DOMESTIC VIOLENCE
A STUDY OF THE OCCURRENCE AND PREDICTORS
IN AN ACCIDENT AND EMERGENCY DEPARTMENT,
THE BAHAMAS

A Project Report
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ABSTRACT

Domestic Violence

A Study of the Occurrence and Predictors

In an Accident and Emergency Department, The Bahamas

Study Objective: To determine the lifetime prevalence and estimated incidence of domestic violence in female patients presenting to the Accident and Emergency Department of a major public hospital in The Bahamas. Socio-demographic risk factors to predict domestic violence, the type of abuse and the identity of the perpetrator, were explored. Respondents were also asked about previous screening for domestic violence, knowledge and use of available community resources for victims and their comfort level discussing abuse with Accident and Emergency Department staff.

Methods: Interviews were conducted on 313 females over 18 years old, who registered at the Accident and Emergency Department, during 30 randomly selected 4-hour time slots in September 2000. Bivariate analysis and logistic regression (with a 95% confidence interval and p-value of less than 0.05) were performed to determine those factors related to acute abuse and lifetime emotional and verbal, sexual and physical abuse.

Results: One hundred and twenty-six (40.3%) reported physical, 22.4% sexual and 39% verbal and emotional abuse at some point in their lives. The incidence
of acute abuse was 3.5%. The perpetrator was generally a boyfriend or husband, inflicting injuries of mild to moderate severity. Risk factors identified were younger age, being single, low level of education, substance use, economic hardship and crowding in the home. Knowledge of community resources for victims was good, but utilization poor. Most were comfortable disclosing abuse with health care workers and about half reported the last incident of physical abuse to the police. Only 1.2% had been screened for domestic violence.

Conclusion: The prevalence of domestic violence in women presenting to an Accident and Emergency Department in the Bahamas while considered to be high, is comparable to rates found in other countries. Routine universal screening of all women presenting for acute care and the education of health care workers, law enforcement officials and the general public in domestic violence matters is recommended.

Caroline Hermine Burnett-Garraway

Keywords: Domestic violence; Accident and Emergency Department; The Bahamas; Emergency Medicine; women; prevalence; physical abuse; sexual abuse; verbal abuse; emotional abuse; intimate partner violence; universal screening.
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Dedication

This work is dedicated to my husband Michael and daughter Christina, for their understanding, patience and encouragement.
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1. Introduction

1.1. Defining the Problem

Domestic violence is well recognized as a monumental and serious public health problem. It is present in most societies, but is unrecognised, underreported and accepted. For the purpose of this study, domestic violence is defined as a pattern of assaultive and coercive behaviours, that may include physical, psychological and/or sexual violence, committed by someone who is or was involved in an intimate relationship with the victim [1]. Other commonly used terms for domestic violence are intimate partner violence, partner-abuse, spousal-abuse and battering.

The greatest risk of abuse for most women will be from an intimate partner. For centuries violence within families and against women has been considered ‘natural’. Paleopathologists have discovered evidence of wife abuse dating back 3,000 years. There was a 30% to 50% incidence of fractures, principally skull fractures, in one group of female mummies compared to a 9% to 20% incidence in male mummies. These injuries are believed to be the result of personal violence rather than war [2].

Traditionally, married women have been viewed as the property of the husband, who has the right to discipline his wife just as he does his children. In 14th century Europe common law allowed a man to beat his wife if she disobeyed him, once he did not kill or maim her. A man had the legal right to strike his wife in the United States until the year 1884 [3]. Laws have been modified, but
domestic abuse still continues behind closed doors. According to the United States Department of Justice, 29% of violence against women by a single offender is committed by an intimate – a husband, ex-husband, boyfriend or ex-boyfriend [4].

Battering tends to be an ongoing cycle rather than a one-time occurrence. By the time a woman’s injuries are visible, violence may be a long established pattern. There is a ‘cycle of beating’ where tension accumulates and then assault is followed by excuses and reconciliation (the ‘honeymoon phase’). Time passes and gradually the tension mounts again. Thus the cycle continues, with abuse recurring repeatedly, increasing in frequency and severity and sometimes leading to homicide or suicide. Forty-seven percent of men who beat their wives do so at least 3 times per year [5].

Physical abuse in intimate relationships is almost always accompanied by severe psychological and verbal abuse. There are immediate as well as long-term physical consequences including acute injury, sexually transmitted diseases, reproductive health problems, unwanted pregnancies, chronic pain, headaches, asthma, irritable bowel syndrome and partial or permanent disability.

Physical injuries are the obvious outward manifestations of domestic violence, and psychological consequences such as depression, fear, anxiety, chronic fatigue, sleep and eating disorders, sexual dysfunction, post-traumatic stress disorder and alcohol or drug abuse are often overlooked. In the United States, victims of battering are five times more likely to attempt suicide than non-battered women [6].
Battered women experience more negative pregnancy outcomes, including miscarriages, stillbirths, premature labour and newborns with low birth weights. Domestic violence has immediate and long-term detrimental effects on children, including behavioural problems and emotional and cognitive developmental difficulties [7]. Children in abusive homes are at risk for physical and sexual violence and are more likely to perpetrate or experience violence in adulthood. Experiencing abuse as a child is a risk factor for forming abusive relationships as an adult [8,9].

Stark and colleagues in a 1979 landmark study eloquently described the progression of symptomatology in battered women through encounters with an unresponsive health care system. Initially, if an isolated injury is treated symptomatically, but the underlying problem is not addressed, the victim will continue to seek help for recurrent injuries and the many medical consequences of ongoing abuse. Over time the woman herself is defined as the problem and given labels such as ‘hysteric’, somatization disorder, self-defeating personality disorder, or if she expresses too much anger – borderline personality disorder. Her credibility is further diminished if she develops any of the post-traumatic sequelae of abuse such as anxiety, depression, psychosis and substance abuse. For some women, repeated non-recognition, leads to serious injury or death by homicide or suicide [10].

The economic implications of domestic violence are vast. No definite figure can be assigned, as the full extent of the problem is not known. However it would include health care costs, lost days from paid work, decreased productivity
at the workplace, legal fees and damage to property. In the United States of America, a National Crime Survey projected that in 1980 there were 21,000 hospitalisations, 99,800 days of hospitalisation, 28,700 emergency department visits, and 39,900 visits to physicians, secondary to domestic violence. The total annual health care costs approximated US$44,393,700, with indirect costs of US$175,500 lost days from paid work [11]. Data from the National Crime Victimization Survey between 1992 and 1996 indicate that non-lethal intimate violence results in financial losses to women victims that are conservatively estimated to be US$150 million per year. Medical expenses accounted for at least 40% of these costs, property losses for another 44% and lost pay for the remainder [12].

Canada’s national survey on violence against women reported that 30% of battered wives had to cease regular activities due to abuse, and 50% of women had to take sick leave from work because of the harm sustained. A study of abused women in Managua, Nicaragua, found that abused women earned 46% less than women who did not suffer abuse, even after controlling for other factors that affect earnings [13].
1.2. The Scope of the Problem

A World Health Organization (WHO) fact sheet issued in August 1996 stated:

“The true incidence of domestic violence against women globally has been difficult to quantitate. Reliable data on the prevalence of violence against women by their partners are scarce, especially in developing countries, but a growing body of research confirms its pervasiveness. Approximately 40 valid population based quantitative studies, conducted in 24 countries on four different continents, revealed a range of 20% – 50% of women being victims of physical abuse by their partners at some time in their lives. On the average, these same studies found that 50% – 60% of women who are abused by their partners are raped by them as well.” [14].

Interpersonal violence was reported by WHO as the tenth leading cause of death for women 15-44 years of age in 1998 [13]. The World Bank estimates that domestic violence robs women in developing countries of 5% of their healthy years of childbearing [15]. Noeleen Heyzer, executive director of the United Nations Development Fund for Women (UNIFEM), in an address stated:

“In 1993 the World Bank estimated that violence against women was as serious a cause of death and incapacity among women as cancer, and a greater cause of ill health than traffic accidents and malaria combined.” [16].

Data from the United States of America National Crime Victimization Survey, indicate that nearly 1 million incidents of non-lethal intimate partner violence occurred each year from 1992 to 1996; 85% of the victims were women. On average each year approximately 8 in 1,000 women and 1 in 1,000 men age 12 or older experienced a violent victimization perpetrated by a current or former spouse, boyfriend or girlfriend. For the years 1992 to 1993, 92% of all rapes of women were committed by known assailants. About half of all rapes and sexual
assaults against women were committed by friends or acquaintances; 26% by intimate partners. In 1996, about 2,000 murders were attributed to intimate partners. Thirty percent (30%) of all female murders were perpetrated by husbands, ex-husbands or boyfriends and 3% of all male murder victims were killed by wives, ex-wives or girlfriends [12].

Numerous emergency department studies have been conducted that reiterate the magnitude of the problem of domestic violence in women. The literature however has discrepancies in the reported prevalence rates of abused women presenting to emergency departments. Earlier studies reported that 6% to 30% of women presented for emergency care as a result of symptoms related to abuse [17,18,19]. More recent studies undertaken in the United States of America and Australia report that between 23.3% to 36.9% of the women surveyed had been victims of domestic violence at some point in their lives, 1.1% to 3.1% were presenting for acute trauma resulting from domestic violence and 14.4% had been physically or sexually abused by an intimate partner within the preceding year [8,20,21,22,23]. Stark and Flitcraft stated that domestic violence may involve from 5-20% of the United States population [24]. According to a British crime survey, the total number of domestic assaults in 1992 was an estimated 530,000 [25]. A report out of Russia estimates that domestic violence there exceeds Western figures by 4 or 5 times [26].
1.2.1. The Caribbean Region

Information on domestic violence for the Caribbean region is scant and it is only recently that attention has been focused on the problem. There are no cumulative data for the region, but studies show that there is a growing culture of violence in the Caribbean. Dans and colleagues noted that violence against women occurs in all ethnic groups in Guyana and that in Trinidad and Tobago and Guyana 1 in 4 and 2 in 3 women, respectively; suffer some form of domestic violence [27]. This compares to 1 in 6, 1 in 10 and 1 in 4 women, in the United Stated, Canada and the United Kingdom, respectively [25]. A national representative sample of 1,705 women in Haiti in 1996 showed 70% of women were abused, 36% of them by an intimate partner [28].

Haniff estimates that if the different levels of reporting by men and women are taken into consideration, women are far more victimized by violence against the person than are men. In 1994, 1 out of every 11 Jamaican women aged 5-60 was subjected to an act of physical violence perpetrated by a man, compared to 1 out of every 15 Jamaican men. In the age group 15-55, 1 in 6 Jamaican women and 1 in 9 Jamaican men experienced an act of physical violence perpetrated by men. Statistics from the Women’s Crisis Centre, Kingston, Jamaica from 1985 to 1990 show a marked increase in the number of cases of domestic violence from 24 to 430. There was also an upward trend in cases of rape and incest presenting to the center [29].

The Guardian newspaper out of Trinidad and Tobago, in 1992 reported that 1,007 domestic violence cases went before the courts for the period 1991-
1992. In Saint Vincent and the Grenadines 148 cases of sexual abuse were reported to the social welfare department in 1994. Saint Lucia and Barbados also reported an upward trend in violent acts against women, including rape. A 1993 Barbadian island-wide national probability sample of 264 women and 243 men aged 20 - 45, found that 30% of women had been battered as adults; while 50% of women and men as a group, reported their mothers being beaten. Similar results were found in a random subset of 97 women aged 20 - 45 from a 1993 Antiguan national probability sample [30]. Analysis of nonsexual physical violence reported to the police in Barbados for the year 1985 revealed that 81.2% of all nonsexual physical crime was committed against women by men [31].

Domestic violence acts exist in The Bahamas, Barbados, Belize, Jamaica, Trinidad and Tobago, the United Kingdom and the United States of America. Local women’s organizations in some of the Caribbean islands have been attempting to increase awareness of women’s rights and health issues. Examples of these are Sistren in Jamaica and Red Thread in Guyana. The Bahamas has an advocacy group that runs The Crisis Centre. More than 150 multi-agency forums on domestic violence exist throughout the United Kingdom. They bring together a wide range of statutory and voluntary sector agencies and accident and emergency departments are active in a few [32].

1.3. Risk Factors

Regarding causes of gender-based victimization of women, a 1995 WHO publication states:

“The different types of violence directed against women are linked to the same familiar causes – the lower status of women; the notion
that women are the 'property' of men and that it is acceptable for men to exercise control over them, by physical force if necessary; and the societal tolerance of human rights abuses against women.” [33].

Research has failed to establish a profile of battered women. One of the barriers to identifying victims of domestic violence is the lack of known associations. Domestic violence crosses all racial, ethnic, religious, age, educational and socio-economic lines. However certain factors seem to put women more at risk for abuse [5,8,9,21,23,34,35,36,37]:

1. Age younger than 30 years,
2. Being separated, divorced or single (or planning a separation or divorce),
3. Victim and partner alcohol and substance abuse,
4. Having experienced child abuse or witnessed domestic violence as a child,
5. Family income below US$10,000,
6. Partner unemployed,
7. Repeat visits to health care facilities for any reason but especially for injury,
8. Children younger than 18 years of age in the home,
9. Pregnancy,
10. Established prior disability (mental illness and physical disability),
11. Homelessness,
12. Women whose partners are excessively jealous or possessive, and
13. Immigrant women, refugee women, women who have limited English proficiency and women belonging to minority groups and living in rural or remote communities.

1.4. Management and Policy Issues

Victims of domestic violence consult doctors more often than they consult the police, religious leaders, social workers or any other group of helping professionals [23,24,38,39]. Many battered women will interact with the healthcare system at some point in their lives and use the emergency department as their sole source of medical care. Women’s health studies have shown that domestic violence victims frequently equate emergency care to ‘anonymous care’, because emergency departments provide unscheduled evaluation and treatment 24 hours a day by health professionals who rarely have ongoing relationships with the patients [18,20].

Emergency physicians are in a unique position to intervene in abusive situations and break the cycle of violence before more serious injuries occur. Historically, however, there has been limited involvement on the part of emergency healthcare providers. It has been reported that the rate of battered women detected by emergency room staff is as low as 5% to 10% [5,19]. One study found that less than 3% of women visiting emergency rooms volunteered information about domestic violence and only 13% were asked about domestic violence by a nurse or physician [17].

Women rarely volunteer a history of abuse when they see their doctors, but if they were questioned directly in a private setting by supportive persons,
would probably disclose such information. Reasons why women may be hesitant to disclose they are being abused are:

1. Humiliation and shame,
2. Feeling protective of their partners,
3. Thinking they deserved the abuse and are not deserving of help, and
4. Fear for their safety and loss of their means of support.

The importance of a person-to-person interview to assess for abuse was highlighted in a study in which approximately 8% of women self-reported abuse on a standard medical history intake form, but when asked the same abuse assessment questions by a health care provider, 29% of the women reported abuse [40]. Another study of victims of domestic violence, reported that 36% said they would only divulge if asked directly, 25% would volunteer this information without being asked and 11% would not report domestic violence even if asked [41].

Physicians are often reluctant to ask about abuse because they are afraid of opening ‘Pandora’s Box’ and being overwhelmed with multiple physical and psychological complaints. Other physician barriers to screening for domestic violence include:

1. Under recognition of the prevalence and severity of the problem,
2. Lack of training,
3. Fear of offending the patient,
4. Belief that it is not a physician role,
5. Physician feelings of helplessness or inadequacy in dealing with abuse,
6. Difficulty dealing with emotions evoked by listening to a woman describe her abuse, (especially for those who themselves are victims or were exposed to domestic violence),

7. Lack of clinical time and physicians seeing patients infrequently, (especially in a fast-paced emergency department).

Not only is detection of domestic violence poor, but also adequate documentation. Warshaw first introduced the concept of the ‘passive chart’ [42]. She described the passive documentation of injuries, e.g. “hit by bat on face, laceration sutured.” Here the identities of the victim and perpetrator have not been charted. The victim is a face and the perpetrator a bat. A study by Houry which reviewed medical records of traumatic injuries not related to motor vehicle accidents, revealed that 30% of the time the chart indicated intentional injury, but 79% had no ‘where’, 69% no ‘who’ and 13% no ‘what’ (mechanism) documented [43].

1.4.1. Policies

Many professional bodies on both sides of the Atlantic, including the Centers for Disease Control, the American College of Emergency Physicians, the American College of Obstetricians and Gynecologists, the Royal College of Obstetricians and Gynaecologists, the American Academy of Family Practice, the Royal College of General Practitioners, the American Medical Association (AMA), the British Medical Association, the American Academy of Nurse Practitioners, the Emergency Nurses Association and American Nurses Association support and recommend routine screening for domestic violence.
The American Medical Association in 1992 published its Diagnostic and Treatment Guidelines on Domestic Violence and launched a national campaign against domestic violence. Its recommendations contain four points: verbalize that abuse is wrong, document the history in the chart, take a complete abuse history, and provide information on referral sources [5]. The American College of Obstetricians and Gynecologists added the following three points to the AMA guidelines: provide emergency numbers and shelter information, inquire about child abuse, and advise counselling for the woman [44].

In 1992, the American College of Emergency Physicians established a task force on domestic violence and their 1994 policy statement encourages emergency personnel to screen patients for domestic violence and appropriately refer those patients who indicate domestic violence may be a problem in their lives. It recognizes that the identification and assessment of domestic violence is an important, specialized part of the evaluation of the emergency patient and that data on the incidence and extent of domestic violence should be collected and clinical and academic research on domestic violence conducted. However, the College opposes the mandatory reporting of domestic violence to the criminal justice system [45]. The British Association for Accident and Emergency Medicine in 1993 produced guidelines for handling domestic violence [46].

In the United States of America, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) since January 1992 has mandated that all accredited hospitals implement policies and procedures in their emergency departments and ambulatory care facilities for identifying, treating, and referring
victims of abuse. The standards require educational programs for hospital staff in
domestic violence, as well as elder abuse, child abuse and sexual assault [5]. In
1991, the United States Department of Health and Human Services identified as a
national health objective for the year 2000 that at least 90% of hospital emergency
departments have protocols for routine identification, treatment and referral for
victims of spouse abuse. President Bill Clinton in his state of the union address in
1997 said “I call on American men and women in families to give greater respect
to one another. We must end the deadly scourge of domestic violence in our
country.” A few weeks later Mr. Clinton announced a nationwide 24-hour toll
free domestic violence hotline.

1.5. The Commonwealth of The Bahamas

The Commonwealth of The Bahamas is a 750-mile-long chain of
approximately 700 islands and 2,500 small, limestone-formed islets or cays. This
Atlantic Ocean sub-tropical archipelago stretches from the northwest island of
Bimini through 100,000 square miles of water to the most southeastern island
Inagua. Bimini lies within 50 miles of the coast of South Florida of the United
States of America and Inagua within 50 miles of the Caribbean islands of Cuba
and Hispaniola. About 30 of the islands of The Bahamas are inhabited [47].

The 2000 Census of Population and Housing showed the total population
of The Bahamas to be 304,913, with an average annual growth rate of 1.8%.
Females accounted for 51.5% of the population. The average household size is
3.5 persons and it is estimated that women head well over 40% of the nation’s
households. The population of the country as a whole is very young. The most
recent estimates indicate that some 50% of the population is 20 years old or less and growing quickly. It is estimated that 75% of the population reside in urban areas [48].

Nassau, the capital is located on the island of New Providence, which is the most populated island with approximately 69.7% of the population residing there. The other inhabited islets or cays are collectively called the ‘Family Islands’. The Bahamas is an independent nation with a parliamentary democracy, the parliamentary and legal systems having been inherited from England. In 28 years of independence women have only served in the house of parliament for the past eight years. Tourism accounts for 60% of the Gross Domestic Product, with about 3.5 million tourist visits annually. International banking and fisheries are important industries. The per capita income was US$11,055 in the 1990 census [47].

There are no published data on the prevalence of domestic violence in The Bahamas. The National Commission of Crime, Report to the Prime Minister, November 1998, discussed domestic violence in one paragraph. They recognized that it is a problem more frequently affecting women than men. Statistics on motives for murders from the Royal Bahamas Police Force showed that homicides due to domestic matters accounted for 46% in 1999 and 44% in 2000 of total homicides. This compares with British statistics of two deaths per week being linked to domestic violence and domestic violence accounting for a quarter of all crimes in the United Kingdom and half of all violent crimes against women [25]. According to Federal Bureau of Investigation statistics, in the United States
of America in 1990, 30% of women who were murdered were killed by husbands or boyfriends and in 1992, 12% of all homicides were the result of intrafamilial violence [49].

1.5.1. Health Care

The Commonwealth of The Bahamas ranked number 94 out of 191 countries in the World Health Organization ranking of the world’s health systems in June 2000, (Associated Press). Life expectancy was approximately 73 years for the years 1990 to 1995. In 1997 the total fertility of women was 1.9. Chronic non-communicable diseases influenced by lifestyle choices, e.g. heart disease, strokes, diabetes, cancers and injuries (violent crime, motor vehicle collisions and trauma), dominate the morbidity and mortality profile of The Bahamas and account for approximately 50% of all deaths in the country. Acquired Immunodeficiency Syndrome (HIV-AIDS) is the leading cause of death for both males and females during their most productive years of life. The infant mortality rate in 1998 was 14.0 per 1000 live births [50].

The Government of The Bahamas spends almost 14% of its total annual public budget on the health system, which consists of five clusters of services: the Ministry of Health, Department of Public Health, Department of Environmental Health Services, Public Hospitals Authority and private sector services. There is a network of nine community clinics in New Providence and 96 in the Family Islands.

The Public Hospitals Authority manages the three government-owned hospitals: the Princess Margaret Hospital and the Sandilands Rehabilitation
Centre on New Providence, and the Rand Memorial Hospital on Grand Bahama. The Sandilands Rehabilitation Centre provides geriatric care (130 beds) and psychiatric and mental health care (352 beds). The Rand Memorial Hospital has 82 beds.

The Princess Margaret Hospital is the country's main hospital, providing general acute care and specialty services. This 434-bed teaching hospital is the level one trauma centre for The Bahamas. There is a high-volume demand for its outpatient services that include the accident and emergency department, the general practice clinic and the specialty clinics [50].

Twenty physicians, under the leadership of a cardio thoracic surgeon and an emergency physician, staff the Accident and Emergency Department of the Princess Margaret Hospital. The unit consists of eight patient cubicles, an eight-chair asthma bay and a four-bed resuscitation and trauma suite. In 1999, the annual census for the Accident and Emergency Department was approximately 60,000 patient visits. There is no protocol for routine screening for domestic violence in place at the Accident and Emergency Department.

Private health care is provided at physicians' offices, walk in clinics and Doctor's Hospital, a 72-bed private hospital whose emergency room has a census of about 10,000 patient visits per annum.

The Crisis Centre, (formerly known as The Women’s Crisis Centre), is an organization that provides advocacy and counselling services for victims of domestic violence. Their office is located on the grounds of the Princess Margaret Hospital and is on the most part staffed by volunteers. They operate a
24-hour telephone hotline, provide court advocacy and on weekends an on-call service for rape victims in the Accident and Emergency Department. Dr. Sandra Dean-Patterson, a psychologist who works at the Sandilands Rehabilitation Centre, founded the centre in 1982, in response to the increasing violence against women in The Bahamas. She recognized that there were a large number of female patients admitted to the Sandilands Rehabilitation Centre with pathology secondary to stressors at home and domestic violence. Her finding is supported by studies out of the United States of America. Stark and colleagues randomly sampled the medical records of 2,676 women treated in the emergency department of a Yale teaching hospital and found that five times as many abused women as non-abused women used the psychiatric emergency service [17]. Milzman et al concluded that committed psychiatric patients have increased rates of domestic abuse when compared with other emergency department patients [51].
1.6. Research Postulates

An extensive literature search showed that no such study has been conducted and published in The Bahamas or the Caribbean region. To the best of the author’s knowledge this is the first proposed study on the occurrence and predictors of domestic violence presenting to an Accident & Emergency Department in The Bahamas. There are prevalence data available for Australia and the United States, but this may not be applicable to The Bahamas, due to cultural and economic differences.

The study was proposed to gather relevant data. Working as an emergency physician in The Bahamas, the author recognized that domestic violence is a significant problem, affecting especially the female population attending the Accident & Emergency Department. In order to create solutions and make recommendations for policy changes, it is necessary to know the scope of the problem. Information on the profile of the women and the numbers affected could make a difference in the future and change the course of events for some women to a more positive one. The assumptions and hypotheses that were to be investigated and proved or disproved were:

1. Domestic violence in women presenting to the Accident and Emergency Department, Princess Margaret Hospital, exists at a cumulative lifetime prevalence rate of about 30%, with an incidence of acute abuse of about 5%.

2. Demographic and social risk factors for domestic violence include the victim being single, separated or divorced; unemployed; younger than 30
years old; pregnant; possessing a low level of education; a large number of children or dependants in the household, crowding in the home; and substance use and abuse by the victim and perpetrator.

3. The type of abuse will be limited mostly to verbal abuse and threats and physical abuse of mild to moderate severity (slapping, pushing, punching, kicking and assault resulting in bruises and contusions). The perpetrator will most likely be a current partner, who will rarely use a weapon.

4. Victims of domestic violence are repeat users of the Accident and Emergency Department, and health care workers there do not routinely screen for domestic violence. Victims would feel comfortable discussing their problem with a staff member of the Accident and Emergency Department, preferably a female.

5. Knowledge of resources available for domestic violence victims is good, but utilization, especially of the law enforcement sector is poor.
2. Methods

2.1. Study Design

The study was a prospective cross-sectional survey or prevalence study, conducted at the Accident and Emergency Department of the Princess Margaret Hospital, during the month of September 2000. Approval for the study was obtained from the Hospital’s Ethics Committee, Executive Management Committee and the Clinical Management Team of the Accident & Emergency Department.

For the purpose of the study domestic violence was defined as a pattern of assaultive and coercive behaviours that may include physical, psychological and sexual violence, committed by someone who is or was involved in an intimate relationship with the victim [1].

Physical violence was defined as:

‘Any action that is intended to cause physical harm or pain to another person inflicted with the aggressor’s body or an object. For example - pushing, hair pulling, pinching, squeezing, slapping, punching, kicking, choking, knocking against a wall, burning, hitting with objects (blunt, sharp or cutting) and attacking with firearms’.

Psychological violence was defined as:

‘Any action or omission intended to produce psychological damage or emotional pain to another person, including emotional anxiety, insecurity, disability, despair, guilt, frustration or failure, fear, humiliation, lack of freedom or independence and loss of self-esteem. For example - destructive criticism, insults, emotional blackmail, mockery or ridicule, threats of abandonment or abuse, prohibition to go out to work or to have contact with other people, confinement to the home, surveillance, unreasonable restriction of access to and management of joint property, denial of food or rest, threats to isolate or harm children, destroying objects belonging to
the person or failing to provide for the basic needs of the family when such provision is possible’.

Sexual violence was defined as:

‘Any act in which a person who is in a position of power requires another person to perform sexual activities against that person’s will, through the use of threats, blackmail or physical force. This includes coitus, oral and anal sex, sexual exhibition in front of an unwilling person, touching or fondling, forcing someone to view pornographic material, preventing use of contraception, requiring her to become pregnant or have an abortion against her will or knowingly exposing someone to a sexually transmitted disease’ [28].

2.2. Sample Selection

For the sample selection, certain assumptions were made that allowed for the collection of the data within a reasonable time period. Foremost among these was that the factors under study would not vary over the year; therefore data collected over the period of one month would be representative of women seeking treatment at the Accident and Emergency Department.

The study population was all English-speaking female Bahamian residents 18 years and older registering at the Accident and Emergency Department for any reason. Exclusion criteria included:

1. Patients who refused to participate;
2. Patients unable to give informed consent;
3. Patients who were not fluent in the English language;
4. Patients who had already completed the survey at another visit;
5. Patients accompanied by someone who refused to leave them to allow a private interview;
6. Patients too acutely ill to participate (e.g. major trauma, unstable vital signs);

7. Patients unable to answer questions due to an altered level of consciousness, intoxication, mental retardation or senile dementia; and

8. Patients who were non-residents (did not reside in the Bahamas).

Men were not included in the study, as much research has found that women are at greater risk for domestic violence than men [8,52]. A 1992 British crime survey showed that 80% of domestic violence was directed at women [25]. In the Bahamian Sexual Offences and Domestic Violence Act, 1991 ‘adult’ is defined as a person 18 years of age or more. Sexual abuse below the age of 18 years is subject to mandatory reporting in the Bahamas, punishable with a fine of US$5,000 or 2 years imprisonment. A cut off age of 18 years was chosen for the study population to decrease under-reporting and avoid any legal ramifications of mandatory reporting, if a victim identified requested no police involvement. Non-English speaking women were excluded, as no dedicated bilingual translators were available.

The sampling unit for the study was the time slot. A sufficient number of slots were selected to give the desired sample size. For each of the selected periods, attempts were made to include all females meeting the study criteria. By randomly selecting time slots, this ensured appropriate representation of clients seen on weekends and weekdays. The specific steps taken were as follows:

1. Using data from the previous year (1999), it was estimated that the total number of patients that could be expected in the Accident and Emergency
Department per annum was approximately 60,000, 35% of which should be females above 18 years of age. Hence, the expected number of females in this age category was estimated at 21,000.

2. The average number of eligible women expected per month was determined. This was obtained by dividing the total number of eligible women expected at the Accident and Emergency Department per annum (21,000), by twelve months. As a result, it was estimated that, on average, 1,750 women above the age of 18 years would be seen at the Accident and Emergency Department every month.

3. The sample size was then calculated at a 95% confidence level using the formula for population surveys shown below [53]. It was estimated that a minimum sample size of 315 respondents was required to adequately represent the population of females 18 and over who visit the Accident and Emergency Department.

\[
\text{Sample size} = \frac{n}{1-(n/\text{population})}
\]

4. In order to randomly select the time slots, each 24-hour time period was divided into six 4-hour time slots. These included 8 a.m. to 12 noon, 12 noon to 4 p.m., 4 p.m. to 8 p.m., 8 p.m. to 12 midnight, 12 midnight to 4 a.m. and 4 a.m. to 8 am. Since the chosen month, September, had 30 days, this resulted in a total of 180 time slots. A table was drawn up showing the 180 possible time slots for the month of September 2000 (Appendix 1), and from this the selection was made.
5. Prior to the selection, it was necessary to determine the average number of eligible women expected per 4-hour time period. This was calculated by dividing the number of eligible women expected for the month (1,750) by the total number of time slots available for the month (180), and resulted in an expected 10 eligible women per slot.

6. The required sample size (315) was then divided by the number of women expected per 4-hour time slot (10) in order to ascertain the number of slots required. Based on this method, it was determined that a minimum of 31 slots was required to recruit sufficient respondents.

7. The actual selection of the slots was carried out via the systematic sampling procedure. This involved first the determination of the sampling fraction and secondly the random selection of the initial slot. The sampling fraction was calculated by dividing the total number of available slots (180) by the number of required slots (31). This resulted in a sampling fraction of 6; however this was reduced to 5 in order to increase the number of slots (and clients) to account for the possibility of non-respondents. The selection of the initial time slot was then chosen by randomly selecting a number between one and five. The number chosen was 5; therefore the first time slot selected was the 12 midnight to 4 a.m.
slot on September 1, 2001. After this, the sampling fraction was applied and every fifth slot from the initial slot was included. In total, 36 time slots were selected for the survey, with each possible time slot represented equally six times.

2.3. Data Collection

2.3.1. Survey Instrument (Appendix 2)

The survey instrument consisted of 42 questions divided into 5 different sections:

1. Client demographics and other social factors,
2. Visits to the Accident and Emergency Department within the past year and associated factors,
3. Client opinions regarding the solicitation of information on abuse and knowledge of community resources available for victims of abuse,
4. Past history of abuse (including emotional and verbal, sexual, and physical) and associated factors, and
5. Acute abuse and associated factors.

With the exception of two open-ended questions designed to gather more detailed qualitative information, all questions were structured and pre-coded to facilitate data entry.

Demographic data collected included age (as a continuous variable), marital status, number of children and dependants, number of rooms in the household and the highest level of education completed. Other social factors known to be associated with abuse on which data was collected included, alcohol
and illicit drug use and employment status for both the client and their current partner, whether or not the client was pregnant and if she had experienced economic hardship within the past year. This section consisted of 17 questions.

Frequency of use of the Accident and Emergency Department was represented by the number of visits by the client in the past year. The client was asked about screening for domestic violence by the Accident and Emergency Department staff during these visits.

Client opinions regarding the solicitation of information on abuse i.e. if they felt comfortable discussing domestic violence with Accident and Emergency Department staff and what sex and grade of staff they were most comfortable talking with were asked. If they were uncomfortable, the reasons why were documented with an open-ended question. Insight on the available community services for domestic violence victims was determined by knowledge and utilization of the Crisis Centre.

Past history of domestic violence covered cumulative lifetime prevalence of emotional and verbal abuse, sexual abuse, and physical abuse and the relationship of the perpetrator of abuse to the victim. One question graded severity of the worst incident of physical abuse ever experienced. More details were sought about the most recent or last incident of physical abuse:

1. When it occurred,
2. The relationship of the perpetrator to the victim,
3. If the perpetrator was intoxicated or under the influence of illicit drugs,
4. Whether medical attention was sought, and if so where,
5. If the incident was reported to the police, and
6. Economic hardship experienced by the victim at the time of the abuse.

Acute abuse was if the woman had registered at the Accident and Emergency Department on the day of the interview for injury inflicted by an intimate partner. The relationship of the perpetrator of acute abuse to the victim and what precipitated the incident was documented. The type and severity of the incident was graded (e.g. verbal threats, beaten, injury by a weapon). The last associated question for acute abuse was whether the Accident and Emergency Department staff had screened the victim for possible domestic violence.

In all, eighteen questions addressed domestic violence and abuse. The questions on type and severity of abuse were adapted from established validated instruments designed to detect intimate partner violence: the Abuse Assessment Screen [54], the Index of Spouse Abuse [55] and the Conflict Tactics Scale [56].

In order to enhance the accuracy and validity of the instrument, a team of physicians, nurses, epidemiologists, psychologists and advocates for women reviewed the questionnaire during the developmental stage. A preliminary draft was piloted by the author on a group of 15 women randomly selected from the register in the Accident and Emergency Department. The objective was to test the questions to ensure that answer categories were mutually exclusive and exhaustive, that they were unambiguous and that there was consistency in comprehension; to ensure ease of completion through the appropriate placement of questions; and finally, to ensure that the intended process of selection and
interviewing ran smoothly. Minor changes were made to the questionnaire as a result of the pilot test.

2.3.2. Survey Administration

Eligible women were identified after they were triaged and registered from the logbook of the Accident and Emergency Department. They were asked to participate in a study designed to identify women’s health problems and help improve care. Verbal consent was obtained from the women after a more detailed introduction to the survey. (Appendix 3) Domestic violence was defined for them and they were assured of strict confidentiality. Participants were told that completing the survey had no physical risks and would not affect the medical care they would receive. A business card with the author’s name, address and telephone contact was given to each participant. They were invited to contact the author if they had any questions or concerns regarding the research and their participation in the survey. Brochures and literature about domestic violence and the Crisis Centre were distributed to every female who participated. The clients’ names were not entered on the questionnaire and the information obtained during the interview was not entered in their permanent medical record.

All questionnaires were verbally administered by personal interview, by the author, in a safe and private setting (an office or room with a closed door). Privacy of screening was ensured with only the female respondent present. No male partner or husband was present for the interview, as a victim of domestic violence may not answer questions truthfully, fearing repercussions if perpetrators were present. The author recognized the importance of being sensitive and non-
judgmental while administering the questionnaire. Restricting the number of interviewers to one further eliminated the possible biases associated with interviewer variation.

All answers were recorded on the questionnaire. In the event a question should have been answered and was not, it was recorded as a ‘Not Stated’. Where questions were not relevant based on a response to a previous question, they were recorded as ‘Not Appropriate’. In most instances, responses categorized as either of the above were excluded from the analysis. Depending upon the number of skips that were required, a complete interview consisted of anywhere from 21 to 42 questions and required an average of eight minutes to complete. A written log of all eligible women was kept, including those who declined or had to be excluded, and the reasons why. If a victim of domestic violence was identified, she was counselled and the interviewer offered to call an advocate, social worker and the police or make an appointment for them at the Crisis Centre.

2.4. Data Handling and Analysis

Data handling for the three outcome variables abuse ever in life, acute abuse and physical abuse in the past year, was as follows:

1. Abuse ever in life was a count of all the women who reported at some point in their lives experiencing emotional and verbal abuse, plus those reporting sexual abuse, plus those reporting physical abuse. (Yes to questions 20, 22 and 24).

2. Acute abuse was defined as a visit to the Accident and Emergency Department on the day of the interview because of threats or an injury
inflicted by an intimate partner (all women who answered yes to question 33).

3. Physical abuse in the past year was positive for all women who reported the last incident of physical abuse occurring within the past week, the past month, the past six months and within the past year. (Yes to question 25 parts (1) - (4)) Those where the last incident of physical abuse was more than a year ago and those who had never been physically abused were negative for physical abuse within the past year.

Univariate analysis was performed on both the outcome variables and the explanatory variables to determine if, based on the observed distributions, any data manipulation was required. Specifically, the continuous variables were looked at to see if there were any outliers and if categorizing, in certain instances, would have been a better option. For the categorical variables with greater than two categories, again univariate analysis was used to determine whether grouping into a smaller number of categories due to small numbers in each cell would have resulted in more stable data.

All bivariate analysis were performed to determine:

1. The relationship between the relevant explanatory variables and the three outcomes of interest, (abuse ever in life, acute abuse, and physical abuse within the past year), and

2. Whether this observed association was sufficient for the explanatory variable to be included in the multivariate analysis.
The multivariate analysis was used to look at the association between an explanatory variable and an outcome variable in the presence of other explanatory variables. As a result of the small number of persons who suffered from acute abuse, the multivariate analysis was limited to the outcome ‘physical abuse within the past year’.

The statistical tests of significance that were used included the student’s t-test for testing the difference between means when one variable was continuous and the other was categorical with only two categories, and One-way Analysis of Variance (ANOVA) when there were more than two categories. The ANOVA was categorized as one-way because there was only one grouping variable. In the first instance, the actual test statistic was the independent t-test and for the ANOVA, the actual test statistic was the F-test. In both instances, results revealed the probability of the sample means coming from the same population. If the tests were significant, then this assumption could not be accepted and it must be assumed that the two samples were drawn from two different populations with different means (hence significantly different).

For testing the differences between proportions when the variables of interest were both categorical with two or more categories, the Chi-square ($\chi^2$) test was used. If significant, then the results could be interpreted as a difference in proportions between the populations from which the samples were drawn, i.e. the proportion in one group is really different from that in another.

Statistical significance for all of the above tests was defined as having a p-value of less than 0.05.
These statistical tests however, did not give any indication of either the size of the difference or the direction of the association. As a result, in selected cases, use was made of the Relative Risk or, in this case, the prevalence ratio. In this study, this measure of association compared the prevalence rate in the exposed group with that in the unexposed group. If the prevalence rate in the two groups were equal, then the prevalence ratio would be equal to 1. If the rate in the exposed group was greater than that in the unexposed, then the ratio would be greater than one. Conversely, if the rate in the exposed group was less than that in the unexposed group, then the ratio would be less than one. As an example, a prevalence ratio of 1.25 indicates that the prevalence in the exposed group is 25% greater than that in the unexposed group.

Confidence intervals based on the Taylor Series approach were reported for each of the prevalence ratios that were given. If these intervals included the value of 1 (equal prevalence), then the observed difference between the two prevalence rates could not be considered as significant.

In the event the explanatory or predictor variable was ordinal with several categories, the Chi-square test for trend was utilized. This measure, in succession, compared the prevalence rate for all higher categories with that of the lowest category to determine if the ratio increased as the level of the explanatory variable increased. Formulas for all measures of associations and any corresponding Confidence intervals can be found in the manual for EpiInfo 2000.

The multivariate analytic technique employed was Logistic Regression (unconditional). It showed the relationship between the outcome variable
‘physically abused in the past year’, categorized as abused (1) or not abused (0), and explanatory variables that could have been either continuous or categorical. It produced a mathematical equation that related the probability of an outcome to the particular value of the risk factor variables. The determination of which variables to include in the model at the outset was based on the results of the bivariate analysis. Potential risk factors that had a p-value of 0.1 or less when looked at in relationship to ‘physical abuse in the past year’ were included. Variables were excluded from the model using the backward elimination approach. One at a time they were dropped when, in the presence of all other potential risk factors, the p-value fell below 0.05.

Although use of logistic regression is best suited for case control studies and the Odds Ratio, it can be used for prospective or cross sectional studies when the outcome rate is low. If the rate of interest (in this case the prevalence of abuse in the past year) is too high (greater than 5%), then the Odds Ratios obtained actually overestimates the prevalence ratio.

All data entry, quality control and analysis were undertaken at the Health Information and Research Unit of the Ministry of Health. Data were analysed using the software Statistical Package for the Social Sciences for Windows (SPSS Version 9.0) and EpiInfo 2000.
3. Results

3.1. Sample Characteristics

During the study period 5,668 patients registered to be seen at the Accident and Emergency Department, Princess Margaret Hospital. One thousand nine hundred and twenty-three (34%) of these were female patients eighteen years or older. During the 30 randomly selected time slots 395 women eighteen years or older registered. Three hundred and thirteen (313) questionnaires were completed, (79.2% of those 18 years or older who registered, 92.6% of those meeting inclusion criteria).

A total of 30 time slots were covered, which was equivalent to 120 hours of surveillance. An average of 10.4 women were interviewed in each 4-hour time slot. A mean number of 44 interviews were conducted for each day of the week and 52 interviews for each time slot. Fewer interviews were conducted during the 12 a.m. - 4 a.m. and 4 a.m. – 8 a.m. shifts.

Eighty-two women (20.7%) did not complete the survey. Fifty-seven (14.4%) met the exclusion criteria. Of these, 24 were unable to answer the questionnaire, as they were too ill, intoxicated, senile, deaf, mentally subnormal or diagnosed with Alzheimer’s disease. Three patients had demised and 3 women were non-residents. Due to a language barrier 16 women were not interviewed. Eleven had completed the survey at another visit. Twenty-five women (6.3%) were missed as they had already left the department or could not be found. Only one patient refused to participate, stating she was "not in the mood". She was an
American tourist, very annoyed at a long waiting time to see the doctor, and would have been excluded anyway, as she was a non-resident.

The mean age of respondents was 37.6 years with a range from 18 - 81 years. A total of 55.6% were single, 23% married, 9.3% separated, 4.8% divorced and 7.3 % widowed. Approximately 8 of 10 (86%) had completed their education at least up to senior high school level and 59.7% of the respondents were currently employed. The number of children and/or dependants ranged from a low of 0 to a high of 13 and with a mean of 2.8 dependants per female. Twenty-seven (8.6%) were pregnant at the time of completing the survey and 31% had more than three children. The majority of the females were not living in what could be considered an overcrowded situation, as the mean crowding index (number of persons in the household per room) was 1.3. However, 11.8% or almost 1 in 10 of the women resided in households with 3 or more persons per room. Two respondents made reference to homosexual relationships, with both admitting to physical abuse by a girlfriend.
As a potential measure of stress, the respondents were asked about the existence of financial problems. A total of 122 (39%) said they had not experienced any financial difficulties over the past 12 months while 23.6% had financial difficulties either often or very often (Figure 2). The majority of women had a current partner and 93.9% of these partners were employed.

Overall, the use of illicit substances was not a major problem among this population, as during the 12 months preceding the survey, almost all of the women (99%) said that they had never used cocaine and 95.5% that they had never used marijuana. Approximately two-thirds (65.8%) had reportedly not taken a drink of alcohol during the past year (Figure 3) of abuse, was slightly higher than that for the women themselves. Just over one-half of the partners (53.1%) had taken a drink of alcohol, 11.4% had smoked marijuana and 2.2% had used cocaine.
For approximately one-half of the respondents (45.8%), this was their first visit to the Accident and Emergency Department in the past year. However 2 of 10 (21.8%) had made one previous visit while 1 of 10 (10.3%) had made two visits. The mean number of visits to Accident and Emergency Department over the past year was 1.49. It was obvious that routine screening was not being attempted by the staff of the Accident and Emergency Department as only 1.2% of those who attended the Accident and Emergency Department in the past year had been screened for domestic violence by the medical staff.

A large majority of the females (88.8%) said they would be comfortable discussing a problem of domestic violence with a staff member of the Accident and Emergency Department. For those who indicated that they would have some discomfort, the main reason given was one of questionable confidentiality (70%).
Other reasons cited were preferring to confide in someone they knew, difficulty opening up to a stranger, feeling ashamed and embarrassed and a feeling that Accident and Emergency Department staff is not friendly and do not communicate well. There was a slight gender preference with approximately twice as many clients indicating that they would prefer to talk specifically with a female. While 61 (22.1%) said they would be more comfortable talking to a male, 48.2% preferred a female. The remaining 27.2% had no preference and would speak with either sex. A little over one-half (54.7%) preferred to speak with a physician versus a nurse.

3.2. Past History of Domestic Violence

One hundred and forty-five women (46.3%) said they had never experienced any type of domestic violence, including emotional and verbal abuse, sexual abuse or physical abuse. On the other hand, 20.1% had experienced one of the three forms of abuse, 19.2% two forms and 14.4% reported having
experienced all three types of abuse at some point during their lives. The cumulative lifetime frequency of verbal and emotional abuse was 39%, while approximately 2 of 10 (22.4%) had experienced sexual abuse. One hundred and twenty-six women (40.3%) admitted to having been physically abused at some point in their lives.

There was an association observed between age and the likelihood of having experienced some type of domestic violence, with women who had reported some type of abuse being, on average, younger than those who did not. While those females who reported abuse had a mean age of 35.2 years, those who were never abused had a mean age of 40.4 years.

Women who were single, separated or divorced reported significantly more lifetime episodes of domestic violence than those who were married. Results revealed no significant association between reported domestic violence ever in life and number of children or dependants, highest level of education completed, or crowding index (assuming the current situation is reflective of the past situation).

Table 1 illustrates the relationship of the perpetrator of the abuse to the victim, for reported verbal and emotional abuse, sexual abuse and the most recent incident of physical abuse. Results revealed that a boyfriend, either in or outside the household, was the most common perpetrator for all types of abuse. Additionally, in almost one-third of the cases for all types of abuse, the woman’s current husband was the culprit. Ex-boyfriends or ex-husbands were almost never reported as the perpetrator.
Table 1.  Percentage of Reported Cases of Verbal and Emotional Abuse, Sexual Abuse and the Most Recent Incident of Physical Abuse Due to Various Associates of the Victims

<table>
<thead>
<tr>
<th>Perpetrator</th>
<th>Verbal &amp; Emotional (no.=122)</th>
<th>Sexual (no.=70)</th>
<th>Most Recent Incident Of Physical (no.=126)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Husband</td>
<td>29.5%</td>
<td>27.1%</td>
<td>28.6%</td>
</tr>
<tr>
<td>Ex-husband</td>
<td>39.0%</td>
<td>0</td>
<td>1.6%</td>
</tr>
<tr>
<td>Boyfriend</td>
<td>34.4%</td>
<td>22.9%</td>
<td>36.5%</td>
</tr>
<tr>
<td>cohabiting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boyfriend not</td>
<td>36.9%</td>
<td>45.7%</td>
<td>30.2%</td>
</tr>
<tr>
<td>cohabiting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ex-boyfriend</td>
<td>0</td>
<td>0</td>
<td>0.8%</td>
</tr>
<tr>
<td>Other</td>
<td>2.5%</td>
<td>5.7%</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

Knowledge of the existence of the Crisis Centre was high, as 220 (70.3%) of the respondents had heard of the centre. However, only 10.5% had previously utilized their services. Those women who reported having experienced at least one form of domestic violence were significantly more likely to have heard of the Crisis Centre. There was a negative association observed between past history of abuse and the comfort level of talking to Accident and Emergency Department staff. Results revealed that women who were abused were significantly less comfortable talking with Accident and Emergency Department staff about domestic violence than those who were never abused.
3.3. Acute Abuse

During the study period, eleven women (3.5%) had registered at the Accident and Emergency Department as a result of an acute injury from an intimate partner. All presented between the hours 8 p.m. to 8 a.m. except one who was captured on the 4 p.m. to 8 p.m. time slot. More than half presented on a Saturday or Sunday. Of the battered women, 54.5% were single, 18.2% were pregnant and 45.5% had three or more children. Most (72.7%) were employed and approximately two-thirds (63.6%) had not visited the Accident and Emergency Department within the past year. All had a current partner, 90.9% of whom were employed. Almost one-half (45.4%) had been abused by a cohabiting boyfriend (Table 2).

Table 2. Number and Percentage of Reported Cases of Acute Abuse Due to Various Associates of the Victims

<table>
<thead>
<tr>
<th>Perpetrator</th>
<th>Acute Incident of Abuse</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Husband</td>
<td>2</td>
<td>18.2</td>
</tr>
<tr>
<td>Ex-husband</td>
<td>1</td>
<td>9.1</td>
</tr>
<tr>
<td>Boyfriend cohabiting</td>
<td>5</td>
<td>45.4</td>
</tr>
<tr>
<td>Boyfriend not cohabiting</td>
<td>2</td>
<td>18.2</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>9.1</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100.0</td>
</tr>
</tbody>
</table>
In the analysis of persons reporting acute abuse, those who were abused were younger (34 years) than those who had not been abused (37.8 years), but the difference was not significant. There did not appear to be any association between acute abuse and marital status, the highest level of education completed and whether or not the victim or current partner was employed. With respect to pregnancy as a risk factor for acute abuse, even though persons who were pregnant appeared to be twice as likely to be abused (7.7%) as compared to those who were not pregnant (3.0%), this difference was not significant.

There was an association observed between the crowding index and the presence or absence of acute abuse. Results revealed that persons reporting abuse this visit resided in households with, on average, more persons per room (1.77) than those who, reportedly, were not abused (1.28).

Threats of abuse and threats of harm with a weapon were experienced by 45.5% of the women. The vast majority experienced trauma of minor and moderate severity, about one third (36.4%) had been injured with a weapon and none reported severe or permanent injuries.

Reported precipitants of the acute incident of abuse included arguments over child support, money, family members, use of a car, a hammer, a broken tool, coming home too late, an ex-wife, and in two cases, use of illicit drugs. Alcohol was used weekly by 45.5% of the victims and daily by 45.5% of the current partners (Table 3).

An Accident and Emergency Department staff member had asked only 27.3% of the women experiencing acute abuse about domestic violence on this
particular visit. The majority of the victims (81.8%) had heard about the Crisis Centre.

Table 3. Frequency Of Substance Use (Alcohol, Marijuana and Cocaine) Over the Past Year By Victims Of Acute Abuse and their Current Partners

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Victim Alcohol</th>
<th>Victim Marijuana</th>
<th>Victim Cocaine</th>
<th>Partner Alcohol</th>
<th>Partner Marijuana</th>
<th>Partner Cocaine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>27.3%</td>
<td>81.8%</td>
<td>90.9%</td>
<td>36.4%</td>
<td>63.6%</td>
<td>81.8%</td>
</tr>
<tr>
<td>Monthly</td>
<td>18.2%</td>
<td>9.1%</td>
<td>9.1%</td>
<td>0</td>
<td>9.1%</td>
<td>0</td>
</tr>
<tr>
<td>Weekly</td>
<td>45.5%</td>
<td>0</td>
<td>0</td>
<td>18.2%</td>
<td>0</td>
<td>9.1%</td>
</tr>
<tr>
<td>Few times</td>
<td>9.1%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Daily</td>
<td>0</td>
<td>9.1%</td>
<td>0</td>
<td>45.5%</td>
<td>18.2%</td>
<td>0</td>
</tr>
<tr>
<td>Not sure</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9.1%</td>
</tr>
</tbody>
</table>

3.4. Physical Abuse Within the Past Year

3.4.1 Bivariate Analysis

Almost 30% of the women who reported that they had been physically abused at some point in their lives had suffered the latest incident of such abuse within the past year. In the majority of cases, the victim’s boyfriend or husband committed the most recent or last incident of physical abuse (Table 1).
Table 4 illustrates the results of the bivariate analysis for physical abuse within the past year. Results revealed that there was an association between age and whether or not these women were physically abused.

Women who were physically abused within the past year were significantly younger (29.7 years) than those who were not abused (38.6 years). Of the 37 women who had been physically abused within the past year, 67.6% were single, 16.2% married, 13.5% separated and 2.7% divorced. There was no significant association between marital status and past year physical abuse.

An association was also observed between the crowding index or number of household members per room and physical abuse within the past year. In fact, persons living in households with 2 or more persons per room, as compared to those in households with less than 2 persons per room, were approximately two and one-half times as likely to have been physically abused in the past year. On average, those persons reporting abuse within the past year lived in households with more persons per room (1.56) than those not reporting abuse (1.27).

An association was noted between the highest level of schooling completed and past year physical abuse. When the prevalence rate of physical abuse for women who did not complete high school and women who had completed high school were compared to women who had completed at least a first college degree, it was found that they were both approximately seven times as likely to have been physically abused within the past year; a difference that approached significance (Chi-square Trend p=0.09).
Table 4. Results of Bivariate Analysis for Physical Abuse Within the Past Year

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Odds Ratio</th>
<th>p-value or 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single, Separated, or Divorced</td>
<td>Referent</td>
<td></td>
</tr>
<tr>
<td>Married or Widowed</td>
<td>2.25</td>
<td>(0.97 – 5.22)</td>
</tr>
<tr>
<td><strong>Crowding Index</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than Two Persons per Room</td>
<td>Referent</td>
<td></td>
</tr>
<tr>
<td>Two or more Persons per Room</td>
<td>2.41</td>
<td>(1.3 – 4.48)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At least a First College Degree</td>
<td>Referent</td>
<td></td>
</tr>
<tr>
<td>High School Graduate</td>
<td>6.73</td>
<td></td>
</tr>
<tr>
<td>Less than High School</td>
<td>7.18</td>
<td></td>
</tr>
<tr>
<td><strong>Financial Problems</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>Referent</td>
<td></td>
</tr>
<tr>
<td>Sometimes or Often</td>
<td>3.56</td>
<td></td>
</tr>
<tr>
<td>Very often</td>
<td>12.26</td>
<td></td>
</tr>
<tr>
<td><strong>Alcohol Consumption</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than weekly</td>
<td>Referent</td>
<td></td>
</tr>
<tr>
<td>At least weekly</td>
<td>2.85</td>
<td>(1.56, 5.21)</td>
</tr>
<tr>
<td><strong>Marijuana Use</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-smokers</td>
<td>Referent</td>
<td></td>
</tr>
<tr>
<td>Smokers</td>
<td>3.34</td>
<td>(1.54 – 7.25)</td>
</tr>
<tr>
<td><strong>Partners’ Alcohol Consumption</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than Daily</td>
<td>Referent</td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>3.19</td>
<td>(1.61 – 6.33)</td>
</tr>
<tr>
<td><strong>Partners’ Marijuana Use</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than Daily</td>
<td>Referent</td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>2.57</td>
<td>(1.05 – 6.26)</td>
</tr>
</tbody>
</table>
In response to the direct question of whether they were experiencing money problems during the time of the last incident of physical abuse, 26.2% of the women indicated that they were. Overall, money problems were experienced often or very often by 23.6%, sometimes by 37.4% and never by 39%. However, as the level of reported money problems increased, so did the likelihood of being physically abused. When compared to those persons who reportedly had no money problems within the past year, persons who experienced money problems either sometimes or often and persons who experienced problems very often were three and one-half times and 12 times as likely to have been abused in the year preceding the survey, respectively. Most (96.9%) said their current partners were employed.

Overall, 40.5% of the women experiencing physical abuse reported the latest incident of physical abuse to the police. An interesting finding was the association observed between reporting the incident to the police and the time frame of the most recent incident of physical abuse. While only 27% of the women who were last abused within 12 months had reported the matter to the police, 46.1% of the women whose most recent incident of physical abuse was more than a year ago had reported it; almost double the proportion.

Table 5 shows the severity of the worst incident of physical abuse ever experienced. The majority of women had been exposed to minor trauma and about one-third reported a major injury. Use of a weapon was reported in about 30% of the cases.
Table 5. Severity of the Worst Incident of Physical Abuse Ever Experienced

<table>
<thead>
<tr>
<th>Severity</th>
<th>% Of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slapped, grabbed, pushed; no injury and/or lasting pain</td>
<td>89.6</td>
</tr>
<tr>
<td>Punched, kicked, choked or strangled; bruises and cuts</td>
<td>68.0</td>
</tr>
<tr>
<td>Beaten up, severe contusions, welts, burns, broken bones</td>
<td>35.5</td>
</tr>
<tr>
<td>Head, internal and/or permanent injury</td>
<td>2.4</td>
</tr>
<tr>
<td>Injured by a weapon (e.g. gun, knife, club)</td>
<td>28.8</td>
</tr>
</tbody>
</table>

For those women who reported physical abuse in the past, approximately one third (37.3%) had sought medical attention for the last incident of physical abuse. This percentage was slightly different for those where the latest incident was within the past year (29.7%) and those where the latest incident was more than a year ago (40.4%) and implies that the number of women seeking medical treatment roughly represents between 30% to 40% of physical abuse occurring in the population. Medical attention was sought most commonly (71.7%) at the Accident and Emergency Department, Princess Margaret Hospital (Figure 5).

Figure 5. Percentage Distribution of Health Care Facilities Where Medical Attention was Sought for the Last Incident of Physical Abuse
Alcohol and illicit drugs played a major role, as the perpetrator of the most recent incident of physical abuse was intoxicated or under the influence of alcohol or an illicit drug almost one-third (31.7%) of the time. This association was nothing new as the percentage of perpetrators under the influence of alcohol or illicit drugs was the same regardless of whether the latest incident of abuse was within the past year or not. This was also reflected in the apparent association between reported physical abuse in the past year and the current partners’ use of alcohol or marijuana on a daily basis, and cocaine on a weekly or more frequent basis (Figure 6).

For those females whose partners drank on a daily basis, as compared to those whose partners did not drink daily, results revealed that they were 3 times more likely to have been abused within the past year (PR=3.19, 1.61-6.33). Similarly, for those whose partners smoked marijuana daily, they were two and
one-half times more likely to have been physically abused within the year (PR=2.57, 1.05-6.26).

Additionally, there was a significant association between alcohol use over the past year by the victims themselves and reported physical abuse within the past year. Females who drank on a weekly or more frequent basis were almost three times as likely to have been abused as persons who did not drink or who only drank on a monthly basis (PR=2.85, 1.56-5.21). Similarly, women who smoked marijuana were three times more likely to have been abused in the past year than women who did not smoke marijuana (PR=3.34, 1.54-7.25). Only one woman who reported physical abuse in the past year admitted to cocaine use, a number too small to perform any further analysis.

A higher percentage of women who reported physical abuse within the past year had heard about the Crisis Centre, but it was not statistically significant.

3.4.2. Logistic Regression

Logistic regression analysis was performed to determine those variables which increased the risk for physical abuse when adjusted for each other. Covariates used in the full logistic regression model for abuse in the past year were marital status (single, separated, or divorced versus married or widowed); education (less than a high school education, including none, primary and junior high; and high school graduates versus persons with at least a first college degree), financial problems (very often; sometimes or often versus never); alcohol consumption in the past year (weekly; a few times per week or daily versus never or monthly); marijuana use in the past year (smoked versus did not smoke); and
crowding index (less than 2 persons versus 2 or more persons per room). These selections were made based upon their importance as confounding factors in other studies on domestic violence and a p-value on the bivariate analysis of 0.1 or less.

Using the likelihood ratio test, variables retained in the final logistic regression model were age, education, financial problems and alcohol consumption. Each contributed to the model at the 0.05 significance level. When adjusted for each other, the covariates consisting of a low educational level, (i.e. less than high school), having financial problems very often, and consuming alcohol at least weekly increased risk at least three-fold for physical abuse within the past year (Table 6). Also, when adjusted for these variables, the risk for physical abuse within the past year decreased with each one-year increase in age (Odds Ratio = 0.94, 95% CI = 0.90-0.98).
Table 6. Logistic Regression Model for Physical Abuse Within the Past Year: Adjusted Odds Ratios and Confidence Intervals for Age, Education, Financial Problems and Alcohol Consumption

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Odds Ratio</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>0.94</td>
<td>(0.90, 0.98)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At least a First College Degree</td>
<td>0.00</td>
<td>Referent</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>4.66</td>
<td>(0.59, 36.72)</td>
</tr>
<tr>
<td>Less than High School</td>
<td>10.70</td>
<td>(1.19, 95.73)</td>
</tr>
<tr>
<td><strong>Financial Problems</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>0.00</td>
<td>Referent</td>
</tr>
<tr>
<td>Often or sometimes</td>
<td>3.35</td>
<td>(1.18, 9.52)</td>
</tr>
<tr>
<td>Very often</td>
<td>7.56</td>
<td>(2.25, 25.39)</td>
</tr>
<tr>
<td><strong>Alcohol Consumption</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than weekly</td>
<td>0.00</td>
<td>Referent</td>
</tr>
<tr>
<td>At least weekly</td>
<td>3.00</td>
<td>(1.30, 6.92)</td>
</tr>
</tbody>
</table>
4. Discussion

This study is the first to measure the occurrence and predictors of domestic violence in women presenting to an Accident and Emergency Department in the Bahamas. When compared with the 1990 census data, the study population was a fairly representative sample of the female Bahamian population in terms of marital status, however with respect to the highest level of education achieved, a larger percentage of the study population had completed high school than the general population (80.5% versus 63.7%). Roughly the same percentage had completed a college or university degree [47].

The only demographic factor for non-respondents that could be analyzed was age. The age range for non-responders was 18 to 93 years, with a mean of 43.2 years. This was a wider range and older mean age than women who completed the survey. This difference can be explained, as older women were more likely to meet the exclusion criteria of persons being debilitated, too ill, senile or dead. The numbers of non-respondents was small and the prevalence would have decreased only slightly if they were included, as there is a decreased risk for domestic violence in the elderly.
4.1. Prevalence, Incidence, Risk Factors and Pattern of Abuse

4.1.1. Past History of Domestic Violence

With respect to any past history of domestic violence, findings from this study are similar to those from other emergency department based studies. The cumulative lifetime prevalence hypothesized for domestic violence was 30%. The prevalence rates found for physical (40.3%) and verbal and emotional abuse (39%) were even greater. That for sexual abuse (22.4%) was lower. The rates correlated with those of Dearwater (36.9%) and Pakesier et al (37%) for domestic violence prevalence ever in life in emergency department studies [21,57]. Mooney found that 27% of women surveyed in North London had experienced physical injury from their partners or former partners, while 37% had experienced mental cruelty and 23% had been raped [58]. The physical abuse rate in this study was higher than in Mooney’s study, but sexual and verbal and emotional abuse rates were much the same.

The only positive risk factors identified for lifetime domestic violence were younger age (mean age of 35.2 years) and being single, separated or divorced. Being married or widowed were protective factors against domestic violence. These findings are similar to those found in other studies [19,36,37,59]. Young single females are less mature, settled and financially stable, than more stable married females. It should be noted however, that many of the risk questions that were asked, did not refer to lifetime exposures, which would have been more appropriate for tests of associations with lifetime prevalence.
4.1.2. Acute Abuse

The acute abuse rate of 3.5% was less than predicted (5%), but was comparable with data from previous emergency department studies of 1.2%, 2.2%, 2.5% and 4% [8,20,21,57]. Numbers for acute abuse were too small for statistical comparisons; therefore the characteristics of the women who had experienced physical abuse in the past year were looked at in more detail. No significant association was found between acute abuse and age, marital status, educational level of the victim, or employment status of both the victims and their partners. This supports findings by Goldberg and Tomlanovich [19].

The only significant risk factor for acute abuse identified was the crowding index. Women reporting acute abuse lived in households with more persons per room than those not abused. Living in cramped conditions, especially with children and elderly persons that require more care, is a stressor that can lead to tension and abuse.

The literature reports that women are more at risk for domestic violence during pregnancy [35,60,61]. Pregnancy was not found to be a significant risk factor for acute abuse in this study, however, less than 10% of the respondents were pregnant, thereby reducing the likelihood of detecting any significant associations. As a policy, women who are more than 20 weeks pregnant are not registered in the Accident and Emergency Department, but sent to the maternity ward. The exception is for cases that have conditions not related to the pregnancy, such as acute trauma, asthma or chest pains.
4.1.3. Physical Abuse Within the Past Year

There was no association between physical abuse in the past year and marital status. Once again, persons of a younger age and those who lived in crowded conditions were found to be at significant risk for physical abuse. Financial hardship increased the likelihood of physical abuse in the past year. Economic adversity and overcrowded conditions are significant life stressors that may lead to tension and a violent show of aggression. Women who had at least a first college degree were much less likely to have experienced physical abuse in the past year than those who had completed a high school education or less. A higher level of education should lead to better job opportunities and fewer financial stressors.

A positive correlation was found for alcohol and marijuana use by both partner and victim and the likelihood of physical abuse within the past year. In addition, in almost one-third of the cases where the last incident of physical abuse occurred within the past year, the woman reported that the perpetrator was intoxicated or under the influence of alcohol or an illicit drug at the time of the abuse. These findings support those reported in prior research. According to Gorney, 60% to 70% of violent men assault their partners while drunk, whereas 13% to 20% do so while on drugs [62]. Ernst et al found that social factors related to domestic violence included drug, alcohol and tranquilliser use and McCauley found that currently abused patients were more likely to report a substance abuse problem for their partners and themselves [35,36]. Kyriacou and colleagues reported that women at greatest risk for injury from domestic violence
include those with male partners who abuse alcohol or use drugs [34,63]. A study by Grisso et al reported that substance abuse; particularly cocaine use is a significant correlate of violent injuries [64]. A lack of reported cocaine users in this study limited any kind of analysis of a relationship between cocaine use and abuse.

It is not known whether alcohol and illicit substance use is a cause or effect of domestic violence. Alcohol use is related to impulsivity, cognitive disinhibition and impaired judgment, which in turn may predispose an individual towards violence. In addition, alcohol use may aggravate relationship difficulties, and be a precursor for conflict that escalates to violence. Alcohol and substance use on the other hand may be a coping mechanism for and a consequence of domestic violence. The majority of the acutely abused women presented after 8 p.m. and on weekends. These are times when the prevalence of alcohol and illicit drug use is higher.

Logistic regression analysis confirmed that low education level (less than high school), experiencing financial problems very often and alcohol consumption at least weekly increased risk for physical abuse within the past year. Younger age was also a significant risk factor. Although these factors in no way reflect all significant risks of abuse, these findings suggest that if female Accident and Emergency clients with the majority of these characteristics present with suspicious injuries, they should be screened.
4.1.4. Pattern of Abuse

Use of a weapon occurred more frequently than in other studies [34,65]. Almost a third reported being injured by a weapon. This percentage may have been as large due to the fact that ‘weapon’ could have included any object used for assault, no matter how small or harmless, in addition to guns, knives and clubs.

In the majority of the cases, the main perpetrator of all types of abuse was a current partner. A non-current partner (ex-husband) was a significant perpetrator for lifetime verbal and emotional abuse only.

4.2. The Role of the Accident and Emergency Department

4.2.1. Frequency of Utilization

Based on the literature, it was assumed that victims of domestic violence would be repeat users of the Accident and Emergency Department. McCauley et al found increased utilization of outpatient health care facilities by battered women [36]. In this study, no significant difference was found in prior Accident and Emergency Department visits by females who had experienced domestic violence compared with those who had not. There are many possible reasons for this observation, including:

1. The victims may have been too scared or embarrassed to come to hospital;
2. The perpetrator may have prevented them from seeking medical attention;
3. The injuries sustained may have been minor, not requiring medical attention and;
4. Medical attention may have been sought at another facility besides the Princess Margaret Hospital.

This finding compares with a study done by Brown et al which concluded that there was no significant difference in the number of emergency department visits between domestic violence victims and matched controls [66]. Additionally, Rhodes et al found that patients who screened positive for domestic violence were half as likely to have been seen in their emergency department in the year prior to the index visit than patients who screened negative. Their study also detected a dramatic increase in the emergency department utilization (2.2 times higher) for domestic violence positive patients in the year subsequent to being screened [67].

The majority of the women experiencing acute abuse presented at times when no social workers are available for consultation in the Accident and Emergency Department at the Princess Margaret Hospital. All presented after 4 p.m. and more than half on weekends. These are times when partners will probably be together after completing a workday or week. Weekends and evenings are also times when more alcohol is consumed. This trend was also found in research out of the United States and New Zealand [37,68]. A recent study in New York City showed that approximately nine of ten victims of domestic violence presented to the emergency department during hours when only about one hospital in ten could provide the special services these patients required [69].
In a busy emergency department setting it may be difficult for the Accident and Emergency Department staff to provide adequate counselling and support for battered women. Life threatening injuries and medical conditions must be given priority. Many domestic violence victims have minor or no physical injuries, but major psychological injuries that will still need to be addressed in a timely fashion.

4.2.2. Screening

The screening rate for domestic violence was very unsatisfactory and much lower than rates found in similar studies [17]. Victims of acute abuse were more likely to have been screened for domestic violence, than women who reported no abuse (27.3% versus 1.2%), a finding supported by Abbott [20]. As an explanation, it is possible that these acutely abused women ‘looked’ more like victims of domestic violence, with obvious or severe physical injuries, and so were questioned. This, however, is a bad practice, as domestic violence victims presenting with non-physical symptoms or physical injuries that are not obvious or serious, will not be detected. Goldberg et al found that most of the patients who presented at the emergency department as a result of domestic violence were there for medical complaints rather than trauma [19].

4.2.3. Disclosure of Abuse to Health Care Professionals

On the whole, almost 90% of the respondents stated that they would be comfortable discussing domestic violence with a staff member of the Accident and Emergency Department. Since many of them had never experienced abuse this sentiment could change if they ever became involved in an abusive
relationship. This number is greater than those found in other research. In a study by Hayden, 45% of women who would reveal domestic violence if asked directly, felt very comfortable disclosing to an emergency department physician [41]. A national study found that 85% of Americans believed they could tell a physician if they had either been a perpetrator or a victim of domestic violence [39].

In an Australian study, victims perceived doctors as the least helpful of the health professionals [8]. A follow up study in 1992 however, put physicians on par with other health professionals [22]. In this study, a little more than half of the respondents said they would prefer to talk to a physician about domestic violence, while almost half preferred a female. The validity of this response is questionable as the interviewer was a female physician and perhaps the respondents were attempting to give the most pleasing and acceptable answer.

The main barrier to disclosing incidents of domestic violence to health care professionals in the Accident and Emergency Department was one of confidentiality. Of interest, women who had experienced some type of abuse in the past were significantly less comfortable talking with Accident and Emergency Department staff about domestic violence than those who had experienced no abuse. It was possible that these women may have:

1. Had a negative encounter in the past;
2. Found that their problem was not kept confidential;
3. Met insensitive persons when they attempted to talk about their abuse experiences;
4. Been scared, fearing repercussions and further abuse if their partner found out they had disclosed;

5. Experienced little positive change after disclosure, triggering a ‘why bother’ attitude and;

6. Revealed their problem of abuse to other persons like family, friends, clergy, social workers or advocates for victims of domestic violence.

4.3. Knowledge and Utilization of Other Resources Available to Victims

4.3.1. The Crisis Centre

Knowledge of the Crisis Centre, the local community resource for victims of domestic violence, was very good. About two thirds of the respondents had heard of the Crisis Centre. As would be expected, women who reported experiencing any type of domestic violence and acute abuse were more likely to have heard of the centre. Educational campaigns by the centre are obviously effective in reaching the general public and perhaps health care workers are counselling abused women about available resources.

In spite of the fact that about one third of the respondents had experienced abuse, only about one tenth actually utilized the services offered by the Crisis Centre. This indicates that the persons who really need the service are not heeding the information received about the Centre. A 1998 report by the British Medical Association on domestic violence found that only 36% of women seek outside help and an Australian study found that 68% of women did not seek help at the time of their injuries [23,65]. The percentage of abused women utilizing the services offered by the Crisis Centre in this study (10.5%) was low. Statistics
from the Crisis Centre revealed that 65 clients were seen for domestic violence in 2000. If the number of acutely abused women detected in this study is extrapolated to a year, this figure represents gross under utilization of the service. There may be many reasons why abused women are not accessing the service, including:

1. The stigma attached to domestic violence;
2. The sentiment of lack of confidentiality;
3. Safety issues where the abuser won’t allow the victim to access support;
4. Feelings of shame and helplessness on the part of the victim and;
5. Other available avenues, like religious bodies, civic groups and social service departments being utilized.

A 1991 Australian study reported patient barriers to disclosure as shame, guilt and feeling frightened; thinking that it was their problem and that no one would believe them [8]. Australia is a much larger country with a more widely dispersed population. Confidentiality, understandably, is a major concern for victims living in a small, close-knit society like New Providence.

4.3.2. The Law Enforcement Sector

British crime surveys have shown that much domestic violence is not reported to the police [25]. A 1998 report by the British Medical Association on domestic violence found that only a quarter of all incidents are reported to the police [23]. In contrast, the United States of America Bureau of Justice statistics for 1992-1996 showed that 51% of female victims of domestic violence contacted the police [4]. The number of women reporting the last incident of physical abuse
to the police in this study (40.5%) fell between these two figures. According to battered women in an American study, police officers are among the most frequently contacted but least helpful resources [70]. This may be one of the reasons for the low percentage of abused women in this study who involved law enforcement officers.

An unexpected finding was one of fewer physically abused women reporting the incident to the police if it occurred within the past year as opposed to more than a year ago. With all the media coverage and public education campaigns on domestic violence over the past year, one would expect that more women would be informed, willing to press charges and seek justice.

Unless the victim is seriously injured and requires immediate medical attention, the usual sequence of events is that the victim reports an assault to the police first. After taking a report, the police officer advises the victim to go to the hospital to be examined and have a medical report completed by the physician. An even smaller percentage of women sought medical attention than made a report to the police. Barriers to attending at the hospital could be related to:

1. Previous unpleasant experiences;
2. An insensitive reception by the law enforcement officers and feeling she will have a repeat of this at the hospital;
3. A dread of long waiting times in the Accident and Emergency Department;
4. Fear of the abuser attacking her again and;
5. The victim hoping that the abusive situation will improve.
4.4. Strengths and Weaknesses of the Study

It is difficult to compare previous studies on domestic violence, due to differences in methodology, which needs to be carefully analysed when evaluating studies. There is no standard definition of domestic violence, several screening instruments are used and different time frames are looked at (acute, lifetime, past year and past month abuse). Studies of domestic violence differ according to which relations are included (intimate partners, relatives, children), the type of abuse (physical, sexual, emotional and verbal) and whether current or past. Many studies have inadequate control groups and a selection bias concentrating only on women, victims who present with physical injuries, those seen in emergency rooms or those in shelters. Prevalence rates differ and fall into a wide range according to which definition is used.

Definitions used in this study were taken from an Inter-American Development Bank publication. Victims themselves may have a different perception of domestic violence. Many do not consider emotional and verbal abuse a part of the spectrum of domestic violence. It has been reported that patients are poor predictors of domestic violence in their own lives [52]. To avoid this problem domestic violence for the purpose of the study was defined clearly for each respondent during the introduction of the questionnaire and before each question on abuse.

Underreporting is a limitation of most studies on domestic violence. Abuse is a sensitive issue which people might be hesitant to discuss openly, especially with a stranger they have just met. Victims may be reluctant to
disclose because of fear, shame or embarrassment. Information on domestic violence in this study was collected by self—reporting, which may have introduced an element of recall bias. The prevalence rates found therefore could be underestimates. Most women however seemed quite willing and comfortable discussing domestic violence. Every effort was made to ensure that the surroundings were private and secure and on the whole the response rate was good.

With regard to the representativeness of the study, this was a single institution hospital-based study, further biased by the fact that participants were selected from the Accident and Emergency Department. The findings of this study cannot be extrapolated to other areas or the general population of females. Women of higher socio-economic status are more likely to access care in private facilities (family physician, walk-in clinic, and emergency room at a private hospital). Low-income women are more likely to go to community clinics and an accident and emergency department at a public hospital. As a result, it is quite likely that a number of women of a higher socio-economic stratum were probably missed. Exactly what impact this group would have had on the prevalence rates is unknown.

There is a large Haitian population in The Bahamas, many of whom are illegal aliens with no immigration status, that speak a French Creole. Their understanding of the English language is often poor. For this study, women who did not speak fluent English were excluded as no bilingual interviewer or dedicated translator was available. Only 4% were excluded because of a language
barrier. Including members of this group may have lead to inaccurate answers and results, but their exclusion may have meant that some abused women were missed. It has been postulated that immigrant women are a high-risk group for domestic violence due to cultural and language barriers, fear of deportation, economic constraints and the batterer exerting control over the victim’s immigration status.

It is not known whether those who were too ill to participate or younger than 18 years old may have been victims of domestic violence. The gender-specific questions on who committed the act of abuse may have prevented the disclosure of details of domestic violence in lesbian relationships. Domestic violence was detected in only two lesbian relationships. These persons chose the ‘other’ answer when identifying the perpetrator of abuse. Some persons in same-sex relationships may have been reluctant to discuss abuse because of the focus on heterosexual relationships.

There was one interviewer, the author, which eliminated inter-observer bias and also the need to train research assistants. However a number of patients were not recruited because of the shortage of interviewers. Ideally two interviewers should have been present at each time slot to ensure all eligible patients were captured. Due to time constraints, interviews were conducted during only 30 of the 36 available time slots. However, this did not prevent the required sample size from being attained. If more interviewers were available, more hours of surveillance could have been completed and a larger study
population recruited, which would have provided more information for the analysis of sub-groups.

During the development of the questionnaire, some difficulty was found with questions addressing use and abuse of alcohol, marijuana and cocaine and financial and economic status. Standard questions were used to screen for alcohol and illicit drug use, but not enough to allow for a detailed assessment of any substance abuse problem. Use of detailed screening instruments would have taken the focus away from that of domestic violence and made the questionnaire too long.
5. Recommendations

Information from this study will be used in the development of national health policies, plans and legislation to protect women from abuse. Just as important, it is the author’s wish that emergency physicians and health care workers in The Bahamas and the Caribbean region will be sensitised to the magnitude of the problem. This enhanced awareness is important so that policies can be put in place to ensure correct management protocols, adequate availability of community resources, safe shelters and legal aid for victims of domestic violence.

5.1. Recommendations For Policy Development

Attempts to find a profile in terms of demographic or health factors, to help identify domestic violence victims have been mostly unsuccessful. Studies have been done to try and identify specific injury patterns, anatomic locations of trauma, types of complaints and various socio-economic variables that identify victims of domestic violence. Patterns of injury or trauma to certain body parts do not predict domestic violence with accuracy of any clinical utility. One study found that battered women were more likely to be injured in the head, face, neck, thorax and abdomen than women injured by other causes, but still concluded that the low positive predictive value and limited sensitivity of these injuries supports the use of universal screening for domestic violence in all injured women [37,59]. In the absence of any profile, routine universal screening for domestic violence
should become a standard practice by all health care personnel in order to identify abused women, prevent further trauma and interrupt existing abuse.

Protocols for routine screening for domestic violence and guidelines for the management of victims must be developed. Domestic violence is ideally suited to universal screening. Screening would be inexpensive, safe, non-invasive and fairly sensitive. Use of guidelines has been shown to increase the numbers of women identified as victims [18]. Existing protocols in emergency departments throughout the region should be identified and evaluated. Those that are successful and yield a good rate of detection can be adapted to other hospitals.

Available services for victims must be improved. The Crisis Centre has a need for additional advocates and trained volunteers to continue their work. At this time, the centre is only able to provide advocacy services for rape victims presenting to the Accident and Emergency Department on weekends. The public should be made aware of their work and encouraged to join in the effort.

The government of The Bahamas should be more proactive in providing aid to volunteer organizations and in the procurement of additional social workers and safe shelters for victims of domestic violence. When a victim is identified, the back up and referral services must be readily available to health care workers. Ideally, advocates and social workers should be available or on call on a 24-hour basis, to provide psychosocial support to victims of abuse. It has been shown that emergency department based advocacy for domestic violence resulted in increased use of shelters and shelter-based counselling [71].
Many physicians working in The Bahamas are trained at the University of the West Indies. This regional educational body may wish to include training on the recognition and management of domestic violence in its medical school and residency curriculums.

5.2. Recommendations For Training

5.2.1. The Health Care Sector

There are implications for training of health care workers in domestic violence matters to inculcate appropriate attitudes towards victims and perpetrators and improve rates of detection. Research has indicated that training can be effective for significantly increasing the detection of battered women [72]. It is necessary to have a continuing education program on domestic violence in place so that all the health care workers in the Accident and Emergency Department respond appropriately when victims disclose to them. Certainly if a health care provider is perceived by the victim as being concerned, easy to talk to, non-judgemental and protective, the victim would be more likely to disclose. A Canadian study on the Emergency department as a site for domestic violence intervention found that follow-up could be attained in only 50% of patients, indicating that the emergency department may be a sole source of medical care for domestic violence victims [73].

Specific areas identified for training are:

1. Conducting a lethality assessment and providing safety planning. A victim may not be able or willing to leave an abusive relationship, but possible dangers (firearm or other weapon in home, threats of homicide or
suicide, abuse of children) must be explored and the victim counselled. Victims may need help devising a safety plan (securing copies of important documents, spare car keys, medications and money, asking neighbours and family for help) and advice on legal aid available (e.g. how to obtain a restraining order).

2. Documentation. A legible, descriptive and precise medical record, including details of the abusive event, the social history, a detailed description of injuries (ideally shown on a body map) and names of law enforcement officers involved in the case is essential. Medical records provide an objective account of the abuse and will sometimes be used as evidence in court.

3. Forensics, medical photography, and correct handling of evidence to ensure validity in court.

4. Domestic violence legislation (The Sexual Offences and Domestic Violence Act 1991). Awareness of the law and what protection it affords patients, legal options available and how to access the system is necessary to adequately protect women and deter perpetrators of abuse.

5.2.2. The General Public

Education for patients and the general public, on what constitutes domestic violence is necessary. Written information on legal options, local counselling and crisis intervention services, shelters, community resources and educational materials on domestic violence should be available to all patients visiting the Accident and Emergency Department. Material can be left in waiting
areas, rest rooms and examination rooms. The clients interviewed were very amenable to accept educational material and brochures about the Crisis Centre. Some women took literature for friends and family members who they knew were in an abusive relationship and asked questions on how they could assist them.

Public education campaigns using all forms of media - poster, brochures, television and radio, need to be accelerated to heighten awareness of domestic violence. A few respondents commented that they were pleased that questions about domestic violence were being asked because they realized that the problem exists and more should be done about it. Some of the older respondents said that this was a taboo topic in the past, so it was never discussed or reported to the police or a doctor. The community accepted abusive relationships and it was a personal problem that one had to bear by oneself. The public needs to be made more aware of the problem and their responsibilities for reporting abuse and encouraging battered persons to seek help.

5.2.3. The Law Enforcement Sector

The police force will need further training to sensitize them to the problem of domestic violence. Statistics from the Royal Bahamas Police Force have shown that homicide is due to domestic problems in many cases. The problem needs to be tackled at this level to aid in decreasing the crime rate. One respondent said she would not disclose to a health care worker, as she was afraid the police would become involved. The police force must portray itself more positively as an advocate for victims of domestic violence.
5.3. Recommendations For Future Studies

More research is needed to understand the scope and extent of domestic violence in The Bahamas and the Caribbean region.

Future studies on domestic violence should be undertaken to address domestic violence in men, children and same-sex relationships. The focus of this study was women in heterosexual relationships. Men are also abused in intimate relationships and it would be interesting to compare the prevalence between the two sexes. Some studies have suggested that physical violence committed by women against men may be as common as that perpetrated by men against women – although women sustain substantially more injuries than men as a result of such acts [19,35]. Child abuse and incest were also not addressed. Teenage females may be a population at risk for battering and ‘date rape’. They should be included in follow-up studies to document prevalence of domestic violence in this age group. Less gender specific questions would ensure that persons in same sex relationships are captured.

There should be a study to test the results of the logistic regression. If this work is repeated data should be collected for longer periods of time or sub-samples taken throughout the year, to get a better estimate and deal with seasonality or stress periods. For example during the Christmas season financial stressors and alcohol intake are more widespread and so the incidence of domestic violence may be higher at these times. There is no evidence available that the prevalence of domestic violence is seasonal.
Future studies should strive to capture the immigrant non-Bahamian population, who is not fluent in the English language, by having a translator available to administer the questionnaire.

Studies on barriers to screening and the attitudes and knowledge of physicians and health care workers towards domestic violence should be conducted. A follow-up study, after a screening policy and training of staff is implemented, would provide a quality assurance tool and information on whether screening improves the identification rate of victims.

Research has shown that abuse experienced as a child is a risk factor for domestic violence as an adult. A question to determine exposure to abuse in childhood, to see whether there is a correlation to prevalence of adult abuse, should be included in any follow-up study.

Future studies on domestic violence should also include questions on the reason for the emergency department visit and the frequency and duration of abuse, as this may identify risk factors for abused women. It would be useful to ask the abused women identified the reasons why they did not make better use of the resources available to them (medical care, Crisis Center, law enforcement agencies). A question to document the frequency of threats and actual injuries sustained from a firearm should be considered. This study lumped firearm injuries into the category ‘injury with a weapon’, which would have included any object, knives and guns.

A relationship was found between alcohol use and domestic violence. To help to clarify the role that alcohol and other abused substances play, use of a
more detailed, validated and objective screening instrument to gather more information (e.g. CAGE, AUDIT for alcohol use) could be considered for future studies.

Another interesting angle for a future study would be a retrospective chart review of the documented victims of domestic violence to corroborate whether the medical staff identified them as such and if the reported number of previous visits to the Accident and Emergency Department was valid. Also, follow-up on the patients who were identified as victims of acute abuse and who were referred to the Crisis Centre should be done to see how many actually sought further assistance and counselling.

An outcome study to see what proportion of victims who reported a domestic violence event to the police actually followed through, pressed criminal charges and took the matter to court would be interesting. The number of women seeking medical attention and obtaining a medical report was less than those reporting the incident to the police. It could be predicted that even fewer women would pursue the matter further during the months waiting for a court date. During this time the abuser has a chance to express regret and the couple may enter the ‘honeymoon period’ of the cycle of abuse.

Further research at the Princess Margaret Hospital should include women presenting to the obstetric wards, to capture the pregnant population, which has shown to be more at risk for abuse.

Future studies should ideally be population based, to provide a more accurate prevalence rate of domestic violence in The Bahamas. If another
hospital based study is proposed. Researchers may want to sample from the other major health institutions like Doctors Hospital (a private hospital), the Sandilands Rehabilitation Centre, (geriatrics and mental health) and the Rand Memorial Hospital (Grand Bahama).
6. Conclusions

There is an apparent epidemic of violence worldwide. In The Bahamas there is a culture of violence, where disputes are more likely to be settled by reverting to aggression and abuse. Domestic violence, underreported by the victims and unappreciated by the medical community, is a pervasive form of violence. At a major public hospital in The Bahamas, domestic violence against women was found to be a significant and serious problem in women presenting to the Accident and Emergency Department.

Prevalence rates for physical and emotional and verbal abuse found in this study were higher than predicted. Lower rates of acute abuse and sexual abuse were found, but matched those in other studies. Risk factors that contributed to the various types of abuse were younger age, being single, separated or divorced, crowding in the home, economic hardship, a low level of education and alcohol and marijuana use by both the victim and perpetrator. No relation was found with pregnancy or unemployment, and victims were not repeat users of the Accident and Emergency Department.

The perpetrator was more likely to be a current partner, producing injuries of mild to moderate severity, with relatively frequent weapon use. A low rate of screening by health care providers was confirmed. Respondents expressed they would be comfortable discussing a problem of domestic violence with staff of the Accident and Emergency Department, preferably a female physician. Women were very knowledgeable of available community resources for domestic violence.
victims, but utilization was poor. Reporting of incidents to the police force was
better than expected.

Appropriate and holistic management of victims of intimate partner abuse
by health care professionals, will directly help them and also send the message to
the community of the seriousness of the problem and the need to address it. The
Accident and Emergency Department staff must be able to acutely manage
victims and participate in the development of intervention strategies to halt abuse.
Protocols for the management of domestic violence victims must be developed,
shared with staff and their utilization encouraged. Demographic and social
factors do not accurately predict risk for domestic violence. Routine screening for
domestic violence of all women presenting to the Accident and Emergency
Department for any reason, must become a standard of care.

Optimal care for victims in an abusive relationship depends on the health
care provider’s knowledge of community resources that can provide safety,
advocacy and support. Validation of the abuse may empower the victims to seek
help and leave the abusive relationship. Interventions beyond medical
management include safety planning, legal advice and patient education.

A well-organized response for victims of abuse, must coordinate the
efforts of a number of sectors including health, social services, advocacy groups
and shelters, clergy, community groups, law enforcement agencies and the
judicial system. Teamwork and effective communication between the groups is
essential. Members of each of these bodies need to be trained to recognize and be
sensitive to the signs of domestic violence. Orientation programmes and
continuing medical education on domestic violence must be conducted on a regular and required basis.

The Accident and Emergency Department and its staff can and must play an important role in addressing the needs of battered women.
7. References


16. Heyzer N: Address to the 43rd Session of the commission on the status of women, March 1999, UNIFEM.


# 8. Appendices

## Appendix 1

**Domestic Violence Research Project**  
**Time Slots September 2000**

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*X – Time slots not completed*
Appendix 2

Identification Number ______________

DOMESTIC VIOLENCE RESEARCH PROJECT
PATIENT QUESTIONNAIRE

Administered by: ________________________________ (CODE )

Date: (d/m/y)_______/_________/________

Day of the week: Su M T W Th F S (Circle one)

Shift: 8am-12noon 12pm-4pm 4pm-8pm 8pm-12mn 12mn-4am 4am-8am
(1) (2) (3) (4) (5) (6)

1. What is your date of birth?
   _______ / ________ / ________ (d/m/y)

2. What is your marital status?
   (1) Single
   (2) Married (including common law)
   (3) Separated
   (4) Divorced
   (5) Widowed

3. How many children and/or dependants do you have? (How many people depend on you for care and financial support)
   ______________________ children & dependants

4. How many people live in your home? Include yourself and everybody who normally lives there.
   ______________________ people
5. What is the total number of rooms in your house? Do not count the kitchen and bathrooms.
__________________ rooms

6. What is the highest level or grade of schooling that you finished?
   (1) Did not go to school
   (2) Primary (grades 1-6)
   (3) Junior High (grades 7-8)
   (4) Senior High (grades 9-12)
   (5) College (grades 13, 14, 15, 16)
   (6) University (grade 17+)

7. Are you pregnant now?
   (1) Yes
   (2) No
   (3) Not sure
   (9) Not stated

8. Are you employed or working now?
   (1) Yes
   (2) No
   (9) Not Stated

9. During the past year (12 months) how many times did you have money problems (i.e. when you needed to buy important household items or pay bills, you did not have enough money to do so?) (Circle one)
   (1) very often
   (2) often
   (3) sometimes
   (4) never
   (9) not stated
10-12. During the past year (12 months), how many times did you use any of the following things? (Tick one for each substance)

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<td>12. Cocaine (coke, crack)</td>
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13. Not including this visit, how many times did you register to see the doctor here in the Accident & Emergency Department at the Princess Margaret Hospital, in the past year (12 months)?

_____________________ times  (If none, enter 0 and skip to # 15)

14. On coming to the Accident & Emergency department for any reason in the past year (12 months), did the nurse or doctor ever discuss domestic violence or ask you about possible partner abuse?

(1) Yes  
(2) No  
(9) Not stated

15. Would you feel at ease talking to a staff member of the Accident & Emergency Department about a problem of partner abuse/domestic violence?

(1) Yes - skip to #17  
(2) No  
(9) Not stated
16. Why not? (For what reasons would you be uncomfortable discussing a problem of partner abuse/domestic violence with a staff member of the Accident & Emergency Department?)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

17. With whom would you feel most comfortable discussing a problem of partner abuse/domestic violence in the Accident & Emergency Department? **(Circle one answer only)**

(1) Male doctor
(2) Female doctor
(3) Male nurse
(4) Female nurse
(5) Other (specify) _________________________
(9) Not stated

18. Have you heard of The Crisis Centre, (formerly known as the Women’s Crisis Centre)?

(1) Yes
(2) No - skip to # 20
(9) Not stated

19. Have you ever used the services offered by The Crisis Centre?

(1) Yes
(2) No
(9) Not stated
I am now going to ask you about physical and emotional violence you may have experienced in the past. These are difficult questions, but please be honest in your response. Remember the answers you give will be recorded anonymously, and will not become part of your medical record.

(If they answered no to #15 (i.e. they said they are uncomfortable discussing a problem of partner abuse/domestic violence with a staff member of the Accident & Emergency Department), acknowledge this, tell them you still need to ask the questions on abuse and encourage them to answer them.

20. Has a male partner (current or past) ever threatened to hurt you, insulted you or been verbally abusive to you (frequent yelling, complaining about everything you do or always saying hurtful things)?

(1) Yes
(2) No - skip to # 22
(9) Not stated

21. Who verbally or emotionally abused you? (Tick all that apply)

(1) _____ Husband
(2) _____ Ex-husband
(3) _____ Boyfriend who lives with you
(4) _____ Boyfriend who does not live with you
(5) _____ Ex-boyfriend
(6) _____ Other (specify) ___________________________

22. Have you ever been in a relationship where you have been forced to have sex when you did not want to or forced to engage in sex that made you feel uncomfortable?
23. Who sexually abused you? (Tick all that apply)

(1) _____ Husband
(2) _____ Ex-husband
(3) _____ Boyfriend who lives with you
(4) _____ Boyfriend who does not live with you
(5) _____ Ex-boyfriend
(6) _____ Other (specify) ___________________________

24. Have you ever been in a relationship where you have been hit, kicked, punched shoved, grabbed, slapped or otherwise physically hurt or injured by your partner?

(1) Yes
(2) No - skip to # 33
(9) Not stated

25. When was the last time that you were physically abused?

(1) within the past week
(2) within the past month
(3) within the past six (6) months
(4) within the past year
(5) more than one (1) year ago
(9) not stated
26. Who committed this last incident of physical abuse? (tick one)
   (1) _____ Husband
   (2) _____ Ex-husband
   (3) _____ Boyfriend who lives with you
   (4) _____ Boyfriend who does not live with you
   (5) _____ Ex-boyfriend
   (6) _____ Other (specify) ___________________________

27. Was this person who abused you the last time either drunk, high or under the influence of alcohol or any other drugs like marijuana or cocaine at the time he hurt you?
   (1) Yes
   (2) No
   (3) Not sure/Don’t know
   (9) Not stated

28. Did you seek medical attention or see a doctor for this last incident of abuse?
   (1) Yes
   (2) No – skip to #30
   (9) Not stated

29. Where did you seek this medical attention?
   (1) Accident & Emergency, Princess Margaret Hospital
   (2) Emergency Room, Doctor’s Hospital
   (3) General Practice Clinic, Princess Margaret Hospital
   (4) Community Clinic, Public Health Department
   (5) A Doctor’s Office
   (6) A Walk-In Clinic
   (7) Other, (specify) ___________________________
30. Did you report this last incident to the police?

(1) Yes
(2) No
(9) Not stated

31. Did you have any money problems at the time of this last incident of physical abuse? (Unable to pay bills or buy important household items that you needed).

(1) Yes
(2) No
(9) Not stated

32. Thinking about the most severe incident of physical abuse you have ever experienced, (not necessarily the last incident, but the worst), as I read the following, stop me when I read how bad the abuse was. I will read from least severe to most severe.

(1) Slapped, grabbed, pushed; no injuries and/or lasting pain
(2) punched, kicked, choked or strangled; bruises, cuts and/or continuing pain
(3) beaten up, severe contusions (black & blues), welts, burns, broken bones
(4) head injury, internal injury, and/or permanent injury
(5) injured by a weapon (e.g. gun, knife, club)

33. Did you come to the Accident & Emergency Department today because you were threatened, hurt or injured by your boyfriend, husband, or partner (or ex-boyfriend, ex-husband or ex-partner) or someone important to you?
34. Who hurt or injured you today?
   (1) ___ Husband
   (2) ___ Ex-husband
   (3) ___ Boyfriend who lives with you
   (4) ___ Boyfriend who does not live with you
   (5) ___ Ex-boyfriend
   (6) ___ Other (specify) ____________________________

35. Today did the nurse or doctor specifically ask you if you were threatened, injured or abused by someone?
   (1) Yes
   (2) No
   (9) Not stated

36. Do you have a partner (husband, boyfriend) now?
   (1) Yes
   (2) No – thank-you, no further questions
   (9) Not stated

37. Does your current partner have a job now?
   (1) Yes
   (2) No
   (9) Not stated
38-40. During the past year (12 months), how many times did your current partner use any of the following things? (Tick one for each substance)

<table>
<thead>
<tr>
<th></th>
<th>Never (1)</th>
<th>Monthly (2)</th>
<th>Weekly (3)</th>
<th>A few times a week (4)</th>
<th>Daily (5)</th>
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<tbody>
<tr>
<td>38. Alcohol (wine, beer, rum)</td>
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<td>39. Marijuana (ganja, weed, grass)</td>
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<tr>
<td>40. Cocaine (coke, crack)</td>
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I would like to thank you for being so helpful and taking the time to answer the questions.

If a victim of domestic violence is identified, offer the patient counselling and information on The Crisis Centre. Give them a Crisis Centre brochure to read. Ask them if they would like you to call an advocate/social worker or make an appointment for them to see one.
Appendix 3

Domestic Violence Research Project
Introduction to Questionnaire

- Domestic Violence is the threat or infliction of physical harm against an intimate partner. It can occur to persons who are dating, married, cohabiting, or in separated relationships. It is a pattern of offensive and intimidating behaviours that may include physical, psychological and/or sexual attacks against the victims.

- Many women are exposed to domestic violence in some form. Domestic violence is a health risk and can result in physical and emotional problems. If you are a victim of domestic violence we can only help if we know about it.

- We are at present conducting a study in the Accident & Emergency Department to determine the pattern of domestic violence that occurs among our female patients and things that put them at risk for this abuse.

- You can greatly help in this effort by agreeing to answer a few questions as truthfully as possible. The interview should take no more than fifteen minutes. You will not benefit directly from participation in this study, but we hope the results will lead to an improvement in the detection and treatment of future patients who have experienced violence in their lives.

- There are no physical risks to participating in this study. You do not have to answer any question you do not want to answer. Some women may find some of the questions about domestic violence uncomfortable to answer. If any of the questions in the interview bring up uncomfortable or emotional feelings that you wish to discuss further, please let the interviewer know or discuss it with the nurse or doctor when they see you.

- All your answers are confidential and your name will not be recorded on the questionnaire. No other person will have access to this information. Your answers will in no way affect your medical care today or in the future.

- If you have any questions regarding the research now or at a future time or if any problems arise as a result of your participation in this study, you can address them to Dr. Caroline Burnett whose name, address and phone number are located on this card.

- If you don't mind, I would like to start with a few questions about you.
# Domestic Violence Research Project

## Patient Log

<table>
<thead>
<tr>
<th>Date</th>
<th>Shift</th>
<th>Name</th>
<th>Age</th>
<th>Completed Survey</th>
<th>Did not complete survey</th>
<th>Reason did not complete survey</th>
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<td>(Refused — why? unconscious,</td>
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<td>very ill, drunk, language</td>
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<td>barrier, already did survey,</td>
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<td>unable to find patient,</td>
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<td>allow a private interview)</td>
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