

AMERICAN UNIVERSITY OF BEIRUT

KNOWLEDGE, ATTITUDES, BELIEFS, AND SCREENING
PRACTICES OF DOMESTIC VIOLENCE AGAINST WOMEN
AMONG EMERGENCY DEPARTMENTS' HEALTH CARE
PROVIDERS IN LEBANON

by

RASHA SHEHADI

A thesis
submitted in partial fulfillment of the requirements
for the degree of Master of Science in Nursing
to the Department of Nursing
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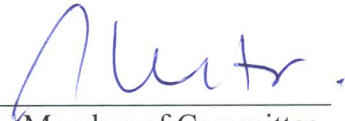
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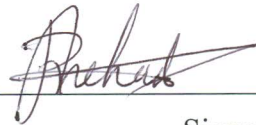
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ABSTRACT OF THE THESIS OF

Rasha Shehadi for Master in Nursing
Major: Mental Health Nursing

Title: Knowledge, Attitudes, Beliefs, Screening and Management Practices of Domestic Violence against Women among Emergency Departments' Health Care Providers in Lebanon

There is lack of data on the readiness of healthcare providers in the emergency departments in Lebanon to identify and properly treat women who suffer domestic violence. Although research studies have shown that domestic violence against women (DVAW) is associated with many adverse physical, psychological, and health outcomes, healthcare providers (HCPs) remain insensitive to the presenting symptoms of their patients, and often fail to manage incidents of DVAW. Many studies have been conducted to understand the reasons behind DVAW screening and management failures; however, there is lack of data from the Middle East exploring this phenomenon.

The aim of this research study was to investigate the factors affecting screening and management practices of DVAW among emergency departments' HCPs in Lebanon. Specifically, factors such as knowledge, attitudes and beliefs, as well as gender and parental education of HCPs were explored.

This cross sectional, descriptive study was conducted on seventy-five HCPs in three major hospitals in Beirut, and showed that healthcare providers in Lebanese hospitals lack knowledge on DVAW, tend to have negative attitudes and beliefs toward this phenomenon, and rarely screen and manage suspected cases of DVAW. Gender and parental education did not have any effect on their attitudes towards DVAW.

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ABBREVIATIONS

DVAW: Domestic Violence against women

HCP: Healthcare providers

ED: Emergency Department

RN: Registered Nurses

UNICEF: United Nations Children's Fund

WHO: World Health Organization

AMA: American Medical Association

CHAPTER I

INTRODUCTION

Violence against women has been recognized as “perhaps the most shameful human rights violation. And, it is perhaps the most pervasive” (Annan, 1999, page1). Domestic violence against women (DVAW) knows no culture, religion, borders, or beliefs, and women continue to endure domestic violence worldwide, with estimates varying from 20% to 50% from one country to another (UNICEF, 2000). Initially regarded as a human right issue, DVAW turned into a public health concern due to the global women’s organizations efforts (WHO, 2002). This phenomenon continues to be a “global epidemic” that jeopardizes women’s psychological, physical, sexual and reproductive, and economic wellbeing (Garcia-Moreno and Watts, 2011; Chambliss, 2008; UNICEF, 2000).

Since 2005, after the World Health Organization (WHO) multi-country study on women’s health and DVAW was initiated, research studies investigating this phenomenon expanded; however, limited data is available from the Middle East and West Africa (Garcia-Moreno and Watts, 2011). Therefore in this study, we intend to explore the knowledge, attitudes, and beliefs as variables of influence on screening and management practices of DVAW among emergency departments’ health care providers in Lebanon.

CHAPTER II

LITERATURE REVIEW

A. Domestic violence against women: General View

DVAW was defined as “a pattern of coercive control, consisting of physical, sexual, or psychological assault against a former or current intimate partner” (AMA, 1992). The World Health Organization (2002) describes four different types of DVAW, which include:

- a. *Emotional/Psychological*, such as acts of intimidation, belittling, and humiliation
- b. *Physical*, or acts of physical aggression, such as kicking, hitting, slapping, and beating
- c. *Sexual*, such as forced intercourse or any form of sexual coercion
- d. *Controlling behaviors*, such as isolating a person from their community, monitoring their movements, and restricting their access to information or assistance

Women who endure physical violence often suffer more than one type of abuse. For instance, a study on 613 abused women in Japan revealed that less than 10% suffered physical abuse solely, whilst 57% of them suffered physical, psychological, and sexual abuse (Yoshihama and Sorenson, 1994).

Yet, regardless of the type of exerted violence, studies in Western and Arab cultures on its psychological impact on women revealed vast spectra of associated mental disorders; such as anxiety disorders, mood disorders, substance abuse, suicidal behaviors,

psychosomatic disorders, and personality disorders (Gerlock, 1999; Hamdan, 2009; Heise and Garcia-Moreno, 2002; Krishnan, Hilbert, and Pase, 2001; Kumar et al., 2005; Maziak and Asfar, 2003; May, Rakhlin, Katz, and Limandri, 2003; Usta, Farver, and Pashayan, 2007). It has also been found that DVAW was associated with many adverse health behaviors; such as, tobacco use, alcohol and drug use, unsafe sex, among other behaviors leading to poor health outcomes (Campbell, 2002; Chambliss, 2008; Usta, Farver, and Pashayan, 2007). The poor health outcomes linked to DVAW were increased risk for miscarriage during pregnancy, preterm delivery, infectious complications, less prenatal care and low birth weight (Chambliss, 2008). It is thought that DVAW during pregnancy is as common as pre-eclampsia and gestational diabetes (Chambliss, 2008).

DVAW does not merely concern battered females. The American Academy of Pediatrics (1998) stated, "Intervening on behalf of battered women is an active form of child abuse prevention". DVAW may be the strongest predictor of child abuse, since men who abuse their partners are likely to abuse their children as well (Chambliss, 2008). In addition, it is now known that women who have experienced child abuse, either by witnessing or experiencing domestic violence are more likely to be abused later on (Hedin, 2000; Krishnan, Hilbert, and Pase, 2001; Jewkes, Levin, and Penn-Kekana, 2002; UNICEF, 2000). This could be explained by the notion that children who grow up in a violent environment might accept using violence to unravel conflicts as "normal" and believe in patriarchal authority in the future (Medecins du Monde, 2009; Usta, Farver, and Pashayan, 2007). And the cycle continues viciously!

B. DVAW Worldwide

Few studies on DVAW have been conducted in the Middle East region (Garcia-Moreno and Watts, 2011). Table 2.1 briefly describes prevalence rates of DVAW from different regions of the world.

Author	Date of publication	Country of study	Sample size	Sample characteristics	Prevalence of DVAW
WHO	2002	48 countries	-	-	Ever 10-69%
WHO	2004	9 countries, including Egypt	7,123 (Egypt)	Married women aging 15-49	Ever (Egypt): 35%
Yoshihama and Sorenson	1994	Japan	613	Abused women	Ever:57% of PA, EA, and SA
Maziak and Asfar	2003	Syria	411	Women presenting to PHCs	Past year:23.1%
Hammoury and Khawaja	2007	Lebanon	351	Pregnant women presenting to UNRWA clinics	Ever in their marital life:: -68.8% PA - 16.0% EA
Usta, Farver, and Pashayan	2007	Lebanon	1418	All women presenting to 4 PHCs	Current: 35% DV: - 88% VA - 66% PA
Heinzer and Krimm	2002	USA	106	All patients presenting to EDs	Past year: 28.3%
Department of Statistics and Macro International Inc. (Jordan)	2008	Jordan	3,444	Married women aging 15-49 years	Ever: - PA: 20.6% -SA: 7.6% -EA: 20.0%

Table 2.1.Prevalence Rates of DVAW from Different Countries. PA: Physical Abuse; EA: Emotional Abuse; SA: Sexual Abuse; DV: Domestic Violence,
PHC: Primary Healthcare Centers; ED: Emergency Department

A multinational study by the WHO revealed that abused women in Egypt do not frequently ask for help because it is thought to be “of no use”, and when they do, the sought help is limited to their families and/or neighbors (WHO, 2004).

Lebanon had been subjected to civil unrest for over three decades, which may have contributed to “normalizing” violence in the Lebanese community. Moreover, the rooted gender inequality in the Middle Eastern patriarchal societies, poverty, and religiously authoritative beliefs of the power of men over women, all contribute to female subordination, and subsequent higher rates of DVAW (Usta, Farver, and Pashayan, 2007). During the past few years, some movements challenged DVAW, urging abused women to speak out (Al Jandaly, 2008), yet research studies in this area remain bashful and need to rouse to generate culturally sensitive interventions that meet up with Middle Eastern battered women’s needs.

The program coordinator of KAFA, a well-known Lebanese organization campaigning against violence and exploitation of women, estimated that at least 75% of Lebanese women have suffered physical abuse by their husbands or male relatives at some stage of their lives (Integrated Regional Information Network-IRIN, 2011). The Lebanese community views family affairs “as a very private issue, and the woman is seen as the man’s property” (IRIN, 2011). Many Lebanese women are reluctant to report incidents of abuse due to stigma, shame, self-blame, fear of the aftermath, or lack of personal resources (Usta, Farver, and Pashayan, 2007).

DVAW prevalence rates are high. In their study, Usta, Farver, and Pashayan (2007) found that 30% of women who reported experiences of domestic violence never shared

their personal exposure to DVAW, 43% reported it to a family member, and only 8% reported to legal authorities. Interestingly, the HCPs at these clinics reported 10% increase in the phone calls after educational pamphlets on DVAW were distributed, and the Lebanese women were found to willingly talk about their exposure to DVAW when asked. Moreover, a qualitative focus group study was conducted on Lebanese women to understand their perceptions and attitude towards involving their HCPs in the management of DVAW. The participants supported the involvement of healthcare systems in DVAW (Usta et al., 2012). Unlike Haj-Yahia's (2002) study on exploring the DVAW beliefs of 356 Jordanian women, where women tended to justify and blame women for their physical violence, believed that women benefit from their abuse, and refused any sort of help because this is a "personal problem" (Haj-Yahia, 2002).

Despite the Lebanese women willingness to reveal their abuse, the identification and reporting rates of incidents of DVAW to legal authorities remain low. Thus, there is need for more investigation of the factors which influence the screening practices of the HCPs. The Integrated Regional Information Network (2011) suggested that Lebanese hospitals and the police fail to report DVAW incidents, which are often documented as "home accidents" that do not require further investigation. Lack of sensitivity to domestic violence by the medical and legal systems may have potentially harmful outcomes on the victims of abuse, causing further sense of entrapment and helplessness (Usta, Farver, and Pashayan, 2007; Krishnan, Hilbert, and Pase, 2001).

The emergency department (ED) health care providers (HCPs) are among the first to encounter women subjects of DVAW; still, it is often underreported and unrecognized

(Heinzer&Krimm, 2002). To explore the variables that determine screening and management for DVAW by HCPs, studies have been conducted worldwide and in the Middle East. In the literature, the most commonly described determinants of lack of DVAW screening and management practices among health care providers were their knowledge, attitudes, and beliefs regarding DVAW, in addition to their gender, and their parental education level. These determinants are discussed below.

C. Knowledge, Attitudes, Beliefs, and Screening Practices of DVAW among ED HCPs

In a study exploring the HCPs' barriers to screening for DVAW in the EDs, Heinzer and Krimm (2002) measured the ED health care providers' screening behaviors over 10 days. The results of 106 patients (81 females, 25 males) who were screened for DVAW although their presenting diagnoses were not related to DVAW, showed that 28.3% reported a threat for violence, lack of safety at home, or actual abuse. Follow up interviews with the ED staff were done to identify rationales for lack of participation, and found that they were reluctant to screen for DVAW because they were uncomfortable with asking the screening questions, worried about potential positive response, and lacking knowledge or training on what to do next if the screening was positive. Other barriers included negative attitudes, such as "too busy; not my responsibility", and/or fear of retaliation of the healthcare professional by the perpetrator.

Similarly, Gadomski et al. (2001) conducted a multifaceted, multisite training and public awareness campaign in a rural health network (3 hospitals, 19 clinics) in central New York State and measured knowledge, attitudes, beliefs, and intended behaviors of health care providers at baseline and 2 years post campaign. The follow up measures showed

significant increases in screening, workplace resources, referrals, self-efficacy, victim autonomy, victim understanding and others from pre- to post- campaign..

A study to examine the barriers to effective screening of DVAW by ED registered nurses (Ellis, 1999) was conducted on 101 participants. The results did not show any statistically significant relationship between level of education, years in nursing, and years of experience in the ED with screening rates for DVAW. However, the relationship between attending in-service workshops on DVAW, as well as age, and screening rates was statistically significant. The highest rated barriers to screening were lack of privacy (60%), lack of time to ask about DVAW (25%), and lack of knowledge to ask about DVAW (20%). Among the respondents, 42.5% recommended more training on DVAW and available interventions, and 57.5% of the sample had personal experience with violence, which might be an internal barrier to screening for DVAW (Ellis, 1999).

A cross sectional, multisite survey by Sugg et al. (1999) was conducted to assess the beliefs and attitudes of 206 primary HCPs (71 physicians, 13 physician assistants, 6 nurse practitioners, 58 RNs, 25 licensed practical nurses, and 33 medical assistants) towards identifying and managing survivors of DVAW in Seattle. The results showed that 73% of the nurse/assistant group never identified a batterer, and 85% had not identified a batterer within the past year. In addition, 45.2% of the clinicians never or rarely asked about DVAW when treating injured patients, while less than 20% almost always ask about DVAW in high risk situations. Moreover, patients presenting with depression, anxiety, or pelvic pain were seldom or never asked about DVAW in over 60% of the time. Confidence in asking on DVAW was also assessed among physicians and nurses; 39.3% of the

clinicians were confident to ask questions about physical abuse, while 25.8% were not confident for the following reasons; 20% worried about their personal safety when asking about DVAW, 26.5% did not think that the setting was secure enough and 25% worried that the victims might project their anger towards them. Similarly, less than 16% of the nurse/assistant group was confident about referring survivors of DVAW, and only 23% of the sample thought that they had appropriate strategies for referral (Sugg et al., 1999).

In order for the HCPs to be capable of screening and managing DVAW appropriately, prior education and training in classroom and in practice are required. In general, the issue of DVAW seems to be missing from the educational curricula of medicine and nursing.

At the AUB School of Nursing, personal communication with professors who teach courses where subjects such as DVAW may be introduced; maternity or community health nursing revealed that domestic violence is not addressed unless it is chosen as a topic of interest by the students. Only recently, this topic was chosen in the undergraduate community health nursing course. Similarly, the medical students do not receive any training on DVAW.

Moreover, hospital policies regarding DVAW are lacking. Moreover, the governmental legal system does not have clear policies related to DVAW. For instance, at AUBMC, HCPs are expected to document and report any suspicion of assault. However, often police do not show up unless the battered woman wants to file an official complaint against the batterer. There is no current law that protects women against DVAW.

However, in June 2012, the Ministry of Public Health in Lebanon distributed a memorandum recognizing an increase in domestic violence against women and children,

urging HCPs to report any incidence of child abuse. However, this memorandum did not specify reporting DVAW, yet it is thought to be a step forward towards legislation against it. Currently, a bill that criminalizes DVAW and makes the reporting of DVAW cases obligatory is still under deliberation and pending approval at the Lebanese parliament.

The Lebanese ED health care providers are in the first line to encounter such incidents; therefore, their readiness to screen and manage DVAW needs assessment. In light of the previously mentioned research studies, estimated prevalence of DVAW and lack of policies in Lebanon, lack of medical and nursing education on DVAW, and lack of research studies on HCPs' screening and management of DVAW in the Lebanese hospitals, knowledge, attitudes, beliefs, and screening and management practices of the HCPs in the Lebanese hospitals' EDs were investigated.

D. HCP's Gender and Parental Education Effects on Screening

The relation between gender of the HCP and screening for DVAW seems to be contradictory in the literature. While in some studies, such as in Nigeria, male HCPs tend to screen more for DVAW (John, Lawoko, and Svanstrom, 2011), most studies showed that female HCPs tend to screen more for DVAW (Elliot et al., 2002; Lawoko et al., 2011; Tower, 2006; Usta et al., in press).

John, Lawoko, and Svanstrom (2011) carried out a cross-sectional study at a teaching hospital in Kano, Nigeria to study the barriers of screening for DVAW among HCPs. Of 274 health care providers, none had previous training in DVAW management. This study showed that male HCPs screened significantly more for domestic violence than females. The authors explained these findings by cultural norms in the Sub Saharan African

countries, where females support physical violence against women more commonly than their male counterparts. Both males and females health care providers who screened for violence scored significantly high on self-efficacy scale and blaming the victim scale. The authors discussed that the professional role of HCPs in Nigeria is not hindered by their personal convictions and does not seem to affect their screening practice for DVAW. Finally, the authors recommended more qualitative studies to understand this controversial association between providers' gender and attitudes and screening for DVAW.

However, Tower (2006) conducted a study on social workers, family practitioners, and obstetrics-gynecologists in Florida to examine barriers in screening women for DVAW. Results showed that female participants significantly screened more for DVAW and perceived fewer barriers than their male counterparts.

In another study by Elliot et al. (2002), a cross sectional survey which was administered to 1,103 physicians around the USA, showed that female physicians tended to screen more for DVAW.

Moreover, Usta et al. (in press) conducted a study on 545 Lebanese medical students to assess their willingness to help women survivors of DVAW. The results showed that females tend to be more willing to help battered women. Interestingly, students whose mothers went to university scored higher than those whose mothers reached complementary level of education on helping battered women scale (Usta et al., in press).

To conclude, previous research studies showed controversial results with regards to HCP's gender effect on screening for DVAW, and HCPs' parental education effect on their attitudes towards DVAW survivors needs further research.

Therefore, the purpose of this study was to explore the knowledge, attitudes, and beliefs (KAB) of ED health care providers towards DVAW and their screening and management practices. Hence, the research questions targeted in this study were:

1. What is the knowledge of the ED HCPs who work in Beirut on the physical and psychological symptoms of DVAW?
2. What are the ED healthcare professionals' attitudes and beliefs towards DVAW?
3. Are screening for and management of DVAW affected by the knowledge and beliefs of HCP?
4. Are screening for and management of DVAW influenced by the gender of the HCP?
5. Is there a relationship between parents' level of education and attitudes towards DVAW?

It is expected that lower level of knowledge and negative attitudes and beliefs of HCPs towards DVAW will correlate positively with lack of screening for and management of DVAW. In addition, female HCPs will screen and manage DVAW more than males in the ED, and lower level of parents' education will correlate positively with negative attitudes towards DVAW.

CHAPTER III

CONCEPTUAL FRAMEWORK

Heise's ecological framework was the base for this study (Heise, 1998) to explain the screening and management practices of the health care providers. This framework conceptualizes DVAW as a dynamic interaction between personal, situational, and socio-cultural aspects.

This framework consists of five interlocking levels:

Level 1, intrapersonal or individual, which in our study is represented by the personal knowledge, beliefs and attitudes of the healthcare professionals.

Level 2, interpersonal which is represented by the interaction of the healthcare professionals with the survivors of DVAW.

Level 3, institutional or organizational; in our study, it is the availability of resources or policies on management of survivors of violence in the EDs.

Level 4, community; in Lebanon and the Arab world in general, asking about DVAW is considered as interference in family affairs, which is a social taboo.

Level 5, policy; in Lebanon, there is lack of supportive hospital policies and national laws to screen for DVAW, which may contribute to lack of HCP screening.

The focus in this study is level 1 since individual knowledge, attitudes, beliefs, and screening and management practices of the HCPs in the Lebanese EDs were the focus of this research study.



Figure 3.1. Heise's Ecological Model. Adopted from CDC (2011)

CHAPTER IV

DESIGN AND METHODS

A. Ethical Considerations

The Institutional Review Board at the American University of Beirut and hospitals administrations approvals on participation in this study were granted prior to initiation of the study.

1. Hospitals' approval

This study was conducted in three major hospitals in Beirut. Data was collected at AUBMC, Hotel Dieu de France, and Makassed General Hospital.

Initially, AUBMC, Hotel Dieu de France, St George Hospital, and Bahman Hospital administrations were contacted for permission to access their facility for data collection. Although Bahman hospital granted their approval, the administration decided to withdraw from the study at the time of data collection due to HCPs' resistance to fill the survey; therefore, Makassed General Hospital's administration was contacted, and approval was granted. On the other hand, the approval of the ethics committee in St George hospital took more time than expected and approval was granted after data collection was completed in the above mentioned hospitals. Therefore, data collection was not pursued at St George for time constraints.

B. Design

This is a cross sectional, descriptive, correlational study, that aims to explore the knowledge, attitudes, and beliefs (KAB) of ED health care providers towards DVAW and their screening and management practices. The targeted settings in this study were the major hospitals' EDs in different regions in Beirut, which receive at least 30 patients on average daily. These hospitals have mental health and/or social services.

C. Sampling: Inclusion Criteria

Health care providers including registered nurses who have worked in the ED for at least three months, and physicians; interns, residents, and attending , who were working in the ED at the time of data collection.

D. Recruitment of participants

Brochures were distributed in participating hospital ED's to the HCPs during morning and evening inter-shifts, describing the study aim, explaining the anonymity process and confidentiality, and right to withdraw from the study at any time (appendix B) except HDF who refused this process. Sealed envelopes including questionnaires were left in the ED for six weeks to allow as much time for the ED staff on all shifts to fill the questionnaire (Appendix C). After filling the questionnaires, participants were asked to drop them in a "Survey" tagged, locked boxes that were placed in each ED. Each ED was visited biweekly to ensure that most healthcare providers were aware of the study. Questionnaires were re-collected from the locked boxes twice within the duration of data collection, i.e. every three weeks.

E. Research instruments psychometrics

Self-administered questionnaires in Arabic language were used to collect demographic and occupational information (gender, marital status, country/city of origin, job position, and educational background of the respondents and their parents) as categorical variables, age and years of experience continuous variable. Participants were also asked about previous experience and/or training in the field of DVAW.

1. Knowledge Scale

A 5-point Likert scale on physical and psychological symptoms of DVAW that was developed and used by Usta et al. (in press) on a population of Lebanese medical students was utilized to measure the level of knowledge of the participants. The answers ranged between “I don’t know, true, maybe, and no”.

2. Domestic Violence Healthcare Providers’ Survey

The questionnaire was developed by Maiuro et al. (2000) and was administered in this study to measure the attitudes and beliefs of healthcare professionals towards DVAW. This scale is multidimensional, five-point Likert scaled survey, and it has been psychometrically tested (Maiuro et al., 2000; Thompson et al., 2000). Permission for use of this questionnaire was obtained from Dr. Maiuro.

The questionnaire consists of six subscales (Maiuro et al., 2000):

1. Perceived self-efficacy (7 items) assessing the HCPs’ knowledge and capabilities in screening
2. System support (4 items) assessing the HCPs’ awareness of and access to referral networks specialized in DVAW

3. Blame the victim (7 items) assessing the HCPs' attitudes towards DVAW
4. Professional role resistance/fear of offending the patient (7 items)
5. Safety concerns (10 items) assessing HCPs' fears on their own and victims' safety
6. Perceived frequency of inquiry about DVAW (6 items) assessing HCPs' questioning about DVAW.

The first five items are Likert type scaled from 1 (strongly disagree) to 5 (strongly agree), except for the last subscale (perceived frequency of inquiry), which is a 5 point Likert type scale ranging from 1 (never) to 5 (always).

Maiuro et al. (2000) conducted a multiphase study on physicians, nurse practitioners, medical assistants, and physician assistants to establish content validity of this tool. The questionnaire was reduced from 104 items to 53 items, yielding Cronbach's alpha subscales ranging from 0.73 to 0.91, with 0.88 as the total scale Cronbach's alpha.

Thompson et al. (2000) studied the convergent validity of this instrument. The overall Cronbach's alpha was 0.96, and subscales alphas were: perceived self-efficacy ($\alpha=0.829$), perceived system support ($\alpha=0.795$), blaming the victim ($\alpha=0.7697$), concern with safety ($\alpha=0.8192$), original frequency of inquiry ($\alpha=0.9165$), and fear of offending ($\alpha=0.8349$).

3. The Screening Scale

Screening was evaluated using DVHPS screening subscale (Maiuro et al., 2000), which consists of 7 questions. It is a 5-point Likert scale, ranging from "never" to "always". It has been previously mentioned as "frequency of inquiry" subscale.

4. The management Scale

In order to measure the management practice variable, participants were requested to answer a survey of 6 questions that was developed by Gerbert et al. (2002). Permission by the authors was requested and granted. It is a 5-point Likert scale, ranging from “never” to “always”. The reliability and validity of this tool was not reported in the original research report; however, it was used successfully in research studies that aim to assess the health care providers’ management practices of DVAW. In this study, the reliability of the Arabic version of this tool was measured.

F. Translation and Back Translation

The questionnaires were translated to Arabic language by a professional translator, edited

by the graduate student and the principal investigator, and then back translated to English by a different professional translator for comparison with the original version of the questionnaires; minimal changes were made.

G. Pilot Study

There isn’t enough data on the reliability of “Domestic Violence Health Care Provider Survey” and “Domestic Violence Screening Survey “in Lebanon; therefore, in order to examine the clarity of the Arabic translated questionnaires, a pilot study was conducted before the initiation of the study. Informed consents and questionnaires were distributed to four participants (two nurses and two doctors) in the American University of Beirut Family Medicine department. Next to each question, participants were asked to specify whether the question was clear (Appendix A). In the end of the questionnaire, the

participants were asked to estimate the time needed to answer all the questions. The questionnaires were collected after one week, and questions were modified based on the participants' recommendations.

H. Data Analysis

Data was analyzed using SPSS version 19.0. The questionnaire was subjected to reliability test, and the internal consistency was expressed in Cronbach's α coefficient. Descriptive analysis, correlations between KABP scores, simple linear regression, and multivariate analysis were utilized.

A stepwise multivariate analysis was conducted including gender, age, position, years of experience, marital status, parents status, parental education, previous training and encounter of DVAW, knowledge of symptoms score, perceived knowledge score, attitudes and beliefs score were all entered as independent variables, while screening score and management score were considered the dependent variables. Confidence interval was set at 95%.

Independent t-tests were used to compare KABP scores between two groups, and one way ANOVA was used when comparing between more than two groups.

In order to answer each of the research questions, the following tools were used:

1. What are the ED healthcare professionals' knowledge, attitudes and beliefs towards DVAW?

To measure the level of HCPs' knowledge of DVAW symptoms, a 4-Likert scale questionnaire on symptoms of DVAW, which has been developed by Usta et al. (in press), was used.

To collect information on HCPs' perceived knowledge, attitudes and beliefs on DVAW, the Domestic Violence Healthcare Provider Survey (DVHPS), developed by Maiuro et al. (2000) was used.

2. Are screening and management practices of DVAW affected by the knowledge and beliefs of HCP?

To answer this question, data was collected from closed ended questions on frequency of screening for DVAW and appropriate measures in case of encountering a battered woman in the demographic section, the management survey (Gerbert et al., 2002), and the screening section from the DVHPS (Maiuro et al., 2000). DVAW beliefs and knowledge were evaluated using Usta et al.'s survey (in press) and DVHPS' perceived knowledge and beliefs on DVAW subscales.

3. Are screening for and management of DVAW influenced by the gender of the HCP?

Gender information of each participant was collected from the demographic section. Gender was cross-tabbed with screening and management scores.

4. Is there a relationship between parents' level of education and attitudes towards DVAW?

Information on parents' level of education was collected from the demographics section. Parental education was cross-tabbed with attitudes scores.

CHAPTER V

RESULTS

Phase I: The Pilot Study

The purpose of the pilot study was to evaluate the questionnaires for clarity, and findings were excluded from the analysis of the main study. Four healthcare providers (two doctors and two RNs) at AUBMC Family Medicine Department filled the questionnaires. Based on their recommendations, three questions were minimally modified. Modifications included changing the Arabic term of “violence” into “maltreatment”. The estimated time needed to fill the questionnaire was 10-20 minutes

Phase II: The Main Study

Data collection was conducted at the emergency rooms of the American University of Beirut Medical Center, Hotel Dieu de France, and Makassed Hospital. Those are three major hospitals in diverse areas in Beirut. These are well-established educational institutions that follow western standards in medical care. They are also the main emergency departments to serve the area and surrounding neighborhood of where they are located.

1. Demographics

Out of 120 HCPs that were approached in the three hospitals 75 answered the surveys (response rate of 62 %): 68% were registered nurses, and 32% were physicians (interns and residents). The majority of RNs were females (66.7%), while the majority of

physicians were males (62.5%), $p=0.017$. Females constituted 57.3% of the sample; the majority (96%) was Lebanese. 54.7% of the sample were under the age of 27 years, and 73.3% of the sample were single. The mean number of years of experience was 5.71 years, where 64% of the respondents had 4 years of experience or less, and 80% perceived their social status as average.

2. Familial background

Most respondents (81.1%) came from families whose parents are still married, and 69.3% reported that their mothers did not work outside home. On the parental educational level, 45.3% of the participants' mothers held university degrees, compared to 42.7% of the fathers.

3. Previous Training, exposure to cases of DVAW, and availability of hospital policies

The majority, 80%, of the respondents, had never received any training on domestic violence, and 69.3% had never encountered any case of domestic violence. Moreover, 44% stated that they were unaware of policies and programs of domestic violence at the hospital they worked in. However, in a hypothetical question on methods of intervening in case of suspicion of domestic violence, 49.3% of the participants would refer to special services, 32% would call the police, whereas 26.7% would not intervene. (Table 5.1)

Previous training on DVAW was correlated with perceived knowledge scores ($r=0.26$, $p=0.02$) and previous encounter of a battered woman ($r=0.32$, $p=0.005$), which means that HCPs who had received training on DVAW in the past had experience with

DVAW survivors and had higher perceived knowledge on the management of DVAW survivors.

Characteristics		Frequency (%)
Gender	Male	32 (42.7%)
	Female	43 (57.3%)
Age	≤27 years	41 (54.7%)
	>27 years	34 (45.3%)
Position	RN	51 (68%)
	Physician	24 (32%)
Years of experience	≤5 years	53 (70.7%)
	>5 years	22 (29.3%)
Nationality	Lebanese	72 (96%)
	Others	3 (4%)
Education Level	Medicine	24 (32%)
	BT	1 (1.3%)
	LT	1 (1.3%)
	BSN	41 (54.7%)
	MSN	8 (10.7%)
Marital Status	Single	55 (73.3%)
	Married	20 (26.7%)
Parents status	Married	61 (81.1%)
	Divorced or separated	2 (2.7%)
	One or both deceased	12 (16.2%)
Number of family members	≤5	53 (70.7%)
	>5	22 (29.3%)
Father's highest level of education	Primary or less	9 (12%)
	Secondary/ vocational	34 (45.3%)
	University degree	32 (42.7%)
Mother's highest level of education	Primary or less	9 (12%)
	Secondary/ vocational or less	32 (42.7%)
	University degree	34 (45.3%)
Mother works outside home	Yes	23 (30.7%)
	No	52 (69.3%)
Perceived Social Status	Very good	14 (18.7%)
	Average	60 (80%)
	Poor	1 (1.3%)
Previous training on DVAW	Yes	15 (20%)
	No	60 (80%)
Previous encounter of a case of DVAW	Yes	23 (30.7%)
	No	52 (69.3%)
Interventions in case of encountering a case of DVAW	Refer to special services	37 (49.3%)
	Treat her	12 (16%)
	Call police	24 (32%)
	No intervention	20 (26.7%)
Availability of hospital policies on DVAW	Yes	23 (30.7%)
	No	19(25.3%)
	I do not know	33 (44%)

Table 5.1: Characteristics of healthcare professionals; DVAW: domestic violence against women

4. DVAW Knowledge of the HCPs

In this survey, knowledge was divided into knowledge of symptoms of DVAW and perceived knowledge of general information and interventions in cases of DVAW.

a. Knowledge on DVAW symptoms

This subscale evaluates the HCP's knowledge of 22 symptoms of DVAW. Each item is granted two points for every "yes" answer, which is the correct answer that indicates appropriate knowledge. Each participant received a total score, which is the sum of all "yes" answers. The remaining options (I do not know, maybe, and no) were clustered into "No" and were considered as lack of knowledge. The total scores were transformed into percentages for proper comparison.

The knowledge of symptoms subscale yielded a Cronbach's alpha score of 0.92. The mean score of the HCP's knowledge of DVAW symptoms was 63.7 ± 27.5 , and 49.3% of HCPs scored less than 64% of the total score.

Although 97.3% of the participants thought that DVAW had impact on the individual's health, 69.3% scored less than 80% on the total knowledge score. The most recognizable symptoms were headaches (82.4%), hypertension (81.1%), dyspnea, insomnia or sleeping difficulty, and anxiety (79.7%). The least recognizable symptoms were sexually transmitted diseases (44.6%) and cardiovascular diseases (41.9%). Interestingly, almost half of the health care providers did not consider gynecological problems, such as sexually transmitted diseases, pelvic pain, and vaginal/anal rupture as symptoms of DVAW. (Table 5.2)

Symptoms	Yes N (%)	No N (%)
Dizziness	42 (55.4)	33 (44.6)
Headache	62 (82.4)	13 (17.6)
Abdominal pain	47 (62.2)	28 (37.8)
Diarrhea, vomiting, constipation	39 (51.4)	36 (48.6)
Back pain	44 (58.1)	31 (41.9)
Joints pain	39 (51.4)	36 (48.6)
Accidents (fractures, bruises, burns, cyanosis...)	55 (73.0)	20 (27.0)
Urinary infections	39 (52.7)	36 (47.3)
Sexually transmitted diseases	33 (44.6)	42 (55.4)
Miscarriage	48 (63.5)	27 (36.5)
Disturbances in the menstrual cycle	55 (73.0)	20 (27.0)
Shortness of breath	60 (79.7)	15 (20.3)
Hypertension	61 (81.1)	14 (18.9)
Palpitations	58 (77.0)	17 (23.0)
Tension, anxiety	60 (79.7)	15 (20.3)
Loss, forgetting, lack of concentration	48 (63.5)	27 (36.5)
Desire to commit suicide or murder	52 (68.9)	23 (31.1)
Insomnia or difficulty sleeping	60 (79.7)	15 (20.3)
The absence of consciousness	47 (62.2)	28 (37.8)
Cardiovascular diseases	31 (41.9)	44 (58.1)
Pelvic Pain	37 (49.3)	38 (51.7)
Vaginal/anal Rupture	41 (54.1)	34 (45.9)
Total Score	Mean	63.7
	Standard Deviation	27.5

Table 5.2. Knowledge of Symptoms Scores; DVAW: domestic violence against women

b.DVHPS- Perceived Knowledge on DVAW

This subscale is a 9 items Likert type scale, which ranges from 1 (strongly disagree) to 5 (strongly agree). A high knowledge score indicates more perceived knowledge on DVAW among the participants. The perceived knowledge on DVAW yielded Cronbach's alpha score of 0.818. The mean perceived knowledge score of the HCP's was 56.8 ± 14.6 , and 49.3% of the HCPs scored less than 56% on this subscale.

The majority of the nurses and physicians (58.7%) reported that they knew there were different ways to ask batterers about their behaviors to minimize risk on potential victims, and 56% believed they had access to medical social workers or community advocates to assist in the management of DVAW. However, less than 25% felt confident to

make appropriate referrals for batterers and/or abused patients, and less than 40% knew of strategies to help batterers and/or abused patients. (Table 5.3)

5. DVHPS- Attitudes towards DVAW

In this subscale, attitudes were measured using a 12 items 5-Likert type scale. Contrary to other subscales, the lower the scores, the more positive the attitudes will be. For the purpose of proper measurement, three questions were reversely scored. The attitudes subscale yielded Cronbach's alpha score of 0.615. The mean HCP's attitude score was 55.9 \pm 9.4, and 49.3% of them scored less than 55%.

Most of the participants were not afraid of offending either the batterer or survivors of DVAW by asking about DVAW. More than 50% of the HCPs believed that investigating the cause of injury was part of medical care, and that they did not fear for their own and/or patients' safety by asking batterers on DVAW. However, 42.7% of the HCPs thought that it is not their place to interfere with how couples choose to resolve their own conflicts, and 72.7% of them thought they could rely on medical social work personnel to manage DVAW patients. (Table 5.4)

	SA N (%)	A N (%)	N N (%)	D N (%)	SD N (%)		
- I have ready access to information detailing management of DV.	0 (0.0)	8 (10.7)	22 (29.3)	29 (38.7)	16 (21.3)	Mean	2.3
						Standard Deviation	0.9
- There are strategies I can use to encourage batterers to seek help.	4 (5.3)	28 (37.3)	12 (16.0)	19 (25.3)	12 (16.0)	Mean	2.9
						Standard Deviation	1.2
- There are strategies I can use to help victims of DV change their situation.	4 (5.3)	23 (30.7)	17 (22.7)	23 (30.7)	8 (10.7)	Mean	2.9
						Standard Deviation	1.1
- I feel confident that I can make appropriate referrals for batterers.	3 (4.0)	13 (17.3)	24 (32.0)	22 (29.3)	13 (17.3)	Mean	2.6
						Standard Deviation	1.1
- I feel confident that I can make the appropriate referrals for abused patients.	3 (4.0)	15 (20.0)	21 (28.0)	21 (28.0)	15 (20.0)	Mean	2.6
						Standard Deviation	1.1
- There are ways I can ask batterers about their behavior that will minimize risk to the potential victim.	6 (8.0)	38 (50.7)	14 (18.7)	12 (16.0)	5 (6.7)	Mean	3.4
						Standard Deviation	1.1
- I have ready access to medical social workers or community advocates to assist in the management of DV.	9 (12.0)	33 (44.0)	8 (10.7)	20 (26.7)	5 (6.7)	Mean	3.3
						Standard Deviation	1.2
- I have ready access to mental health services should our patients need referrals.	5 (6.7)	26 (34.7)	12 (16.0)	19 (25.3)	13 (17.3)	Mean	2.9
						Standard Deviation	1.3
- There is not enough security at my work place to safely permit discussion of DV with batterers.	6 (8.0)	19 (25.3)	12 (16.0)	23 (30.7)	15 (20.0)	Mean	2.7
						Standard Deviation	1.3
Total Score	Mean	56.8					
	Standard Deviation	14.6					

Table 5.3. Perceived Knowledge on DVAW; DVAW: domestic violence against women

	SA N (%)	A N (%)	N N (%)	D N (%)	SD N (%)			
-I am afraid of offending the patient if I ask about abusive behavior	4 (5.3)	11 (14.7)	8 (10.7)	38 (50.7)	14 (18.7)	Mean	2.4	
						Standard Deviation	1.1	
-I am afraid of offending the patient if I ask about DV.	2 (2.7)	11 (14.7)	13 (17.3)	33 (44.0)	16 (21.3)	Mean	2.3	
						Standard Deviation	1.1	
-Not my place interfere how couple chooses to resolve conflicts	11 (14.7)	21 (28.0)	18 (24.0)	17 (22.7)	8 (10.7)	Mean	3.1	
						Standard Deviation	1.2	
-Investigating cause of injury is not part of medical care	2 (2.7)	10 (13.3)	6 (8.0)	37 (49.3)	20 (26.7)	Mean	2.2	
						Standard Deviation	1.1	
-Avoid dealing with batterer fear concern for victim safety	3 (4.0)	14 (18.7)	18 (24.0)	25 (33.3)	15 (20.0)	Mean	2.5	
						Standard Deviation	1.1	
-No time to ask about DV in my practice	10 (13.3)	14 (18.7)	10 (13.3)	24 (32.0)	17 (22.7)	Mean	2.7	
						Standard Deviation	1.4	
-Medical social work personnel help manage DV patients	17 (22.7)	38 (50.7)	10 (13.3)	8 (10.7)	2 (2.7)	Mean	3.8	
						Standard Deviation	1.0	
-Mental health services at my agency meet needs of DV victims	3 (4.0)	16 (21.3)	34 (45.3)	16 (21.3)	6 (8.0)	Mean	2.9	
						Standard Deviation	0.9	
-There are ways I can ask batterers about their behavior that will minimize risk to the potential victim.	2 (2.7)	42 (56.0)	17 (22.7)	8 (10.7)	6 (8.0)	Mean	3.4	
						Standard Deviation	1.0	
-I feel I can effectively discuss battering and abuse with battering patients	0 (0.0)	23 (30.7)	26 (34.7)	20 (26.7)	6 (8.0)	Mean	2.9	
						Standard Deviation	0.9	
-I feel I can discuss issues of battering and abuse with a battering patient without further endangering the victim.	0 (0.0)	21 (28.0)	29 (38.7)	20 (26.7)	5 (6.7)	Mean	2.9	
						Standard Deviation	0.9	
-I am reluctant to ask batterers about their abusive behavior out of concern for my personal safety.	1 (1.3)	13 (17.3)	21 (28.0)	28 (37.3)	12 (16.0)	Mean	2.5	
						Standard Deviation	1.0	
Total Score	Mean	55.9						
	Standard Deviation	9.4						

Table 5.4. Attitudes towards DVAW; DVAW: domestic violence against women

6. DVHPS-Beliefs on DVAW

The HCP's beliefs on DVAW were measured using a 14 items 5-Likert scale.

Similar to the attitudes scale, the lower the total beliefs score, the more positive beliefs are considered. The beliefs subscale yielded Cronbach's alpha score of 0.813. The mean beliefs score was 51.2 ± 12.1 , and 57.3 % of the HCPs scored less than 51%.

The majority of the HCPs, 56%, did not believe that asking patients about DVAW was an invasion of patients' privacy, while 60% of them did not believe that asking patients about DVAW was demeaning or that it would make them angry. Moreover, most participants did not believe that victims might be getting something out of the abusive relationship, that they are victims because they chose to be, that their personalities caused abuse, or that women who step out of the traditional roles cause abuse. However, 52% of the HCPs believed that batterers would direct their anger towards them when challenged, 41.3% believed that responsibility falls on both partners when it comes to DVAW, and 38.6% feared increasing the risk for the victim if they talked to the batterer. Furthermore, 34.7% of the HCPs believed that the victim's passive-dependent personality causes abuse, while 16% of them believed that they have patients whose personalities cause abuse (Table 5.5).

	SA N (%)	A N (%)	N N (%)	D N (%)	SD N (%)		
- Asking patients about DV is an invasion of their privacy.	2 (2.7)	24 (32.0)	7 (9.3)	31 (41.3)	11 (14.7)	Mean	2.7
- It is demeaning to patients to question them about abuse.	2 (2.7)	13 (17.3)	15 (20.0)	29 (38.7)	16 (21.3)	Standard Deviation	1.2
- If I ask non-abused patients about DV, they will get very angry.	4 (5.3)	18 (24.0)	8 (10.7)	33 (44.0)	12 (16.0)	Mean	2.4
- When challenged, batterers frequently direct their anger toward health care providers.	3 (4.0)	36 (48.0)	16 (21.3)	9 (12.0)	11 (14.7)	Standard Deviation	1.1
- If patients do not reveal abuse to me, then they feel it is none of my business.	7 (9.3)	21 (28.0)	12 (16.0)	25 (33.3)	10 (13.3)	Mean	2.6
- A victim must be getting something out of the abusive relationship, or else he/she would leave.	2 (2.7)	15 (20.0)	6 (8.0)	22 (29.3)	30 (40.0)	Standard Deviation	1.2
- People are only victims if they choose to be.	2 (2.7)	2 (2.7)	12 (16.0)	28 (37.3)	31 (41.3)	Mean	2.2
- When it comes to domestic violence victimization, it usually "takes two to tango."	4 (5.3)	27 (36.0)	12 (16.0)	22 (29.3)	10 (13.3)	Standard Deviation	1.2
- The victim's passive-dependent personality often leads to abuse.	2 (2.7)	24 (32.0)	12 (16.0)	25 (33.3)	12 (16.0)	Mean	1.9
- I have patients whose personalities cause them to be abused.	2 (2.7)	10 (13.3)	17 (22.7)	30 (40.0)	16 (21.3)	Standard Deviation	0.9
- Women who choose to step out of traditional roles are a major cause of DV.	1 (1.3)	16 (21.6)	13 (17.6)	32 (41.8)	13 (17.6)	Mean	2.9
- The victim has often done something to bring about violence in the relationship.	2 (2.7)	15 (20.0)	9 (12.0)	30 (40.0)	19 (25.3)	Standard Deviation	1.2
- There is no way to ask batterers about their behaviors without putting the victims in more danger.	1 (1.3)	13 (17.3)	17 (22.7)	35 (46.7)	9 (12.0)	Mean	2.7
- I am afraid if I talk to the batterer, I will increase risk for the victim.	1 (1.3)	28 (37.3)	17 (22.7)	23 (30.7)	6 (8.0)	Standard Deviation	1.0
Total Score		Mean	51.2				
		Standard Deviation	12.1				

Table 5.5. Beliefs on DVAW; DVAW: domestic violence against women

Fear of offending patients

Fear of offense seemed like a strong barrier to screening for DVAW. In this sample, 42.7% of HCPs believed that they did not have the authority to interfere with how couples resolve their conflicts, and 37.3% believed that patients would not reveal abuse to them because they felt it was not of their business. Moreover, 34.7% of the HCPs believed that asking patients about abuse was invasion of their privacy, while the majority of HCPs (69% and 65.3%) were not afraid of offending the patients if they asked about abusive behaviors and domestic violence, respectively.

Safety concerns

Although 52% of HCPs believed that batterers would direct their anger towards them if challenged, 53.3% of them were not reluctant to ask about DVAW out of fear for their own safety, but rather out of concern for the victim's safety. Moreover, 33.3% of HCPs believed that there was not enough security at their workplace to safely discuss DVAW issues, and felt that they could not discuss issues of battering and abuse with a batterer without further endangering the victim.

Victim Blaming

Victim blaming is a common barrier to screening for DVAW, in this study 22.7% of HCPs believe that the victim must be getting something out of the abusive relationship and that she has done something to bring violence to the relationship. Moreover, 35.7% believe that the victim's passive-dependent personality often leads to abuse, while 41.3% agree to the mutual responsibility of the batterer and the battered.

Perceived self-efficacy

Perceived self-efficacy is the HCP's capability to influence the batterers and victims of DVAW to seek help and refer to specialized services (Sugg et al., 1999). In this sample, 338% of the HCPs agreed that they did not have time to ask about DVAW in their practice. However, 60% of HCPs considered that they did not have ready access to detailed information on DVAW management. Moreover, 41.4% and 40.3% of HCPs did not know of strategies they could use to help victims and batterers respectively, and 46.6% and 48% of HCPs felt confident that they can make appropriate referrals for batterers and victims.

System support

System support includes all hospital, social and governmental policies that are available to support victims of DVAW. In this sample, 73.4% of HCPs believed that medical social workers helped manage DVAW patients, while 56% had ready access to medical social workers or community advocates to assist in the management of DVAW patients. These rates dropped to 25.3% of HCPs who believed that mental health services at their agency met needs of DVAW, while 41.4% stated that they had access to mental health services.

7. Screening for DVAW

Screening was measured using a 7 items 5-Likert scale, ranging from 1 (never) to 5 (always). Six questions evaluated screening practices related to symptoms of DVAW.

The screening subscale yielded Cronbach's alpha score of 0.9. The mean score for the screening subscale was 32.04 ± 15.66 , and 62.7% of all HCPs scored less than 30% on

this subscale. In other words, the majority of healthcare providers did not screen for DVAW in suspected cases.

The majority (82.7%) of the participants reported that they rarely or never screened new patients for DVAW, even in suspected injuries. (Table 5.6)

8. *Management of DVAW*

The Cronbach's alpha of this subscale was 0.94. The mean score was 40.27 ± 21.9 , and 58.7% of the HCPs scored less than 40 % on the management subscale.

In cases where DVAW was identified, the most commonly stated interventions were providing counseling to increase patient safety (29.3%) and documenting the incidence (21.6%). Referral to another resource constituted only 16% of the interventions. Arrangement of follow up visits and providing written material on DVAW constituted only 14.7% of the total responses. (Table 5.7)

	Always N (%)	Nearly always N (%)	Sometimes N (%)	Seldom N (%)	Never N (%)		
- In the past three months, when seeing patients with injuries, how often have you asked about the possibility of domestic violence?	3 (4.0)	2 (2.7)	13 (17.3)	18 (24.0)	39 (52.0)	Mean	1.8
						Standard Deviation	1.1
- In the past three months, when seeing patients with chronic pelvic pain, how often have you asked about the possibility of domestic violence?	2 (2.7)	2 (2.7)	5 (6.7)	17 (22.7)	49 (65.3)	Mean	1.6
						Standard Deviation	0.9
- In the past three months, when seeing patients with irritable bowel syndrome, how often have you asked about the possibility of domestic violence?	1 (1.3)	2 (2.7)	2 (2.7)	15 (20.0)	55 (73.3)	Mean	1.4
						Standard Deviation	0.8
- In the past three months, when seeing patients with headaches, how often have you asked about the possibility of domestic violence?	0 (0.0)	5 (6.7)	5 (6.7)	10 (13.3)	55 (73.3)	Mean	1.5
						Standard Deviation	0.9
- In the past three months, when seeing patients with depression and/or anxiety, how often have you asked about the possibility of domestic violence?	3 (4.0)	6 (8.0)	12 (16.0)	13 (17.3)	41 (54.7)	Mean	1.9
						Standard Deviation	1.2
- In the past three months, when seeing patients with hypertension and/or coronary artery disease, how often have you asked about the possibility of domestic violence?	0 (0.0)	2 (2.7)	9 (12.0)	13 (17.3)	51 (68.0)	Mean	1.7
						Standard Deviation	0.8
- How often do you ask new patients about domestic violence?	1 (1.3)	2 (2.7)	10 (13.3)	20 (26.7)	42 (56.0)	Mean	1.7
						Standard Deviation	0.9
Total						Mean	32.04
						Standard Deviation	15.66

Table 5.6. Screening for DVAW; DVAW: domestic violence against women

When domestic violence is first identified, how often do you do each of the following?							
Document the domestic violence	6 (8.0)	10 (13.3)	10 (13.3)	9 (12.0)	40 (53.3)	Mean	2.1
						Standard Deviation	1.4
Provide counseling to increase patient safety	9 (12.0)	13 (17.3)	12 (16.0)	12 (16.0)	29 (38.7)	Mean	2.5
						Standard Deviation	1.5
Provide information about shelters and other services	9 (12.0)	6 (8.0)	10 (13.3)	11 (14.7)	39 (52.0)	Mean	2.1
						Standard Deviation	1.4
Provide written materials on domestic violence	2 (2.7)	9 (12.0)	6 (8.0)	14 (18.7)	44 (58.7)	Mean	1.8
						Standard Deviation	1.2
Arrange for follow up visits or calls	3 (4.0)	8 (10.7)	9 (12.0)	13 (17.3)	42 (56.0)	Mean	1.9
						Standard Deviation	1.2
Refer to another resource	5 (6.7)	7 (9.3)	10 (13.3)	14 (18.7)	39 (52.0)	Mean	2.0
						Standard Deviation	1.3
Total	Mean	40.3					
	Standard Deviation	21.9					

Table 5.7. Management of DVAW; DVAW: domestic violence against women

9. The relation of HCPs' KAB scores, demographics and their DVAW screening and management practices

In order to identify the strength of the relation between knowledge, attitudes, and beliefs with screening and management behaviors among the Lebanese healthcare providers, correlation analysis was performed. DVAW screening was negatively correlated with the attitudes score ($r = -0.29$, $p = 0.011$). A high attitude score towards DVAW indicates a negative attitude. The results showed that HCPs with negative attitudes screened less for DVAW.

However, attitudes were positively correlated with perceived knowledge ($r = 0.44$, $p < 0.0001$), and beliefs ($r = 0.55$, $p < 0.0001$). Surprisingly, HCPs who had high perceived general knowledge score held negative attitudes towards DVAW.

In addition, management score was significantly correlated with perceived general knowledge on DVAW ($r = 0.36$, $p = 0.001$), and screening score ($r = 0.49$, $p < 0.0001$). Management score was also strongly correlated with previous encounter of a case of DVAW ($r = 0.26$, $p = 0.023$). Moreover, professional position was significantly correlated with screening score ($r = 0.28$, $p = 0.016$) and management score ($r = 0.31$, $p = 0.007$), where physicians screened and managed cases of DVAW significantly.

Age, gender, family size, years of experience, paternal and maternal education levels, and maternal work status did not correlate with any of the HCPs scores on knowledge of symptoms, perceived knowledge, attitudes, beliefs, and screening and management behaviors. However, their previous training on DVAW was significantly

correlated with encountering a case of DVAW ($r=0.32$, $p= 0.005$) and perceived general knowledge on DVAW ($r= 0.27$, $p=0.02$).

10. Health care providers' demographics, KAB, and DVAW screening practice.

The professional position of the HCP was a significant variable in this sample, where physicians scored significantly higher than RNs on screening practices [physicians: ($M =38.3$, $SD=19.3$); RNs: ($M=29.1$, $SD=12.8$); $t(73) =2.47$, $p= 0.016$] and on management practices [physicians: ($M=50.12$, $SD= 19.79$); RNs ($M=35.63$, $SD= 21.47$); $t(73)=2.79$, $p=0.007$] . Moreover, RNs scored higher on negative beliefs towards DVAW subscale than physicians [RN: ($M=53.8$, $SD=11.3$), physicians: ($M=45.7$, $SD=12.0$); $t(73) =2.8$, $p= 0.006$]. In other words, physicians opposed DVAW more strongly and tended to screen and manage suspected cases more than RNs.

Furthermore, HCPs who had previous training on DVAW scored significantly higher on perceived general knowledge scale [Trained HCP ($M=64.4$, $SD=14.8$), Not trained HCP ($M=54.9$, $SD=14.0$); $t(73)=2.3$, $p =0.02$]. (Table 5.8)

There was no statistical significance in the mean difference in knowledge of symptoms score, perceived knowledge score, attitudes score, beliefs score, screening score, or management between males and females in this sample, or levels of maternal and paternal education.

		Symptom Knowledge score	Perceived knowledge score	Attitudes score	Beliefs score	Screening score	Management score
Symptom Knowledge score	Pearson Correlation	1					
	p-value						
Perceived knowledge score	Pearson Correlation	-0.178	1				
	p-value	0.126					
Attitudes score	Pearson Correlation	-0.043	0.444	1			
	p-value	0.714	<0.0001				
Beliefs score	Pearson Correlation	0.004	0.105	0.549	1		
	p-value	0.973	0.369	<0.0001			
Screening score	Pearson Correlation	-0.118	0.145	-0.292	-0.194	1	
	p-value	0.315	0.214	0.011	0.096		
Management score	Pearson Correlation	-0.030	0.362	-0.197	-0.178	0.494	1
	p-value	0.798	0.001	0.091	0.126	<0.0001	

Table 5.8. Correlations between KABP scores

		Symptom Knowledge (Mean, ± SD)	Perceived Knowledge (Mean, ±SD)	Attitudes (Mean, ± SD)	Beliefs (Mean, ±SD)	Screening (Mean, ± SD)	Management (Mean, ±SD)
Age	<27 years	62.9±28.1	57.8±13.2	55.9±8.4	49.4±13.0	32.3±14.9	39.3±20.3
	≥27 years	64.9±26.9	55.1±16.7	55.9±10.9	54.1±9.9	31.6±17.0	41.8±24.5
	p-value	0.8	0.4	0.9	0.1	0.85	0.64
Gender	M	63.5 ±32.5	57.7± 15.4	55.6 ±9.6	52.6± 13.4	34.7±17.9	42.9±21.1
	F	63.9 ±23.6	56.0±14.1	56.2±9.3	50.2± 11.1	30.0±13.5	38.3±22.5
	p-value	0.96	0.63	0.78	0.39	0.19	0.36
Position	RN	62.1±27.5	58.8±15.0	57.2±9.4	53.8±11.3	29.1±12.8	35.6±21.5
	Physician	67.1±27.8	56.8 ±14.0	53.3±9.0	45.7±12.0	38.3±19.3	50.1±19.8
	p-value	0.5	0.9	0.09	0.006	0.016	0.007
Father's highest education level	Primary or less	53.0±26.9	51.1±17.8	55.4±10.4	54.6±10.3	32.9±19.5	35.2±17.4
	Intermediate/ secondary	64.9±25.6	58.6±15.3	57.1±9.3	52.7±10.5	31.5±15.9	40.2±22.3
	University	65.3±29.7	56.4±12.9	54.8±9.3	48.6±13.8	32.4±14.7	41.8±22.7
	p-value	0.47	0.39	0.61	0.25	0.96	0.73
Mother's highest education level	Primary or less	58.7±41.4	63.7±17.6	59.1±9.0	53.5±10.2	43.3±22.4	49.8±29.3
	Intermediate/ secondary	62.8±21.8	56.5±14.2	56.6±9.0	56.5±14.2	30.0±13.4	39.0±21.1
	University	65.9±28.7	55.2±14.1	54.5±9.8	55.2±14.1	30.9±14.8	38.9±20.5
	p-value	0.37	0.14	0.15	0.14	0.07	0.38
Mother works outside home	Yes	69.8 ±21.6	54.7±10.8	53.8±9.5	50.6±10.3	35.2±19.4	40.5±22.4
	No	61.0±29.6	57.7±16.0	57.0±9.2	51.5±12.9	30.6±13.7	40.2±21.9
	p-value	0.2	0.4	0.1	0.78	0.25	0.95
Years of experience	≤5 years	61.4±28.4	56.4±13.4	55.8±8.9	50.7±13.2	32.4±15.4	38.6±17.4
	>5 years	69.2±24.9	57.7±17.5	56.4±10.5	52.3±8.9	31.2±16.6	44.2±30.3
	p-value	0.3	0.8	0.6	0.7	0.77	0.32
Previous training on DVAW	Yes	63.0±30.2	64.4±14.8	56.7±9.1	49.9±6.6	37.1±21.7	49.71±30.5
	No	63.9±27.1	54.9±14.0	55.8±9.5	51.5±13.1	30.8±13.7	37.90±18.8
	p-value	0.9	0.02	0.7	0.6	0.16	0.061
Previous encounter with a case of DVAW	Yes	67.4±29.0	60.9±16.4	55.1±10.8	51.1± 12.1	33.3±16.5	48.82±27.4
	No	62.0±27.0	55.0±13.5	56.3±8.8	51.2±12.8	31.5±15.4	36.48±18.1
	p-value	0.4	0.1	0.6	0.9	0.64	0.023

Table 5.9. KABP and characteristics of HCPs

11. Linear Regression

Stepwise multivariate regression was used to test if screening (dependent variable 1) and management of DVAW (dependent variable 2) were influenced by variables such as age, gender, professional position, marital status, parental education, previous training on DVAW management, previous encounter of a case of DVAW, attitudes, beliefs, perceived knowledge, and symptom knowledge scores (independent variables).

i. Dependent Variable 1: Screening for DVAW

The results showed that two variables; attitudes score and perceived knowledge score explained 42.3% of the variance ($R^2=0.198$, $F(3,71)=5.84$, $p<0.001$). Attitudes score ($\beta=-0.44$, $p<0.0001$) and perceived knowledge score ($\beta=0.34$, $p=0.005$) were the strongest predictors of screening for DVAW. HCPs who held attitudes against DVAW and had higher perceived knowledge were more likely to screen for DVAW.

	Beta	p-value
Attitudes score	-0.44	<0.0001
Perceived Knowledge Score	0.34	0.005

Table 5.10. Linear Regression Dependent Variable: Screening of DVAW; DVAW: domestic violence against women

ii. Dependent Variable 2: Management of DVAW

The results showed that three variables; professional position, perceived knowledge and attitude scores toward DVAW, explained 58.5% of the variance ($R^2=0.34$, $F(3,71)=12.32$, $p<0.0001$). It was found that professional position ($\beta=0.235$, $p=0.02$), perceived knowledge on DVAW score ($\beta=0.534$, $p<0.0001$), and attitudes score ($\beta=-0.39$, $p=0.001$) were the strongest predictors of management of DVAW. In other words,

being a physician with strong perceived knowledge on DVAW management and attitudes against it predicted better management of DVAW in suspected cases.

	Beta	p-value
Professional position	0.235	0.02
Attitudes score	-0.39	0.001
Perceived knowledge score	0.534	<0.0001

Table 5.11. Linear Regression Dependent Variable: Management of DVAW; DVAW: domestic violence against women

CHAPTER VI

DISCUSSION

This study showed that the knowledge of the ED HCPs in three major hospitals in Beirut on the physical and psychological symptoms of DVAW was suboptimal. Similarly, their perceived knowledge was low. Their attitudes and beliefs towards DVAW were leaning towards negative. Their attitudes affected their screening practice for DVAW, while their perceived knowledge affected their management practice. Their professional position, attitudes and perceived knowledge scores were significant predictors of their management practice. However, their perceived knowledge scores and attitudes scores were significant predictors of screening practice. Screening and management practices were not affected by the gender or beliefs of the HCPs in this sample. Moreover, parental education did not have any effect on the HCPs' attitudes towards DVAW.

The 2009 Arab Human Development Report under United Nations Development Programme (UNDP) stated that "health is by no means assured for all citizens of Arab countries, with women suffering the most from neglect and gender biased traditions." Moreover, Joint Commission on Accreditation of Healthcare Organizations (JCAHO) recommends certain standards for treating suspected victims of domestic violence (Scott and Matriccian, 1994). However, despite the fact that Lebanese hospitals are aiming at JCAHO accreditation, hospital administrations do not seem to put much effort in preparing their medical and nursing staff to treat DVAW survivors, nor to develop policies on the management of these patients. This is evidenced by lack of training on DVAW as most of

our sample (80%) reported. Additionally, most of the participants reported either lack of policies and programs on the management of DVAW in their hospital, or unawareness of them. Furthermore, on the educational level, none of the Lebanese medical and nursing schools is currently providing training and education on DVAW management. The same barriers were identified in a meta-analysis of twelve research studies on DVAW screening by HCPs, where researchers concluded that the top identified barriers to screening among HCPs were lack of education, lack of time, and lack of effective interventions. The same study suggested that training interventions that included strategies of screening were more effective than interventions limited to education (Waalén et al., 2000).

A. Screening for and management of DVAW among HCPs in the EDs

Findings of this study showed low rates in screening and management on behalf of the patients-survivors of DVAW, which is consistent with the literature. For instance, in their study comparing DVAW to other health risks, Gerbert et al. (2002) found that physicians were more likely to screen for and manage health risks such as tobacco use, alcohol abuse, and HIV/STDs than domestic violence. HCPs reported they knew little about “how to screen or intervene”, preferred to refer DVAW patients to other services, and believed they lacked appropriate referral resources.

In this study, HCPs’ position, knowledge on DVAW, and attitudes were the strongest predictors of management for DVAW. In other words, being a physician with strong knowledge on DVAW and positive attitudes predicted management of DVAW in suspected survivors. On the other hand, perceived knowledge and attitudes scores predicted

screening for DVAW, whereby HCPs with positive attitudes and high knowledge on DVAW were more likely to screen for DVAW.

In this study, screening and management of DVAW scores were strongly and positively correlated. In other words, HCPs who screened for DVAW managed suspected cases.

B. Knowledge of DVAW Symptoms

The results of this study showed that the most identifiable symptoms of DVAW were headaches, hypertension, dyspnea, insomnia and sleeping disturbances, and anxiety, whereas the least recognizable were sexually transmitted and cardiovascular diseases. These findings seem to replicate most of Usta et al.'s findings on Lebanese medical students' knowledge of symptoms of DVAW (in press); headaches, irregular menstruation, anxiety and insomnia were the most recognizable symptoms. In addition, sexually transmitted diseases and urinary infections were the least recognizable symptoms.

Knowledge of symptoms of DVAW was not correlated with DVAW screening or management practices of the HCPs in the Lebanese emergency departments. Although the majority thought that DVAW had an influence on the general wellbeing of the individual, most HCPs lacked information on the effects of DVAW on health and did not screen for or manage DVAW.

C. Perceived Knowledge on DVAW

In comparison, perceived general knowledge on DVAW was significantly correlated with DVAW management practice. Similar to knowledge of symptoms subscale, HCPs in this sample had minimal information on the general strategies and services

available for DVAW survivors. As hypothesized, lack of perceived knowledge on DVAW predicted and correlated with lack of management of potential survivors of domestic violence. Moreover, previous encounter of a case of DVAW correlated with management score. Maybe this finding is explained by the notion that HCPs developed experience and overcoming their barriers after encountering a previous case of DVAW. Although previous training on DVAW was not directly correlated with DVAW management, it was correlated with perceived knowledge on DVAW.

However, surprisingly, higher perceived general knowledge was correlated with supporting attitudes of DVAW. In other words, HCPs who had greater perceived knowledge on the identification and management of DVAW survivors held more negative attitudes. Negative attitudes against DVAW might be related to patriarchal culture that reinforces gender inequality. HCPs' previous training on DVAW, which was strongly correlated with perceived knowledge, do not seem to affect their attitudes towards DVAW. Moreover, the relation between attitudes and knowledge on DVAW seems controversial and requires more investigation in the context of clinical practice.

D. Attitudes and Beliefs on DVAW

The Middle Eastern culture has been described as “culture of silence” (Diop-Sidibe, Campbell, and Becker, 2006), and it is thought that even the reported high rates of DVAW in the region are nothing but the tip of the iceberg (Douki et al., 2003). Traditional beliefs of gender inequality and patriarchal structures of the Middle Eastern societies rooted the beliefs on men's privilege over women. This might explain the negative attitudes towards DVAW and require further investigation. HCPs are part of this community; they

are the outcome of DVAW- insensitive society and educational programs. However, they are not excluded from medical ethics and care, including helping battered women.

Negative attitudes against DVAW were prevalent among HCPs. However, physicians held stronger beliefs and attitudes against DVAW than RNs, while RNs tended to screen for and manage DVAW less than physician counterparts. Similarly, in their study, Gutmanis et al. (2007) concluded that, although both RNs and physicians lack training and knowledge on DVAW, RNs feel less prepared to screen for DVAW than physicians for reasons that could not be explained by the author. In another study, RNs seemed to be less supportive to the integration of routine screening of DVAW in their practice (Richardson et al., 2001).

In general, physicians spend more time taking history of the patient and investigating their symptoms, and receive more clinical training than nurses, which might explain the reason why physicians scored higher on DVAW screening and management practices than nurses.

This reluctance and lack of willingness to manage and screen for DVAW could also be related to the RNs personal experience with domestic violence. Studies suggest that DVAW is more prevalent among RNs than in the general population (Early and Williams, 2002; Sugg et al., 1999). Therefore, identifying survivors of DVAW may bring about unresolved conflicts and negative feelings associated with previous exposure to DVAW.

Previous exposure to DVAW was related to negative attitudes and lack of willingness to help battered women, and therefore lack of screening (Davis and Harsh, 2001; Mezey et al., 2003; Sugg and Innui, 1992; Usta et a., in press). For instance,

Lebanese medical students who were exposed to family violence were less willing to help battered women (Usta et al., in press).

Although most HCPs did not fear offending their patients by asking about DVAW, some believed that asking about it is an invasion of their patients' privacy, and that they do not have the right to interfere with how couples chose to resolve their conflict. This might be explained by the rooted family-oriented Lebanese culture, which considers DVAW as a private family matter that should be solved within the family. However, as concluded by Usta et al. (2012), Lebanese women welcome the idea of healthcare involvement in DVAW management. Furthermore, negative attitudes and beliefs are consistent with two Kuwaiti research studies on primary HCPs (Al Sabhan et al., 2011; Al Safy et al., 2011), where sense of shame was a major barrier to screening for DVAW, along with cultural barriers, lack of knowledge and training, and lack of perceived system support.

In this study, HCPs believed that batterers might direct their anger towards them if challenged. However, although more than one third of HCPs were convinced that there was not enough security at their workplace, their main concern was the patient-victim's safety rather than their own.

Moreover, over one fifth of the HCPs believed that DVAW victims contributed to violence in the relationship and must be gaining something of the abuse, or else they would have left. Furthermore, many HCPs believed that responsibility falls equally on both the batterer and the battered in abusive relationships, in addition to the lack of support systems and legislation.

Since this questionnaire is used for the first time in the Middle East; findings could not be compared to others in the region. However, it seems in line with results from western countries where issues related to safety of the victim and victim blaming were among the main barriers to screening for DVAW (Sugg, 1999; Tower, 2006). In Sweden, Lawoko et al. (2011) concluded that higher perceived self-efficacy, availability of support, low fears of offending, and professional preparedness predicted higher screening rates.

While three fourths of HCPs agreed that investigating the cause of injury was part of medical care, the majority did not have access to information and strategies to manage cases of DVAW and lack confidence to make appropriate referrals of the battered and the batterer. Nonetheless, most HCPs seemed to rely on medical social work and mental health personnel to deal with cases of DVAW, although only one quarter of them reported that mental health services in their workplaces were available.

On the organizational level, lack of appropriate services was correlated with decreased frequency of screening and management. The availability of mental health services that may help in assisting patient-survivors of DVAW was significantly correlated with more screening. In a study by Usta et al. (in press), medical students believed that laws and governmental agencies should be involved and that they should give it a priority as a “social problem”, yet they were unlikely to intervene themselves. Lack of organizational policies regarding screening and intervening on behalf of battered women in Lebanon might be an important external factor that hinders screening. Lack of services and legal support was documented in research as a major barrier to screening for DVAW (McGrath et al., 1997).

E. Gender and Parental Education

Gender and parental education were not significant variables in this study, and did not influence either attitudes towards DVAW or screening and management practices.

CHAPTER VII

CONCLUSION AND LIMITATIONS

This study was the first in the Middle East to describe the knowledge, attitudes, beliefs and screening and management practices of DVAW among HCPs in the emergency departments. Lack of readiness to identify survivors of DVAW was noticeable. Therefore, there is an urgent need to train Lebanese HCPs on DVAW management, and develop hospital policies in this regard. It is recommended that DVAW education should be included in the undergraduate studies of HCPs, and that it should include strategies of screening rather than basic informative structure. In addition, qualitative studies are needed to better understand HCPs' barriers to screen for DVAW.

The response rate of this study was sufficient and approached 65 %. However, the limitations in this study were related to; 1. Delays in the processing and securing approvals within hospitals where several committees needed to overview the proposal and questionnaire before granting approvals. 2. Dropping out from the study. 3. Limited response that was noticeable in one of the hospitals despite the support of the administration. Moreover, the small sample size and limitation to hospitals in Beirut limit generalization of the results of this study. Most of the questionnaires were used for the first time in the Middle East, so there might be cultural bias. Finally, some results could not be explained quantitatively and require further exploration using a qualitative approach; such as the relation between knowledge and attitudes, to develop a clearer understanding of the barriers of screening for DVAW by Lebanese HCPs.

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