%).

From the perspective of working women, those exposed to FP through mass media reported experiencing lower rates of all types of violence in all countries. Across the countries, the prevalence rate of physical violence was found to be the highest among women with FP exposure in Afghanistan (42.5%), followed by India (26.4%) and Nepal (7.8%). Afghanistan stands out with a notable difference in the prevalence rates of IPV between working women exposed and not exposed to FP via mass media. Comparing the prevalence rates of all types of violence across countries, women with FP exposure reported the lowest rate of sexual violence (2%) in Pakistan. On the other hand, one-third (33.2%) of women with FP exposure experienced emotional violence in Afghanistan.

Table 4.6 Prevalence of IPV by age and employment status

Employment Status	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Not working	**Age**	***	***	***	***	**		*			**		*
	<25	36.9	4.9	25.7	19.1	5.2	9.5	11.4	4.4	5.9	11.9	3.1	17.4
	25-29	47.1	7.6	37.7	21.2	5.3	9.7	11.7	5.0	8.1	13.9	3.7	20.6
	30-34	48.6	6.3	35.0	20.9	5.1	9.7	6.6	3.0	8.4	18.7	4.2	25.9
	35-39	48.5	5.4	36.0	20.5	5.1	9.7	9.7	2.8	7.6	16.3	3.4	21.5
	40-44	46.0	5.9	35.8	19.3	4.5	10.0	2.4	0.0	1.2	12.0	2.2	22.8
	45-49	52.4	5.4	39.9	18.6	4.0	9.9	4.2	1.1	7.3	9.4	1.6	18.0
Working	**Age**	**		***		*					*	*	*
	<25	45.7	9.2	45.7	29.1	7.3	15.2	10.7	5.9	6.5	8.2	7.2	20.6
	25-29	54.9	8.1	38.6	28.0	7.8	13.4	10.5	3.7	8.0	14.9	1.4	21.9
	30-34	54.6	9.1	37.4	27.9	7.6	14.5	12.2	3.4	6.9	22.9	8.5	32.2
	35-39	52.0	6.7	33.3	27.7	6.8	15.5	11.3	4.1	11.2	9.1	6.8	23.3
	40-44	46.5	5.1	36.7	29.2	5.8	13.6	7.0	3.5	7.8	12.2	0.0	11.0
	45-49	50.7	5.8	32.2	26.3	7.0	15.0	10.5	4.5	9.6	12.8	3.2	17.0

Notes:

Significance of Chi-square test between each IPV and age for working and non-working women: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.7 Prevalence of IPV by age at first marriage and employment status

Employment Status	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Not working	**Age at first marriage**	***			***	***	***		**		**	**	***
	<15	42.5	6.4	32.1	26.6	5.9	12.3	10.4	9.5	6.3	23.0	7.0	35.3
	15-17	45.4	5.8	33.5	23.1	6.0	10.9	11.2	3.2	8.2	15.5	4.1	24.2
	18-20	44.9	5.5	34.9	20.1	5.0	9.9	6.0	1.7	5.3	13.2	3.1	19.9
	21-23	49.5	6.3	33.7	14.8	3.8	7.3	7.7	2.9	4.8	12.7	2.8	18.1
	≥24	43.5	6.8	34.2	13.3	3.0	7.0	6.3	1.6	6.2	11.2	1.2	14.4
Working	**Age at first marriage**	***		***	***	***	***	**					**
	<15	55.8	8.5	52.0	31.4	7.7	15.4	15.2	5.6	8.6	20.3	12.5	25.0
	15-17	55.1	9.1	41.9	30.2	6.8	15.6	11.6	4.2	8.1	8.6	3.8	13.4
	18-20	42.7	7.0	30.0	29.3	8.2	15.1	8.0	3.5	7.5	15.3	4.1	28.8
	21-23	52.1	6.3	35.8	21.5	6.3	12.2	8.4	4.8	10.2	12.5	8.3	18.1
	≥24	50.8	3.8	33.0	17.9	4.3	10.3	6.8	2.7	6.1	15.6	4.2	27.1

Notes:

Significance of Chi-square test between each IPV and age at first marriage for working and non-working women: *** p < 0.001, ** p < 0.01, * p < 0.05
Test is based on each IPV measured at 2 levels: No, Yes

Table 4.8 Prevalence of IPV by place of residence and employment status

Employment Status	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Not working	**Place of Residence**	***			***	***	***				***		***
	Urban	36.2	6.2	32.8	16.9	3.5	8.5	8.7	2.8	6.2	10.4	2.4	16.8
	Rural	47.7	5.9	34.1	22.0	5.8	10.4	9.7	4.6	7.3	16.4	3.8	23.7
Working	**Place of Residence**	***	***		***	*		*					
	Urban	39.3	3.7	39.9	23.0	6.2	14.1	9.2	3.9	7.7	9.9	6.1	19.6
	Rural	54.4	8.9	37.8	29.7	7.4	14.7	12.5	4.7	8.7	14.8	4.9	23.0

Notes:

Significance of Fisher's exact test between each IPV and place of residence for working and non-working women: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.9 Prevalence of IPV by education level and employment status

Employment Status	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Not working	**Education level**	***	***	***	***	***	***	*		***	***	***	***
	No Education	47.7	6.3	35.1	27.6	6.9	13.3	11.7	4.6	11.2	18.8	3.8	25.7
	Primary	38.2	4.9	27.8	25.0	5.9	11.0	8.8	5.2	5.2	16.5	6.0	24.7
	Secondary	25.3	2.9	25.6	17.1	4.3	8.5	8.4	2.0	3.8	8.4	2.2	14.3
	Higher	24.8	4.3	25.7	8.8	2.1	4.6	3.2	1.6	2.4	5.4	0.8	12.4
Working	**Education level**	***	***	***	***	***	***	***	*				
	No Education	54.3	8.9	41.4	35.2	8.6	17.2	12.8	4.2	9.0	14.7	5.7	21.7
	Primary	36.2	2.7	21.9	29.1	7.9	15.2	13.4	6.8	8.8	17.3	5.0	29.6
	Secondary	47.1	3.0	37.3	22.6	5.9	13.2	8.0	3.0	5.6	11.1	6.3	17.5
	Higher	27.6	6.0	23.2	11.1	2.4	5.6	2.5	2.9	9.8	5.2	2.6	19.5

Notes:

Significance of Chi-square test between each IPV and education level for working and non-working women: *** p < 0.001, ** p < 0.01, * p < 0.05

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.10 Prevalence of IPV by number of living children and employment status

Employment Status	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Not working	No. of living children	***	*	***	***	***	***	*		**	***	*	***
	0	25.1	4.4	18.3	13.0	4.0	7.5	14.2	2.4	4.7	8.2	3.6	11.8
	1-2	44.1	6.1	32.4	18.9	4.4	9.0	6.8	3.6	5.1	12.3	2.0	20.1
	3-4	48.4	5.9	37.5	24.5	6.2	11.5	11.4	5.1	11.4	14.6	3.3	21.6
	≥5	49.1	6.3	36.4	25.2	6.4	12.5	11.4	0.0	8.0	19.9	5.0	27.2
Working	No. of living children	***	*		***	***		*					*
	0	32.0	5.7	36.4	20.1	5.8	13.0	7.9	3.5	7.0	6.8	4.1	13.5
	1-2	51.4	10.6	39.2	25.6	6.0	14.1	9.1	4.0	8.6	13.1	2.9	29.9
	3-4	50.1	7.2	39.4	31.8	8.4	15.5	12.6	3.9	7.3	12.4	6.5	19.4
	≥5	55.0	6.8	37.5	32.7	8.4	14.3	12.7	6.8	9.3	18.1	6.2	22.5

Notes:

Significance of Chi-square test between each IPV and number of living children for working and non-working women: *** p < 0.001, ** p < 0.01, * p < 0.05

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.11 Prevalence of IPV by wealth index and employment status

Employment Status	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Not working	**Wealth index**	***	***	***	***	***	***	**			***	***	***
	Poorest	47.9	8.2	32.9	31.2	9.8	14.9	10.9	5.4	6.6	22.3	2.7	26.2
	Poorer	44.8	5.8	31.6	25.7	6.3	11.5	16.0	4.6	6.9	20.7	6.3	27.7
	Middle	51.4	4.6	36.8	21.4	5.0	10.4	9.7	3.1	9.3	13.6	4.8	22.9
	Richer	46.2	4.8	35.3	17.2	3.5	8.4	9.8	4.0	6.7	10.6	2.9	19.6
	Richest	34.6	6.0	32.5	11.1	2.5	6.0	3.9	2.5	4.3	7.9	0.5	12.5
Working	**Wealth index**	***	***	***	***	***	***	***			*		***
	Poorest	51.3	15.6	33.2	37.0	9.8	17.0	12.1	5.1	8.5	16.1	4.7	19.2
	Poorer	56.4	9.8	48.4	32.5	7.6	17.4	11.3	5.5	6.8	17.7	8.2	34.0
	Middle	58.6	5.8	39.6	27.6	7.2	15.0	13.7	3.2	9.5	15.0	3.5	23.0
	Richer	48.1	4.2	25.4	23.8	5.8	12.4	9.1	4.0	7.7	4.2	4.2	12.5
	Richest	37.7	3.8	41.1	12.8	3.5	8.1	4.6	2.5	8.1	4.5	3.4	12.5

Notes:

Significance of Chi-square test between each IPV and wealth index for working and non-working women: *** p < 0.001, ** p < 0.01, * p < 0.05
Test is based on each IPV measured at 2 levels: No, Yes

Table 4.12 Prevalence of IPV by exposure to FP via mass media and employment status

Employment Status	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Not working	**Exposure to FP via Mass Media**		*	***	***	***	***				**		**
	No	44.7	5.6	31.6	23.4	6.2	10.9	10.2	3.9	7.2	15.2	3.6	22.2
	Yes	45.9	6.4	37.3	18.3	4.3	9.1	7.7	3.0	6.0	10.8	2.5	17.5
Working	**Exposure to FP via Mass Media**	***		***	***			***				*	
	No	54.5	7.9	40.8	30.2	7.3	14.2	13.0	4.3	8.4	14.2	6.4	22.4
	Yes	42.5	7.0	33.2	26.4	6.9	14.8	7.8	4.1	7.9	11.3	2.0	20.5

Notes:

Significance of Fisher's exact test between each IPV and exposure to FP via mass media for working and non-working women: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Tables 4.13, 4.14, 4.15, 4.16, 4.17, 4.18, and 4.19 present the prevalence of IPV across various socio-economic variables by place of residence. Across all age groups and places of residence, Afghanistan had the highest prevalence rate of IPV. In general, the prevalence of all forms of violence was higher in rural areas compared to urban areas across all age groups and countries. Among urban women, the prevalence rate of physical violence was found to be the highest among women aged 40 to 44 in Afghanistan (41.7%), followed by women aged 30 to 34 in Pakistan (17.6%). Meanwhile, sexual violence was more prevalent among Afghan women aged 25 to 29 (9.1%) and Indian women aged 45 to 49 (4.7%). Across the countries, Afghan women aged 40 to 44 (42.6%) reported the highest rate of emotional violence, followed by Pakistani women aged 30 to 34 (28.5%), Nepalese women aged 35 to 39 (13.4%), and Indian women aged 45 to 49 (11.7%).

From the perspective of rural women, half (54.8%) of the women aged 45 to 49 reported experiencing physical violence in Afghanistan, which was more than twice as high as in India (23.4%), Pakistan (12.4%), and Nepal (12%). The prevalence rate of sexual violence was found to be the highest among women aged 25 to 29 in Afghanistan (7.3%), followed by women aged 25 to 29 and 30 to 34 in India (6.8% each). Emotional violence was more prevalent among Afghan women aged 45 to 49 (39.6%), Pakistani women aged 40 to 44 (28.4%), and Nepalese women aged 25 to 29 (12.6%).

In general, the prevalence of all types of violence decreased with age at first marriage for both urban and rural areas in all countries. Physical violence was the most prevalent type across all countries and residential areas, followed by emotional violence and sexual violence. There are variations in IPV prevalence rates among the countries, with Afghanistan showing higher rates compared to India, Nepal, and Pakistan. When comparing both urban and rural areas, the prevalence rates of IPV were generally higher in rural areas across all countries. Among married women living in urban areas, the prevalence rate of physical violence was found to be the highest among women married

before the age of 15 in India (27.4%), which was twice as much as in Nepal (12.7%). Sexual violence was more prevalent among women married between the ages of 18 and 20 in Afghanistan (8.3%) and among women married before the age of 15 in India (5.4%). Across all age at first marriage groups, emotional violence was most prevalent among women married before the age of 15 in Afghanistan (37.6%), which was triple the rate in India (12%).

Looking from the point of view of rural women, the prevalence rates of all types of violence were the highest among women married before the age of 15 in all countries, except Afghanistan. Physical violence was most commonly found against women married between the ages of 21 and 23 in Afghanistan (53.3%), and against women married before the age of 15 in India (29.2%) and Pakistan (24.6%). Across the countries, sexual violence was most prevalent among women married before the age of 15 in Pakistan (10.5%), followed by Nepal (9.1%), Afghanistan (7.5%), and India (7.1%). Meanwhile, the prevalence rate of emotional violence was found to be the highest among women married between the ages of 15 and 17 in Afghanistan (35.4%), followed by women married before the age of 15 in Pakistan (35.1%) and India (14.4%).

In all countries, the prevalence rates of all forms of violence were generally higher among women with lower levels of education in both urban and rural areas. Physical violence had the highest prevalence rates, followed by emotional violence and sexual violence in Afghanistan, India, and Nepal. Additionally, there were higher prevalence rates of all forms of violence in rural areas compared to urban areas. Among women living in urban areas, the prevalence rate of physical violence was found to be the highest among uneducated women in Afghanistan (41.4%), followed by uneducated women in India (27.7%) and Pakistan (15.6%), and primary educated women in Nepal (12%). While sexual violence was most prevalent among uneducated women in India (6.3%) and Pakistan (4.7%), it was most prevalent among women with higher education in

Afghanistan (6.8%). Emotional violence was most prevalent among uneducated women in Afghanistan (37.2%), India (15.2%), and Nepal (9.1%), and among primary educated women in Pakistan (22.5%). Notably, the prevalence rates of physical and sexual violence among higher educated women in Afghanistan were much higher than those of uneducated women in India and Pakistan. Similarly, emotional violence was found to be higher among higher educated women in Afghanistan than uneducated women in India, Nepal, and Pakistan.

On the other hand, among rural women, the prevalence rates of all forms of violence were the highest among uneducated or primary educated women across all countries. Half (50%) of the uneducated women experienced physical violence in Afghanistan, followed by India (31.4%), Pakistan (18.5%), and Nepal (14.4%). Meanwhile, the prevalence rate of sexual violence was found to be the highest among uneducated women in India (8%) and Afghanistan (6.6%), and among primary educated women in Nepal (9.7%) and Pakistan (6.6%). Emotional violence was most prevalent among uneducated women in Afghanistan (35.6%), India (14.9%), and Nepal (9.9%), and among primary educated women in Pakistan (27.3%). The differences in the prevalence rates of all forms of violence between uneducated and higher educated women were most significant in Afghanistan.

Across both urban and rural areas, there is a trend of higher prevalence rates of all forms of violence among non-working women compared to those who are employed in all countries, except for the prevalence rate of sexual violence among Afghan women living in urban areas. There are variations in prevalence rates of IPV among the four countries, with Afghanistan generally showing higher rates compared to India and Pakistan. Among urban women, about one quarter (23%) of working women experienced physical violence in India. Working women also experienced higher rates of sexual violence in India (6.2%) and Pakistan (6.1%), compared to non-working women. In

105

Afghanistan, however, the study found a higher prevalence rate of sexual violence among working women (6.2%). Meanwhile, the prevalence rate of emotional violence was higher among working women in Afghanistan (39.9%), significantly exceeding the rate in India (14.1%).

On the other hand, among women living in rural areas, physical violence was more prevalent among working women in Afghanistan (54.4%), followed by India (29.7%). Similarly, the prevalence rate of sexual violence was higher among working women in Afghanistan (8.9%) and India (7.4%). One-third (37.8%) of working women in Afghanistan had experienced emotional violence, which was more than double the rate in India (14.7%).

Overall, the prevalence rates of all forms of violence increased with the number of living children in all countries. When comparing urban and rural areas, women living in rural areas experienced higher rates of IPV than those living in urban areas in all countries. Among women living in urban areas, the prevalence rates of all forms of violence were found to be the highest among women with three to four children or women with at least five children in all countries. Physical violence was most prevalent among women with at least five children in Afghanistan (39.6%), followed by women with three to four children in India (22.9%), and women with at least five children in Pakistan (15.5%). Meanwhile, women with at least five children faced the highest rate of sexual violence in India (6.8%). The prevalence rate of emotional violence was found to be the highest among women with at least five children in Afghanistan (37%) and Pakistan (24.8%), and among women with three to four children in India (12.5%).

From the perspective of women living in rural areas, half (52.8%) of women with at least five children experienced physical violence in Afghanistan, which was much higher than in India (29.8%), Pakistan (21.4%), and Nepal (11.2%). The prevalence rates of sexual violence were equally the highest among women with three to four children and

women with at least five children in India (7.4% each), and among women with one to two children and women with at least five children in Afghanistan (6.5% each). Meanwhile, emotional violence was most prevalent among women with three to four children in Afghanistan (38.4%), and among women with at least five children in Pakistan (26.8%) and India (13.5%).

With a few exceptions, the prevalence of all types of violence decreased across all countries as the wealth index increased. The differences in IPV prevalence rates between urban and rural areas were not consistent across the countries. Among women living in urban areas, those from the poorest or poorer groups experienced the highest rates of all types of violence in India, Nepal, and Pakistan, but not in Afghanistan. Physical violence was found to be most prevalent among richer women in Afghanistan (40.9%), followed by poorer women in India (34.7%) and Pakistan (20.2%), and the poorest women in Nepal (17.4%). Women from the poorer group in Pakistan reported the highest percentage of sexual violence in Pakistan (10.7%), followed by the poorest women in India (9.3%) and Nepal (7.3%). Meanwhile, the rate of emotional violence was found to be the highest among richer women in Afghanistan (35.4%), followed by poorer women in Pakistan (26.2%), and the poorest women in India (20.5%) and Nepal (11.4%).

On the other hand, among women living in rural areas, physical violence was most common against women from the middle group in Afghanistan (52.8%) and Nepal (14.4%), as well as against women from the poorest group in India (33.5%) and Pakistan (20.5%). While the highest prevalence rates of sexual violence were found among the poorest women in India (9.8%) and Afghanistan (9.3%), as well as among poorer women in Pakistan (6.1%), the highest rate was found among the richest women in Nepal (9%). Emotional violence was most prevalent among women from the middle group in Afghanistan (37.4%) and women from the poorer group in Pakistan (29.6%), which was nearly double that of the poorest women in India (15.7%).

In India, Nepal, and Pakistan, women exposed to FP through mass media had lower rates of all forms of violence, regardless of their residential areas, but the opposite trend was observed in Afghanistan. When comparing both urban and rural areas, there were differences in the prevalence rates of IPV based on exposure to FP through mass media, with women living in rural areas reporting higher rates of all forms of violence compared to urban women. Among women living in urban areas, those who were exposed to FP via mass media reported a higher rate of sexual violence in Afghanistan (7.2%), which was double that of those who were not exposed (3.3%). When comparing the prevalence rate of emotional violence across countries, women exposed to FP via mass media experienced a higher rate in Afghanistan (35.3%), which was three times the rate in India (9.6%).

From the perspective of women living in rural areas, while physical violence was more prevalent among women without FP exposure in India (27.4%), Pakistan (17.7%), and Nepal (14.3%), it was more prevalent among those with FP exposure in Afghanistan (50.2%). Women exposed to FP through mass media reported a lower rate of sexual violence in Pakistan (0.9%), which was significantly lower than the rate in India (5.8%). Across the countries, women exposed to FP via mass media reported a higher rate of emotional violence in Afghanistan (37.7%), more than twice the rate in Pakistan (18.1%), India (11.5%), and Nepal (6.4%).

Table 4.13 Prevalence of IPV by age and place of residence

Place of Residence	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Urban	**Age**	***	***	***		*	***			***	**		***
	<25	28.2	4.7	26.2	17.4	3.0	7.9	10.2	4.5	4.3	8.0	2.0	13.2
	25-29	39.9	9.1	38.3	18.7	4.5	8.8	8.5	2.4	5.1	7.5	1.9	12.8
	30-34	37.1	5.0	27.5	18.0	4.4	9.7	8.9	2.7	7.1	17.6	4.3	28.5
	35-39	38.9	5.0	39.0	18.8	4.3	10.4	11.6	4.2	13.4	11.8	5.4	17.2
	40-44	41.7	4.8	42.6	19.2	3.9	10.6	6.9	3.5	7.3	7.3	0.7	8.0
	45-49	40.9	5.9	35.9	17.4	4.7	11.7	6.3	4.2	7.9	7.6	2.3	18.8
Rural	**Age**	***	**	***	***	**		*		*	*		*
	<25	40.5	5.6	28.7	22.1	6.5	11.5	11.9	6.3	8.4	13.0	4.6	20.3
	25-29	50.3	7.3	37.7	25.4	6.8	11.7	15.0	6.9	12.6	17.2	4.4	24.4
	30-34	52.8	7.1	37.5	26.3	6.8	12.3	14.0	4.4	7.9	20.9	5.8	26.4
	35-39	52.4	5.9	34.4	25.9	6.7	12.8	9.6	3.1	5.7	16.5	3.5	25.2
	40-44	47.5	6.2	33.9	25.1	5.7	11.8	4.8	1.8	4.8	15.3	2.5	28.4
	45-49	54.8	5.4	39.6	23.4	5.2	11.5	12.0	2.4	10.3	12.4	1.8	17.0

Notes:

Significance of Chi-square test between each IPV and age for urban and rural women: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.14 Prevalence of IPV by age at first marriage and place of residence

Place of Residence	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Urban	Age at first marriage		***	*	***	***	***	***					
	<15	38.5	4.9	37.6	27.4	5.4	12.0	12.7	4.8	6.4	15.0	1.7	25.4
	15-17	34.2	4.6	31.1	20.8	4.6	11.0	11.0	3.5	8.0	10.4	3.2	17.6
	18-20	38.7	8.3	35.3	19.2	4.4	10.1	5.2	2.7	6.2	11.1	2.4	19.6
	21-23	36.3	3.8	32.1	14.1	3.5	8.3	9.8	5.2	9.0	8.8	3.6	13.1
	≥24	35.2	6.6	34.6	12.0	2.9	7.5	6.4	1.9	5.1	10.3	3.4	15.0
Rural	Age at first marriage	***	***		***	***	***		*		*	***	**
	<15	46.8	7.5	34.1	29.2	7.1	14.4	15.7	9.1	9.6	24.6	10.5	35.1
	15-17	50.0	6.6	35.4	27.0	6.9	12.9	12.1	4.3	8.4	15.6	4.4	23.8
	18-20	46.1	5.1	34.0	24.4	6.6	11.9	11.1	3.2	7.9	15.1	3.8	22.9
	21-23	53.3	6.9	34.3	18.0	5.1	8.6	4.5	2.7	8.1	15.4	3.4	21.8
	≥24	47.4	6.3	33.8	17.9	3.9	8.9	9.3	5.5	7.4	14.0	0.4	18.4

Notes:

Significance of Chi-square test between each IPV and age at first marriage for urban and rural women: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.15 Prevalence of IPV by education level and place of residence

Place of Residence	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Urban	**Education level**	***	***	***	***	***	***	***		*	***	*	**
	No Education	41.4	6.7	37.2	27.7	6.3	15.2	10.8	4.6	9.1	15.6	4.7	21.2
	Primary	29.5	4.4	31.2	25.5	4.8	12.3	12.0	3.7	6.1	12.9	4.5	22.5
	Secondary	24.1	2.6	23.4	16.7	4.0	9.0	8.2	2.7	5.3	7.8	2.2	15.4
	Higher	29.5	6.8	27.8	9.3	2.0	5.2	2.6	2.3	7.9	6.3	1.3	11.6
Rural	**Education level**	***	***	***	***	***	***	**	***	*	***	*	***
	No Education	50.0	6.6	35.6	31.4	8.0	14.9	14.4	3.9	9.9	18.5	4.1	25.7
	Primary	42.8	4.6	24.4	26.7	7.2	12.4	12.0	9.7	9.7	18.8	6.6	27.3
	Secondary	34.6	3.3	32.0	19.5	5.0	9.9	8.0	2.5	4.3	9.8	3.1	13.5
	Higher	16.4	0.8	15.6	9.9	2.5	4.8	2.1	3.2	6.2	3.7	1.2	17.6

Notes:

Significance of Chi-square test between each IPV and education level for urban and rural women: *** p < 0.001, ** p < 0.01, * p < 0.05

Test is based on each IPV measured at 2 levels: No, Yes

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Table 4.16 Prevalence of IPV by employment status and place of residence

Notes:

Significance of Fisher's exact test between each IPV and employment status for urban and rural women: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

<p style="text-align: center;">Table 4.17 Prevalence of IPV by number of living children and place of residence</p>

Place of Residence	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Urban	**No. of living children**	***		***	***	***	***			*	**		***
	0	18.1	5.2	20.2	12.1	3.1	7.0	9.2	3.5	3.5	4.9	4.3	9.1
	1-2	36.5	6.9	31.7	17.4	3.5	9.1	7.9	3.2	7.2	8.0	1.9	18.0
	3-4	37.9	5.1	35.3	22.9	5.9	12.5	10.2	3.6	7.8	12.9	3.2	15.2
	≥5	39.6	5.6	37.0	21.3	6.8	12.2	13.5	5.8	10.9	15.5	4.0	24.8
Rural	**No. of living children**	***	**	***	***	***	***	*			***	*	***
	0	27.7	4.3	20.4	15.6	5.0	9.4	12.6	1.6	10.2	9.8	3.6	13.8
	1-2	47.4	6.5	33.7	23.0	5.8	11.4	9.1	5.1	7.8	15.6	2.3	24.0
	3-4	51.7	6.3	38.4	28.8	7.4	13.2	14.7	5.1	8.7	14.8	4.4	24.7
	≥5	52.8	6.5	36.4	29.8	7.4	13.5	11.2	4.1	7.1	21.4	6.0	26.8

Notes:

Significance of Chi-square test between each IPV and number of living children for urban and rural women: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.18 Prevalence of IPV by wealth index and place of residence

Place of Residence	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Urban	**Wealth index**	**		**	***	***	***	***	**	**	***	***	***
	Poorest	24.4	3.2	19.9	32.6	9.3	20.5	17.4	7.3	11.4	13.8	3.4	10.7
	Poorer	29.9	2.8	26.2	34.7	8.0	18.4	11.1	5.3	4.7	20.2	10.7	26.2
	Middle	39.9	4.7	30.6	25.0	6.4	13.2	11.1	4.0	9.4	16.9	5.6	23.2
	Richer	40.9	5.3	35.4	20.9	4.2	10.1	7.4	2.5	5.3	8.5	2.5	20.0
	Richest	36.1	6.1	34.4	11.6	2.6	6.7	4.5	1.7	7.2	7.9	1.3	12.0
Rural	**Wealth index**	***	***	***	***	***	***	*	*		***	**	***
	Poorest	49.1	9.3	33.4	33.5	9.8	15.7	8.7	4.0	6.6	20.5	3.6	24.3
	Poorer	46.9	6.5	34.3	27.3	6.6	13.0	13.5	5.5	9.3	20.0	6.1	29.6
	Middle	52.8	4.8	37.4	23.0	5.4	11.4	14.4	2.2	9.5	12.6	4.2	22.8
	Richer	47.8	4.6	33.8	17.2	4.1	9.0	12.8	6.4	10.3	12.2	3.7	17.6
	Richest	26.8	2.3	28.5	11.6	3.0	5.7	2.6	9.0	1.3	6.5	0.0	14.7

Notes:

Significance of Chi-square test between each IPV and wealth index for urban and rural women: *** p < 0.001, ** p < 0.01, * p < 0.05

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.19 Prevalence of IPV by exposure to FP via mass media and place of residence

Place of Residence	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
Urban	**Exposure to FP via Mass Media**		***	**			*						
	No	35.4	3.3	31.2	19.0	4.6	10.6	10.2	3.5	6.6	9.8	2.5	16.8
	Yes	37.2	7.2	35.3	18.1	4.0	9.6	8.0	3.5	7.8	11.7	4.0	17.9
Rural	**Exposure to FP via Mass Media**	**		***	***	***	**	***		*	***	***	**
	No	47.8	6.3	33.1	27.4	7.1	12.5	14.3	4.9	9.6	17.7	5.0	25.0
	Yes	50.2	6.1	37.7	22.4	5.8	11.5	7.3	4.3	6.4	10.3	0.9	18.1

Notes:

Significance of Fisher's exact test between each IPV and exposure to FP via mass media for urban and rural women: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Tables 4.20, 4.21, 4.22, 4.23, 4.24, 4.25, and 4.26 present the prevalence of IPV across various socio-economic variables based on exposure to FP via mass media. The overall prevalence of IPV varies across countries and types of violence. Afghanistan had higher overall prevalence rates than the other countries, while Nepal had lower overall rates. Generally, in Afghanistan, the prevalence rates of physical and emotional violence increased with age, irrespective of exposure for FP via mass media. Across all age groups, women who were exposed to FP through mass media generally had lower prevalence rates of IPV than those who were not exposed in India and Pakistan, but higher prevalence rates of IPV in Afghanistan. Among women without FP exposure via mass media, within each country, physical violence was most prevalent among Afghan women aged 45 to 49 (52.7%), followed by Indian women aged 25 to 29 (28.2%), Pakistani women aged 30 to 34 (19.9%), and the youngest group of women (aged less than 25) in Nepal (14.6%). Meanwhile, women aged 25 to 29 reported the highest percentage of sexual violence in India (7.7%). When comparing the prevalence rate of emotional violence across countries, it was found highest among the oldest group of women (aged 45 to 49) in Afghanistan (37.5%), followed by women aged 30 to 34 in Pakistan (28.1%), and women aged 35 to 39 in India (13.9%).

On the other hand, when considering women exposed to FP via mass media, the prevalence rate of physical violence was found to be the highest among the oldest group of women (aged 45 to 49) in Afghanistan (51.4%), followed by women aged 30 to 34 in India (21.3%) and Pakistan (18.5%). In Afghanistan, women aged 25 to 29 reported experiencing the highest rate of sexual violence (9.4%). Emotional violence was most common among women aged 35 to 39 in Afghanistan (42.2%), which was four times higher than in India (10.7%).

In all countries, the prevalence rates of all forms of violence decreased with age at first marriage regardless of FP exposure via mass media, with a few exceptions in Afghanistan.

Additionally, women exposed to FP via mass media generally experienced lower rates of IPV compared to those without FP exposure in Afghanistan, India, and Nepal. Among women without FP exposure via mass media, physical violence was most common against women married before the age of 15 in India (28.6%), Pakistan (24.9%), and Nepal (15.1%), but not in Afghanistan, where it was most common against women married between the ages of 21 and 23 (50.8%). Across the countries, women married before the age of 15 reported the highest percentage of sexual violence in Pakistan (9.6%), followed by India (7.5%) and Afghanistan (7.1%). Furthermore, in Pakistan, nearly one-third (35.1%) of women married before the age of 15 had experienced emotional violence, more than twice the rate in India (14%).

When examining women exposed to FP via mass media, the prevalence rate of physical violence was found to be the highest among women married before the age of 15 in India (28.8%) and Nepal (11.9%), whereas it was the highest among women married between the ages of 21 and 23 in Afghanistan (47.8%). Similarly, sexual violence was most prevalent against women married before the age of 15 in Nepal (8.6%) and India (6%), but not in Afghanistan, where it was most prevalent against women married after the age of 23 (9.1%). Meanwhile, women married before the age of 15 reported the highest rate of emotional violence in India (13.6%).

The prevalence rates of IPV were higher among women living in rural areas in all countries, except for Pakistan, where the prevalence rate of sexual violence among women exposed to FP via mass media living in rural areas was lower. For both women with and without FP exposure via mass media, physical violence generally had the highest prevalence rates, followed by emotional violence and sexual violence across all countries. Among women not exposed to FP via mass media, the prevalence rate of physical violence was higher among rural women in Afghanistan (47.8%), followed by India (27.4%), Pakistan (17.7%), and Nepal (14.3%). On the other hand, sexual violence was

more prevalent among rural women in India (7.1%), followed by Afghanistan (6.3%) and Pakistan (5%). Additionally, the prevalence rate of emotional violence among rural women in Pakistan (25%) was double of that in India (12.5%).

From the perspective of women with FP exposure through mass media, half (50.2%) of the women living in rural areas in Afghanistan experienced physical violence, which was twice the rate in India (22.4%). In India, rural women were more likely to experience sexual violence (5.8%), whereas in Pakistan, urban women were more likely to experience it (4%). Additionally, the rate of emotional violence against rural women in Afghanistan (37.7%) is three times that of India (11.5%).

In all countries, the prevalence of all types of violence decreased as women's education levels increased, regardless of their exposure to FP via mass media. Generally, when comparing women's FP exposure, the prevalence rate of IPV was higher among women exposed to FP via mass media in Afghanistan, whereas it was higher among women without FP exposure in Pakistan. Among women without FP exposure via mass media, the differences in prevalence rates of all forms of violence between uneducated and higher educated women were most significant in Afghanistan. Across the countries, approximately half (48%) of uneducated women experienced physical violence in Afghanistan, followed by India (30.6%) and Pakistan (18%). On the other hand, sexual violence was found to be most prevalent among uneducated women in India (7.9%) and Afghanistan (6.3%), as well as among primary educated women in Pakistan (6.6%). Across the countries, uneducated women reported the highest rate of emotional violence in Afghanistan (33.8%), followed by Pakistan (24.4%), India (14.3%), and Nepal (9.9%).

When considering women exposed to FP through mass media, IPV was most common among uneducated women in Afghanistan, India, and Pakistan, as well as among women with primary education in Nepal. Across the countries, nearly half (49.2%) of uneducated women faced physical violence in Afghanistan, followed by India (30.8%), Pakistan

(17.6%), and Nepal (11.1%). Within each country, the prevalence rate of sexual violence was found to be the highest among uneducated women in India (7.3%) and Afghanistan (7.2%), and among women with primary education in Nepal (5.5%). Meanwhile, uneducated women reported the highest rate of emotional violence in Afghanistan (39.7%), followed by Pakistan (26.6%), India (16%), and Nepal (8.7%).

In general, working women were more likely to experience IPV than their non-working counterparts, regardless of their exposure to FP via mass media in Afghanistan, India, and Pakistan. When comparing women's FP exposure, those not exposed to FP through mass media had a higher rate of IPV than those who were exposed. From the perspective of women without FP exposure via mass media, half (54.5%) of working women in Afghanistan experienced physical violence, a significantly higher rate than in India (30.2%). Similarly, sexual violence was more prevalent among working women in Afghanistan (7.9%), followed by India (7.3%) and Pakistan (6.4%). Furthermore, the prevalence rate of emotional violence against working women in Afghanistan was almost three times higher (40.8%) than in India (14.2%).

On the other hand, among women exposed to FP through mass media, one quarter (26.4%) of working women experienced physical violence in India. Sexual violence was more prevalent among working women in India (6.9%). Additionally, while working women were more likely to experience emotional violence in India (14.8%), unemployed women were more likely to experience it in Afghanistan (37.3%).

Overall, the prevalence of IPV increased with the number of living children in all the countries, regardless of FP exposure via mass media. Within each country, physical violence was more prevalent than other forms of violence across all number of living children groups in Afghanistan, India, and Nepal. However, emotional violence was more prevalent than other forms of violence across all number of living children groups in Pakistan. There was no significant difference in the prevalence of IPV between women

exposed to FP and those not exposed to FP through mass media. Among women without FP exposure through mass media, in Afghanistan, half (50.6%) of women with at least five children experienced physical violence, followed by 28.8% in India and 20.2% in Pakistan. On the other hand, sexual violence was most prevalent among women with three to four children in India (7.6%) and among women with at least five children in Pakistan (6.3%). Emotional violence was found to be most common among women with three to four children in Afghanistan (35.7%), followed by women with at least five children in Pakistan (27.4%) and women with three to four children in India (13%).

Among women exposed to FP via mass media, those with at least five children reported the highest rate of physical violence in Afghanistan (48.6%), followed by India (26.9%), Pakistan (17%), and Nepal (15.8%). While sexual violence was most common against women with one to two children in Afghanistan (7.8%) and against women with at least five children in India (7.2%), it was found to be highest among those without children in Pakistan (7%). Meanwhile, across the countries, women with three to four children in Afghanistan (40.7%) had the highest prevalence rate of emotional violence, followed by women with at least five children in Pakistan (22.1%), India (13.8%), and Nepal (13.7%).

In general, the prevalence of all types of violence decreased as the wealth index increased in all countries, regardless of FP exposure via mass media. Within each country, physical violence was more widespread than other types of violence across all wealth indices in Afghanistan, India, and Nepal. Conversely, emotional violence surpassed other forms of violence across all wealth indices in Pakistan. When comparing women with and without FP exposure through mass media, those who were exposed to FP generally reported a higher rate of violence in Afghanistan, India, and Pakistan. Among women not exposed to FP via mass media, physical violence was most prevalent among women from the middle group in Afghanistan (53.4%), followed by the poorest women in India (33.7%), women from the poorer group in Pakistan (29.7%), and women from the middle

group in Nepal (14.8%). Meanwhile, the prevalence rate of sexual violence was found to be highest among the poorest women in India (9.5%) and Afghanistan (8.5%), as well as among women from the middle group in Pakistan (7%) and Nepal (6.9%). Afghan women from the middle group reported the highest rate of emotional violence (36.9%), followed by Pakistani women from the poorer group (29.7%), Indian women from the poorest group (15.2%), and Nepalese women from the middle group (10.7%).

On the other hand, from the perspective of women exposed to FP via mass media, the difference in the prevalence of IPV between the poorest and the richest women was particularly significant in Afghanistan, India, and Pakistan. More than half (64.8%) of the poorest women in Afghanistan experienced physical violence, a significant higher rate than in Pakistan (35.9%), India (32.9%), and Nepal (10.3%). Sexual violence was most prevalent among the poorest women in Afghanistan (10.8%), closely followed by India (10.6%). Meanwhile, emotional violence was reported to be higher among women from the poorest group in Afghanistan (48.7%) and Pakistan (41%), which was more than double the rate in India (17.9%).

Table 4.20 Prevalence of IPV by age and exposure to FP via mass media

Exposure to FP via Mass Media	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No	**Age**	***		***	***	***	**	*			**		**
	<25	38.7	5.9	27.4	23.4	6.9	11.8	14.6	5.2	8.0	13.0	4.1	17.4
	25-29	48.2	6.5	36.8	28.2	7.7	11.7	14.3	5.7	9.2	15.8	4.4	22.5
	30-34	51.1	6.8	35.3	26.9	7.1	12.6	13.3	3.8	7.9	19.9	5.4	28.1
	35-39	48.7	5.4	31.3	27.5	6.6	13.9	11.1	4.2	7.8	16.0	5.0	23.4
	40-44	43.6	4.6	33.1	25.9	6.1	11.4	7.4	2.5	6.6	12.2	2.4	24.0
	45-49	52.7	5.5	37.5	22.4	4.7	11.1	7.2	1.7	8.3	11.2	2.3	17.8
Yes	**Age**	***	***	***	*		**			**	*		
	<25	36.6	4.5	29.4	19.2	4.7	9.8	7.1	5.6	4.3	6.1	3.0	19.0
	25-29	47.9	9.4	39.5	20.7	5.2	10.2	7.1	2.5	6.5	9.9	1.6	16.3
	30-34	46.5	6.3	34.9	21.3	5.3	10.7	8.2	2.8	6.9	18.5	4.5	24.2
	35-39	49.5	5.9	42.2	21.0	5.4	10.8	10.2	3.1	13.3	11.3	2.7	18.7
	40-44	50.3	7.8	40.7	21.0	4.3	11.3	5.1	3.3	6.5	11.5	0.0	9.2
	45-49	51.4	5.4	41.3	20.4	5.2	11.9	10.4	5.9	9.6	8.8	1.1	17.4

Notes:

Significance of Chi-square test between each IPV and age for women exposed and not exposed to FP via mass media: *** p < 0.001, ** p < 0.01, * p < 0.05

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.21 Prevalence of IPV by age at first marriage and exposure to FP via mass media

Exposure to FP via Mass Media	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No	**Age at first marriage**	***	***		***	***	***	*			**	***	***
	<15	46.7	7.1	34.0	28.6	7.5	14.0	15.1	5.7	8.1	24.9	9.6	35.1
	15-17	47.6	6.9	33.0	28.0	7.1	12.9	13.1	4.5	9.0	14.3	4.5	22.4
	18-20	43.1	4.4	32.7	24.8	6.6	11.3	9.2	2.3	5.0	14.7	3.5	21.7
	21-23	50.8	6.3	32.5	19.8	5.0	9.7	7.5	4.1	9.5	14.2	4.1	19.6
	≥24	42.7	4.8	31.3	21.4	4.6	10.8	14.3	5.4	10.7	12.3	1.3	18.6
Yes	**Age at first marriage**	**	***		***	***	***	*	**				
	<15	40.7	6.3	37.0	28.8	6.0	13.6	11.9	8.6	7.9	7.3	2.4	21.4
	15-17	44.9	5.0	36.8	23.3	5.7	12.0	9.1	3.0	7.1	13.0	2.8	20.4
	18-20	47.0	8.0	36.8	21.4	5.4	11.3	5.8	3.6	8.4	10.2	2.6	20.9
	21-23	47.8	6.2	36.0	15.0	4.1	8.0	8.7	4.8	8.2	8.6	1.2	14.7
	≥24	47.6	9.1	38.6	12.7	3.0	7.3	4.5	1.3	3.9	12.0	2.7	14.1

Notes:

Significance of Chi-square test between each IPV and age at first marriage for women exposed and not exposed to FP via mass media: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.22 Prevalence of IPV by place of residence and exposure to FP via mass media

Exposure to FP via Mass Media	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No	**Place of Residence**	***	***		***	***	**	**		*	***	**	***
	Urban	35.4	3.3	31.2	19.0	4.6	10.6	10.2	3.5	6.6	9.8	2.5	16.8
	Rural	47.8	6.3	33.1	27.4	7.1	12.5	14.3	4.9	9.6	17.7	5.0	25.0
Yes	**Place of Residence**	***		*	***	***	***					**	
	Urban	37.2	7.2	35.3	18.1	4.0	9.6	8.0	3.5	7.8	11.7	4.0	17.9
	Rural	50.2	6.1	37.7	22.4	5.8	11.5	7.3	4.3	6.4	10.3	0.9	18.1

Notes:

Significance of Fisher's exact test between each IPV and place of residence for women exposed and not exposed to FP via mass media: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.23 Prevalence of IPV by education level and exposure to FP via mass media

Exposure to FP via Mass Media	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No	**Education level**	***	***	***	***	***	***	*	**	***	**	***	
	No Education	48.0	6.3	33.8	30.6	7.9	14.3	13.1	3.8	9.9	18.0	4.4	24.4
	Primary	36.1	3.6	21.2	26.3	7.4	11.9	12.4	6.9	6.3	17.9	6.6	25.9
	Secondary	28.5	3.2	34.6	18.7	4.4	9.2	10.9	3.1	5.0	9.9	3.4	15.7
	Higher	8.6	0.0	13.8	10.2	2.8	4.5	3.8	2.6	3.9	4.3	1.1	16.3
Yes	**Education level**	***	***	***	***	***	***	***	*	*	***		***
	No Education	49.2	7.2	39.7	30.8	7.3	16.0	11.1	5.4	8.7	17.6	3.4	26.6
	Primary	39.9	5.5	33.2	26.4	6.0	12.7	11.4	5.5	9.6	13.3	3.7	24.4
	Secondary	30.0	2.8	22.9	18.3	4.7	9.7	6.6	2.4	5.0	6.9	1.8	13.1
	Higher	29.6	6.1	26.4	9.5	2.1	5.1	2.5	2.8	8.3	6.8	1.0	9.9

Notes:

Significance of Chi-square test between each IPV and education level for women exposed and not exposed to FP via mass media: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

125

Table 4.24 Prevalence of IPV by employment status and exposure to FP via mass media

Exposure to FP via Mass Media	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No	**Employment Status**	***	***	***	***	**	***					*	
	Not working	44.7	5.6	31.6	23.4	6.2	10.9	10.2	3.9	7.2	15.2	3.6	22.2
	Working	54.5	7.9	40.8	30.2	7.3	14.2	13.0	4.3	8.4	14.2	6.4	22.4
Yes	**Employment Status**			*	***	***	***						
	Not working	45.9	6.4	37.3	18.3	4.3	9.1	7.7	3.0	6.0	10.8	2.5	17.5
	Working	42.5	7.0	33.2	26.4	6.9	14.8	7.8	4.1	7.9	11.3	2.0	20.5

Notes:

Significance of Fisher's exact test between each IPV and employment status for women exposed and not exposed to FP via mass media: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$
Test is based on each IPV measured at 2 levels: No, Yes

Table 4.25 Prevalence of IPV by number of living children and exposure to FP via mass media

Exposure to FP via Mass Media	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No	**No. of living children**	***		***	***	***	***				***	**	***
	0	25.6	5.1	20.1	18.1	5.1	10.0	14.1	1.4	9.5	8.9	2.5	11.4
	1-2	44.5	5.9	31.3	24.1	6.0	11.6	10.4	4.4	7.5	14.2	2.5	21.4
	3-4	49.3	5.6	35.7	28.9	7.6	13.0	14.0	4.6	8.6	14.6	4.7	24.0
	≥5	50.6	6.4	35.5	28.8	7.4	12.8	11.3	3.5	6.9	20.2	6.3	27.4
Yes	**No. of living children**	***	**	***	***	***	***	**		*	**	**	*
	0	26.4	3.5	21.0	12.5	4.0	7.8	7.7	3.8	3.4	5.2	7.0	13.8
	1-2	45.6	7.8	36.3	19.4	4.4	10.0	6.5	3.4	7.4	7.3	1.1	21.4
	3-4	47.5	6.7	40.7	25.7	6.6	12.9	9.4	3.6	7.7	12.8	2.1	14.2
	≥5	48.6	6.3	38.1	26.9	7.2	13.8	15.8	8.4	13.7	17.0	1.8	22.1

Notes:

Significance of Chi-square test between each IPV and number of living children for women exposed and not exposed to FP via mass media: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.26 Prevalence of IPV by wealth index and exposure to FP via mass media

Exposure to FP via Mass Media	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No	**Wealth index**	***	***	***	***	***	***	**	*	*	***	***	***
	Poorest	43.6	8.5	28.5	33.7	9.5	15.2	12.8	4.6	8.5	19.0	3.5	22.5
	Poorer	44.1	7.0	32.9	27.4	6.5	13.3	12.7	6.9	7.4	20.8	7.0	29.7
	Middle	53.4	4.5	36.9	22.5	5.7	10.1	14.8	2.5	10.7	15.3	5.5	24.0
	Richer	49.1	3.8	33.5	17.7	3.8	8.6	11.6	3.6	7.8	10.9	3.4	19.4
	Richest	35.5	3.3	34.0	9.2	1.7	5.9	4.5	3.0	2.5	6.7	0.5	13.6
Yes	**Wealth index**	***	***	***	***	***	***	**			***		***
	Poorest	64.8	10.8	48.7	32.9	10.6	17.9	10.3	6.1	8.2	35.9	2.6	41.0
	Poorer	52.0	4.8	37.0	28.9	7.0	13.9	11.5	3.5	6.1	15.8	5.3	26.6
	Middle	50.2	5.4	37.7	23.9	5.6	12.7	9.2	3.8	7.9	9.5	1.9	19.6
	Richer	43.2	5.9	34.8	19.3	4.3	9.8	6.6	4.5	6.6	8.9	2.4	18.5
	Richest	34.7	6.8	33.5	12.0	2.9	6.5	4.2	2.3	8.3	8.7	1.7	11.3

Notes:

Significance of Chi-square test between each IPV and wealth index for women exposed and not exposed to FP via mass media: *** p < 0.001, ** p < 0.01, * p < 0.05

Test is based on each IPV measured at 2 levels: No, Yes

Tables 4.27, 4.28, 4.29, 4.30, 4.31, 4.32, and 4.33 present the prevalence of IPV across various socio-economic variables based on education level. The prevalence of IPV differs among countries and types of violence. Afghanistan exhibited higher overall prevalence rates compared to other countries, whereas Nepal showed lower overall rates. In general, physical violence was more prevalent in Afghanistan, India, and Nepal, but emotional violence was more prevalent in Pakistan, across all age groups and regardless of the educational attainment of women. When comparing women of different education levels, uneducated women were more likely to experience IPV compared to those educated in all countries. Among uneducated women, physical violence was most prevalent among women aged 45 to 49 in Afghanistan (54.5%), followed by women aged 25 to 29 in India (35.7%) and women aged less than 25 in Nepal (21.2%). Across all age groups, less than 10% reported experiencing sexual violence in Afghanistan and India, with women aged 25 to 29 reporting the highest in India (9.9%), followed by Afghanistan (8.2%). On the other hand, Afghanistan (41.3%) had the highest rate of emotional violence against women between the ages of 45 and 49, more than twice as high as Pakistan (16.9%) and India (13.6%).

Generally, the prevalence of IPV decreased with age at first marriage decreased in all countries, regardless of education levels. In India, as women obtained higher education, the prevalence of IPV decreased across all age groups at first marriage groups. Among uneducated women, physical violence was most prevalent among those married before the age of 15 in India (32.2%) and Pakistan (23.7%), while it was most prevalent among those married between the ages of 21 and 23 in Afghanistan (53.7%). Across all age at first marriage groups, less than 10% of Pakistani women reported having experienced sexual violence during their first marriage, with those who were married before the age of 15 reporting the highest percentage (8.7%). Furthermore, one-third (32.9%) of Pakistani women married before the age of 15 experienced emotional violence.

From the perspective of higher educated women, half (53.1%) of women who married before the age of 15 experienced physical violence, a rate four times higher than that in India (13.1%). Furthermore, across the countries, women who were married before the age of 15 in Afghanistan had the highest prevalence of sexual violence (29%), followed by those who were married between the ages of 15 and 17 in Pakistan (7.7%) and women who were married before the age of 15 in India (7.1%).

With some exceptions, women in Afghanistan, India, and Nepal who lived in rural areas were more likely than those who lived in urban areas to experience IPV, regardless of their level of education. When comparing women with varying educational backgrounds, the prevalence of IPV decreased as women's education levels increased. Among uneducated women, Afghanistan had the highest rate of physical violence against rural women (50%), followed by India (31.4%) and Nepal (14.4%). Similarly, Indian rural women had a higher prevalence rate of sexual violence (8%).

Similar to uneducated women, women with secondary education who lived in rural areas experienced a higher prevalence rate of physical violence in Afghanistan (34.6%) and India (19.5%). Moreover, rural women experienced a higher rate of sexual violence in Afghanistan (32%), which was triple the rate in India (9.9%). However, among higher educated women, those who lived in urban areas were more likely to experience all three types of violence in Afghanistan (physical, 29.5%; sexual, 6.8%; emotional, 27.8%).

The study found that working women had higher prevalence rates of IPV than their non-working counterparts in Afghanistan, India, and Nepal, regardless of their level of education. When comparing women of different education levels, uneducated women were more likely to experience higher prevalence rates of IPV. Among uneducated women, the prevalence of all forms of violence was higher among those who were employed in Afghanistan (physical, 54.3%; sexual 8.9%; emotional, 41.4%), followed by India (physical, 35.2%; sexual 8.6%; emotional, 17.2%). Similarly, among secondary educated

women, physical and emotional violence against those who were employed were higher in Afghanistan (physical, 47.1%; emotional, 37.3%), which was more than twice as high as in India (physical, 22.6%; emotional, 13.2%).

In general, the prevalence of violence increased with the number of living children in all the countries, regardless of women's level of education, with the results being more pronounced among higher educated women. However, as women attained higher levels of education, they were less likely to experience IPV. Interestingly, among uneducated women, Nepal had the highest prevalence rates of physical and emotional violence against those without children, despite all other countries showing the highest rates among women with at least one child. Physical violence was most prevalent among women with three to four children in Afghanistan (50.9%), followed by women without children in Nepal (37.2%), women with three to four children in India (31.6%), and women with at least five children in Pakistan (23.1%). Additionally, Afghanistan had the highest prevalence rate of emotional violence among women with three to four children (38.5%), followed by women with at least five children in Pakistan (29.6%), women without children in Nepal (23.3%), and women with one to two children in India (15.6%).

From the perspective of higher educated women, physical violence against women with at least five children was found to be highest in India (35.3%), followed by Afghanistan (31.8%) and Pakistan (17.4%). On the other hand, in India, sexual violence was most prevalent among women with at least five children (5.6%). The prevalence rate of emotional violence was found to be the highest among women with three to four children in Afghanistan (36.9%), followed by women with at least five children in Pakistan (27.3%) and women with three to four children in India (8.3%).

Overall, the prevalence of IPV decreased as the wealth index increased in all countries, regardless of women's education level. When comparing women of different education level, uneducated women were more likely to experience IPV in all countries. Among

uneducated women, half (50.1%) of the poorest women experienced physical violence in Afghanistan, followed by India (35.3%), Pakistan (20.9%), and Nepal (10.4%). Across all the wealth indices, less than 10% of women reported experiencing sexual violence in Afghanistan and India, with the poorest women reporting the highest in India (9.8%), followed by the same group of women in Afghanistan (9.4%). The prevalence rate of emotional violence was found to be the highest among women from the middle group in Afghanistan (37.9%), followed by the poorest women in India (16.7%) and women from the middle group in Nepal (13.6%).

On the other hand, among secondary educated women, physical violence was most prevalent among women from the middle group in Afghanistan (51%), followed by women from the poorest group in India (26.4%) and women from the poorer group in Pakistan (15.4%) and Nepal (12.4%). Meanwhile, India (8.7%) had a higher rate of sexual violence against the poorest women than Afghanistan (5.9%). The prevalence rate of emotional violence was found to be the highest among women from middle group in Afghanistan (42.9%), followed by women from the richer group in Pakistan (18.8%) and women from the poorest group in India (12.7%).

In general, IPV prevalence was higher among women who were exposed to FP through the media, with the results being particularly apparent in Afghanistan. Among uneducated women, sexual violence was more prevalent against those exposed to FP in Afghanistan (7.2%). Similarly, Afghanistan had a higher prevalence rate of emotional violence among women exposed to FP via mass media (39.7%), which was significantly higher than India (16%). On the contrary, among secondary educated women, physical violence was more common among those who were not exposed to FP via mass media in Nepal (10.9%), while emotional violence was more common among those who were not exposed to FP in Afghanistan (34.6%).

Table 4.27 Prevalence of IPV by age and education level

Education level	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No education	**Age**	***	***	***	***	***	**	***					**
	<25	42.2	6.4	30.6	31.4	9.0	16.6	21.2	7.6	14.4	15.0	4.2	20.9
	25-29	49.1	8.2	36.9	35.7	9.9	16.4	15.9	5.4	11.9	20.3	5.6	27.5
	30-34	51.5	6.5	36.8	31.8	8.4	15.2	15.1	4.4	9.5	22.0	5.9	29.9
	35-39	50.1	5.7	36.5	30.9	8.1	15.7	13.1	4.5	9.0	19.8	4.5	25.9
	40-44	47.0	6.1	36.8	29.3	6.4	13.6	6.3	2.3	6.3	13.9	2.3	26.7
	45-49	54.5	5.7	41.3	27.0	5.6	13.6	10.2	4.1	10.2	14.7	2.2	16.9
Primary	**Age**	***	*	***	***	***		*			***		*
	<25	33.9	2.7	22.8	32.4	7.4	13.5	11.2	7.7	7.1	12.1	5.1	21.4
	25-29	48.7	5.3	41.4	29.4	8.8	12.8	14.3	8.7	10.3	16.9	6.0	23.8
	30-34	31.3	7.6	21.7	28.5	6.3	13.2	14.8	5.0	6.4	30.4	8.8	39.2
	35-39	46.3	7.4	33.1	25.9	5.8	13.2	9.9	4.5	9.0	13.2	6.6	22.0
	40-44	37.3	3.6	20.5	22.1	6.0	11.5	11.3	5.6	7.4	21.2	6.1	18.2
	45-49	29.0	5.6	12.1	17.0	4.3	9.3	0.0	0.0	0.0	1.8	0.0	21.4
Secondary	**Age**	***		***	***	***							**
	<25	23.7	2.7	22.9	17.6	4.7	9.1	10.6	3.8	3.4	8.6	3.3	13.5
	25-29	38.2	4.1	47.6	19.8	4.9	9.4	8.8	2.1	5.2	7.5	0.7	9.6
	30-34	35.5	5.5	16.5	19.6	4.9	10.0	4.5	1.1	7.3	10.1	2.9	22.1
	35-39	36.2	0.9	22.4	17.6	4.4	8.9	7.2	1.0	7.3	12.5	4.8	14.4
	40-44	34.6	0.0	30.8	18.1	3.5	10.2	4.0	2.7	2.7	3.9	0.0	3.9
	45-49	28.1	0.0	14.1	16.0	5.0	10.7	4.2	4.0	8.3	0.0	3.2	25.8
Higher	**Age**	**		*		*				***	***		
	<25	16.8	3.2	16.1	9.2	2.8	5.9	1.7	5.2	6.1	3.1	2.1	11.5
	25-29	36.6	5.6	23.9	9.7	1.6	4.8	3.6	1.4	3.6	2.6	0.0	13.7
	30-34	11.9	9.5	39.5	9.4	3.0	4.6	1.5	1.6	1.5	14.7	2.8	15.6
	35-39	33.8	7.4	25.0	11.4	2.2	6.4	6.8	0.0	27.3	1.4	0.0	18.9
	40-44	36.4	0.0	34.4	9.5	1.4	3.5	0.0	4.0	16.0	2.5	0.0	7.5
	45-49	27.3	0.0	31.8	6.4	1.5	4.2	8.3	0.0	0.0	6.1	3.0	9.4

Notes:

Significance of Chi-square test between each IPV and age for women of different education levels: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.28 Prevalence of IPV by age at first marriage and education level

Education level	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No education	**Age at first marriage**	***			**						*	***	*
	<15	45.7	7.0	35.6	32.2	7.9	15.7	13.9	6.6	8.1	23.7	8.7	32.9
	15-17	49.4	6.9	36.7	31.1	7.3	15.2	12.5	3.7	10.1	16.2	5.5	23.1
	18-20	47.0	6.0	35.2	30.7	8.1	14.7	12.1	3.3	8.6	17.4	1.8	25.0
	21-23	53.7	6.9	35.4	27.2	7.4	13.0	13.3	4.9	12.2	14.3	3.1	21.0
	≥24	46.3	6.4	36.3	27.6	7.6	15.5	9.1	6.8	13.3	23.0	2.0	25.0
Primary	**Age at first marriage**				**	***	*	*	*				
	<15	38.3	5.0	28.1	30.2	5.6	11.7	17.9	8.9	10.7	16.7	9.7	40.0
	15-17	36.2	3.5	22.4	27.4	7.0	12.8	12.9	6.1	7.4	12.8	1.4	24.5
	18-20	39.6	5.3	30.3	25.5	7.4	13.4	6.3	5.6	6.3	17.1	8.2	24.1
	21-23	38.4	3.9	35.6	20.3	5.1	9.5	10.6	4.2	8.5	21.2	8.2	24.7
	≥24	40.3	9.7	22.2	20.8	5.5	12.2	4.5	4.5	0.0	18.4	6.1	24.5
Secondary	**Age at first marriage**				***	***	***	***			*		
	<15	33.3	3.1	38.4	21.1	5.0	11.8	7.9	3.9	2.6	15.4	0.0	15.4
	15-17	30.2	2.9	25.5	19.7	5.2	10.0	9.7	2.7	5.9	7.6	0.7	15.9
	18-20	27.1	3.1	31.7	18.9	4.8	9.6	5.4	1.3	2.9	8.3	4.1	13.3
	21-23	32.1	1.3	16.0	15.2	3.9	8.3	9.5	4.4	7.3	13.6	3.9	16.9
	≥24	26.2	6.2	12.5	16.0	3.3	8.5	9.6	1.9	7.7	2.9	0.0	12.3
Higher	**Age at first marriage**	***	***		***	***	***					**	
	<15	53.1	29.0	37.5	13.1	7.1	10.7	0.0	0.0	0.0	0.0	0.0	0.0
	15-17	21.6	1.0	19.6	13.0	3.1	4.8	3.8	1.9	5.7	7.7	7.7	15.4
	18-20	28.8	4.8	20.2	13.9	2.2	7.0	1.4	3.4	11.1	3.9	0.0	21.6
	21-23	12.5	3.8	26.9	8.5	2.7	4.7	1.8	3.6	7.3	4.1	0.0	11.6
	≥24	33.3	0.0	25.0	6.5	1.2	3.6	5.4	0.0	3.2	7.2	1.6	10.9

Notes:

Significance of Chi-square test between each IPV and age at first marriage for women of different education levels: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.29 Prevalence of IPV by place of residence and education level

Education level	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No education	**Place of Residence**	***			***	***		*					
	Urban	41.4	6.7	37.2	27.7	6.3	15.2	10.8	4.6	9.1	15.6	4.7	21.2
	Rural	50.0	6.6	35.6	31.4	8.0	14.9	14.4	3.9	9.9	18.5	4.1	25.7
Primary	**Place of Residence**	***			**	***			**				
	Urban	29.5	4.4	31.2	25.5	4.8	12.3	12.0	3.7	6.1	12.9	4.5	22.5
	Rural	42.8	4.6	24.4	26.7	7.2	12.4	12.0	9.7	9.7	18.8	6.6	27.3
Secondary	**Place of Residence**	***			***	***	*						
	Urban	24.1	2.6	23.4	16.7	4.0	9.0	8.2	2.7	5.3	7.8	2.2	15.4
	Rural	34.6	3.3	32.0	19.5	5.0	9.9	8.0	2.5	4.3	9.8	3.1	13.5
Higher	**Place of Residence**	**	**	**									
	Urban	29.5	6.8	27.8	9.3	2.0	5.2	2.6	2.3	7.9	6.3	1.3	11.6
	Rural	16.4	0.8	15.6	9.9	2.5	4.8	2.1	3.2	6.2	3.7	1.2	17.6

Notes:

Significance of Fisher's exact test between each IPV and place of residence for women of different education levels: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.30 Prevalence of IPV by employment status and education level

Education level	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No education	**Employment Status**	***	***	***	***	***	***						
	Not working	47.7	6.3	35.1	27.6	6.9	13.3	11.7	4.6	11.2	18.8	3.8	25.7
	Working	54.3	8.9	41.4	35.2	8.6	17.2	12.8	4.2	9.0	14.7	5.7	21.7
Primary	**Employment Status**				***	**	***						
	Not working	38.2	4.9	27.8	25.0	5.9	11.0	8.8	5.2	5.2	16.5	6.0	24.7
	Working	36.2	2.7	21.9	29.1	7.9	15.2	13.4	6.8	8.8	17.3	5.0	29.6
Secondary	**Employment Status**	***		***	***	***	***						
	Not working	25.3	2.9	25.6	17.1	4.3	8.5	8.4	2.0	3.8	8.4	2.2	14.3
	Working	47.1	3.0	37.3	22.6	5.9	13.2	8.0	3.0	5.6	11.1	6.3	17.5
Higher	**Employment Status**					*				**			
	Not working	24.8	4.3	25.7	8.8	2.1	4.6	3.2	1.6	2.4	5.4	0.8	12.4
	Working	27.6	6.0	23.2	11.1	2.4	5.6	2.5	2.9	9.8	5.2	2.6	19.5

Notes:

Significance of Fisher's exact test between each IPV and employment status for women of different education levels: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.31 Prevalence of IPV by number of living children and education level

Education level	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No education	**No. of living children**	***	**	***	***	*	**	***		*	**	*	**
	0	30.6	5.2	21.8	24.3	6.3	11.3	37.2	2.4	23.3	12.9	3.9	16.9
	1-2	48.1	7.8	35.4	30.7	7.1	15.6	9.9	4.3	9.0	17.5	1.5	26.0
	3-4	50.9	6.4	38.5	31.6	8.0	15.0	13.3	4.3	9.3	14.6	4.9	21.4
	≥5	50.8	6.4	37.5	30.5	8.5	14.8	11.6	4.3	9.0	23.1	5.7	29.6
Primary	**No. of living children**	***	**	***	**			**					**
	0	16.2	1.7	16.2	21.7	5.5	12.3	12.5	4.1	10.4	10.8	7.2	15.5
	1-2	45.3	2.6	31.1	27.1	6.7	12.9	11.0	6.1	7.5	19.1	5.2	28.1
	3-4	39.3	6.0	27.6	27.1	7.0	12.5	12.8	6.4	7.9	21.6	6.7	34.8
	≥5	39.2	7.1	26.8	21.3	4.4	7.2	15.8	10.8	5.4	12.4	4.7	20.2
Secondary	**No. of living children**	***		***	***	***				**			
	0	10.5	2.0	20.2	13.2	4.6	9.2	7.3	3.4	2.8	2.2	2.2	5.5
	1-2	29.5	3.7	23.7	18.5	4.3	9.3	8.3	2.7	5.5	8.3	2.2	17.4
	3-4	34.5	2.4	40.6	21.1	5.8	10.4	7.9	1.6	4.8	11.7	2.4	15.0
	≥5	42.1	2.6	27.9	20.1	3.3	10.2	25.0	8.3	25.0	9.5	4.8	14.3
Higher	**No. of living children**	**		***	***	**	***				**		*
	0	8.6	7.1	2.9	4.8	1.3	2.4	2.3	1.2	2.3	1.1	1.1	5.7
	1-2	26.1	2.6	25.5	10.3	2.2	5.4	2.8	3.1	9.0	3.5	1.5	13.6
	3-4	31.1	3.9	36.9	13.4	4.6	8.3	7.7	0.0	7.7	8.8	0.6	16.4
	≥5	31.8	7.6	22.7	35.3	5.6	0.0	0.0	0.0	0.0	17.4	0.0	27.3

Notes:

Significance of Chi-square test between each IPV and number of living children for women of different education levels: *** p < 0.001, ** p < 0.01, * p < 0.05

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.32 Prevalence of IPV by wealth index and education level

Education level	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No education	**Wealth index**	***	***	**	***	***	***	*		*	**		
	Poorest	50.1	9.4	34.0	35.3	9.8	16.7	10.4	4.5	7.7	20.9	3.6	24.3
	Poorer	47.6	6.6	34.9	31.1	7.5	15.5	14.1	6.1	7.8	19.3	5.3	27.9
	Middle	53.2	4.9	37.9	28.6	6.3	14.0	15.4	3.1	13.6	16.1	5.7	24.8
	Richer	47.1	4.9	35.9	25.2	5.9	12.8	13.5	3.8	10.2	9.5	2.6	18.0
	Richest	41.4	7.5	37.2	18.6	3.3	9.8	4.1	3.3	6.5	17.6	0.0	25.9
Primary	**Wealth index**	***		*	***	***	***					**	**
	Poorest	37.3	5.6	24.4	34.7	11.4	16.9	17.1	8.6	9.4	15.4	5.1	20.5
	Poorer	38.5	5.5	27.8	29.6	6.8	13.0	10.2	4.7	7.1	25.2	12.6	38.7
	Middle	41.0	5.1	20.8	26.9	6.5	12.2	14.7	4.9	9.7	11.0	3.1	21.3
	Richer	46.7	3.4	24.9	21.8	3.8	9.8	7.4	6.7	5.4	15.4	5.7	22.8
	Richest	29.8	4.0	31.8	13.5	3.8	9.1	10.6	7.1	7.1	16.0	1.2	20.7
Secondary	**Wealth index**	***	***	***	***	***	***	*				**		*
	Poorest	21.4	5.9	20.1	26.4	8.7	12.7	11.5	4.4	8.8	10.0	0.0	18.2
	Poorer	34.9	3.3	26.5	23.9	5.8	11.8	12.4	4.7	4.7	15.4	7.7	13.2
	Middle	51.0	3.4	42.9	20.1	5.0	11.0	8.2	2.7	3.8	12.4	3.3	18.0
	Richer	40.7	6.1	25.0	17.7	4.0	9.0	7.7	2.2	5.2	12.2	3.5	18.8
	Richest	21.0	0.7	27.6	12.3	3.1	6.8	4.1	0.8	3.7	3.1	0.8	9.3
Higher	**Wealth index**	*			***	***	**						***
	Poorest	0.0	0.0	0.0	17.7	8.1	11.1	5.3	0.0	5.3	0.0	0.0	0.0
	Poorer	0.0	0.0	13.3	23.2	5.9	9.4	2.1	4.3	6.4	33.3	0.0	75.0
	Middle	22.2	0.0	23.5	12.1	4.7	6.2	0.0	0.0	0.0	8.7	4.3	26.7
	Richer	33.9	1.8	30.9	10.3	2.1	5.4	4.3	5.8	7.2	1.7	0.0	17.5
	Richest	25.3	6.1	23.5	8.2	1.6	4.4	2.3	1.8	9.5	6.1	1.0	9.5

Notes:

Significance of Chi-square test between each IPV and wealth index for women of different education levels: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on each IPV measured at 2 levels: No, Yes

Table 4.33 Prevalence of IPV by exposure to FP via mass media and education level

Education level	Variable	Afghanistan			India			Nepal			Pakistan		
		Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional	Physical	Sexual	Emotional
	Overall	45.9	6.1	34.4	22.5	5.6	11.2	10.1	4.0	7.7	14.0	3.7	21.1
No education	**Exposure to FP via Mass Media**		*	***			**						
	No	48.0	6.3	33.8	30.6	7.9	14.3	13.1	3.8	9.9	18.0	4.4	24.4
	Yes	49.2	7.2	39.7	30.8	7.3	16.0	11.1	5.4	8.7	17.6	3.4	26.6
Primary	**Exposure to FP via Mass Media**			***		**							
	No	36.1	3.6	21.2	26.3	7.4	11.9	12.4	6.9	6.3	17.9	6.6	25.9
	Yes	39.9	5.5	33.2	26.4	6.0	12.7	11.4	5.5	9.6	13.3	3.7	24.4
Secondary	**Exposure to FP via Mass Media**			***				*					
	No	28.5	3.2	34.6	18.7	4.4	9.2	10.9	3.1	5.0	9.9	3.4	15.7
	Yes	30.0	2.8	22.9	18.3	4.7	9.7	6.6	2.4	5.0	6.9	1.8	13.1
Higher	**Exposure to FP via Mass Media**	***	*	*									
	No	8.6	0.0	13.8	10.2	2.8	4.5	3.8	2.6	3.9	4.3	1.1	16.3
	Yes	29.6	6.1	26.4	9.5	2.1	5.1	2.5	2.8	8.3	6.8	1.0	9.9

Notes:

Significance of Fisher's exact test between each IPV and exposure to FP via mass media for women of different education levels: *** p < 0.001, ** p < 0.01, * p < 0.05

Test is based on each IPV measured at 2 levels: No, Yes

4.5.1.2 Differentials in Husbands' Controlling behaviors by Socio-economic Variables

Table 4.34 presents the percentage of married women who experienced controlling behaviors by husbands across various socio-economic variables. Afghanistan had the highest overall rate of married women who experienced controlling behaviors by husbands at 68.9%, followed by India (46.2%), Nepal (34.1%), and Pakistan (27.6%). There is variation in percentage of married women who experienced controlling behaviors by husbands across different age groups. Within each country, the percentage of married women who experienced controlling behaviors by husbands was found to be the highest among Afghan women aged 25 to 29 (71.6%), followed by Indian women aged less than 25 (48.9%), Nepalese women aged 35 to 39 (37.8%), and Pakistani women aged 35 to 39 (30.4%). Women married at younger ages generally experienced higher rates of husbands' controlling behaviors compared to those married at older ages in India, Nepal, and Pakistan. The percentage of married women who experienced controlling behaviors by husbands decreased with age at first marriage in Pakistan. Within each country, the percentage of married women who experienced controlling behaviors by husbands was found to be the highest among Afghan women married between the ages of 21 and 23 (71.6%), followed by Indian women married between the ages of 15 and 17 (49.7%), Nepalese women married before the age of 18 (36.8%), and Pakistani women married before the age of 15.

Urban areas showed lower rates of married women who experienced controlling behaviors by husbands compared to rural areas in India and Pakistan, but the opposite was true in Afghanistan. More than two-thirds of Afghan women experienced husbands' controlling behaviors in urban (70.6%) and rural (68.4%) areas, which is more than twice the percentages in urban (21.1%) and rural (31.5%) areas in Pakistan. Overall, the rates of married women who experienced controlling behaviors by husbands decreased as

women's education levels increased in all countries. More than two-thirds (70%) of the uneducated women experienced husbands' controlling behaviors in Afghanistan, followed by India (53.6%), Nepal (36.2%), and Pakistan (30.6%). Interestingly, in Pakistan, uneducated women experienced a lower rate of husbands' controlling behaviors compared to those with primary education (38%).

In Afghanistan and India, working women faced higher rates of husbands' controlling behaviors compared to their non-working counterparts, but the opposite was true in Nepal. Across the countries, Afghanistan had the highest rate of married women who experienced controlling behaviors by husbands among working women (77.6%), followed by India (49%) and Nepal (31.7%). In general, the rates of married women who experienced controlling behaviors by husbands increased with the number of living children in Afghanistan, India, and Pakistan. However, women with one to two children reported experiencing lower rates of husbands' controlling behaviors than women with no child in India and Pakistan. Across the countries, the percentage of married women who experienced controlling behaviors by husbands was found to be the highest among Afghan women with three to four children (72.1%), followed by Indian women with at least five children (54.9%) and Pakistani women with at least five children (34.5%).

Generally, the rates of married women who experienced controlling behaviors by husbands decreased as the wealth index increased in India and Pakistan, but the opposite trend happened in Afghanistan and Nepal. Afghanistan had the highest rate of married women who experienced controlling behaviors by husbands among the poorest women (64.9%), followed by India (58.8%), Pakistan (31.1%), and Nepal (27.6%). The difference in the rates of married women who experienced controlling behaviors by husbands between the poorest (58.8%) and richest (36.2%) women is particularly pronounced in India. Women exposed to FP through mass media experienced lower rates of married women who experienced controlling behaviors by husbands in all countries

except Afghanistan. Women with FP exposure reported the highest rate of married women who experienced controlling behaviors by husbands in Afghanistan (70.4%), significantly higher than in India (43.9%), Nepal (31.1%), and Pakistan (22.9%).

Table 4.34 Percentage of married women who experienced controlling behaviors by husbands by socio-economic variables

	Afghanistan	India	Nepal	Pakistan
Overall	68.9	46.2	34.1	27.6
Age	***	***	**	
<25	65.1	48.9	36.3	27.4
25-29	71.6	47.0	36.0	28.4
30-34	69.5	47.3	32.9	29.1
35-39	70.5	45.8	37.8	30.4
40-44	69.7	42.6	29.7	24.9
45-49	69.3	43.4	26.3	22.6
Age at first marriage	***	***	**	***
<15	70.3	48.8	36.8	36.8
15-17	69.7	49.7	36.8	31.4
18-20	66.1	46.8	30.0	27.7
21-23	71.6	40.9	29.9	23.0
≥24	70.6	38.1	35.7	21.4
Place of residence	**	***		***
Urban	70.6	40.2	34.6	21.1
Rural	68.4	49.3	33.3	31.5
Education level	***	***	*	***
No Education	70.0	53.6	36.2	30.6
Primary	64.1	46.8	35.6	38.0
Secondary	64.5	42.6	31.5	20.1
Higher	58.4	37.9	30.9	17.3
Employment status	***	***	***	
Not working	67.7	44.8	39.5	27.2
Working	77.6	49.0	31.7	29.3
No. of living children	***	***		***
0	57.0	47.1	35.1	25.2
1-2	68.9	43.4	33.6	24.8
3-4	72.1	49.0	34.6	26.4
≥5	69.9	54.9	34.0	34.5
Wealth index	***	***	***	***
Poorest	64.9	58.8	27.6	31.1
Poorer	67.8	50.5	30.7	35.3
Middle	69.6	47.0	38.6	32.1
Richer	73.4	41.8	40.7	23.4
Richest	69.0	36.2	31.3	18.1

Exposure to FP via Mass Media	***	***	***	***
No	68.0	50.2	36.9	29.3
Yes	70.4	43.9	31.1	22.9

Notes:

Chi-square test/Fisher's exact test significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Test is based on husbands' controlling behaviors measured at 2 levels: No, Yes

4.5.1.3 Differentials in Contraceptive Use by IPV and Socio-economic Variables

Table 4.35 shows the percentage of married women using a contraceptive method (any and modern) by IPV and socio-economic variables. In Afghanistan, the CPR for any and modern methods was higher among women who had experienced physical, sexual, or emotional violence in the past 12 months and controlling behaviors by husbands than among those who had never experienced such violence. The findings for India, however, were mixed. Experiences of sexual violence in the past 12 months, as well as controlling behaviors by husbands, resulted in a lower prevalence rate of any and modern contraceptive methods among Indian women, whereas experiences of physical violence increased the prevalence rate of any and modern contraceptive methods, and experiences of emotional violence increased the modern CPR for the same group of women.

In Afghanistan and India, the CPR for any and modern methods was higher among women who had encountered different forms of violence (physical/sexual violence only, emotional violence only, or both physical/sexual and emotional violence) in the past 12 months, compared to those who had no such violence experience. However, the results for Nepal were varied. Among Nepalese women, the prevalence rate of any and modern contraceptive methods was lower when they had experienced both physical/sexual and emotional violence in the past year. On the other hand, the prevalence rate of any and modern contraceptive methods was higher when women had experienced either physical/sexual violence only or emotional violence only.

The prevalence rates of any and modern methods were the lowest among those below age 25 in all four countries. Across the age groups, The CPR of any method was found to be the highest among married women aged 35-39 in Afghanistan (31.4%) and India (68.8%) but the highest among those aged 40-44 in Nepal (69.2%) and Pakistan (53.7%). On the other hand, the proportion using modern contraceptive methods was the highest among women aged 40-44 in India (61.6%), Nepal (57.8%), and Pakistan (37.2%), but the highest among those aged 35-39 in Afghanistan (27.6%). The CPR of any and modern method dropped significantly as the age at first marriage increased in all countries except for Pakistan. More than half of the women married before the age of 15 practice any modern method in India (63.1% and 57.9%, respectively) and Nepal (63.9% and 54.1%, respectively), which is more than double the prevalence rate in Afghanistan (24.3% and 21.8%, respectively). Afghan women who married before the age of 15 had a much lower any and modern CPR than Indian and Nepalese women who married at the age of 24 and above.

CPR of any and modern method for urban women was higher than for rural women in all four countries. Across the countries, the highest CPR of any method among urban women was found in India (56.8%), followed by Nepal (54.9%), Pakistan (43.6%), and Afghanistan (36.2%). CPR of modern method was also found to be the highest in India (50.3%), followed by Nepal (44.4%), Afghanistan (30.1%), and Pakistan (29.9%). Urban-rural differentials in CPR were the largest in Afghanistan, where the prevalence rate of any method for urban women (36.2%) was almost double that for rural women (19.0%). As women attained a higher level of education, the CPR of any method and modern method increased in Afghanistan and Pakistan. However, results in Nepal and India were contrary to these findings, where uneducated Nepalese women and primary educated Indian women were more likely to use any and modern contraceptive methods.

Working women in India and Nepal were more likely to use any and modern contraceptive methods than non-working women, with prevalence rates higher in India (64.5% and 59.2%, respectively) than in Nepal (56.2% and 46.5%, respectively). In Afghanistan, India, and Pakistan, women were more likely to begin using any type of contraceptive method once they had at least one child. Despite having no child, a significant proportion of Nepalese women used any method (20.8%) and modern method (11.5%). CPR for any method and modern methods rose as women had more children. More than half of married women in India, Nepal, and Pakistan and up to one-third of Afghan women with at least five children practiced any contraceptive method.

Women from the poorest household wealth quintiles had the lowest prevalence rate, whereas those in the richest had the highest prevalence rate for any modern method in all four countries. CPR of any contraceptive method for the poorest women was twice as high in Nepal (48.4%) and India (44.5%) as it was in Pakistan (21.6%) and Afghanistan (16.3%). Furthermore, the CPR of any method among the richest women in Afghanistan is lower than that of the poorest women in India and Nepal. Except for India, there was a significant increase in the prevalence of any contraceptive method between the richer and richest quintiles in all countries. Women who were exposed to FP messages through the media were more likely to practice any and modern methods in all four countries, with the most significant difference found in Afghanistan, where the CPR of women exposed to FP (32.3%) is nearly double that of those who were not exposed (16.9%). The highest CPR of any method was found among women who were exposed to FP through the media in India (57.2%), followed by Nepal (55.8%), Pakistan (43%), and Afghanistan (32.3%).

Table 4.35 Percentage of married women using any/modern contraceptive method by IPV and socio-economic variables

Variables	Afghanistan		India		Nepal		Pakistan	
	Any method	**Modern method**	**Any method**	**Modern method**	**Any method**	**Modern method**	**Any method**	**Modern method**
Overall	22.8	20.1	55.1	48.8	52.6	42.9	34.9	25.5
Physical violence	***	***	***	**				
No	19.5	16.5	54.6	48.0	52.6	42.5	35.1	25.5
Yes	26.7	24.4	56.5	51.7	52.9	47.3	33.9	25.6
Sexual violence	*	*	***	**				
No	22.6	19.9	55.2	49.0	52.7	42.9	34.8	25.5
Yes	25.7	22.8	51.9	45.9	51.1	43.8	37.3	27.4
Emotional violence	***	***		**				
No	19.4	16.7	55.1	48.6	53.0	43.0	34.0	24.7
Yes	29.4	26.7	54.8	50.7	48.3	42.3	38.1	28.4
Controlling behaviors	***	***	***	***				
No	18.6	16.3	57.1	50.6	53.7	42.8	34.4	24.7
Yes	24.7	21.8	52.7	46.7	50.6	43.2	36.1	27.8
Combination type of IPV	***	***	***	***	*	**		
No	19.0	16.2	54.7	47.9	52.4	42.2	34.1	25.0
Physical or Sexual only	20.3	18.0	57.2	51.6	60.9	54.1	32.6	20.4
Emotional only	22.3	18.5	55.6	50.6	58.0	50.6	41.2	30.3
Physical/ sexual and emotional	30.8	28.4	54.8	50.7	44.6	38.6	35.0	26.6
Age	***	***	***	***	***	***	***	***
<25	15.7	13.8	27.9	22.2	33.2	24.0	15.8	11.9
25-29	20.3	18.0	49.6	42.8	42.0	33.9	27.5	20.9
30-34	25.2	21.5	63.4	56.8	58.3	47.6	43.3	30.4
35-39	31.4	27.6	68.8	61.1	68.4	57.4	46.5	35.1
40-44	29.8	26.2	67.4	61.6	69.2	57.8	53.7	37.2
45-49	23.9	22.1	61.4	57.2	61.9	54.6	37.3	27.9
Age at first marriage	***	***	***	***	***	***		
<15	24.3	21.8	63.1	57.9	63.9	54.1	39.0	29.9
15-17	24.1	21.3	58.9	53.0	51.7	44.7	33.2	25.2
18-20	22.5	19.7	52.7	46.4	51.2	40.9	37.4	27.2
21-23	20.6	17.6	51.0	44.2	49.3	35.2	33.1	23.8
≥24	18.6	16.2	46.5	38.8	46.7	29.5	33.2	22.8

Table 4.35 continued

Place of residence	***	***	***	***	**	*	***	***
Urban	36.2	30.1	56.8	50.3	54.9	44.4	43.6	29.9
Rural	19.0	17.3	54.1	48.0	49.1	40.8	29.7	23.0
Education level	***	***	***	***	***	***	***	***
No Education	21.4	19.3	55.9	50.6	57.1	50.3	28.9	21.9
Primary	27.0	22.3	61.7	55.4	50.8	42.9	38.0	27.8
Secondary	30.6	25.4	54.2	47.4	48.3	36.4	41.1	29.8
Higher	39.8	30.4	47.2	40.2	50.1	32.7	43.3	29.3
Employment status			***	***	***	***		
Not working	22.9	20.2	51.1	44.4	44.5	34.9	34.7	25.5
Working	22.1	19.8	64.5	59.2	56.2	46.5	35.9	25.8
No. of living children	***	***	***	***	***	***	***	***
0	0.7	0.4	8.2	5.8	20.8	11.5	0.2	0.0
1-2	18.2	16.0	57.1	50.1	48.9	38.2	25.4	17.2
3-4	23.6	21.0	68.3	62.5	69.4	61.6	45.9	33.7
≥5	30.9	27.2	53.3	45.0	55.8	46.0	53.8	41.3
Wealth index	***	***	***	***	***		***	***
Poorest	16.3	15.5	44.5	38.3	48.4	41.9	21.6	18.2
Poorer	17.7	16.4	54.8	47.9	54.8	47.1	29.5	22.9
Middle	17.9	16.1	56.8	51.1	49.5	41.6	35.9	27.5
Richer	26.1	22.2	58.2	52.3	49.5	41.7	37.0	26.1
Richest	37.8	31.6	58.7	52.1	60.9	42.4	47.0	31.2
Exposure to FP via mass media	***	***	***	***	***		***	***
No	16.9	14.9	51.3	44.7	49.7	42.8	32.0	23.6
Yes	32.3	28.4	57.2	51.1	55.8	43.1	43.0	30.9

Notes:
Chi-square test/Fisher's exact test significance: *** p < 0.001, ** p < 0.01, * p < 0.05
Test is based on any/modern method measured at 2 levels: No, Yes

4.5.1.4 Differentials in Unmet Need for FP by IPV and Socio-economic Variables

Table 4.36 shows the percentage of married women with unmet need for FP by IPV and socio-economic variables. In India and Pakistan, women who had experienced physical violence had a higher total unmet need for FP than those who had not, but the opposite was true in Afghanistan. Similarly, unmet need for spacing and limiting was higher in Pakistan but lower in Afghanistan among women exposed to emotional violence

than those who did not. Women who had experienced sexual violence, on the other hand, were more likely to have unmet need (total) in Afghanistan and India. Total unmet need was discovered to be higher among women who experienced controlling behaviors by husbands in India but lower in Afghanistan.

In India and Pakistan, women who experienced physical or sexual violence only had a greater overall unmet need for FP than those who had not encountered such violence. However, the opposite pattern was observed in Afghanistan and Nepal. On the other hand, the total unmet need for FP was found to be higher among women who experienced emotional violence only than those who had not encountered such violence in India, Nepal, and Pakistan but lower in Afghanistan. In India and Pakistan, women who suffered from physical/sexual and emotional violence had a higher overall unmet need for FP than those who did not experience such violence. However, a lower overall unmet need for FP was observed among women who experienced both types of violence in Afghanistan and Nepal.

In general, the total unmet need decreased with age, with the lowest level found among women aged 45 and above in all four countries. Across the countries, Nepal had a higher total unmet need among women under 30, while Afghanistan had a higher total unmet need among women over 30. Across the age at marriage groups, women who married before the age of 15 had the highest total unmet need in Afghanistan but the lowest in India and Nepal. Meanwhile, in India, the unmet need for limiting and spacing increased with age at first marriage. On the other hand, the unmet need for limiting decreased with age at first marriage in Afghanistan. In all four countries, women living in rural areas had a higher total unmet need for FP than their urban counterparts, with Nepal having the highest prevalence rate and India having the lowest in both areas. Among the rural women, Afghan women had the highest unmet need for spacing, while Nepalese women had the highest unmet need for limiting. As women's education levels increased, their total unmet

need for FP decreased in Afghanistan but raised in India. Women with at least a primary education had a lower total unmet need in Afghanistan and Pakistan but a higher total unmet need in India and Nepal when compared to uneducated women.

Working women had a lower total unmet need and unmet need for spacing than non-working women in all four countries. However, working women in Nepal and Pakistan had a higher unmet need for limiting. The total unmet need for FP in Afghanistan and Pakistan increased as the number of living children increased. In all four countries, there were significant differences in unmet need for spacing and limiting between women with 1-2 children and those without any child. For example, in Afghanistan and Pakistan, women with 1-2 children had a significantly higher unmet need for spacing than women without children. In all four countries, as women had more children (except the childless women), the unmet need for spacing decreased dramatically, whereas the unmet need for limiting increased tremendously except for Nepal.

Overall, women from wealthier households had lower total unmet need, with Afghanistan and Nepal having higher prevalence rates and India having lower prevalence rates for all wealth indices. Similarly, in all four countries, the women from the richest households had lower unmet needs for spacing and limiting than their poorest counterparts, except for Afghanistan, where the prevalence of unmet need for limiting was the highest among women from the richest households. Women in Afghanistan and India exposed to FP through the media were less likely to have unmet need for spacing than those who were not, with Afghanistan having the higher prevalence rate. Meanwhile, women with FP exposure had a higher unmet need for limiting in Afghanistan but a lower unmet need for limiting in India than those without FP exposure.

Table 4.36 Percentage of married women with unmet need for FP by IPV and socio-economic variables

Variables	Afghanistan			India			Nepal			Pakistan		
	Spacing	Limiting	Total	Spacing	Limiting	Total	Spacing	Limiting	Total	Spacing	Limiting	Total
Overall	16.7	6.8	23.5	5.6	7.0	12.6	8.5	15.3	23.8	9.4	7.7	17.1
Physical violence		***			***						***	
No	18.3	7.2	25.5	5.8	6.8	12.6	8.7	15.6	24.3	8.6	7.5	16.1
Yes	14.9	6.5	21.4	5.0	7.8	12.8	6.4	12.7	19.1	14.4	9.0	23.4
Sexual violence		*			***							
No	16.6	6.9	23.5	5.6	6.9	12.5	8.3	15.4	23.7	9.3	7.8	17.1
Yes	18.7	5.4	24.1	5.7	9.0	14.7	12.4	12.4	24.8	13.7	6.0	19.7
Emotional violence		***									*	
No	18.2	7.0	25.2	5.6	6.9	12.5	8.5	15.1	23.6	8.7	7.6	16.3
Yes	13.9	6.5	20.4	5.5	7.7	13.2	8.0	18.2	26.2	12.1	8.1	20.2
Controlling behaviors		***			***							
No	19.2	6.7	25.9	5.3	6.6	11.9	7.9	14.9	22.8	8.9	7.5	16.4
Yes	15.6	6.9	22.5	6.1	7.5	13.6	9.5	16.0	25.5	10.8	8.3	19.1
Combination type of IPV		***			***			*			***	
No	19.0	7.0	26.0	5.8	6.8	12.6	8.6	15.4	24.0	8.2	7.4	15.6
Physical or Sexual only	16.2	7.1	23.3	5.1	7.7	12.8	7.7	9.7	17.4	17.3	11.5	28.8
Emotional only	13.4	8.9	22.3	7.0	6.9	13.9	8.6	25.9	34.5	10.7	8.3	19.0
Physical/sexual and emotional	14.0	6.0	20.0	5.1	8.0	13.1	8.1	15.1	23.2	13.7	7.7	21.4

150

Table 4.36 continued

Age	***				***			***			***	
<25	22.1	1.6	23.7	16.5	5.9	22.4	26.6	8.0	34.6	16.9	1.3	18.2
25-29	22.7	5.3	28.0	8.6	9.5	18.1	8.0	21.5	29.5	15.6	6.0	21.6
30-34	19.3	8.7	28.0	2.9	8.8	11.7	2.2	22.4	24.6	7.8	9.7	17.5
35-39	12.6	13.5	26.1	1.2	7.1	8.3	0.9	16.1	17.0	3.7	13.3	17.0
40-44	6.9	11.1	18.0	0.4	5.6	6.0	0.0	12.7	12.7	2.3	10.9	13.2
45-49	3.4	7.1	10.5	0.0	3.6	3.6	1.0	9.2	10.2	0.9	9.4	10.3
Age at first marriage	***				***			**				
<15	14.4	12.9	27.3	2.3	6.3	8.6	3.1	13.6	16.7	11.2	9.6	20.8
15-17	16.2	5.5	21.7	4.7	7.2	11.9	9.2	15.4	24.6	10.5	8.5	19.0
18-20	18.0	6.0	24.0	6.7	7.1	13.8	9.9	16.2	26.1	9.4	7.1	16.5
21-23	18.7	5.8	24.5	7.1	6.8	13.9	9.5	14.9	24.4	8.2	9.2	17.4
≥24	15.0	7.7	22.7	7.3	7.6	14.9	6.6	15.6	22.2	8.4	4.8	13.2
Place of residence	***				***			**			*	
Urban	13.9	8.9	22.8	5.2	6.6	11.8	7.3	15.5	22.8	8.3	6.4	14.7
Rural	17.6	6.2	23.8	5.8	7.2	13.0	10.3	14.9	25.2	10.1	8.5	18.6
Education level	***				***			***			***	
No Education	16.8	7.3	24.1	3.3	7.6	10.9	2.7	15.4	18.1	9.8	10.2	20.0
Primary	15.9	5.0	20.9	3.8	6.3	10.1	10.1	17.0	27.1	8.3	5.8	14.1
Secondary	17.7	4.4	22.1	6.9	7.0	13.9	14.8	15.6	30.4	7.5	5.9	13.4
Higher	12.3	2.8	15.1	10.1	6.5	16.6	11.2	11.5	22.7	12.0	3.9	15.9
Employment status	**				***			**			**	
Not working	17.0	6.9	23.9	6.8	7.5	14.3	11.2	15.1	26.3	10.1	7.2	17.3
Working	14.9	6.2	21.1	2.9	5.9	8.8	7.3	15.4	22.7	6.3	10.0	16.3

Table 4.36 continued

No. of living children		***			***			***			***	
0	9.1	0.6	9.7	11.1	1.0	12.1	22.8	0.6	23.4	3.0	0.0	3.0
1-2	22.8	1.7	24.5	7.3	6.9	14.2	11.2	17.3	28.5	16.8	2.2	19.0
3-4	20.4	4.8	25.2	1.6	8.2	9.8	1.2	16.9	18.1	8.0	11.2	19.2
≥5	12.5	13	25.5	0.7	12.6	13.3	0.6	15.9	16.5	5.0	15.3	20.3
Wealth index		***			***			**			***	
Poorest	19.7	6.8	26.5	6.6	10.4	17.0	11.1	17.3	28.4	11.1	12.5	23.6
Poorer	17.5	6.6	24.1	5.8	7.2	13.0	8.6	14.5	23.1	9.8	9.1	18.9
Middle	18.3	6.1	24.4	5.4	6.1	11.5	9.9	16.6	26.5	10.8	7.2	18.0
Richer	16.8	6.7	23.5	5.6	5.9	11.5	8.1	14.6	22.7	10.0	5.0	15.0
Richest	10.8	8.1	18.9	5.0	6.3	11.3	5.0	13.9	18.9	6.1	5.7	11.8
Exposure to FP via mass media		***			***							
No	18.0	6.6	24.6	5.8	8.0	13.8	8.2	16.1	24.3	9.9	8.0	17.9
Yes	14.7	7.2	21.9	5.5	6.5	12.0	8.8	14.4	23.2	8.0	6.9	14.9

Notes:

Chi-square test significance: *** p < 0.001, ** p < 0.01, * p < 0.05

Test is based on unmet need (any method) measured at 3 levels: No, Spacing, Limiting

4.5.2 Hypothesis 2

The net effect of each independent variable on contraceptive use was examined using multinomial logistic regression. Three regression models were conducted using each form of violence (physical, sexual and emotional) as the main independent variable separately. An additional regression model was run using the combination type of IPV variable.

4.5.2.1 Multinomial Logistic Regression of Contraceptive Use

Tables 4.37, 4.38, and 4.39 present the multivariate analysis for the determinants of contraceptive use among married women aged 15 – 49 years for each country, using physical, sexual and emotional violence as the main independent variables separately. All three regression models show similar results, with minor differences for all the socio-economic variables. The results show that education level, number of living children, and household wealth index are consistently associated with contraceptive use (modern and traditional methods) in all four countries.

Contrast findings were found between IPV and the likelihood of contraceptive use in Afghanistan and India. Women who experienced physical violence in the past 12 months were more likely to use modern methods than nonuse in Afghanistan and India and less likely to use traditional methods than nonuse in India. Under the same model (physical IPV as the main predictor), the odds of adopting modern and traditional methods than nonuse were higher among Afghan women who experienced controlling behaviors by husbands but were lower among Indian women with similar experiences. Sexual violence in the previous 12 months increased Afghan women's likelihood of using modern methods over nonuse but decreased the same likelihood in India. Under the same model (sexual IPV as the main predictor), women who experienced controlling behaviors were more likely to practice modern and traditional methods than nonuse in Afghanistan but less likely to practice modern and traditional methods than nonuse in India. As opposed

to women without emotional violence in the past 12 months, women with such experiences had higher odds of using modern methods than nonuse in Afghanistan, whereas such women had lower odds of using traditional methods than nonuse in India. Under the same model (emotional IPV as the main predictor), Afghan women who experienced controlling behaviors had higher odds of using modern and traditional methods than nonuse, but the contrary happened to Indian women. All forms of IPV did not affect contraceptive use among Nepalese and Pakistani women. However, Nepalese women who reported controlling behaviors by husbands had lower odds of practicing traditional methods than nonuse.

In Afghanistan, Nepal, and Pakistan, living in rural areas was associated with a lower likelihood of modern contraceptive use than nonuse, but it was associated with a higher likelihood in India. Rural women were less likely to practice traditional methods than nonuse in Afghanistan and Pakistan. Afghan women's contraception practices were the most severely affected by urban-rural differentials among all four countries.

Compared to uneducated women, women who attained at least primary education, particularly those with higher education, were more likely to practice modern and traditional methods than nonuse. The likelihood of practicing modern methods than nonuse was higher among primary educated women in all countries except Nepal, among women with secondary education in Afghanistan, India, and Nepal (significant in regression models using physical and sexual violence as the main independent variable, respectively, but insignificant in regression model using emotional violence as the main independent variable), and Pakistan, and among women with higher education in Afghanistan and Pakistan. In addition, a higher likelihood of using the traditional method compared to nonuse was found among primary educated women in Afghanistan and India and among secondary and higher-educated women in all four countries. Education level

had a greater impact on modern contraceptive use in Pakistan, while it had a more significant effect on traditional contraceptive use in Afghanistan.

Regarding non-working women, working women were more likely to practice modern contraceptive methods than nonuse in India and Nepal and traditional methods rather than nonuse in all countries except Afghanistan, where Afghan working women had lower odds of using traditional methods than nonuse. In all four countries, women from wealthier households were more likely to use modern and traditional methods than nonuse. The impact of the wealth index on modern contraceptive use was found to be greater in Pakistan and weaker in Nepal. Furthermore, the impact of the wealth index on traditional contraceptive use was much more pronounced than that on modern contraceptive use in Afghanistan, Nepal, and Pakistan. In general, women exposed to mass media were more likely to practice modern and traditional methods. Exposure to FP through mass media was positively associated with women's likelihood of using modern methods than nonuse in all countries, with a stronger effect found in Afghanistan. Women who have had such exposure are also more likely to use traditional methods than nonuse in Afghanistan and Nepal, with a greater effect in Nepal.

The likelihood of women using modern methods than nonuse increased with age in India and Nepal. Similarly, women's likelihood of using traditional methods than nonuse increased with age in India but decreased with age in Afghanistan. On the other hand, age at first marriage was negatively associated with women's likelihood of using modern contraceptive methods rather than nonuse in Afghanistan, India, and Nepal but positively associated with their likelihood of using traditional contraceptive methods than nonuse in Afghanistan (significant in regression models using physical and emotional violence as the main independent variable, respectively, but insignificant in regression model using sexual violence as the main independent variable) and India. The impact of age at first marriage on modern methods of contraception was more significant in Nepal than in

155

Afghanistan and India. In all four countries, women with more children were more likely to use modern and traditional methods than nonuse. The association of the number of living children with contraceptive use was found to be the strongest in Pakistan.

Table 4.40 shows the multivariate analysis for the determinants of contraceptive use among married women aged 15 – 49 years for each country using combination type of IPV as the main independent variable. The associations of husbands' controlling behaviors (except for the change to insignificant association with modern contraceptive use in Afghanistan and insignificant association with traditional contraceptive use in India) and socio-economic variables with contraceptive use in the regression model remain consistent with the previous three regression models. In Afghanistan, India, and Nepal, women who had experienced physical or sexual violence only in the past 12 months had higher odds of using modern contraceptive methods compared to nonuse, with a stronger effect found in Nepal. However, the opposite was observed in Pakistan. On the other hand, in Afghanistan and India, the experience of both physical/sexual and emotional violence increased the likelihood of practicing modern contraceptive methods compared to nonuse, with a stronger effect found in Afghanistan. Additionally, in India, women with any combination type of violence experiences were less likely to use traditional contraceptive methods than nonuse.

Table 4.37 Multinomial logistic regression of CPR (physical violence as the main independent variable)

Variables	Afghanistan Modern vs Nonuse AOR (95% CI)	Afghanistan Traditional vs Nonuse AOR (95% CI)	India Modern vs Nonuse AOR (95% CI)	India Traditional vs Nonuse AOR (95% CI)	Nepal Modern vs Nonuse AOR (95% CI)	Nepal Traditional vs Nonuse AOR (95% CI)	Pakistan Modern vs Nonuse AOR (95% CI)	Pakistan Traditional vs Nonuse AOR (95% CI)
Physical violence								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	1.66***	0.96	1.14***	0.77***	1.21	0.82	0.90	0.96
	(1.54,1.80)	(0.80,1.16)	(1.09,1.20)	(0.70,0.85)	(0.93,1.56)	(0.49,1.37)	(0.68,1.18)	(0.64,1.44)
Controlling behaviors								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	1.15**	1.31*	0.84***	0.92*	0.97	0.70*	1.19	0.98
	(1.05,1.25)	(1.07,1.61)	(0.81,0.87)	(0.85,0.99)	(0.82,1.15)	(0.53,0.92)	(0.97,1.47)	(0.72,1.35)
Place of residence								
Urban (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Rural	0.78***	0.53***	1.07**	0.94	0.83*	1.03	0.79*	0.69*
	(0.68,0.88)	(0.41,0.69)	(1.02,1.12)	(0.86,1.03)	(0.71,0.98)	(0.78,1.36)	(0.64,0.98)	(0.51,0.93)
Education level								
No Education (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Primary	1.25**	1.98***	1.46***	1.62***	1.15	1.32	1.60***	1.45
	(1.09,1.43)	(1.52,2.59)	(1.37,1.55)	(1.44,1.83)	(0.93,1.44)	(0.89,1.95)	(1.21,2.10)	(0.97,2.16)
Secondary	1.57***	2.30***	1.29***	1.68***	1.27*	1.95***	2.00***	1.52*
	(1.37,1.81)	(1.73,3.05)	(1.22,1.35)	(1.51,1.86)	(1.01,1.59)	(1.34,2.85)	(1.51,2.65)	(1.02,2.29)
Higher	1.78***	4.20***	1.05	1.54***	1.30	2.20**	2.26***	1.84*
	(1.39,2.28)	(2.80,6.30)	(0.97,1.14)	(1.32,1.8)	(0.94,1.79)	(1.36,3.56)	(1.60,3.18)	(1.14,2.96)

Table 4.37 continued

Employment status								
Not working (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Working	0.91	0.67**	1.71***	1.11*	1.50***	1.34*	1.16	1.47*
	(0.81,1.01)	(0.51,0.89)	(1.64,1.78)	(1.02,1.21)	(1.26,1.78)	(1.02,1.77)	(0.91,1.47)	(1.05,2.06)
Wealth index								
Poorest (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Poorer	1.05	1.73*	1.61***	1.37***	1.34*	1.36	1.57**	2.58**
	(0.93,1.18)	(1.11,2.68)	(1.51,1.71)	(1.22,1.54)	(1.05,1.71)	(0.86,2.14)	(1.14,2.16)	(1.44,4.62)
Middle	0.96	2.15***	1.88***	1.18**	1.14	1.46	1.96***	3.55***
	(0.85,1.08)	(1.41,3.28)	(1.76,2.01)	(1.04,1.34)	(0.89,1.46)	(0.93,2.29)	(1.41,2.72)	(1.98,6.36)
Richer	1.33***	4.27***	2.11***	1.19*	1.21	1.41	1.72**	4.42***
	(1.18,1.50)	(2.88,6.32)	(1.97,2.26)	(1.04,1.36)	(0.94,1.56)	(0.89,2.24)	(1.19,2.49)	(2.38,8.22)
Richest	1.76***	4.49***	2.41***	1.31***	1.51**	3.40***	2.43***	7.58***
	(1.51,2.07)	(2.88,7.01)	(2.22,2.60)	(1.13,1.53)	(1.13,2.02)	(2.11,5.49)	(1.62,3.63)	(3.93,14.63)
Exposure to FP via mass media								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	1.90***	1.41***	1.31***	0.98	1.33***	1.68***	1.24*	1.18
	(1.76,2.05)	(1.17,1.70)	(1.25,1.36)	(0.90,1.06)	(1.13,1.57)	(1.28,2.21)	(1.01,1.52)	(0.89,1.57)
Age	0.99	0.97***	1.05***	1.01**	1.05***	1.02	0.99	0.99
	(0.99,1.00)	(0.95,0.99)	(1.04,1.05)	(1.00,1.01)	(1.04,1.07)	(1.00,1.04)	(0.98,1.01)	(0.97,1.01)
Age at first marriage	0.99*	1.03*	0.95***	1.01*	0.92***	0.99	1.01	1.01
	(0.97,1.00)	(1.00,1.06)	(0.94,0.95)	(1.00,1.02)	(0.90,0.95)	(0.95,1.04)	(0.98,1.03)	(0.97,1.05)
No. of living children	1.22***	1.32***	1.30***	1.36***	1.24***	1.36***	1.56***	1.57***
	(1.19,1.25)	(1.26,1.40)	(1.28,1.32)	(1.31,1.40)	(1.16,1.33)	(1.21,1.54)	(1.47,1.66)	(1.44,1.71)

Notes:

AOR: adjusted odds ratio

95% CI: 95% confidence interval

Wald test significance: *** p < 0.001, ** p < 0.01, * p < 0.05

Table 4.38 Multinomial logistic regression of CPR (sexual violence as the main independent variable)

Variables	Afghanistan		India		Nepal		Pakistan	
	Modern vs Nonuse	Traditional vs Nonuse	Modern vs Nonuse	Traditional vs Nonuse	Modern vs Nonuse	Traditional vs Nonuse	Modern vs Nonuse	Traditional vs Nonuse
	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
Sexual violence								
No (ref.)	1	1	1	1	1	1	1	1
Yes	1.17*	1.23	0.92*	0.95	1.03	1.01	1.02	1.22
	(1.02,1.35)	(0.86,1.76)	(0.85,1.00)	(0.81,1.11)	(0.70,1.51)	(0.50,2.06)	(0.63,1.63)	(0.62,2.41)
Controlling behaviors								
No (ref.)	1	1	1	1	1	1	1	1
Yes	1.39***	1.28*	0.87***	0.88***	1.00	0.68**	1.19	0.98
	(1.28,1.51)	(1.05,1.55)	(0.83,0.90)	(0.82,0.95)	(0.85,1.17)	(0.52,0.90)	(0.97,1.47)	(0.72,1.35)
Place of residence								
Urban (ref.)	1	1	1	1	1	1	1	1
Rural	0.80***	0.53***	1.07**	0.95	0.83*	1.03	0.79*	0.69*
	(0.71,0.91)	(0.41,0.69)	(1.02,1.11)	(0.87,1.04)	(0.71,0.98)	(0.78,1.36)	(0.64,0.98)	(0.51,0.93)
Education level								
No Education (ref.)	1	1	1	1	1	1	1	1
Primary	1.22**	2.00***	1.45***	1.62***	1.15	1.31	1.60***	1.45
	(1.07,1.39)	(1.53,2.61)	(1.37,1.54)	(1.44,1.83)	(0.92,1.43)	(0.89,1.95)	(1.22,2.10)	(0.97,2.16)
Secondary	1.50***	2.32***	1.28***	1.70***	1.26*	1.96***	2.01***	1.53*
	(1.30,1.72)	(1.74,3.08)	(1.21,1.34)	(1.53,1.88)	(1.00,1.58)	(1.34,2.86)	(1.52,2.67)	(1.02,2.29)
Higher	1.68***	4.20***	1.04	1.58***	1.28	2.22**	2.28***	1.85*
	(1.31,2.15)	(2.80,6.30)	(0.96,1.12)	(1.35,1.84)	(0.93,1.77)	(1.38,3.59)	(1.62,3.20)	(1.15,2.97)

Table 4.38 continued

Employment status								
Not working (ref.)	1	1	1	1	1	1	1	1
Working	0.92	0.67**	1.72***	1.10*	1.50***	1.34*	1.16	1.46*
	(0.83,1.03)	(0.51,0.89)	(1.65,1.79)	(1.01,1.19)	(1.26,1.78)	(1.02,1.77)	(0.91,1.47)	(1.04,2.05)
Wealth index								
Poorest (ref.)	1	1	1	1	1	1	1	1
Poorer	1.03	1.75*	1.60***	1.38***	1.34*	1.36	1.57**	2.56**
	(0.91,1.16)	(1.13,2.71)	(1.50,1.70)	(1.23,1.55)	(1.05,1.71)	(0.86,2.14)	(1.14,2.16)	(1.43,4.59)
Middle	0.97	2.17***	1.86***	1.20**	1.14	1.46	1.96***	3.53***
	(0.86,1.09)	(1.42,3.31)	(1.74,1.98)	(1.06,1.36)	(0.89,1.46)	(0.93,2.29)	(1.42,2.72)	(1.97,6.34)
Richer	1.30***	4.33***	2.07***	1.21**	1.21	1.41	1.73**	4.41***
	(1.15,1.46)	(2.92,6.42)	(1.93,2.22)	(1.06,1.39)	(0.94,1.55)	(0.89,2.25)	(1.20,2.50)	(2.37,8.18)
Richest	1.68***	4.57***	2.35***	1.36***	1.50**	3.42***	2.44***	7.58***
	(1.43,1.97)	(2.92,7.13)	(2.17,2.54)	(1.16,1.58)	(1.12,2.01)	(2.12,5.51)	(1.63,3.65)	(3.93,14.63)
Exposure to FP via mass media								
No (ref.)	1	1	1	1	1	1	1	1
Yes	1.91***	1.41***	1.31***	0.97	1.33***	1.68***	1.24*	1.18
	(1.77,2.05)	(1.17,1.69)	(1.26,1.37)	(0.90,1.05)	(1.13,1.57)	(1.28,2.21)	(1.01,1.52)	(0.89,1.57)
Age	1.00	0.97***	1.05***	1.01**	1.05***	1.02	0.99	0.99
	(0.99,1.00)	(0.95,0.99)	(1.04,1.05)	(1.00,1.01)	(1.04,1.07)	(1.00,1.04)	(0.98,1.01)	(0.97,1.01)
Age at first marriage	0.99*	1.03	0.95***	1.01*	0.92***	0.99	1.00	1.01
	(0.98,1.00)	(1.00,1.06)	(0.94,0.95)	(1.00,1.02)	(0.90,0.95)	(0.95,1.04)	(0.98,1.03)	(0.97,1.05)
No. of living children	1.22***	1.32***	1.30***	1.35***	1.24***	1.36***	1.56***	1.56***
	(1.20,1.25)	(1.26,1.40)	(1.28,1.33)	(1.31,1.40)	(1.16,1.33)	(1.21,1.53)	(1.47,1.65)	(1.43,1.70)

Notes:

AOR: adjusted odds ratio

95% CI: 95% confidence interval

Wald test significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 4.39 Multinomial logistic regression of CPR (emotional violence as the main independent variable)

Variables	Afghanistan		India		Nepal		Pakistan	
	Modern vs Nonuse	Traditional vs Nonuse	Modern vs Nonuse	Traditional vs Nonuse	Modern vs Nonuse	Traditional vs Nonuse	Modern vs Nonuse	Traditional vs Nonuse
	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
Emotional violence								
No (ref.)	1	1	1	1	1	1	1	1
Yes	1.73***	1.12	1.04	0.64***	0.83	0.63	1.20	1.28
	(1.60,1.87)	(0.92,1.35)	(0.98,1.1)	(0.56,0.73)	(0.62,1.11)	(0.36,1.12)	(0.96,1.50)	(0.92,1.78)
Controlling behaviors								
No (ref.)	1	1	1	1	1	1	1	1
Yes	1.17***	1.25*	0.86***	0.93*	1.03	0.73*	1.10	0.90
	(1.07,1.27)	(1.02,1.53)	(0.82,0.89)	(0.86,1.00)	(0.87,1.22)	(0.55,0.97)	(0.89,1.36)	(0.66,1.24)
Place of residence								
Urban (ref.)	1	1	1	1	1	1	1	1
Rural	0.80***	0.53***	1.07**	0.94	0.83*	1.03	0.79*	0.69*
	(0.70,0.90)	(0.41,0.68)	(1.02,1.12)	(0.86,1.03)	(0.71,0.98)	(0.78,1.36)	(0.64,0.98)	(0.51,0.93)
Education level								
No Education (ref.)	1	1	1	1	1	1	1	1
Primary	1.26***	2.00***	1.45***	1.62***	1.15	1.31	1.60***	1.45
	(1.11,1.45)	(1.53,2.62)	(1.37,1.54)	(1.44,1.82)	(0.92,1.43)	(0.88,1.94)	(1.22,2.11)	(0.97,2.16)
Secondary	1.55***	2.30***	1.28***	1.69***	1.25	1.94***	2.03***	1.54*
	(1.35,1.78)	(1.73,3.06)	(1.21,1.35)	(1.52,1.87)	(1.00,1.57)	(1.33,2.82)	(1.53,2.69)	(1.03,2.31)
Higher	1.77***	4.25***	1.04	1.55***	1.27	2.22**	2.29***	1.86*
	(1.38,2.27)	(2.83,6.37)	(0.96,1.13)	(1.32,1.81)	(0.92,1.76)	(1.38,3.59)	(1.63,3.22)	(1.16,2.99)

Table 4.39 continued

Employment status								
Not working (ref.)	1	1	1	1	1	1	1	1
Working	0.92	0.67**	1.71***	1.11*	1.51***	1.35*	1.16	1.47*
	(0.82,1.02)	(0.51,0.89)	(1.65,1.79)	(1.02,1.21)	(1.27,1.79)	(1.03,1.78)	(0.91,1.47)	(1.05,2.06)
Wealth index								
Poorest (ref.)	1	1	1	1	1	1	1	1
Poorer	1.04	1.73*	1.60***	1.38***	1.34*	1.35	1.55**	2.55**
	(0.92,1.17)	(1.12,2.69)	(1.50,1.70)	(1.22,1.55)	(1.04,1.71)	(0.86,2.13)	(1.13,2.14)	(1.42,4.56)
Middle	0.96	2.14***	1.87***	1.19**	1.14	1.46	1.96***	3.53***
	(0.85,1.08)	(1.41,3.27)	(1.75,1.99)	(1.05,1.35)	(0.89,1.46)	(0.93,2.28)	(1.41,2.72)	(1.97,6.33)
Richer	1.31***	4.29***	2.08***	1.2*	1.20	1.41	1.73**	4.41***
	(1.16,1.48)	(2.89,6.35)	(1.94,2.23)	(1.04,1.37)	(0.93,1.55)	(0.88,2.24)	(1.2,2.49)	(2.38,8.19)
Richest	1.68***	4.51***	2.36***	1.33***	1.50**	3.41***	2.45***	7.65***
	(1.44,1.97)	(2.89,7.03)	(2.19,2.56)	(1.14,1.55)	(1.12,2.00)	(2.12,5.50)	(1.64,3.67)	(3.96,14.75)
Exposure to FP via mass media								
No (ref.)	1	1	1	1	1	1	1	1
Yes	1.88***	1.41***	1.31***	0.98	1.33***	1.69***	1.24*	1.19
	(1.74,2.03)	(1.17,1.69)	(1.26,1.37)	(0.90,1.06)	(1.13,1.57)	(1.29,2.23)	(1.01,1.52)	(0.89,1.57)
Age	0.99	0.97***	1.05***	1.01**	1.05***	1.02	0.99	0.99
	(0.99,1.00)	(0.95,0.99)	(1.04,1.05)	(1.00,1.01)	(1.04,1.07)	(1.00,1.04)	(0.98,1.01)	(0.97,1.01)
Age at first marriage	0.99*	1.03*	0.95***	1.01*	0.92***	0.99	1.00	1.01
	(0.98,1.00)	(1.00,1.06)	(0.94,0.95)	(1.00,1.02)	(0.90,0.95)	(0.95,1.04)	(0.98,1.03)	(0.97,1.05)
No. of living children	1.22***	1.32***	1.30***	1.35***	1.24***	1.36***	1.55***	1.56***
	(1.20,1.25)	(1.26,1.40)	(1.28,1.33)	(1.31,1.40)	(1.16,1.33)	(1.21,1.54)	(1.46,1.65)	(1.43,1.70)

Notes:

AOR: adjusted odds ratio

95% CI: 95% confidence interval

Wald test significance: *** p < 0.001, ** p < 0.01, * p < 0.05

Table 4.40 Multinomial logistic regression of CPR (combination type of IPV as the main independent variable)

Variables	Afghanistan		India		Nepal		Pakistan	
	Modern vs Nonuse	Traditional vs Nonuse	Modern vs Nonuse	Traditional vs Nonuse	Modern vs Nonuse	Traditional vs Nonuse	Modern vs Nonuse	Traditional vs Nonuse
	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
Combination type of IPV								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Physical/Sexual only	1.25***	0.95	1.15***	0.89*	1.75***	1.15	0.59*	1.13
	(1.12,1.39)	(0.73,1.23)	(1.09,1.21)	(0.80,0.99)	(1.27,2.41)	(0.63,2.09)	(0.37,0.96)	(0.62,2.04)
Emotional only	1.15	1.12	1.02	0.76*	1.07	0.59	1.22	1.37
	(0.98,1.36)	(0.8,1.57)	(0.91,1.14)	(0.59,0.96)	(0.65,1.75)	(0.23,1.52)	(0.92,1.62)	(0.91,2.06)
Physical/Sexual & Emotional	2.06***	1.09	1.1**	0.58***	0.80	0.69	1.07	1.21
	(1.88,2.25)	(0.87,1.36)	(1.02,1.17)	(0.50,0.68)	(0.56,1.13)	(0.35,1.37)	(0.78,1.47)	(0.75,1.94)
Controlling behaviors								
No (ref.)	1	1	1	1	1	1	1	1
Yes	1.08	1.26*	0.84***	0.94	0.99	0.72*	1.15	0.9
	(0.99,1.18)	(1.02,1.55)	(0.81,0.87)	(0.87,1.01)	(0.84,1.17)	(0.54,0.96)	(0.93,1.42)	(0.65,1.25)
Place of residence								
Urban (ref.)	1	1	1	1	1	1	1	1
Rural	0.78***	0.53***	1.07**	0.94	0.83*	1.03	0.8*	0.69*
	(0.69,0.88)	(0.41,0.69)	(1.02,1.12)	(0.86,1.03)	(0.71,0.98)	(0.78,1.36)	(0.64,0.99)	(0.51,0.93)
Education level								
No Education (ref.)	1	1	1	1	1	1	1	1
Primary	1.28***	2***	1.45***	1.62***	1.14	1.31	1.6***	1.45
	(1.12,1.46)	(1.53,2.62)	(1.37,1.55)	(1.43,1.82)	(0.91,1.42)	(0.88,1.94)	(1.21,2.1)	(0.97,2.16)
Secondary	1.6***	2.31***	1.29***	1.68***	1.25	1.94***	2.01***	1.54*
	(1.39,1.84)	(1.74,3.07)	(1.22,1.35)	(1.51,1.86)	(1,1.57)	(1.33,2.83)	(1.52,2.67)	(1.03,2.32)
Higher	1.78***	4.23***	1.05	1.54***	1.29	2.25***	2.26***	1.85*
	(1.39,2.28)	(2.82,6.34)	(0.97,1.14)	(1.31,1.8)	(0.93,1.78)	(1.39,3.64)	(1.6,3.18)	(1.15,2.97)

Table 4.40 continued

Employment status

Not working (ref.)	1	1	1	1	1	1	1	1
Working	0.92	0.67**	1.71***	1.12**	1.49***	1.35*	1.16	1.47*
	(0.82,1.02)	(0.51,0.89)	(1.64,1.78)	(1.03,1.21)	(1.26,1.78)	(1.03,1.78)	(0.91,1.47)	(1.05,2.07)
Wealth index								
Poorest (ref.)	1	1	1	1	1	1	1	1
Poorer	1.06	1.73*	1.6***	1.37***	1.32*	1.35	1.55**	2.55**
	(0.94,1.19)	(1.12,2.68)	(1.51,1.71)	(1.22,1.54)	(1.03,1.69)	(0.85,2.12)	(1.13,2.13)	(1.42,4.56)
Middle	0.96	2.15***	1.88***	1.18**	1.14	1.45	1.96***	3.51***
	(0.85,1.09)	(1.41,3.27)	(1.76,2)	(1.04,1.34)	(0.89,1.46)	(0.93,2.28)	(1.41,2.72)	(1.96,6.29)
Richer	1.34***	4.28***	2.11***	1.19*	1.2	1.41	1.72**	4.37***
	(1.19,1.52)	(2.89,6.35)	(1.96,2.26)	(1.03,1.36)	(0.93,1.55)	(0.88,2.24)	(1.19,2.49)	(2.35,8.12)
Richest	1.77***	4.5***	2.4***	1.31***	1.48**	3.4***	2.44***	7.61***
	(1.51,2.08)	(2.89,7.03)	(2.22,2.6)	(1.12,1.53)	(1.1,1.98)	(2.11,5.49)	(1.63,3.66)	(3.94,14.67)
Exposure to FP via mass media								
No (ref.)	1	1	1	1	1	1	1	1
Yes	1.85***	1.4***	1.31***	0.98	1.34***	1.69***	1.25*	1.18
	(1.72,2)	(1.17,1.69)	(1.25,1.36)	(0.9,1.06)	(1.14,1.58)	(1.29,2.23)	(1.02,1.53)	(0.89,1.57)
Age	0.99	0.97***	1.05***	1.01**	1.06***	1.02	0.99	0.99
	(0.99,1)	(0.95,0.99)	(1.04,1.05)	(1,1.01)	(1.04,1.07)	(1,1.04)	(0.98,1.01)	(0.97,1.01)
Age at first marriage	0.99*	1.03*	0.95***	1.01*	0.92***	0.99	1.01	1.01
	(0.98,1)	(1,1.06)	(0.94,0.95)	(1,1.02)	(0.9,0.95)	(0.95,1.04)	(0.98,1.04)	(0.97,1.05)
No. of living children	1.22***	1.32***	1.3***	1.35***	1.24***	1.36***	1.57***	1.56***
	(1.2,1.25)	(1.26,1.4)	(1.28,1.32)	(1.31,1.4)	(1.15,1.33)	(1.21,1.53)	(1.47,1.67)	(1.43,1.7)

Notes:

AOR: adjusted odds ratio

95% CI: 95% confidence interval

Wald test significance: *** p < 0.001, ** p < 0.01, * p < 0.05

4.5.2.2 Summary

Table 4.41 shows the summary of multinomial logistic regression analysis examining the factors associated with contraceptive use across four countries. The results indicate significant associations between certain variables and contraceptive use. Different forms of IPV show mixed associations with modern and traditional contraceptive methods. Socio-economic variables such as education level, wealth index, and number of living children emerge as positive predictors of contraceptive use in all four countries.

Table 4.41 Summary of multinomial logistic regression analysis of contraceptive use

Variables	Afghanistan Modern	Afghanistan Traditional	India Modern	India Traditional	Nepal Modern	Nepal Traditional	Pakistan Modern	Pakistan Traditional
Physical violence (model 1)	+		+	−				
Sexual violence (model 2)	+		−					
Emotional violence (model 3)	+			−				
Combination type of IPV (model 4)								
Physical/Sexual only	+		+	−	+		−	
Emotional only				−				
Physical/Sexual & Emotional	+		+	−				
Controlling behaviors	+ (not sig. in model 4)	+	−	− (not sig. in model 4)		−		
Place of residence	−	−	+		−		−	−
Education level	+	+	+	+	+	+	+	+
Employment status		−	+	+	+	+		+
Wealth index	+	+	+	+	+	+	+	+
Exposure to FP via mass media	+	+	+		+	+	+	
Age		−	+	+	+			
Age at first marriage	−	+ (not sig. in model 2)	−	+	−			
No. of living children	+	+	+	+	+	+	+	+

4.5.3 Hypothesis 3

Using multinomial logistic regression, the net effect of each independent variable on the unmet need for FP was examined. Three regression models were run, each using a different form of violence (physical, sexual, and emotional) as the main independent variable. Another regression model was run with the combination type of IPV variable.

4.5.3.1 Multinomial Logistic Regression of Unmet Need for FP

Tables 4.42, 4.43, and 4.44 present the multivariate analysis for the determinants of unmet need for FP among married women aged 15 – 49 years for each country using physical, sexual and emotional violence as the main independent variables separately. The socio-economic variables' outcomes are similar, with minor differences across all three regression models. Women who had experienced physical violence in the past 12 months had a higher unmet need for spacing than no unmet need in Pakistan but a lower unmet need for spacing and limiting than no unmet need in Afghanistan and Nepal. Physical violence had a greater negative impact on both types of unmet need in Nepal. Contrarily, sexual violence increased the likelihood of Indian women having unmet need for limiting than no unmet need. Women who had experienced emotional violence in the previous 12 months were more likely to have unmet need for spacing than no unmet need in India and Pakistan but less likely to have an unmet need for spacing and limiting than no unmet need in Afghanistan.

Controlling behaviors by husbands were positively associated with unmet need for spacing than none in India but negatively associated with unmet need for spacing than none in Afghanistan. Moreover, Nepalese women who experienced controlling behaviors by husbands were more likely to have unmet need for spacing than no unmet need (significant in the regression model using physical violence as the main independent variable but insignificant in the other two models). Rural women had a lower risk of

166

unmet need for spacing than no unmet need in Afghanistan and a lower risk of unmet need for limiting than no unmet need in Afghanistan and India, with a greater impact in Afghanistan.

Generally, educated women were more likely to have unmet need for spacing than no unmet need in India, Nepal (significant for secondary educated women in regression models using sexual and emotional violence as main independent variable, respectively, but insignificant in regression model using physical violence as main independent variable) and Pakistan, and unmet need for limiting than no unmet need in India and Nepal (significant for secondary educated women in regression model using emotional violence as main independent variable, but insignificant in the other two models). However, educated Afghan women had a lower unmet need for spacing (significant for higher educated women in regression models using physical and emotional violence as the main independent variable, respectively, but insignificant in regression model using sexual violence as the main independent variable) and limiting (significant for higher educated women in regression models using physical and emotional violence as the main independent variable, respectively, but insignificant in regression model using sexual violence as the main independent variable) than no unmet need. In comparison to non-working women, the likelihood of working Indian women having unmet need for spacing and limiting than no unmet need was lower. With reference to women from the poorest households, women from wealthier households in all four countries had a lower unmet need for spacing than no unmet need, with women from the richest households in Afghanistan experiencing the greatest impact. Furthermore, in all countries except Nepal, women from wealthier households were less likely to have unmet need for limiting than those with no unmet need, with Pakistani women from richer households being the most affected.

Women in Afghanistan and India exposed to FP messages through mass media had a lower unmet need for spacing than no unmet need. Besides that, the impact of FP exposure through mass media on unmet spacing needs was greater in India. In all four countries, age was negatively correlated with unmet need for spacing than no unmet need, with India showing the most notable impact. Similarly, age was negatively associated with unmet need for limiting than no unmet need in all four countries except Pakistan. In all four countries, however, age at first marriage was positively associated with unmet need for spacing and limiting than no unmet need. The effect of age at first marriage on unmet need for spacing and limiting was most pronounced in India. Women with more children were more likely to have unmet need for spacing than no unmet need in all countries except Nepal, with Afghanistan having the most significant impact. Furthermore, in all four countries, women with more children were more likely to have unmet need for limiting than no unmet need. The influence of the number of living children on unmet need for limiting was greater in Afghanistan than in other countries.

Table 4.45 shows the multivariate analysis for the determinants of unmet need for FP among married women aged 15 – 49 years for each country using combination type of IPV as the main independent variable. The associations of husbands' controlling behaviors and socio-economic variables with unmet need for FP in the regression model remain consistent with the previous three regression models. The experience of any combination type of violence had contrasting effects on the odds of unmet need for spacing compared to those with no unmet need in Afghanistan and Pakistan. In Afghanistan, lower odds were observed, while in Pakistan, higher odds were observed. In Nepal, the experience of physical or sexual violence only reduced the odds of unmet need for limiting compared to those with no unmet need. However, women who reported experiencing emotional violence only were more likely to have unmet need for spacing than no unmet need in India and Nepal, with a stronger effect found in Nepal. Similarly,

Nepalese women who reported experiencing emotional violence only were also more likely to have unmet need for limiting than no unmet need. On the other hand, women who experienced both physical/sexual and emotional violence had a lower likelihood of having unmet need for spacing and limiting than no unmet need in Afghanistan.

Table 4.42 Multinomial logistic regression of unmet need for FP (physical violence as the main independent variable)

Variables	Afghanistan		India		Nepal		Pakistan	
	Spacing vs None	Limiting vs None	Spacing vs None	Limiting vs None	Spacing vs None	Limiting vs None	Spacing vs None	Limiting vs None
	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
Physical violence								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	0.80***	0.73***	1.04	1.04	0.55*	0.66*	1.73**	1.05
	(0.74,0.87)	(0.65,0.83)	(0.94,1.15)	(0.96,1.13)	(0.33,0.91)	(0.47,0.94)	(1.23,2.42)	(0.70,1.56)
Controlling behaviors								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	0.86***	1.03	1.11**	1.04	1.41*	1.16	1.02	0.93
	(0.78,0.93)	(0.90,1.17)	(1.03,1.20)	(0.98,1.12)	(1.06,1.88)	(0.95,1.43)	(0.76,1.36)	(0.68,1.29)
Place of residence								
Urban (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Rural	0.65***	0.59***	0.96	0.91*	1.25	0.90	0.95	0.92
	(0.56,0.75)	(0.49,0.72)	(0.88,1.06)	(0.84,0.99)	(0.94,1.67)	(0.73,1.10)	(0.70,1.29)	(0.64,1.32)
Education level								
No Education (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Primary	0.79**	0.76*	0.89	1.03	1.62*	1.30	0.76	0.75
	(0.68,0.92)	(0.59,0.97)	(0.77,1.03)	(0.92,1.15)	(1.02,2.57)	(0.99,1.70)	(0.51,1.13)	(0.48,1.17)
Secondary	0.94	0.90	1.10	1.29***	1.56	1.32	0.74	0.99
	(0.81,1.10)	(0.68,1.19)	(0.98,1.24)	(1.18,1.42)	(1.00,2.43)	(0.99,1.75)	(0.49,1.12)	(0.63,1.57)
Higher	0.69*	0.52*	1.60***	1.29***	1.15	0.83	1.73*	0.67
	(0.48,0.98)	(0.27,0.97)	(1.37,1.86)	(1.11,1.50)	(0.65,2.04)	(0.54,1.27)	(1.09,2.74)	(0.35,1.27)
Employment status								
Not working (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Working	0.94	0.91	0.73***	0.78***	0.87	1.00	0.78	1.16
	(0.84,1.06)	(0.77,1.09)	(0.66,0.81)	(0.72,0.84)	(0.65,1.17)	(0.81,1.24)	(0.53,1.15)	(0.83,1.63)

Table 4.42 continued

Wealth index								
Poorest (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Poorer	0.77***	0.87	0.81**	0.74***	0.71	0.81	0.84	0.75
	(0.69,0.87)	(0.72,1.03)	(0.72,0.92)	(0.67,0.82)	(0.46,1.08)	(0.59,1.10)	(0.57,1.25)	(0.50,1.11)
Middle	0.80***	0.76**	0.72***	0.64***	0.75	0.96	1.02	0.61*
	(0.72,0.90)	(0.64,0.92)	(0.63,0.82)	(0.57,0.71)	(0.49,1.14)	(0.71,1.30)	(0.67,1.55)	(0.39,0.96)
Richer	0.68***	0.74**	0.77***	0.63***	0.56**	0.79	0.85	0.46**
	(0.60,0.76)	(0.61,0.89)	(0.67,0.88)	(0.56,0.71)	(0.36,0.87)	(0.57,1.08)	(0.53,1.39)	(0.27,0.79)
Richest	0.33***	0.72**	0.67***	0.70***	0.47**	0.80	0.52*	0.62
	(0.27,0.40)	(0.56,0.92)	(0.57,0.78)	(0.61,0.80)	(0.27,0.81)	(0.56,1.15)	(0.29,0.92)	(0.34,1.14)
Exposure to FP via mass media								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	0.90*	1.01	0.83***	0.97	0.86	0.91	0.95	1.04
	(0.83,0.98)	(0.89,1.14)	(0.76,0.90)	(0.90,1.05)	(0.64,1.15)	(0.74,1.12)	(0.70,1.30)	(0.74,1.45)
Age	0.86***	0.93***	0.79***	0.93***	0.81***	0.97***	0.85***	0.99
	(0.86,0.87)	(0.92,0.94)	(0.78,0.80)	(0.93,0.94)	(0.77,0.84)	(0.95,0.98)	(0.82,0.88)	(0.96,1.01)
Age at first marriage	1.13***	1.04***	1.20***	1.08***	1.18***	1.06***	1.06*	1.05*
	(1.11,1.15)	(1.02,1.06)	(1.18,1.22)	(1.07,1.09)	(1.11,1.25)	(1.02,1.09)	(1.01,1.11)	(1.01,1.1)
No. of living children	1.37***	1.63***	1.18***	1.58***	0.87	1.24***	1.32***	1.43***
	(1.33,1.41)	(1.57,1.69)	(1.12,1.24)	(1.54,1.63)	(0.71,1.07)	(1.14,1.34)	(1.19,1.46)	(1.33,1.55)

Notes:

AOR: adjusted odds ratio

95% CI: 95% confidence interval

Wald test significance: *** p < 0.001, ** p < 0.01, * p < 0.05

Table 4.43 Multinomial logistic regression of unmet need for FP (sexual violence as the main independent variable)

Variables	Afghanistan		India		Nepal		Pakistan	
	Spacing vs None	Limiting vs None	Spacing vs None	Limiting vs None	Spacing vs None	Limiting vs None	Spacing vs None	Limiting vs None
	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
Sexual violence								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	1.16	0.79	1.12	1.17*	1.40	0.75	1.18	0.71
	(0.99,1.35)	(0.61,1.03)	(0.95,1.32)	(1.03,1.34)	(0.76,2.58)	(0.44,1.28)	(0.66,2.12)	(0.32,1.57)
Controlling behaviors								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	0.78***	0.92	1.11**	1.04	1.26	1.12	1.16	0.96
	(0.72,0.85)	(0.81,1.04)	(1.03,1.20)	(0.97,1.11)	(0.95,1.68)	(0.91,1.37)	(0.88,1.54)	(0.71,1.31)
Place of residence								
Urban (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Rural	0.64***	0.58***	0.96	0.91*	1.24	0.90	0.95	0.92
	(0.55,0.74)	(0.47,0.70)	(0.88,1.06)	(0.84,0.99)	(0.94,1.66)	(0.73,1.1)	(0.70,1.29)	(0.64,1.32)
Education level								
No Education (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Primary	0.80**	0.77*	0.89	1.03	1.66*	1.31	0.75	0.75
	(0.69,0.92)	(0.60,0.98)	(0.77,1.03)	(0.92,1.15)	(1.05,2.63)	(1.00,1.71)	(0.51,1.12)	(0.48,1.17)
Secondary	0.97	0.91	1.10	1.29***	1.61*	1.33	0.73	0.99
	(0.83,1.13)	(0.69,1.21)	(0.98,1.24)	(1.18,1.42)	(1.03,2.50)	(1.00,1.76)	(0.48,1.1)	(0.63,1.57)
Higher	0.71	0.53	1.59***	1.29***	1.23	0.85	1.66*	0.66
	(0.50,1.01)	(0.28,1.01)	(1.37,1.86)	(1.11,1.5)	(0.70,2.17)	(0.56,1.30)	(1.04,2.62)	(0.35,1.27)
Employment status								
Not working (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Working	0.94	0.91	0.73***	0.78***	0.86	1.00	0.76	1.18
	(0.83,1.05)	(0.76,1.08)	(0.66,0.81)	(0.72,0.84)	(0.64,1.15)	(0.80,1.24)	(0.52,1.12)	(0.84,1.64)

172

Table 4.43 continued

Wealth index								
Poorest (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Poorer	0.78***	0.87	0.82**	0.74***	0.69	0.81	0.84	0.76
	(0.70,0.88)	(0.73,1.04)	(0.72,0.92)	(0.67,0.82)	(0.45,1.06)	(0.6,1.10)	(0.57,1.24)	(0.51,1.12)
Middle	0.81***	0.75**	0.72***	0.64***	0.75	0.96	0.99	0.62*
	(0.72,0.90)	(0.63,0.90)	(0.63,0.82)	(0.57,0.72)	(0.49,1.14)	(0.71,1.30)	(0.65,1.50)	(0.40,0.96)
Richer	0.68***	0.74**	0.77***	0.63***	0.56*	0.79	0.83	0.46**
	(0.61,0.77)	(0.61,0.89)	(0.67,0.88)	(0.56,0.71)	(0.36,0.87)	(0.58,1.09)	(0.51,1.34)	(0.27,0.80)
Richest	0.33***	0.73*	0.67***	0.70***	0.47**	0.81	0.51*	0.62
	(0.28,0.40)	(0.57,0.94)	(0.57,0.78)	(0.61,0.81)	(0.27,0.80)	(0.56,1.17)	(0.28,0.90)	(0.34,1.14)
Exposure to FP via mass media								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	0.89**	1.00	0.83***	0.97	0.87	0.91	0.95	1.03
	(0.82,0.97)	(0.89,1.13)	(0.76,0.90)	(0.90,1.05)	(0.65,1.16)	(0.74,1.12)	(0.70,1.30)	(0.73,1.45)
Age	0.86***	0.93***	0.79***	0.93***	0.81***	0.97***	0.85***	0.99
	(0.86,0.87)	(0.92,0.94)	(0.78,0.80)	(0.93,0.94)	(0.77,0.85)	(0.95,0.99)	(0.82,0.88)	(0.96,1.01)
Age at first marriage	1.13***	1.04***	1.2***	1.08***	1.18***	1.06***	1.06*	1.05*
	(1.11,1.15)	(1.02,1.06)	(1.18,1.22)	(1.07,1.09)	(1.11,1.25)	(1.02,1.09)	(1.01,1.12)	(1.01,1.10)
No. of living children	1.36***	1.62***	1.18***	1.58***	0.86	1.23***	1.33***	1.44***
	(1.32,1.40)	(1.56,1.68)	(1.12,1.24)	(1.54,1.63)	(0.70,1.05)	(1.13,1.34)	(1.20,1.48)	(1.33,1.56)

Notes:

AOR: adjusted odds ratio

95% CI: 95% confidence interval

Wald test significance: *** p < 0.001, ** p < 0.01, * p < 0.05

Table 4.44 Multinomial logistic regression of unmet need for FP (emotional violence as the main independent variable)

Variables	Afghanistan		India		Nepal		Pakistan	
	Spacing vs None	Limiting vs None	Spacing vs None	Limiting vs None	Spacing vs None	Limiting vs None	Spacing vs None	Limiting vs None
	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
Emotional violence								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	0.78***	0.77***	1.16*	1.08	1.16	1.24	1.36*	0.95
	(0.71,0.85)	(0.68,0.88)	(1.03,1.32)	(0.98,1.20)	(0.67,1.99)	(0.87,1.76)	(1.00,1.85)	(0.67,1.35)
Controlling behaviors								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	0.85***	0.99	1.09*	1.04	1.28	1.05	1.08	0.96
	(0.78,0.92)	(0.87,1.12)	(1.01,1.18)	(0.97,1.11)	(0.96,1.71)	(0.85,1.30)	(0.81,1.44)	(0.69,1.32)
Place of residence								
Urban (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Rural	0.64***	0.58***	0.97	0.91*	1.25	0.89	0.95	0.92
	(0.56,0.74)	(0.47,0.70)	(0.88,1.06)	(0.84,0.99)	(0.94,1.66)	(0.73,1.10)	(0.70,1.29)	(0.64,1.32)
Education level								
No Education (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Primary	0.79**	0.76*	0.89	1.03	1.69*	1.31	0.75	0.75
	(0.68,0.91)	(0.59,0.97)	(0.77,1.04)	(0.92,1.15)	(1.06,2.68)	(1.00,1.71)	(0.51,1.12)	(0.48,1.17)
Secondary	0.96	0.91	1.11	1.29***	1.62*	1.34*	0.73	0.99
	(0.82,1.12)	(0.69,1.20)	(0.99,1.24)	(1.18,1.42)	(1.04,2.53)	(1.01,1.78)	(0.48,1.11)	(0.62,1.57)
Higher	0.69*	0.52*	1.60***	1.29***	1.24	0.86	1.65*	0.66
	(0.49,0.98)	(0.28,0.99)	(1.37,1.87)	(1.11,1.50)	(0.70,2.18)	(0.56,1.31)	(1.04,2.61)	(0.35,1.27)
Employment status								
Not working (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Working	0.95	0.91	0.73***	0.78***	0.86	0.99	0.76	1.16
	(0.84,1.07)	(0.76,1.08)	(0.65,0.80)	(0.72,0.84)	(0.64,1.16)	(0.80,1.23)	(0.52,1.12)	(0.83,1.62)

Table 4.44 continued

Wealth index								
Poorest (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Poorer	0.78***	0.87	0.82**	0.74***	0.70	0.82	0.83	0.75
	(0.70,0.87)	(0.73,1.04)	(0.72,0.92)	(0.67,0.82)	(0.46,1.07)	(0.60,1.11)	(0.56,1.23)	(0.50,1.11)
Middle	0.8***	0.76**	0.72***	0.64***	0.75	0.97	0.98	0.61*
	(0.72,0.90)	(0.63,0.92)	(0.63,0.82)	(0.57,0.71)	(0.49,1.13)	(0.71,1.31)	(0.65,1.49)	(0.39,0.96)
Richer	0.68***	0.75**	0.77***	0.63***	0.56*	0.80	0.83	0.46**
	(0.60,0.76)	(0.62,0.90)	(0.67,0.89)	(0.56,0.71)	(0.36,0.88)	(0.58,1.10)	(0.51,1.35)	(0.27,0.79)
Richest	0.33***	0.74*	0.67***	0.7***	0.47**	0.82	0.52*	0.62
	(0.28,0.40)	(0.58,0.94)	(0.57,0.78)	(0.61,0.80)	(0.28,0.82)	(0.57,1.18)	(0.29,0.92)	(0.34,1.14)
Exposure to FP via mass media								
No (ref.)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Yes	0.90*	1.01	0.83***	0.97	0.87	0.91	0.94	1.04
	(0.83,0.98)	(0.89,1.14)	(0.76,0.90)	(0.9,1.05)	(0.65,1.17)	(0.74,1.12)	(0.69,1.29)	(0.74,1.45)
Age	0.86***	0.93***	0.79***	0.93***	0.81***	0.97***	0.85***	0.99
	(0.86,0.87)	(0.92,0.94)	(0.78,0.8)	(0.93,0.94)	(0.77,0.85)	(0.95,0.99)	(0.82,0.88)	(0.96,1.01)
Age at first marriage	1.13***	1.04***	1.20***	1.08***	1.18***	1.06***	1.06*	1.05*
	(1.11,1.15)	(1.02,1.06)	(1.18,1.22)	(1.07,1.09)	(1.11,1.25)	(1.02,1.09)	(1.01,1.12)	(1.01,1.10)
No. of living children	1.36***	1.62***	1.18***	1.58***	0.87	1.23***	1.33***	1.44***
	(1.33,1.41)	(1.57,1.68)	(1.12,1.24)	(1.54,1.63)	(0.71,1.06)	(1.13,1.34)	(1.20,1.47)	(1.33,1.56)

Notes:

AOR: adjusted odds ratio

95% CI: 95% confidence interval

Wald test significance: *** p < 0.001, ** p < 0.01, * p < 0.05

Table 4.45 Multinomial logistic regression of unmet need for FP (combination type of IPV as the main independent variable)

Variables	Afghanistan		India		Nepal		Pakistan	
	Spacing vs None	Limiting vs None	Spacing vs None	Limiting vs None	Spacing vs None	Limiting vs None	Spacing vs None	Limiting vs None
	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
Combination type of IPV								
No (ref.)	1	1	1	1	1	1	1	1
Physical/Sexual only	0.81*** (0.73,0.91)	0.87 (0.74,1.02)	1.06 (0.95,1.19)	1.02 (0.93,1.12)	0.6 (0.33,1.09)	0.51** (0.31,0.82)	2.27** (1.37,3.76)	1.36 (0.75,2.44)
Emotional only	0.7*** (0.59,0.84)	1.19 (0.95,1.5)	1.55*** (1.24,1.93)	1.07 (0.87,1.32)	2.62* (1,6.82)	2.09** (1.22,3.58)	1.31 (0.87,1.96)	1.06 (0.68,1.66)
Physical/Sexual & Emotional	0.74*** (0.67,0.82)	0.65*** (0.56,0.76)	1.07 (0.92,1.24)	1.09 (0.97,1.23)	0.82 (0.44,1.54)	0.86 (0.56,1.34)	1.7** (1.15,2.53)	0.89 (0.55,1.44)
Controlling behaviors								
No (ref.)	1	1	1	1	1	1	1	1
Yes	0.88** (0.8,0.96)	1.05 (0.92,1.2)	1.09* (1.01,1.18)	1.04 (0.97,1.11)	1.33 (0.99,1.78)	1.11 (0.9,1.37)	0.99 (0.74,1.34)	0.95 (0.68,1.32)
Place of residence								
Urban (ref.)	1	1	1	1	1	1	1	1
Rural	0.65*** (0.56,0.75)	0.59*** (0.49,0.72)	0.97 (0.88,1.06)	0.91* (0.84,0.99)	1.24 (0.93,1.66)	0.9 (0.73,1.11)	0.93 (0.69,1.27)	0.91 (0.64,1.31)
Education level								
No Education (ref.)	1	1	1	1	1	1	1	1
Primary	0.79** (0.68,0.91)	0.75* (0.59,0.96)	0.89 (0.77,1.04)	1.03 (0.92,1.15)	1.68* (1.06,2.67)	1.32* (1,1.73)	0.75 (0.51,1.12)	0.74 (0.47,1.16)
Secondary	0.95 (0.81,1.11)	0.89 (0.68,1.18)	1.1 (0.98,1.24)	1.29*** (1.18,1.42)	1.59* (1.02,2.49)	1.33 (1,1.76)	0.74 (0.49,1.12)	0.98 (0.62,1.56)
Higher	0.68* (0.48,0.96)	0.52* (0.27,0.98)	1.6*** (1.38,1.87)	1.29*** (1.11,1.5)	1.18 (0.67,2.09)	0.81 (0.53,1.25)	1.7* (1.07,2.7)	0.66 (0.34,1.26)

Table 4.45 continued

Employment status								
Not working (ref.)	1	1	1	1	1	1	1	1
Working	0.95	0.91	0.73***	0.78***	0.87	1	0.77	1.17
	(0.85,1.07)	(0.76,1.08)	(0.65,0.81)	(0.72,0.84)	(0.65,1.17)	(0.8,1.24)	(0.53,1.13)	(0.84,1.63)
Wealth index								
Poorest (ref.)	1	1	1	1	1	1	1	1
Poorer	0.78***	0.86	0.81**	0.74***	0.7	0.82	0.84	0.75
	(0.7,0.87)	(0.72,1.02)	(0.72,0.92)	(0.67,0.82)	(0.46,1.08)	(0.6,1.11)	(0.57,1.25)	(0.5,1.11)
Middle	0.81***	0.76**	0.72***	0.64***	0.74	0.96	1	0.61*
	(0.72,0.91)	(0.63,0.91)	(0.63,0.82)	(0.57,0.71)	(0.49,1.13)	(0.71,1.29)	(0.66,1.52)	(0.39,0.95)
Richer	0.68***	0.73**	0.77***	0.63***	0.57*	0.79	0.83	0.45**
	(0.6,0.77)	(0.61,0.88)	(0.67,0.89)	(0.56,0.71)	(0.36,0.89)	(0.58,1.09)	(0.51,1.34)	(0.26,0.78)
Richest	0.34***	0.72**	0.67***	0.7***	0.48**	0.8	0.51*	0.62
	(0.28,0.4)	(0.56,0.92)	(0.57,0.79)	(0.61,0.81)	(0.28,0.83)	(0.55,1.15)	(0.29,0.91)	(0.34,1.14)
Exposure to FP via mass media								
No (ref.)	1	1	1	1	1	1	1	1
Yes	0.9*	1.03	0.83***	0.97	0.86	0.9	0.95	1.04
	(0.82,0.97)	(0.91,1.16)	(0.76,0.9)	(0.9,1.05)	(0.64,1.16)	(0.73,1.11)	(0.7,1.3)	(0.74,1.46)
Age	0.86***	0.93***	0.79***	0.93***	0.8***	0.97***	0.85***	0.99
	(0.86,0.87)	(0.92,0.95)	(0.78,0.8)	(0.93,0.94)	(0.77,0.84)	(0.95,0.98)	(0.82,0.88)	(0.96,1.01)
Age at first marriage	1.13***	1.04***	1.2***	1.08***	1.18***	1.06***	1.06*	1.05*
	(1.11,1.15)	(1.02,1.06)	(1.18,1.22)	(1.07,1.09)	(1.11,1.26)	(1.02,1.09)	(1.01,1.12)	(1.01,1.1)
No. of living children	1.37***	1.63***	1.18***	1.58***	0.88	1.24***	1.3***	1.43***
	(1.33,1.41)	(1.57,1.69)	(1.12,1.24)	(1.54,1.63)	(0.72,1.08)	(1.14,1.35)	(1.18,1.44)	(1.32,1.55)

Notes:

AOR: adjusted odds ratio

95% CI: 95% confidence interval

Wald test significance: *** p < 0.001, ** p < 0.01, * p < 0.05

4.5.3.2 Summary

Table 4.46 presents the summary of multinomial logistic regression analysis examining the factors associated with unmet need for FP across four countries. The table illustrates significant associations between certain variables and unmet need for FP. Different forms of IPV show mixed associations with unmet need for spacing and limiting. Wealth index and age were negatively associated with unmet need for FP, while age at first marriage and number of living children were positively associated with unmet need for FP in all four countries.

Table 4.46 Summary of multinomial logistic regression analysis of unmet need for FP

	Afghanistan		India		Nepal		Pakistan	
Variables	**Spacing**	**Limiting**	**Spacing**	**Limiting**	**Spacing**	**Limiting**	**Spacing**	**Limiting**
Physical violence (model 1)	−	−			−	−	+	
Sexual violence (model 2)				+				
Emotional violence (model 3)	−	−	+				+	
Combination type of IPV (model 4)								
Physical/Sexual only	−					−	+	
Emotional only	−		+		+	+		
Physical/Sexual & Emotional	−	−					+	
Controlling behaviors	−		+		+ (sig. in model 1 only)			
Place of residence	−	−		−				
Education level	−	−	+	+	+ (not sig. in model 1)	+ (sig. in model 3)	+	
Employment status			−	−				
Wealth index	−	−	−	−	−		−	−
Exposure to FP via mass media	−		−					
Age	−	−	−	−	−	−	−	
Age at first marriage	+	+	+	+	+	+	+	+
No. of living children	+	+	+	+		+	+	+

178

CHAPTER 5: DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter provides a synthesis of the results and discusses how these could be used to help policymakers develop effective interventions to improve women's health and well-being in South Asia. The chapter begins by summarizing the main findings, highlighting key results from each research question. Then, a detailed discussion of the results for each research question is provided. The study's implications for policy and practice and its contributions are then presented. Finally, the chapter concludes with a discussion of the strengths and limitations of the study and suggestions for future research.

5.2 Summary of Findings

The study employed a quantitative research design to examine the differentials in IPV, CPR, and unmet need for FP across four South Asian countries: Afghanistan, India, Nepal, and Pakistan. The data used for the study were obtained from the DHS. Crosstabulation and Fisher's exact tests/chi-square tests were used to examine the bivariate relationships, while multinomial logistic regression was employed to analyze the net effect of each independent variable on FP practices. Eight regression models, four for each on CPR and unmet need for contraception, were conducted, each using a different form of IPV (physical violence, sexual violence, emotional violence, and combined type of IPV) as the main independent variable. Overall, the study provides insights into the complex dynamics of reproductive health in South Asia and sheds light on the factors influencing FP practices in the region. The study partially supports all research hypotheses because the associations between socio-economic factors and IPV and their influences on FP practices differ across countries.

The findings suggest that physical violence is the most prevalent form of violence experienced by women in Afghanistan, India, and Nepal, while emotional violence is

more prevalent in Pakistan. Across the countries, Afghanistan had the highest prevalence rate of all forms of violence, as well as controlling behaviors by husbands or partners. India had the highest CPR of any modern contraceptive method, with most contraceptive users using sterilization, while Afghanistan had the lowest modern CPR. In Pakistan, the proportion of contraceptive users practicing the withdrawal method was comparable to using condoms and sterilization. The unmet need for FP was high in Nepal and Afghanistan, with unmet need for limiting being the major contributor in Nepal and unmet need for spacing in Afghanistan. India had the lowest overall unmet need among all countries.

Looking at the IPV across all socio-economic groups, the oldest group of Afghan women (45 to 49 years) and Indian women aged 35 to 39 years had higher percentages experiencing physical and emotional violence than women from other age groups in each country. On the other hand, sexual violence was most prevalent among women aged 25 to 29 in Afghanistan and India. Except in Afghanistan, the prevalence of any form of IPV decreased with age at first marriage. This trend could be attributed to the fact that empowered women tend to postpone marriage, as they typically have higher levels of human capital. Compared to urban women, rural women were more likely to experience physical violence in Afghanistan and Nepal, all types of violence in India, and physical and emotional violence in Pakistan. The prevalence of all types of violence decreased as women's education levels and wealth index increased in all four countries. Working women were more likely to be victims of all three types of violence than non-working women in all countries except Nepal. Women with more living children also experienced higher prevalence rates of violence in all countries. Women exposed to FP through the media experienced lower prevalence rates of violence, except in Afghanistan.

At the bivariate level, CPR (any and modern method) was lower among women who experienced sexual violence and controlling behaviors in India and experienced both

physical/sexual and emotional violence in Nepal. However, Afghan women who experienced any form of violence and controlling behaviors were more likely to use a contraceptive method (any/modern) than those with no such experience. Across the categories for each socio-economic group, CPR was higher among women who were in their late 30s/early 40s in all countries, who married before the age of 15 in all countries except Pakistan, who lived in urban areas in all four countries, with higher education in Afghanistan and Pakistan, who were employed in India and Nepal, with more children in all four countries, from wealthier families in all four countries, and who were exposed to FP messages through media in all four countries.

After controlling for other variables, women who experienced physical violence, sexual violence, or emotional violence had varying effects on their likelihood of using modern or traditional contraceptive methods in Afghanistan and India. However, all forms of IPV did not affect contraceptive use among Nepalese and Pakistani women. Moreover, the effects of different combinations of violence types on the likelihood of practicing modern or traditional contraceptive methods varied across all four countries. Women who experienced controlling behaviors were more likely to practice modern and traditional contraceptive methods than nonuse in Afghanistan. However, in India and Nepal, they were less likely to practice modern and traditional methods than nonuse.

In the multivariate context, living in rural areas was associated with a lower likelihood of modern contraceptive use in Afghanistan, Nepal, and Pakistan but higher in India. Women who attained at least primary education were more likely to use modern and traditional methods of contraception in all four countries. Working women were more likely to practice modern contraceptive methods in India and Nepal and traditional methods in all countries except Afghanistan. Women from wealthier families and those exposed to FP via mass media were more likely to use modern methods in all four

countries. Age, age at first marriage, and number of living children also influenced contraceptive use at varying degrees across the four countries.

Regarding the unmet need for FP, at the bivariate level, women who experienced physical violence in India and Pakistan, sexual violence in Afghanistan and India, emotional violence in Pakistan, and controlling behaviors in India had higher levels of total unmet need. Conversely, total unmet need was lower among Afghan women who experienced physical and emotional violence and controlling behaviors from husbands, older women in all four countries, women who lived in urban areas in all four countries, women with at least primary education in Afghanistan and Pakistan, employed women in all four countries, women without children in Afghanistan and Pakistan, women from wealthier families in all four countries, and those who were exposed to FP messages through media in Afghanistan and India. Across the age at marriage groups, those who married before the age of 15 reported the lowest total unmet need in India and Nepal but the highest total unmet need in Afghanistan. Indian and Nepalese women with no formal education had lower total unmet need than their higher-educated counterparts, unlike in Afghanistan and Pakistan.

At the multivariate level, the study's results indicate that physical violence had a more significant negative effect on both types of unmet need in Nepal than in Afghanistan but a positive effect on unmet need for spacing in Pakistan, Indian women who experienced sexual violence had a higher likelihood of having unmet need for limiting. Women who experienced emotional violence were more likely to have an unmet need for spacing in India and Pakistan but less likely to have unmet need for spacing and limiting in Afghanistan. Moreover, the effects of different combinations of violence types on the likelihood of unmet need for FP varied across all four countries. In India, controlling behaviors by husbands were positively associated with unmet need for spacing but negatively associated with unmet need for spacing in Afghanistan.

182

In the multivariate context, the influence of socio-economic factors on unmet need for spacing and limiting varied across the countries. Rural women in Afghanistan and India had a lower risk of unmet need for limiting, with a greater impact seen in Afghanistan. Generally, educated women in India, Nepal, and Pakistan were more likely to have unmet need for spacing, while educated Afghan women had a lower unmet need for spacing. Furthermore, working women in India were less likely to have unmet need for spacing and limiting than non-working women. Women from wealthier households in all four countries had a lower unmet need for spacing, with Afghan women from the richest households experiencing the most significant impact. Women in Afghanistan and India exposed to FP messages through mass media had a lower unmet need for spacing. Age had a negative association with unmet need for spacing in all countries, with India showing the most notable effect, while age at first marriage had a positive association with unmet need for spacing and limiting in all four countries. Moreover, the number of living children is positively associated with unmet need for limiting in all four countries.

5.3 Discussion on Key Findings

The section has been segmented into three sub-sections, each focused on specific research objectives. The discussion centers on how the research findings connect to previous research.

5.3.1 Discussion: Differentials in Prevalence of IPV by Socio-economic Variables

The findings of this study revealed that IPV is a significant problem in all four countries, with Afghanistan having the highest prevalence rates of all three types of violence. This finding is consistent with past studies that reported higher IPV rates in South Asia (Devries et al., 2013; Garcia-Moreno et al., 2006; Sardinha et al., 2022). Previous research indicates that the prevalence of IPV is high in South Asian countries

due to patriarchal attitudes, gender inequalities, and a lack of women's empowerment (Naved & Persson, 2005). In addition, poverty, low education levels, and women's financial dependence contribute to women's vulnerability to IPV (Puri et al., 2010). These studies suggest that gender norms prioritizing women's domestic roles and reproductive functions contribute to violence against women.

The results of this study indicate a concerning pattern of increasing physical and emotional violence with age among women in South Asia, particularly in Afghanistan. This pattern is consistent with previous research (Ahinkorah et al., 2018; Hossain et al., 2022). One reason for the increase in violence with age could be due to the growing family size and financial needs that come with a longer marriage but without a corresponding increase in financial status to meet those needs. Another possible explanation is that aging is associated with a decline in physical attractiveness and the ability to conceive more children, which is highly valued in some South Asian societies. As women lose these attributes, they may become more susceptible to violence from their partners, who may perceive them as less valuable.

The results show that physical violence against women married before age 15 is more common than those who married at or after age 15 in India, Nepal, and Pakistan, but not in Afghanistan. This result is consistent with previous research that suggests that early marriage is a risk factor for IPV (Jejeebhoy et al., 2013; Kidman, 2017; Qamar et al., 2022; Raj et al., 2011). In Afghanistan, physical violence was most common against those married between the ages of 21 and 23. This finding is surprising and requires further investigation to understand why physical violence is most prevalent among women who were married at a later age compared to those who were married earlier in the country. This result may be attributed to cultural norms and expectations of marriage and gender roles in Afghanistan, which could differ from those in other South Asian countries. The decrease in the prevalence of IPV with age at first marriage in India, Nepal, and Pakistan

could be attributed to several factors, including increased education and empowerment of women, delayed childbearing, and improved access to health and social services. The sexual division of power posited in the theory of gender and power can explain the findings regarding early marriage and the increasing risk of IPV. Early marriage, particularly at a young age, may result in significant power imbalances within the marital relationship. Girls who marry at a young age may have limited agency and decision-making power, making them more vulnerable to IPV as their partners may exploit this power disparity (Kidman, 2017; Nasrullah et al., 2014; Shahabuddin et al., 2016).

Moreover, IPV is more prevalent in rural areas, which is consistent with past studies (Edwards, 2015; Hossain et al., 2022). This scenario may be due to several factors related to rural living conditions, including poverty, limited access to education and resources, and conservative social norms. Rural areas are often characterized by low socio-economic status and limited opportunities for women, which can exacerbate power imbalances in relationships and increase the likelihood of violence. Rural women were more likely to experience IPV than urban women due to a lack of available resources for support and protection (Rayhan & Akter, 2021). Domestic violence shelters are less readily available in rural areas than urban areas. Additionally, rural women may have limited access to law enforcement and judicial personnel, making it more difficult to report violence and hold perpetrators accountable. As a result, husbands in rural areas may feel less deterred from committing acts of IPV, leading to higher rates of violence against women in these areas. The sexual division of labor posited in the theory of gender and power also plays a role in explaining the higher prevalence of IPV in rural areas. In rural communities, gender roles may be more rigidly defined, with women expected to adhere to traditional domestic duties and men taking on dominant positions. The limited economic opportunities and lack of access to education in rural areas can exacerbate these power imbalances,

contributing to a higher incidence of violence against women who deviate from prescribed gender roles.

The findings also reveal that the prevalence of all forms of violence decreased as women's education levels and wealth index increased in all countries (except for emotional violence in Afghanistan and Nepal). The negative associations of women's education and family wealth with IPV are consistent with previous research that has shown that education and economic empowerment of women can reduce the risk of IPV (Ahinkorah et al., 2018; Atteraya et al., 2015; Hossain et al., 2022; Naved & Persson, 2005; Stöckl et al., 2021; Tadesse et al., 2022). Babu and Kar (2009) found in their study of married women in East India that older age, lower educational attainment, and lower household income are associated with the occurrence of domestic violence. Another study in Pakistan found that women's education and income levels were negatively associated with IPV (Ali et al., 2011). However, the prevalence of physical and sexual violence among higher-educated Afghan women was much higher than those of uneducated women in Nepal and Pakistan. Similarly, the prevalence of emotional violence was much higher among higher educated Afghan women than among uneducated women in India and Nepal. This finding highlights the need to understand the cultural and social factors contributing to higher prevalence rates of IPV among higher-educated Afghan women. The structure of cathexis, which refers to the emotional investments and attachments individuals have in maintaining traditional gender roles and power dynamics, can be observed in the results related to women's education and wealth index. As women gain education and economic empowerment, they may challenge the traditional roles and expectations placed upon them. This disruption of the structure of cathexis can lead to resistance and violence from male partners who are emotionally invested in maintaining their dominant position within the relationship and society (Underwood et al., 2023).

The findings also show that working women experienced higher rates of IPV compared to their non-working counterparts in Afghanistan, India, and Pakistan, which aligns with previous research (Ahinkorah et al., 2018; Krishnan et al., 2010; Stöckl et al., 2021; Weitzman, 2014). Another study conducted in India found that women who worked outside the home were at higher risk of domestic violence than non-working women (Srivastava et al., 2014). The increase in IPV linked to employment supports the idea of the relative resource theory, which suggests that women's economic achievements could undermine traditional gender roles. As women become more financially independent due to employment and income, they may seek to challenge established gender norms within the relationship, which could lead to marital conflict. This case may increase the likelihood of the women leaving the relationship, which could threaten the partners' social status. The results that indicate working women experience higher violence rates than non-working women reflect the concept of the sexual division of labor. In many South Asian societies, traditional gender norms dictate specific roles for men and women within the household and society. Women are often expected to fulfill domestic and caregiving responsibilities, while men are primarily responsible for breadwinning and decision-making outside the home. When women enter the workforce and challenge these traditional roles, it can disrupt the established balance of power, leading to conflict and violence to reassert patriarchal control and maintain the sexual division of labor.

In all countries, as the number of living children increases, the prevalence of violence against women also increases. The positive association between the number of children and violence against women could be attributed to factors such as the pressure to have male children and economic stress. In South Asian societies, the preference for male children over female children is deeply ingrained. Consequently, women who give birth to female children may face violence from their husbands or in-laws due to this cultural bias. The connection between the number of children and the prevalence of IPV can be

understood in the context of the sexual division of power. In societies where male children are highly valued, women may experience violence if they cannot produce sons or are unfairly blamed for giving birth to daughters. This situation highlights the patriarchal control over reproductive decisions and underscores how the sexual division of power influences the perpetration of IPV. Additionally, the pressure to bear and rear more children can significantly strain women's physical and mental health, which may lead to violence. The finding is consistent with previous research showing that women with more children are at a higher risk of IPV due to the increased stress and pressure associated with child-rearing (Atteraya et al., 2015; Hossain et al., 2022).

Regarding the impact of media exposure on violence against women, the findings indicate that exposure to FP through the media was associated with lower prevalence rates of violence in India, Nepal, and Pakistan but not in Afghanistan. This variation in the relationship between FP exposure and violence against women across these countries could be attributed to several factors, including cultural norms, gender inequality, and the influence of media. In South Asian societies, women's empowerment and gender equality are often linked to their reproductive health and rights, including access to FP. However, traditional gender roles and societal expectations regarding women's roles as caregivers and mothers often clash with modern values and ideals of gender equality. As a result, women who challenge these gender norms may be more vulnerable to violence and abuse. Moreover, the media's role in shaping societal norms and attitudes toward gender equality and women's rights cannot be ignored. Studies have shown that media exposure, mainly through television and radio, can positively impact women's empowerment and gender attitudes (Dasgupta, 2019). However, the finding that FP exposure via mass media was associated with higher rates of emotional violence in Afghanistan highlights the need for culturally sensitive interventions that consider the local context and social norms. The impact of media exposure on violence against women in Afghanistan can be explained

through the structure of cathexis. In societies where traditional gender norms are deeply rooted, exposure to FP through the media may challenge these norms and threaten the existing emotional investments in maintaining gender-based power structures. Consequently, the dissemination of FP messages via media could lead to an increase in emotional violence against Afghan women, as these messages are perceived as threats to the established societal order.

It is crucial to assess how the findings correspond with each of the four domains of the social-ecological model. The individual domain examines personal characteristics, experiences, and behaviors that can increase the risk of experiencing violence or act as protective factors. Early marriage, particularly before age 15, was associated with higher rates of physical violence against women in India, Nepal, and Pakistan. Early-married girls may face limited agency and decision-making power, significant age gaps with their partners, and a lack of social support, making them more vulnerable to IPV. On the other hand, higher education and economic empowerment serve as protective factors against IPV (Nabaggala et al., 2021; Stöckl et al., 2021). Educated women with financial resources experience lower rates of violence, as education empowers them with knowledge, awareness, and agency. Economic independence reduces dependency on abusive partners and acts as a deterrent against violence. Interventions should focus on enhancing women's access to education and economic opportunities to reduce IPV.

In this study, the finding that working women experience higher rates of violence than non-working women highlights the impact of women's employment on IPV. Employment may disrupt traditional gender roles and power dynamics, triggering violence as partners seek to reassert dominance and protect their masculine identity (Miall et al., 2023; Stöckl et al., 2021). The strains of balancing work and domestic responsibilities can also lead to increased stress, which may manifest as violence (Kaukinen, 2020). Societal disapproval of working women can exacerbate tensions within

relationships. Interventions should aim at alleviating gender stereotypes, promoting work-life balance, and providing support systems such as family counseling programs to help couples navigate changing dynamics in relationships.

The relationships domain explores factors in interpersonal relationships that may impact IPV. The present study reveals that factors related to marital relationships and family dynamics played a significant role in shaping the prevalence of IPV. Specifically, early marriage and the number of living children were highlighted as critical relationship-level factors. Early marriage can lead to significant power imbalances within the marital relationship (Kidman, 2017). Young brides may lack life experience and decision-making power, making them more vulnerable to control and abuse by their partners. Additionally, marriages with substantial age gaps may result in older husbands exerting greater control over their younger wives, increasing the risk of violence against women (Qamar et al., 2022).

The pressure to have male children, particularly in South Asian societies, can also contribute to violence within relationships. In patriarchal settings where male offspring are highly valued (Agha, 2018; Das Gupta et al., 2003), women who give birth to daughters may face violence from their husbands or in-laws due to their preference for sons. Moreover, the association between the number of living children and IPV suggests that the strain of bearing and raising multiple children can significantly impact women's physical and mental health, leading to higher family violence rates.

The community domain examines broader community or neighborhood factors that can influence IPV. Community-level factors, including rural and urban distinctions and the impact of media exposure, were found to shape the prevalence of IPV. In South Asian countries, rural areas often uphold different social norms and cultural practices than urban areas (Petesch & Badstue, 2020). These norms may perpetuate traditional gender roles and power imbalances in relationships, contributing to a higher prevalence of violence

against women. Limited access to education, resources, and economic opportunities in rural areas can exacerbate power imbalances and increase women's vulnerability to abuse (Sabri et al., 2018). The limited available support systems, like domestic violence shelters and legal services, hinder women from escaping abusive situations in rural communities.

The influence of media exposure to FP on IPV prevalence falls within the community domain. Media significantly impacts societal norms and attitudes, especially regarding gender roles and FP practices. However, in countries deeply rooted in traditional gender norms, such as Afghanistan, exposure to FP messages through media may challenge these norms and disrupt the established order. As a result, there may be resistance to FP initiatives, leading to increased violence against women. Media campaigns should be culturally sensitive, considering the local context and social norms. By promoting positive and respectful portrayals of gender roles and FP, the media can support efforts to reduce IPV.

The society domain of the social-ecological model investigates broader societal factors influencing IPV. Cultural norms, gender inequality, and gender expectations were found to shape the prevalence of IPV and the impact of education and media exposure on violence against women. The variation in IPV prevalence among South Asian countries can be attributed to differences in cultural norms and expectations surrounding gender roles, marriage, and family dynamics. Societal norms that perpetuate gender inequality and endorse traditional power structures contribute to higher rates of violence against women (Tonsing & Tonsing, 2019). In societies where early marriage and the pressure to have male children are common, this may increase women's vulnerability to IPV, as cultural norms prioritize male children and undervalue women's status within families.

This study's results revealing the inverse relationships of women's education levels and wealth index with IPV prevalence underscore the importance of gender inequality in influencing violence against women. Education and economic empowerment are crucial

in promoting gender equality and reducing women's vulnerability to IPV (Rahman et al., 2013; Stöckl et al., 2021). In societies with limited access to education and economic opportunities, women may be more dependent on their partners, increasing their susceptibility to abuse. Conversely, educated and economically empowered women have the means and agency to challenge abusive behaviors and seek support when facing violence. Furthermore, the differing impact of media exposure to FP on IPV prevalence across countries reflects the influence of the society domain. Media significantly shapes societal norms and attitudes toward gender equality and women's rights (Carlyle et al., 2008; Narayana & Ahamad, 2016). In societies deeply rooted in traditional gender norms, exposure to FP messages may be met with resistance and lead to increased emotional violence against women, as observed in Afghanistan.

5.3.2 Discussion: IPV and Socio-economic Factors Associated with Contraceptive Use

A complex relationship exists between IPV and contraceptive use among married women in South Asia. In Afghanistan, women who experienced physical, sexual, emotional, and combined types of violence and controlling behaviors by husbands were more likely to use modern contraceptive methods in both bivariate and multivariate contexts. This may be because Afghan women who experience violence are more likely to want to avoid future pregnancies or to exert greater control over their reproductive health. Additionally, Afghan women who experience violence may be more inclined to seek out FP services to protect themselves and their children from the adverse effects of violence. They appear to possess a stronger desire to prevent pregnancy in unfavorable environment (Alio et al., 2009).

Similarly, women who experienced physical violence were more likely to use modern contraceptive methods in India, a result that closely aligns with the findings of Singh and

Shukla (2017), who discovered a positive association between physical violence and the use of any contraceptive methods. On the other hand, all three forms of IPV were found to have no association with modern and traditional contraceptive methods in Nepal, which support the previous finding by Acharya et al. (2019). However, Acharya et al. (2019) reported a positive association between physical violence and sterilization, a modern contraceptive method that was not specifically analyzed in the scope of this study.

However, in India, women who experienced sexual violence and controlling behaviors by husbands were less likely to use modern contraceptive methods, even after controlling for other variables, which may be because these women feel more vulnerable and may not have the autonomy to make their own reproductive health decisions. This is quite similar to the previous study by Paul and Mondal (2022), which found that women who experienced any form of IPV and controlling behaviors by husbands were less likely to use modern contraceptive methods in India. The Health Belief Model suggests that women may feel disempowered due to violence and controlling behaviors, and thus feel helpless to take actions such as using contraceptive methods. Women who have experienced IPV and control by their husbands may perceive a higher susceptibility to harm if they assert their reproductive autonomy and choose contraception. Even if they understand the benefits of using contraception, they may believe that the risks associated with asserting their reproductive autonomy within an abusive relationship outweigh the benefits.

At the bivariate level, the lower prevalence rates of any and modern contraceptive methods among women under 25 years of age in all four countries may be related to various factors, such as young women not achieving their desired family size, lack of information about contraceptive methods, social norms that discourage contraceptive use, and limited access to FP services. The higher prevalence rates of any and modern contraceptive methods among women aged 35-44 in all four countries could be attributed

to the fact that women in this age range are more likely to have completed their desired family size and may have a greater need for FP to prevent unintended pregnancies. Moreover, women aged 35-44 may have more decision-making power and autonomy within their households, making it easier for them to negotiate contraceptive use with their partners. This finding is consistent with a study conducted in Pakistan, which found that women over 35 were more likely to use contraception (Jabeen et al., 2011). However, the variation in age-specific CPR and modern CPR between countries also suggests the influence of cultural and contextual factors. For instance, the higher proportion of modern contraceptive use among women aged 40-44 in India, Nepal, and Pakistan could be related to the availability and accessibility of modern contraceptive methods in these countries and the government's focus on improving FP services. At the multivariate level, the finding that the likelihood of women using modern contraceptive methods increased with age in India and Nepal suggests that older women have more exposure to information about contraception, and they may have had more reproductive experience, which increases their motivation to use contraception to limit family size. However, it is essential to note that this does not necessarily mean that younger women are not interested in using contraception, but instead suggests they may be delaying its usage until they attain their desired family size.

In all countries except Pakistan, as the age at first marriage increased, women were less likely to practice modern contraception, even after controlling for other variables. In India and Nepal, where more than half of the women who married before the age of 18 practiced contraception suggests that early marriage does not necessarily imply a lack of access to contraceptives but rather a complex interplay of factors that shape women's reproductive health choices. However, among Afghan women who were married early, the low prevalence of contraceptive use can be attributed to the country's cultural and religious norms and limited access to reproductive health services. Early marriage in

Afghanistan is often seen as a way to protect a girl's chastity and honor and is supported by traditional norms and practices. This can limit women's autonomy and decision-making power regarding their reproductive health choices, including the use of contraceptives (Shahabuddin et al., 2016).

At the bivariate level, urban women in all four countries showed higher CPR for any and modern methods compared to rural women. However, at the multivariate level, urban women in Afghanistan, Nepal, and Pakistan were more likely to use modern contraceptive methods compared to rural women, aligning with previous studies (Lamichhane, 2018; Osmani et al., 2015; Rasooly et al., 2015), but the opposite was observed in India. Urban women often have more education and employment opportunities, leading to greater autonomy in decision-making related to their reproductive health. Afghanistan had the lowest CPR for any method among urban and rural women across all countries, possibly due to a lack of access to FP services and limited female education and employment opportunities. The significant urban-rural differential in CPR in Afghanistan may also reflect the challenges of providing reproductive health services in remote rural areas. As opposed to the bivariate result, the higher modern contraceptive use among rural than urban Indian women in the multivariate result can be attributed to various factors, including the implementation of FPP targeting rural areas, improved availability and accessibility of healthcare facilities, and enhanced awareness about modern contraceptives and their availability.

Education plays a vital role in contraceptive use among married women in South Asia. At the bivariate level, women in Afghanistan and Pakistan with higher levels of education were found to have higher rates of contraceptive use, which is consistent with previous research conducted in these countries (Jabeen et al., 2011; Osmani et al., 2015; Rasooly et al., 2015). This can be attributed to the empowering effect of education on women, enabling them to make informed decisions about their reproductive health and equipping

them with the knowledge and skills required for effective contraceptive use. On the other hand, better-educated women in India and Nepal have lower CPR in the bivariate context, likely due to this group's younger age structure. Many of these educated women had recently married, prompting them to prioritize childbirth before practicing FP. At the multivariate level, educated women were more likely to use modern and traditional contraceptive methods in all four countries. This suggests that women with higher levels of education better understand the importance of practicing contraception, leading to broader adoption of contraceptive methods for FP for reproductive health purposes.

In India and Nepal, working women were more likely to use modern contraceptive methods than non-working women, both at the bivariate and multivariate levels. Previous research has shown that women's work status significantly predicts their access to and use of FP services in South Asia (Jabeen et al., 2011; Lamichhane, 2018). Furthermore, at the multivariate level, working women in India, Nepal, and Pakistan were also more likely to use traditional contraceptive methods. Working women tend to have better access to information and resources that enable them to make decisions about their reproductive health. Moreover, their employment often correlates with increased autonomy and decision-making power within their households, which may lead to greater control over their reproductive health choices.

In all four countries, women were more likely to use modern and traditional contraceptive methods as they had more children in both bivariate and multivariate contexts. One possible explanation could be the social and cultural norms that dictate that women should have children soon after marriage. According to the TGP, these norms reflect an underlying power dynamic wherein women's reproductive decisions are often influenced by societal expectations and patriarchal structures. Within this framework, women may face pressure to conform to traditional gender roles, including early marriage and childbirth, which can limit their autonomy and decision-making authority regarding

FP. In these countries, having children is often considered a priority and an essential part of a woman's role in the family. This finding is consistent with previous studies in South Asia (Lamichhane, 2018; Osmani et al., 2015; Rasooly et al., 2015) and can be attributed to the fact that women who have more children may experience greater social and economic pressures to limit their family size. Furthermore, as they have reached their desired family size, they often adopt contraceptive methods to avoid further childbearing.

On the other hand, the early adoption of contraception among Nepalese women without any child (any CPR: 20.8%, modern CPR: 11.5%) could be attributed to several factors, such as the country's robust FPP, community-based health services, and government policies that promote FP. It is also due to Nepal (58.4%) having a lower percentage of women with no children who want to have another child soon than India (66.8%) and Pakistan (89%) (International Institute for Population Sciences (IIPS) & ICF, 2017; Ministry of Health (Nepal) et al., 2017; National Institute of Population Studies (Pakistan) & ICF, 2019). The "Smart Couple" Family Planning Campaign launched in 2015 was one of the initiatives taken by the Nepalese government to promote FP and encourage couples to use contraceptives (Brunson, 2020). This campaign has successfully raised awareness about FP and promoted the use of contraceptives among Nepalese couples.

Women from wealthier families were more likely to use modern and traditional contraceptive methods in all four countries, even after controlling for other variables. The finding that women from the poorest household wealth quintiles have the lowest prevalence rates of any and modern contraceptive use in all four South Asian countries is consistent with previous research on the association between poverty and access to healthcare and FP services in South Asia (Ali et al., 2021; Aslam et al., 2016; Lamichhane, 2018; Osmani et al., 2015; Rasooly et al., 2015). Poverty can restrict women's access to healthcare and FP services and the affordability of contraceptives, limiting their ability to

use contraceptive methods effectively. On the other hand, the higher prevalence rates of any contraceptive method among women from the wealthiest families in all four countries can be attributed to their superior access to health services and their financial ability to purchase contraceptives, allowing them to make more informed choices regarding their reproductive health.

Women exposed to FP messages via mass media were more likely to use modern contraceptive methods than those without exposure in all four countries, even after controlling for other variables. This positive association finding supports the results of previous studies conducted in Afghanistan (Achyut et al., 2016; Ajmal et al., 2018) and India (Navaneetham & Dharmalingam, 2002; Osmani et al., 2015) that examined similar variables. Exposure to FP messages through media is crucial in increasing the prevalence rate of any and modern contraceptive methods in South Asian countries (Lamichhane, 2018; Nguyen & Neal, 2021; Osmani et al., 2015). According to the socio-ecological model, media campaigns can influence women's behaviors by shaping attitudes, beliefs, and perceptions of FP at the individual level. By providing accurate information and portraying contraceptive use positively, FP messages through media can encourage individuals to adopt contraceptive methods and engage in FP discussions with their partners. Through community-wide exposure to FP messages, mass media campaigns can foster a culture that values reproductive health and encourages contraceptive uptake. At the societal level, these campaigns can advocate for policy changes and promote investments in FPP and services.

In India, the higher prevalence rates of any and modern contraceptive methods among women who had access to FP messages through the media can be attributed to the widespread availability of media and the diverse range of channels through which FP messages are disseminated. A recent study by Pakrashi et al. (2022) suggests that television campaigns significantly impact increasing awareness and intention to use

contraception among non-users, positively affecting the utilization of various modern FP methods in India. On the other hand, the multivariate findings also demonstrate that the impact of FP messages through media on modern contraceptive use is more pronounced in Afghanistan compared to other countries. This may be due to Afghanistan's relatively low literacy rate and limited access to other sources of FP information. In such a context, FP messages delivered through media platforms play a critical role in increasing awareness and promoting the utilization of contraceptive methods among Afghan women.

This study reveals notable differences in CPR between countries with varying religious majorities. In India and Nepal, where the majority of the population adheres to Hinduism, CPR is higher compared to Afghanistan and Pakistan, where the population is predominantly Muslim. This observation underscores the influence of religion at the country level in cross-country comparisons. However, within each of these countries, the majority of the population adheres to the same religion, rendering religion an inappropriate variable for within-country analysis. The relationship between FP and Islam in Muslim-majority countries has been a contentious subject. These countries typically exhibit lower CPR compared to the global average. Part of this discrepancy can be attributed to the perception among some Muslims that FP services are employed to curb population growth (Najimudeen, 2020). Additionally, Islamic principles emphasizing deference to God's will and the avoidance of contraceptive use are frequently cited as factors influencing contraceptive use (Agha, 2010). The perspectives of religious leaders may also play a role in the variation in contraceptive prevalence in Muslim-majority societies. For example, previous research indicates that a substantial portion of Pakistan's population believes that religious leaders disapprove of contraception (Ali & Ushijima, 2005). Given the significance of religious leaders' opinions in Pakistani society, this is likely to impact people's attitudes toward FP policies and the use of FP (Azmat, 2011;

Nasir & Hinde, 2011; Shaikh et al., 2013). Religious beliefs would also influence FP practices in Afghanistan, which has a predominantly Muslim population.

5.3.3 Discussion: IPV and Socio-economic Factors Associated with Unmet Need for FP

The findings suggest that the relationship between IPV and unmet need for FP varies across South Asian countries, highlighting the complex interplay of socio-cultural factors and gender norms that influence women's reproductive health decision-making. For instance, at the multivariate level, Indian women who experienced emotional violence and controlling behaviors by husbands and Pakistani women who experienced physical and emotional violence may have limited agency to negotiate contraceptive use with their partners, leading to a higher unmet need for spacing. Similarly, Indian women who have experienced sexual violence exhibit a higher unmet need for limiting. In accordance with the Health Belief Model, they perceive themselves as more susceptible to unwanted pregnancies due to their traumatic experiences and fear the severe consequences of such pregnancies within abusive relationships. While they may recognize the benefits of contraceptives, the model underscores the significant perceived barriers they face, primarily the power imbalances that hinder their ability to negotiate contraceptive use with abusive partners. This results in reduced self-efficacy, leading to their avoidance of contraceptives and contributing to the higher unmet need.

In contrast, the lower unmet need for spacing and limiting among women who experienced physical and emotional violence in Afghanistan, both at the bivariate and multivariate levels, could be attributed to cultural and religious practices that promote larger family sizes. Another explanation could be that women in abusive relationships seek contraception to avoid bringing a child into an unsafe environment. This aligns with a prior study by Dadras et al. (2022) in Afghanistan, conducted in a patriarchal society

where most women face illiteracy, poverty, and human rights violations. Such circumstances further limit their autonomy in decision-making and increase the risk of IPV. It is possible that cultural norms, gender roles, and power dynamics within households differ across these countries and may influence how gender-based violence affects women's access to FP services. Differences in the availability and quality of FP services across these countries may also play a role.

As women aged, they were less likely to have unmet need for spacing in all four countries at both bivariate and multivariate levels and unmet need for limiting in Afghanistan, India, and Nepal at the multivariate level. The finding that the total unmet need for FP decreases with age is consistent with previous studies conducted in low- and middle-income countries (Wulifan et al., 2015) and Pakistan (Ahmed et al., 2013). One possible explanation for this could be attributed to the fact that they may have already completed their desired family size and thus do not require additional FP services. Additionally, as women age, they may have better access to healthcare services and FP methods due to their increased knowledge and experience with contraceptive use. Across the countries, The lowest total unmet need among women of all ages (except those below 25 years) in India could be attributed to the country's vital FP programs and policies such as the Beti Bachao, Beti Padhao (Save Daughter, Educate Daughter) campaign, aimed at improving the status of girls in society and increasing their enrollment and retention rates in schools (Gupta et al., 2018; Parmar & Sharma, 2020). The Indian government has also implemented several programs to improve access to healthcare services for women, such as the National Health Mission (Ali et al., 2020) and the Janani Suraksha Yojana (Powell-Jackson et al., 2015), which provide free or subsidized healthcare services and cash incentives to women for availing maternity care. Furthermore, at the multivariate level, age at first marriage was positively associated with unmet need for spacing and limiting in all four countries, with the effect being more pronounced in India. The positive

relationship between age at first marriage and unmet need for FP is consistent with past studies (Hailemariam & Haddis, 2011; Kumar & Singh, 2013).

There is a contrast in the likelihood of women having unmet need between urban and rural areas at both bivariate and multivariate levels. At the bivariate level, the total unmet need for FP was higher among women residing in rural areas than in urban areas in all four countries. Past studies have consistently shown a significant urban-rural divide in access to FP services in South Asia, with women living in rural areas experiencing a higher unmet need than their urban counterparts (Ahmed et al., 2013; Asif & Pervaiz, 2019). This may be due to several factors, including limited availability of health facilities, inadequate infrastructure, and cultural barriers. In South Asian societies, rural women often face more restrictions regarding mobility and decision-making power, further limiting their access to information and services related to FP. However, at the multivariate level, rural women in India had a lower unmet need for limiting. This indicates that the FPP has successfully expanded its influence among rural women in India, as evidenced by the greater likelihood of rural women in the country using modern contraceptive methods than their urban counterparts.

The relationship between education and unmet need for FP varies across countries. Prior research has found that women's education levels are negatively associated with unmet need (Ahmed et al., 2013; Nazir et al., 2015; Wulifan et al., 2015). This study found that at both bivariate and multivariate levels, higher educated women had lower unmet need for spacing and limiting in Afghanistan, possibly due to the implementation of policies and programs aimed at increasing access to education and FP services for women in recent years. Conversely, better-educated women reported higher odds of unmet need for spacing and/or limiting than those with no formal education in India, Nepal, and Pakistan after controlling for other variables. The positive association between women's education and unmet need may be partially attributed to the influence of ethnic

and caste diversity, which is particularly significant in the diverse population of India. The intricate mixture of various cultures, languages, and social groups in India creates a unique environment where the interplay between education and traditional factors can result in different perceptions and approaches to FP.

Working women had lower total unmet need in all four countries at the bivariate level, and this remains significant at the multivariate level, particularly in India, corroborating previous research conducted in India and Nepal (Lamichhane, 2017; Singh et al., 2020). Working women generally have some economic independence, allowing them to make decisions about their reproductive health, including FP. As more women enter the labor force and gain autonomy, societal norms regarding FP may shift. The idea of spacing or limiting pregnancies to balance work and family life may become more accepted and practiced. In certain instances, working women may encounter workplace discrimination during pregnancy (Byron & Roscigno, 2014), leading them to utilize contraception to control pregnancy, thus contributing to a lower overall unmet need for FP.

At the bivariate level, as women had more children (except for those with no children), unmet need for spacing decreased dramatically in all four countries, whereas unmet need for limiting increased tremendously in all countries except Nepal. This trend suggests that as families grow, the demand for birth control rises, and women may seek to limit the number of children to ensure their well-being and that of their families. At the multivariate level, women were more likely to have unmet need for limiting in all four countries and unmet need for spacing in Afghanistan, India, and Pakistan. These findings align with prior research showing a positive relationship between the number of living children and unmet need for FP in South Asian countries (Ahmed et al., 2013; Nazir et al., 2015; Wulifan et al., 2015). It is plausible that women with more living children are more motivated to prevent further pregnancies, as they are likely to have achieved their desired

family sizes. However, restricted access to FP services or a scarcity of contraceptive supplies may hinder their ability to utilize contraception effectively.

The finding that women from wealthier households generally had lower unmet need for FP at both bivariate and multivariate levels is consistent with previous studies conducted in South Asia (Ahmed et al., 2013; Asif & Pervaiz, 2019; Kumar & Singh, 2013). This is likely because women from wealthier households have better access to education, healthcare services, and information on FP, as well as greater decision-making power within the household, which enables them to make informed choices about their reproductive health. Conversely, women from poorer households may face greater financial constraints in accessing FP services and may have less autonomy in decision-making.

Exposure to FP through media reduces total unmet need (at the bivariate level)w and unmet need for spacing (at the multivariate level) among women in Afghanistan and India. Previous research supports this finding by highlighting the influence of media exposure in reducing unmet need for FP (Asif & Pervaiz, 2019; Letamo & Navaneetham, 2015; Solanke, 2016; Vohra et al., 2014). Women exposed to media campaigns experience increased awareness and knowledge about contraceptive methods and FP services. This group of women would gain an understanding of the significance of FP for maternal and child health, resulting in positive attitudes towards contraception and consequently increasing its utilization while decreasing unmet need for FP. Additionally, mass media helps diminish the stigma associated with contraception and FP methods, facilitating more open discussions about these issues among women, their partners, and family members.

5.4 Policy Implications and Recommendations

The findings of this study have significant implications for policymakers, health professionals, and other stakeholders involved in promoting reproductive health in South Asian countries. The contrasting results between countries highlight the need for a contextualized approach that considers the unique cultural and social factors that influence IPV and contraceptive use in different settings. In South Asia, several initiatives have been aimed at promoting gender equality and preventing violence against women. For example, the Indian government launched the Beti Bachao, Beti Padhao (Save the Daughter, Educate the Daughter) campaign in 2015 to promote girls' education and gender equality (Gupta et al., 2018; Parmar & Sharma, 2020). Similarly, the Pakistani government has implemented the Violence Against Women Center initiative, which provides free legal and psychological support services to survivors of violence.

In Afghanistan and India, women who experienced physical violence in the past 12 months were more likely to use modern methods than nonuse. This suggests that women who experienced violence may be more motivated to prevent pregnancy and protect their health. However, the opposite was found in India regarding traditional methods. It is essential to recognize that modern and traditional methods have different efficacy rates and side effects, and women may choose one method over the other based on their personal preferences and circumstances. Therefore, it is crucial to provide women with accurate information about all available contraceptive options and support them in making informed choices.

The findings also indicate that sexual and emotional violence in the previous 12 months had contrasting effects on contraceptive use in Afghanistan and India. This underscores the need for interventions that address the specific forms of violence and their impact on women's reproductive health in each context. Women who experience sexual violence may require specialized support and care to overcome the trauma and

205

regain control over their bodies. Besides, the study suggests that husbands' controlling behaviors impact contraceptive use, with Afghan women who experienced controlling behaviors having higher odds of using modern and traditional methods than nonuse. However, the opposite is true for Indian women. Husbands' controlling behaviors are often overlooked in discussions of IPV, but their impact on women's health and well-being should not be underestimated. Interventions should be developed to support women who experience husbands' controlling behaviors and provide them with resources and tools to protect themselves and their health.

Women's empowerment programs in Afghanistan are critical to promoting gender equality and addressing women's challenges, such as gender-based violence, discrimination, and limited access to education and healthcare. In Afghanistan, women's empowerment programs have been implemented by various organizations, including international NGOs, the Afghan government, and civil society groups, to address this problem and improve women's personal and social security. For instance, the Elimination of Violence Against Women Law was enacted in 2009 and criminalizes several forms of violence against women, including forced marriage, rape, and domestic violence (Hakimi, 2020). The law also establishes a commission to oversee its implementation and provides for the establishment of shelters for victims of violence. Besides, NGOs such as the Afghan Women's Network work to improve the lives of Afghan women through advocacy, capacity building, and networking. The organization provides training and support to women's groups and advocates for policies and programs that promote women's rights. Despite these efforts, further measures are required to address the high prevalence of IPV in Afghanistan effectively.

Preventing IPV could significantly reduce the unmet need for FP, particularly in India and Pakistan. As South Asia has the highest regional rate of IPV in Asia, urgent attention is required to address this issue and simultaneously tackle the unmet need for FP.

Adopting empowerment and participatory approaches, such as microfinance programs with gender-equality training and the Stepping Stones training program (a training package on gender, HIV, communication, and relationship skills), has proven effective in reducing gender inequality and preventing IPV in South Africa (WHO, 2010). To address IPV and its implications on FP in South Asia, it is crucial to adapt and implement successful programs like the Stepping Stones training program, which has been adapted for use in India. Recognizing and supporting the implementation of this program by government authorities can make a significant difference in preventing IPV and promoting gender equality in the region. Furthermore, other South Asian countries can adopt and tailor the Stepping Stones training program to suit their specific contexts. Collaboration between countries can facilitate sharing best practices and experiences, accelerating progress towards the UNFPA's goal of achieving "zero unmet need for contraception by 2030".

In all countries, efforts to reduce the unmet need for spacing and limiting should be prioritized, particularly among women who have experienced IPV. Past studies have suggested that FPP which offers a wide range of contraceptive methods and targets women with different reproductive intentions and needs, can effectively reduce unmet need for FP (Bongaarts, 2014). FPP should ensure that women know the potential benefits and risks of each method. Healthcare providers should routinely assess women's contraceptive needs and preferences and provide various options, including counseling and support for those who have experienced violence. Additionally, programs should aim to address the cultural and social barriers that may prevent women from accessing FP services, particularly in areas where traditional methods are preferred. Policymakers and healthcare providers need to recognize that IPV can have complex and varied impacts on women's contraceptive use and that interventions to address IPV must be tailored to specific contexts and should not undermine women's reproductive rights. Community-

based approaches that involve local health workers have shown promise in improving access to and utilization of FP services among women with different socio-economic backgrounds (Najmi et al., 2018; Scott et al., 2015).

Various interventions have been implemented in South Asian countries, utilizing primary health centers and block-level health systems as platforms to address gender-based violence. These interventions focus on training frontline healthcare workers and involving community health workers to combat IPV effectively. In Sri Lanka, a program was introduced to develop a screening tool for IPV at the community level (Pande et al., 2017). The intervention program advocates for the integration of IPV screening into routine healthcare practices. By incorporating IPV screening as part of standard healthcare protocols, patients may feel more at ease disclosing their experiences and seeking assistance. These successful interventions can serve as models for other South Asian countries, which can adapt and tailor similar programs to suit their unique contexts.

Policymakers and healthcare providers should also prioritize addressing gender-based violence and control by husbands in intimate relationships. The study found that controlling behaviors by husbands were associated with lower odds of contraceptive use among Indian women but higher odds among Afghan women. It is crucial to provide support services and interventions for victims of IPV, including counseling, legal aid, and economic empowerment programs, to empower women to make decisions about their reproductive health. Policymakers need to recognize that while controlling behaviors may promote contraceptive use in some contexts, they are also a form of abuse that can have serious negative consequences for women's physical and mental health. Several interventions have been centered at hospitals, either established by the government or initiated by NGOs. In South Asian countries like India, Bangladesh, and Nepal, the government has set up one-stop crisis centers to offer services to survivors of gender-based violence, including IPV. Some countries have even established toll-free helplines

to provide immediate help and support to survivors. For instance, Nepal's One-Stop Crisis Management Centers program, initiated in 2011, was the first interministerial, multisectoral, and hospital-based government initiative to address gender-based violence in the country (Pande et al., 2017).

The study shows that urban-rural disparities in contraceptive use and unmet need for FP vary by country. The results suggest that rural women in Afghanistan, Nepal, and Pakistan face significant barriers to accessing modern contraception, and efforts should be made to increase access to FP services in these areas, including mobile clinics, outreach programs, and community-based education initiatives, to increase awareness and uptake of contraceptive methods. The finding that rural women were less likely to use modern methods of contraception than nonuse in all countries except India, but were more likely to do so if they had exposure to FP messages through mass media, suggests that targeting mass media campaigns to rural areas could be an effective strategy to increase FP uptake among rural women. According to Spring et al. (2016), the Nepalese government has initiated several programs to address such issues, including distributing free contraceptives and training healthcare providers to deliver FP services in remote areas. Another important initiative is the Safe Motherhood Program, which focuses on reducing maternal mortality and improving the health of women and children (Baral & Vashisth, 2013). The program includes components such as maternal and child health services, nutrition services, and FP services. However, further efforts are required to overcome the barriers that prevent rural women from accessing FP services.

The Mahila Swasthya Adhikar Manch (Women's Health Rights Forum) initiative in India aims to empower rural women and improve their access to healthcare services (Asian-Pacific Resource & Research Centre for Women, 2010). The program aims to help women recognize their rights to health and hold the authorities accountable for ensuring their rights are respected. The program provides education and training to women on their

health rights and how to advocate for themselves. Based on the evidence that the Mahila Swasthya Adhikar Manch has led to higher odds of modern contraceptive use and lower odds of unmet need for limiting among rural women in India, other South Asian countries such as Afghanistan, Nepal, and Pakistan could implement similar programs. These countries share similar challenges related to women's access to health services and FP. By enabling rural women to recognize their entitlements as rights holders and to identify the duty bearers who are accountable to ensure their right to health, such programs could empower women to take control of their reproductive health and increase the uptake of modern contraception.

The study highlights the positive impact of education on contraceptive use in all four countries. Women with at least primary education, especially those with higher education, show higher odds of using modern and traditional contraceptive methods. However, the study found variations in the impact of education on contraceptive use across countries. In Pakistan, education had a stronger association with modern contraceptive use, while in Afghanistan, education had a more significant impact on traditional contraceptive use. Additionally, the study shows that traditional contraceptive methods are still widely used in South Asia, particularly in Nepal and Pakistan. Policymakers and healthcare providers should focus on increasing access to and awareness of modern contraceptive methods while respecting the preferences and choices of women who opt for traditional methods. By implementing targeted educational initiatives and promoting a range of contraceptive options, countries in South Asia can work towards reducing unmet need for FP and improving reproductive health outcomes for women.

Policies that support women's participation in the labor force should be implemented and expanded to encourage increased access to modern contraceptive methods. The study found that working women were more likely to use modern contraceptive methods than non-working women in India and Nepal, highlighting the need for policies that support

women's economic empowerment and access to employment opportunities. Interventions should target both working and non-working women to increase the likelihood of using modern methods of contraception. This could include promoting awareness about the benefits of modern methods and providing access to resources such as FP services.

Furthermore, the study underscores the importance of addressing economic inequality to improve reproductive health outcomes. The findings suggest that women from wealthier households in all four countries are more likely to use modern and traditional contraceptive methods than nonuse, with the odds being the highest among women from the richest households. Moreover, women from wealthier households are less likely to have unmet need for FP. Therefore, programs aimed at improving women's economic status through increased income opportunities and access to financial resources could significantly improve reproductive health outcomes in the region. Given the impact of wealth on contraceptive use and unmet need for FP, policies should be implemented to reduce the economic barriers to accessing contraception, particularly for women from lower socio-economic backgrounds. This could include subsidies for FP services and initiatives to reduce the cost of modern contraceptives.

Next, the study highlights the importance of promoting access to mass media to increase knowledge and awareness about FP methods. The positive association between exposure to mass media and the likelihood of using both modern and traditional methods of contraception and the negative association between media exposure and unmet need for FP suggest that increasing investment in mass media campaigns could lead to an increase in FP uptake and reduction of unmet need for FP in South Asia. Policymakers and healthcare providers should collaborate with media outlets to increase the dissemination of FP messages, especially in Afghanistan, where the impact of mass media on modern contraceptive use was found to be the greatest. This can be achieved by producing and airing informative and engaging television and radio programs, creating

social media campaigns, and distributing printed materials such as brochures and pamphlets. In the past few decades, mass media campaigns were proven successful in promoting FP and changing contraceptive behaviors in Bangladesh (Islam & Hasan, 2000) and Nepal (Barber & Axinn, 2004). In addition to mass media campaigns, healthcare providers can integrate FP messages into their services, such as during antenatal and postnatal care and routine check-ups. This can help ensure that women receive accurate and timely information on FP and increase the likelihood that they will adopt modern methods of contraception. Furthermore, these advertisements could also incorporate information promoting positive gender roles to prevent gender-based violence.

In Afghanistan, women with higher education and wealthier backgrounds perform worse in FP practices (lower CPR and higher total unmet need) than their lesser educated and poorer counterparts from the other three countries, especially India. This can be attributed to the country's low status of women, driven by deeply ingrained gender inequality, limited autonomy, and restrictive socio-cultural norms. Despite higher education, these women may lack practical knowledge and access to resources related to FP due to inadequate coverage of FP education in higher education curricula. Moreover, male-dominated decision-making in FP further limits women's autonomy, perpetuating their low status and hindering their ability to make independent reproductive health choices. Addressing this issue requires comprehensive efforts to promote gender equality, raise awareness, and improve access to FP services. Afghanistan can enhance FP practices and improve the overall well-being of its women population by empowering women, providing education and employment opportunities, and fostering an inclusive and supportive environment.

5.5 Contributions of Study

The present study significantly contributes to a more comprehensive understanding of FP practices in South Asian countries. By addressing research gaps and limitations identified in previous studies, the study provides valuable insights into the factors influencing FP practices in the region. It specifically explores the relationship between IPV and FP practices, shedding light on the unique dynamics and factors shaping this association in South Asia. The study emphasizes the importance of understanding the experiences and needs of women in relation to IPV and FP practices. This contributes to a better understanding of the barriers and challenges faced by women seeking to exercise their reproductive rights within the context of IPV.

Moreover, the study fills a gap in comparative research by examining the determinants of FP practices across developing countries in South Asia. By considering variations and similarities in these factors, the study enhances the understanding of the contextual differences and similarities in FP practices, offering valuable insights into successful strategies and barriers within the region. Furthermore, the study investigates the impacts of combination types of IPV and controlling behaviors on FP practices, providing insights into their specific influence on women's sexual and reproductive health practices in the South Asian context.

The findings of this study have practical implications for policymakers, stakeholders, and researchers. They contribute to the formulation of targeted interventions and policies that address the specific challenges faced by women in abusive relationships, promote gender equality, and improve reproductive health in the region. Overall, the study advances knowledge in the field, offering valuable insights into the intersection of IPV and FP practices and providing a foundation for further research and action in South Asian countries.

5.6 Strengths and Limitations of Study

The study has several notable strengths. Firstly, it adopts a regional perspective by analyzing data from multiple countries in South Asia. This approach provides a comprehensive understanding of IPV within the region's unique cultural, social, and economic contexts, through cross-country comparison and within-country differences. Secondly, the study benefits from using representative data collected through the reliable DHS program. The standardized sampling designs and procedures employed by DHS ensure the data's representativeness and enhance the generalizability of the findings. Additionally, the study focuses on married or in-union women of reproductive age who responded to the domestic violence module. This targeted approach enables a focused analysis of their experiences, allowing for more precise interventions and policies. Furthermore, the study is based on a well-established theoretical framework and an extensive review of existing literature, providing a solid foundation for its findings and conclusions.

While the use of both bivariate and multivariate analyses in the study provides valuable insights into the prevalence of IPV and FP practices in South Asia, it also has several limitations. Firstly, the study relies on secondary data from the DHS, limiting researchers' control over the data collection process and leaving potential biases or limitations present in the original data. Furthermore, the study relies on self-reported data, which may be subject to biases, such as recall bias or social desirability bias. These biases potentially result in underreporting of IPV due to fear of reprisal, as evidenced by the percentages of husband's presence (at least once) during interview: 7.3% for Afghanistan, 17.2% for India, 2.7% for Nepal, and 1.5% for Pakistan. Given the sensitive nature of IPV, women may hesitate to disclose their experiences, particularly if they fear retaliation from their partners. This could lead to underestimating the prevalence and severity of IPV in the

study's findings. It is essential to acknowledge this limitation and consider its potential impact on the results' accuracy and comprehensiveness.

A notable limitation of this study is the omission of examining the intergenerational transmission of gender-based violence. This phenomenon describes the higher risk that individuals who experienced or witnessed violence during childhood may face in perpetrating or becoming victims of such violence in their adult lives. Given that the study concentrates primarily on FP practices, its focus is inherently limited to this specific field of inquiry.

The study's primary focus on husbands' controlling behaviors as an independent variable, rather than the justification of wife beating, is based on several key distinctions. Controlling behaviors are direct actions initiated by husbands that have measurable consequences for wives, whereas justifications for wife beating relate to subjective opinions that do not have immediate harmful outcomes. Understanding controlling behaviors is vital for practical interventions against IPV, while justifications have limited immediate application. However, this focus acknowledges its scope limitations, as it does not delve into the underlying motivations or reasons behind these behaviors, recognizing the multifaceted nature of IPV.

Another limitation is the exclusion of ethnic and religious variables from the analysis. Ethnicity and religion can significantly shape social dynamics and power structures within societies, including the occurrence and perception of IPV. However, these variables might have been omitted from the DHS dataset or inconsistently measured across the surveyed countries. Therefore, the study's findings may not capture the comprehensive relationship between ethnicity, religion, and IPV in South Asia. Future research should consider incorporating these variables to gain a broader understanding of the issue from the socio-cultural perspective. Additionally, while the findings contribute

to understanding IPV in South Asia, they may not be directly generalizable to other regions or contexts outside the studied countries due to cultural and contextual differences.

Cross-sectional data poses significant challenges in determining the causal relationship between IPV and FP practices. The static nature of cross-sectional studies makes it difficult to capture the temporal sequence of events required to establish causality between IPV and FP practices. While such data may reveal associations between IPV and FP practices, they cannot conclusively determine whether IPV directly influences FP practices or if other factors, such as socioeconomic status or cultural norms, mediate this relationship.

5.7 Recommendations for Future Research

Several recommendations can be made for future research based on this study's identified limitations and gaps. Firstly, conducting longitudinal studies is crucial to capture changes in IPV experiences over time among women in South Asia. This would provide valuable insights into the factors contributing to the onset, persistence, and cessation of IPV. Additionally, future research should address limitations by utilizing multiple data sources and expanding the geographical scope of the study. Diverse data sources, such as surveys, qualitative interviews, and administrative records, would contribute to a more comprehensive understanding of IPV. Expanding the geographical scope to include additional countries within South Asia would capture contextual factors and variations in the prevalence and patterns of IPV. Qualitative research methods, such as in-depth interviews and focus group discussions, would provide a deeper exploration of the experiences, perceptions, and cultural contexts surrounding domestic violence.

Furthermore, future studies could explore the complex relationships between IPV and FP practices and the intersections of gender, class, caste, and ethnicity in shaping women's experiences of violence and their access to healthcare services. This would

contribute to a deeper understanding of the multiple dimensions that influence IPV dynamics and provide insights into the specific needs and challenges faced by different subgroups of women within the South Asian context.

Given the recognized importance of intergenerational transmission of gender-based violence, it is imperative to incorporate this into future research endeavors. Understanding the mechanisms by which violence can persist across generations is critical for developing comprehensive solutions to this pervasive problem. Future research in this area would enhance the capacity to address the intricate dynamics of gender-based violence and its long-term consequences for individuals and societies.

Future studies could investigate various factors influencing the relationship between IPV and FP practices. Analyzing the association regarding country-specific contexts, urban-rural differences, wealth status, age at first marriage, number of living children, and education levels will improve understanding of IPV complexities and aid in developing effective prevention strategies, particularly in South Asia. Furthermore, it is recommended that the main mediating factors be integrated when analyzing bivariate and multivariate results. By incorporating factors like socio-economic status and cultural beliefs, researchers can capture the prevalence of IPV and its impact on FP, thereby enhancing the understanding of the intricate relationships between IPV and FP practices.

Given the cultural significance of having male children in South Asia, future research endeavors could incorporate the sex of children as a variable of study. This study explores the relationship between IPV and FP practices by focusing on the number of living children. However, further research is needed to understand how the sex of children affects family dynamics and reproductive decision-making. Future research can shed light on the intricate relationship between gender dynamics and reproductive health outcomes in South Asia by investigating the cultural, social, and economic factors that support preferences for male children and their implications for FP practices.

Moreover, specific attention should be given to investigating the reasons behind the high prevalence of IPV and husbands' controlling behaviors in Afghanistan. Understanding the country-specific challenges would inform targeted interventions and policies tailored to address the unique circumstances faced by this nation. Lastly, ongoing monitoring and evaluation of FP programs and policies in South Asian countries is essential. Continued research efforts should assess the effectiveness and impact of existing interventions, identify gaps in service provision, and explore innovative approaches to improve access to FP services while addressing IPV within these programs.

5.8 Conclusion

This study highlights the significant issue of violence against women in South Asian countries, with Afghanistan having the highest prevalence of all three types of violence. The findings indicate that efforts are needed to improve women's education levels, employment opportunities, and exposure to FP to reduce the prevalence of violence against women. Targeted interventions should focus on vulnerable groups such as rural women, lesser-educated women, non-working women, and those with many children. Moreover, promoting gender equality and attenuating patriarchal attitudes that perpetuate violence against women is crucial. Policymakers must prioritize integrating reproductive health and IPV support services within healthcare systems to facilitate early detection and intervention for individuals experiencing IPV while also ensuring comprehensive access to reproductive healthcare services for vulnerable groups. The study emphasizes the need for a comprehensive and integrated approach to promoting women's health and well-being in South Asia, which should address the systemic and structural factors contributing to gender-based violence and reproductive health inequities. Such an approach requires the collaboration of various stakeholders to achieve common goals, building on the strengths and addressing the weaknesses of the current health systems in the region.

Implementing these interventions would improve the lives of women and their families and promote a more equitable society.

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