Violence Against Women: Synthesis of Research for Health Care Professionals

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The mental and physical health effects of violence against women are significant. Research from many disciplines (nursing, medicine, psychology, public health, social work, sociology, and women's studies) since the mid-1980s has resulted in a much clearer picture of the extent of these health effects, and the combination of research and clinical experience has begun to establish appropriate interventions in the health care system. Although domestic violence shelters and advocacy services must remain the cornerstone and first priority of efforts to address violence against women, the majority of abused women never go to shelters and usually do not call police before the violence has become severe. The shelter and criminal justice systems are foundational backup systems for any interventions in the health care system. However, the health care system is where battered women are more likely to be seen and where they can be identified before the abuse becomes entrenched. Advocacy and scholarship have combined to begin to shape a health care system that can offer both effective prevention activities and interventions for abused women across the entire continuum of violence.

This report presents an overview of the latest research on the physical and mental health effects of domestic violence and sexual assault, a brief history of the evolution of the health care system on the subject of violence against women, and suggestions for clinical practice based on the research. The limited research on the efficacy of interventions in the health care system is also described. The report emphasizes nursing research and practice because it is often neglected in the generic health and medical literature on violence against women. However, both the research review and practice implications are interdisciplinary.

The research presented here is a synthesis of findings from studies published in refereed journals.[1] Descriptive studies whose findings lack replication, generalizability (i.e., applicability to women other than those in the study's sample), and/or appropriate control groups will be noted.[2]

Physical and Mental Health Effects of Violence Against Women

Collaboration among the U.S. Departments of Justice and Health and Human Services has established that violence against women includes physical and sexual assault and stalking perpetrated against females (Tjaden and Thoennes, 1998). According to a national random survey resulting from that collaboration, the majority (76 percent) of violence against women is perpetrated by a current or former intimate partner; another 8.6 percent is committed by a relative other than a spouse (primarily violence during childhood); 16.8 percent is perpetrated by an acquaintance; and only 14.1 percent is committed by a stranger (Tjaden and Thoennes, 1998). Therefore, this report concentrates on the health effects of physical and sexual violence against women perpetrated by current and former intimate partners, as has most of the recent research. In addition, health effects of stranger sexual assault will also be included in the sections on the effect of sexual violence.

The battering of women is defined as repeated physical and/or sexual assault by a current or former intimate partner within a context of coercive control (Campbell and Humphreys, 1993).

The emotional abuse and psychological threats that are almost always part of the coercive control of intimate partner violence also have serious psychological consequences according to women themselves, but the actual effects on women's health have seldom been measured separately. Where their relative effects have been assessed separately, physical and sexual abuse had more effect on health consequences than did emotional abuse by itself in two studies (Campbell, Kub et al., 1997; Wagner, Mongan, and Hamrick, 1995). In at least two other studies, emotional abuse had more serious effects than did physical and sexual abuse (Dutton, 1999; Arias and Pape, 1999). None of the four studies had control groups, but all had fairly large samples and were otherwise credible. Their use of differing outcome measures may explain the discrepancies. Investigations with well-measured psychological and emotional abuse are only beginning to be launched. Considering the multifaceted interactions of the mind and body in the etiology of other physical and mental conditions, a comparably complex interaction of effects of the typically intertwined physical and emotional abuse that characterizes battering may be anticipated.

Sexual assault or forced sex is another facet of approximately 40 to 45 percent of battering relationships (Campbell, 1989b; Campbell and Soeken, 1999; Finkelhor and Yllo, 1997). Sexual assault is defined as sexual acts coerced by physical force or threats or by power differentials, such as those that exist between adults and children, employers and employees, or professors and students. Two sample descriptive studies found battered women forced into sex by an intimate partner were also subject to more severe physical abuse and greater risk of homicide (Campbell, 1989b; Campbell and Soeken, 1999). Emotional abuse can also be sexual in nature, as can elements of coercive control (such as control of safe sex practices by verbal coercion). These issues will also be considered where there is relevant research evidence.

Health Effects of Forced Sex

The forced sex aspect of battering relationships has also often been neglected in prior research. Forced sex can range from unwanted roughness or painful sexual acts, to demand for particular sexual acts, to threatened violence if sexual demands are not met, to actual beatings prior to, during, or after sex and/or forced sex with objects (Campbell and Alford, 1989). Sexual abuse in the context of an intimate relationship is the mechanism by which battered women have an increased incidence of pelvic inflammatory disease, sexually transmitted diseases (including HIV/AIDS), sexual dysfunction, pelvic pain, urinary tract infections, dysmenorrhea, and other genital-urinary-related health problems, as documented in several population-based, shelter, and health care setting studies (Bergman and Brismar, 1991; Campbell and Alford, 1989; Campbell, Snow Jones et al., 2002; Campbell and Soeken, 1999; Chapman, 1989; Gielen et al., 1997; Plichta, 1996; Plichta and Abraham, 1996; Wagner, Mongan, and Hamrick, 1995). Yet in the majority of those studies, forced sex was not measured separately. In one of the few studies specifically linking the sexually violent aspects of battering relationships with physical health problems, Eby and colleagues (1995) found that the increased risk for sexually transmitted diseases (STDs), including HIV/AIDS, in one descriptive shelter sample study was related to failure to use protection during intercourse (67 percent), rather than to other risky behavior on the woman's part (e.g., multiple casual sexual partners or intravenous drug usage). Failure to use protection occurred primarily at the male partner's insistence or when sex was forced.

Battered women interviewed in focus groups also linked forced sex in battering relationships and male partner control of contraceptive use with unintended pregnancy, a link also shown in large population-based studies in at least two States (Ballard et al., 1998; Campbell, Pugh et al., 1995; Cokkinides and Coker, 1998). There is also an indication of abuse as a risk factor for elective abortion (Evins and Chescheir, 1996), although this association has not been well explored. When asked directly by health care professionals about sexual abuse, women respond without objection, and the health care system is the only place where women are likely to receive appropriate care for this aspect of their battering experience.

Women who have experienced sexual assault in childhood continue to experience serious physical health effects throughout their lives (McCauley et al., 1997; Koss et al., 1994). McCauley and associates (1997), in a large investigation of women in internal medicine clinics, found that the effects of childhood sexual assault added physical (and mental) health problems over and above those engendered by intimate partner violence. The more sexual assaults, the more severe, and the earlier the age at onset, the more severe is health impairment (Koss et al., 1994). In an impressive body of research, Drossman and colleagues (1990) demonstrated that both stranger and familial sexual assault and physical violence were associated with chronic irritable bowel syndrome. Whether sexually abused by an intimate or a stranger, women with this kind of history have significantly more gynecological problems and visits to both primary care and gynecological specialists than women without a sexual assault history (Koss et al., 1994; McCauley et al., 1997).

Abuse During Pregnancy

Research conducted by nurses and others since the late 1980s has established physical abuse during pregnancy as a serious health threat to both mothers and unborn children (McFarlane et al., 1992; Helton, McFarlane, and Anderson, 1987a; Parker, McFarlane, and Soeken, 1994). A substantial group of studies in the United States and Canada show prevalence of abuse during the current pregnancy ranging from 1 to 20 percent, and prevalence of abuse prior to pregnancy (within the past year) ranging from 3 to 9 percent[3] (Gazmararian et al., 1996; Stewart and Cecutti, 1993). The prevalence rates varied according to how the question was asked, who made the inquiry, and the demographics of the sample. The highest prevalence in a large ethnically heterogeneous sample was found by a study in which the regular prenatal care nurse made a face-to-face oral inquiry at *each* prenatal care visit using the Abuse Assessment Screen (AAS), a four-question screen that asks about violent tactics and fear as well as emotional, sexual, and physical "abuse." The AAS has extensive psychometric support from a variety of health care settings (McFarlane et al., 1992). Although two early uncontrolled studies found income level to be unrelated to the prevalence of intimate partner abuse during pregnancy (Bullock and McFarlane, 1989; Helton, McFarlane, and Anderson, 1987a), a more recent population-based study demonstrated an association between poverty and risk (Cokkinides and Coker, 1998). In a comparison of adolescents and adult women abused during pregnancy, Parker and colleagues (1993) found a significantly higher prevalence of abuse for adolescents (21 versus 15 percent). Renker (1999) conducted an important study of abused pregnant adolescents and found self-care agency and social support to be important protectors from deleterious outcomes.

In several descriptive studies, battering during pregnancy has been associated with severe abuse, weapon carrying and threats by the abuser, and risk of homicide, suggesting that the man who beats his pregnant partner is an extremely dangerous man (Campbell, Soeken et al., 1998; McFarlane, Soeken, 1998; Fagan, Stewart, and Hansen, 1983). Two studies of urban homicides indicate that the leading cause of maternal mortality (death occurring during pregnancy or within 90 days of delivery) in Chicago and New York City was trauma and that homicide accounted for the largest majority of those traumatic deaths (Fildes et al., 1992; Dannenburg et al., 1995). National homicide data do not include separate data for maternal homicides, so generalizable conclusions are not possible.

In one of the few qualitative data analyses related specifically to abuse during pregnancy, Campbell, Oliver, and Bullock (1998) demonstrated that differing patterns of abuse occur during pregnancy according to the women abused. In a small percentage (15 percent) of the sample, women whose partners thought the baby was not his said their partners abused them most severely during pregnancy and seemed to be trying to cause a miscarriage. This is an important finding, given the link demonstrated in population-based studies between stepchildren and both female spouse and child homicide (Daly, Wiseman, and Wilson, 1997). Another small group of women (19 percent), more likely to be in their first pregnancy, found their husbands to be jealous of their normal increasing attachment to the unborn child. A third small group (15 percent) said that the abuse was pregnancy specific but not related to the child. These two patterns may help explain the reports of some battered women who say the abuse first started or became exacerbated during pregnancy. However, the largest group of women (46 percent) said that their abuse during pregnancy was just a continuation of abuse that occurred before pregnancy. This illustrates findings in larger studies indicating that the major risk factor for abuse during pregnancy is abuse prior to pregnancy (Helton, McFarlane, and Anderson, 1987a). The study also found that a substantial proportion of women (53 percent of a convenience sample of 61 battered women) were abused before and after pregnancy but not during pregnancy. The few larger studies that have looked at prevalence before and after pregnancy have also found this pattern (Gazmararian et al., 1996).

Physical health-related correlates of abuse during pregnancy include factors that can be related to stress, such as substance abuse, smoking, less than optimal weight gain, and an unhealthy diet (Amaro et al., 1990; Berenson et al., 1994; Campbell, Poland et al., 1992; Cokkinides and Coker, 1998; McFarlane, Parker, and Soeken, 1996). In terms of pregnancy outcomes, at least three studies have documented an association of low birthweight with abuse during pregnancy, even controlling for other risk factors (Bullock and McFarlane, 1989; Parker, McFarlane, and Soeken, 1994; Schei, Samuelsen, and Bakketeig, 1991), although other studies do not show the same association (Amaro et al., 1990; Cokkinides et al., 1999; O'Campo et al., 1994; Petersen et al., 1997). However, in the one study whose results were analyzed by social class (Bullock and McFarlane, 1989), the association was stronger in abused middle-class women than in abused poor women, for whom there are so many other interacting risk factors for low birthweight. In addition, it may be important to distinguish between preterm and term deliveries in sorting out complex interrelationships of factors affecting birthweight. Campbell, Torres, and associates

(1999) found an association between abuse and low birthweight in a large, ethnically stratified case-control study even controlling for other risk factors, but in term infants only.

The mechanisms by which abuse might affect birthweight also are not totally clear. As described by Newberger and associates (1992), there may be a direct causal path through placental abdominal trauma and consequent placental damage and/or uterine contractions and/or premature rupture of membranes. In fact, several investigations have found associations between abuse during pregnancy and premature labor, trauma, and cesarean deliveries (Cokkinides et al., 1999; Petersen et al., 1997). There also may be infection, especially related to forced sex, and/or exacerbation of chronic maternal problems, such as hypertension or diabetes, from the trauma. At least three studies have also indicated that abuse may be related to inadequate prenatal care, which is potentially an indirect pathway for the abuse-birthweight connection (Campbell, Poland et al., 1992; Dietz et al., 1997; Parker, McFarlane, and Soeken, 1994). However, in other studies, abuse during pregnancy and prenatal care have not been associated (e.g., Cokkinides et al., 1999), with the reasons for the discrepancy not readily apparent. Regardless of whether there is a direct effect of abuse on birthweight under certain conditions (such as term births or advantaged socioeconomic status) or an indirect effect through such mediators as stress, delayed entry into prenatal care, or substance abuse (including smoking) (Curry, Perrin, and Wall, 1998; Curry and Harvey, 1998), it is clear that abuse poses a substantial risk to the health of both the mother and the unborn child.

The postpartum period is also important, although it has been studied far less than pregnancy in terms of abuse. Gielen and colleagues (1994) found an increased prevalence of abuse during the postpartum period (19 percent were abused after and 10 percent before), also pointing to the necessity of considering abuse beginning or resuming after childbirth as well as during pregnancy. A search of the literature has not revealed any focus on postpartum depression that specifically measured partner abuse, although many have identified lack of emotional, financial, and other support from a partner as a risk factor for postpartum depression. Associations have been found between abuse during pregnancy and depression (Campbell, Poland et al., 1992; Martin et al., 1998) as well as abuse and depression in nonpregnant women (see below). Thus, it is reasonable to recommend that women diagnosed as manifesting postpartum depression should be assessed for intimate partner violence.

Battering during pregnancy, then, is a serious problem that affects a substantial number of women and their unborn children during the prenatal period (Gazmararian et al., 1996). Intimate partner violence and child abuse have been linked in many studies (e.g., Straus and Gelles, 1990), and although not specifically explored, an association between abuse during pregnancy and child abuse can also be inferred. As first conceptualized by Judy McFarlane, even if more women are abused before and after pregnancy, pregnancy offers a “window of opportunity” for assessment and intervention for intimate partner violence. Women at the age of highest risk for abuse usually see health care providers more regularly during pregnancy than at any other time. Thus, pregnancy presents an important opportunity for secondary prevention, the identification of a serious health problem early, before it becomes a situation of serious injury or mortality.

Physical Health Effects of Violence

Increased health problems and health care seeking of physically battered women are well documented. In two population-based national surveys, women physically abused by a spouse or live-in partner were significantly more likely than other women to define their health as fair or poor (rather than good or excellent) (Straus and Gelles, 1990; Plichta, 1996). Abused women were also more likely to say they had needed medical care but did not get it (Plichta, 1996), and severely battered women had almost twice the number of days in bed due to illness than other women (Straus and Gelles, 1990). In the Bowker survey of self-identified battered women who had successfully ended the violence, the majority had sought help from medical professionals, a higher proportion than from other sources of help (Brendtro and Bowker, 1989).

The few recent studies of primary care settings based on self-report (rather than record review) show the percentage of women physically abused during the past year ranging between 5.5 and 25 percent (Gin et al., 1991; McCauley et al., 1995; Rath, Jarratt, and Leonardson, 1989; Saunders, Hamberger, and Hovey, 1993). Rath, Jarratt, and Leonardson (1989) found that not only the battered women in the HMO studied but also their children used health services six to eight times more often than controls.

Injury is the most obvious health effect of battering, and since Stark, Flitcraft, and Frazier's (1979) groundbreaking record review study of battered women in the emergency department, significant proportions of female emergency department patients have been documented as abused. Although prevalence varies considerably depending on the identification criteria (e.g., self-report, disclosure to professionals, record review) and the denominator of the equation (e.g., all women seen, all young adult women seen, all trauma patients), clearly domestic violence is a major cause of both injury and noninjury visits to the emergency department by women (Abbott et al., 1995; Dearwater et al., 1998; Goldberg and Tomlanovich, 1984; McLeer and Anwar, 1989). Chronic pain was found in one controlled investigation (Goldberg and Tomlanovich, 1984) to be the most frequent reason for visiting the emergency department and is a common symptom of battered women in other health care settings (McCauley et al., 1995; Wagner, Mongan, and Hamrick, 1995). Although frequently described as somatization, this pain may well be the result of old, misdiagnosed, or never treated injuries.

The aftermath of injuries from abuse, such as pain, broken bones, facial trauma (e.g., fractured mandibles), and tendon or ligament injuries are usually followed in outpatient settings (Goldberg and Tomlanovich, 1984; Grisso et al., 1991; Varvaro and Lasko, 1993; Zachariades, Koumoura, and Konsolaki-Agouridaki, 1990; Cascardi, Langhinrichsen, and Vivian, 1992). In fact, studies suggest that orofacial injuries in women are sensitive (though not highly specific) markers for domestic violence (Beck, Freitag, and Singer, 1996; Perciaccante, Ochs, and Dodson, 1999). Since battered women frequently report untreated loss of consciousness as a result of abuse, the chronic headaches often described by battered women (e.g., Straus and Gelles, 1990; McCauley et al., 1995) may be an inadequately diagnosed sequela of neurological damage from battering. Undiagnosed hearing, vision, and concentration problems reported by battered women also suggest possible neurological problems from injury (Eby et al., 1995; Wagner, Mongan, and Hamrick, 1995; Coben, Forjuoh, and Gondolf, 1998).

Other symptoms and conditions shown in controlled investigations to be associated with physical violence from intimate partners may be more related to the results of stress, including chronic irritable bowel syndrome, digestive problems, and eating disorders (Bergman and Brismar, 1991; Breslau et al., 1991; Campbell, 1989a; Drossman et al., 1990; Kerouac et al., 1986; McCauley et al., 1995; Stark and Flitcraft, 1988; Wagner, Mongan, and Hamrick, 1995. One controlled study (McCauley et al., 1995) and at least two descriptive studies (Kerouac et al., 1986; Rodriguez, 1989) suggest that hypertension may also be related to abuse. Although suppression of the immune system from chronic stress has been investigated in other populations, the role of stress in the etiology of the frequent communicable diseases and allergies suffered by battered women and their children (Kerouac et al., 1986; Wagner, Mongan, and Hamrick, 1995) has not been investigated.

Mortality Related to Abuse

Obviously, the most severe health consequence of intimate partner violence is homicide, causing more than half the homicides to women in the United States each year (Browne, Williams, and Dutton, 1998). The majority of adult women who are killed are killed by a husband, partner, or former husband or partner, and in the majority of those homicide cases, the woman was battered before she was killed (Campbell, 1995). The trajectory of the most severe kinds of abuse is often an increase in severity and frequency over time that may culminate in a homicide if the woman does not leave or the man does not receive treatment or is not incarcerated for violence. The majority of battered women do eventually leave their abuser, but they are probably most at risk for homicide immediately after they have left the abuser or when they make it clear to him that they are leaving for good (Campbell, Miller et al., 1994; Daly, Wiseman, and Wilson, 1997; Okun, 1986). The risk of suicide is also higher for battered women than for other women, also putting them at higher risk for mortality (Golding, 1999).

Women's Mental Health Consequences

Mental health sequela to abuse are significant and prompt women to seek health care services as frequently as do physical health problems. The primary mental health response of women to being battered in an ongoing intimate relationship and the primary reason for battered women going to a primary health care setting is clinical depression (Saunders, Hamberger, and Hovey, 1993). In controlled studies from a variety of settings and by meta-analysis, battered women are consistently found to have more depressive symptoms than other women as measured by various instruments (e.g., Bland and Orn, 1986; Golding, 1999; Jaffe et al., 1986; McCauley et al., 1995; Ratner, 1993). Prevalence of depression in abused women has ranged from 10 (Weissman and Klerman, 1992) to 21 percent (Kessler et al., 1994) to 32 percent when also including anxiety diagnoses (Plichta, 1996) in general population studies. In two different community samples of battered women (Campbell, 1989a; Campbell, Kub et al., 1997) found 39 to 43 percent of women to be in the moderately severe to severe categories of depressive symptoms on the Beck Depression Inventory. Using psychiatric diagnostic procedures, Gleason (1993) found a significantly higher prevalence of major depression in 62 battered women than was found in the National Institute of Mental Health Epidemiological Catchment Area study. In that same study, there was a higher prevalence of major depression (63 percent) than of diagnosed posttraumatic stress disorder (PTSD) (40 percent). In comparison, depression in women overall is generally

estimated at 9-percent point prevalence and 20- to 25-percent lifetime risk. Other shelter samples (e.g., Cascardi and O'Leary, 1992; Tolman and Bhosley, 1991) have been reported at similar levels of depression. There are increasing recommendations for the treatment of depression in primary care settings (Agency for Health Care Policy and Research, 1993). However, the need to assess for, and intervene if necessary for, domestic violence as well as depression has seldom been recognized (Campbell, Kub, and Rose, 1996).

In comparison group studies exploring the dynamics of depression in battered women, significant predictors include the frequency and severity of current physical abuse and stress more strongly than prior history of mental illness or demographic, cultural, or childhood characteristics (Campbell, Kub et al.,1997; Campbell, Sullivan, and Davidson, 1995; Cascardi and O'Leary, 1992). Self-care agency, or women's ability to care for themselves, was found to be a protective factor for depression in one study (Campbell, Kub et al., 1997). Similar concepts (agency, survival strategies) have been found in other descriptive studies, indicating the need to investigate the strengths of battered women as well as their health problems (Gondolf, Fischer, and McFerron, 1988; Lempert, 1996).

Trauma framework. Because the mental health effects of domestic violence and sexual abuse are similar to those of other trauma, many current mental health researchers and practitioners are conceptualizing the psychological effects of all forms of violence against women within a traumatic response framework (e.g., Dutton, 1992, 1993). Higher rates (31 to 84 percent) of PTSD have been documented in battered women in shelters and women who have experienced rape and childhood sexual abuse than in other women (Astin, Lawrence, and Foy, 1993; Gleason, 1993; Golding, 1999; Kemp et al., 1995; Resnick et al., 1993; Saunders, 1992; Woods and Campbell, 1993). The prevalence of PTSD in battered women in the general population has been less, as would be expected, but still substantial (approximately 12 percent) (Golding, 1999; Kessler et al., 1994; Resnick et al., 1993). So far, the strongest predictor of PTSD in battered women has been the severity of current abuse (Astin, Lawrence, and Foy, 1993), but other experiences of trauma (e.g., childhood sexual abuse, rape) were not well measured in that study. Arias and Pape (1999) found severity of psychological abuse to be a stronger predictor of PTSD symptoms than physical violence in multivariate analyses with battered women. The association of PTSD and battering has only recently been documented, primarily in the violence or trauma literature rather than in mainstream health or mental health publications. Battered women would generally not complain of PTSD per se to a health care provider but, rather, of sleep disorders or stress (McCauley et al., 1995). Thus, there is substantial probability of misdiagnosis or lack of diagnosis of PTSD by nonmental health providers.

Herman's (1992) work suggests that a complex (or chronic) traumatic stress response, in which the person is subjected to ongoing abuse, control, and terror, may be more adequate to explain the responses seen in battered women than a single traumatic event. These somewhat different responses include alterations in affect (the predominance of depressive affect), alterations in perception of the perpetrator (the tendency of severely battered women to see their abuser as omnipotent), and/or alterations in sense of self (the self-blame and disappearance of a sense of self described by severely abused women) (Campbell, Kub et al., 1997; Dutton, 1999). The role

of attachment to the abuser should not be underestimated as part of understanding the psychological responses of battered women and their children and making the response to trauma more complex (Dutton and Hemphill, 1992). Cumulative assaultive experiences apparently also add to the severity and complexity of trauma; childhood physical and/or sexual abuse combined with subsequent physical and/or sexual assault can be particularly problematic. For instance, Campbell and Soeken (1999) found that the number of sexual assaults (including childhood incest and nonfamilial sexual assault, stranger and date rape, and intimate partner forced sex) was significantly correlated with depression and body image in a recent investigation.

Substance abuse. Substance abuse is frequently seen as part of a trauma response within the avoidance dynamic. Abuse of both alcohol and illicit drugs has been found to be a substantiated correlate of abuse during pregnancy in all of the studies where it was measured as well as in several studies of clinical and shelter samples of battered women (Amaro et al., 1990; Campbell, Poland et al., 1992; Bergman and Brismar, 1991; McCauley et al., 1995; McFarlane, Parker, and Soeken, 1996). Although Ratner (1993) found a substantial association of alcohol abuse and battering in a Canadian random sample survey, Plichta (1996) did not find an association between intimate partner violence and alcohol *use* (abuse not measured) in the United States. Plichta (1996) did find an association with illicit drug (but not tranquilizer) use. In a meta-analysis review, Golding (1999) found a 19-percent prevalence of alcohol abuse and 9-percent prevalence of drug abuse in battered women across studies. These rates are higher than among women in the general population. Clearly, substance abuse treatment programs for women need to address domestic violence, just as shelter programs are becoming more inclusive of substance-abusing battered women in their interventions.

History of Health Care Response to Battering

The pioneering work of Evan Stark and Anne Flitcraft (Stark, Flitcraft, and Frazier, 1979) and Ann Burgess' (Burgess and Holmstrom, 1979) landmark rape studies first drew attention to the potential of the health care system encounter to be another victimization experience for women experiencing violence. Stark and Flitcraft (1988; Stark et al., 1981) were the first to outline how the health care system could be used to empower battered women. Their leadership in scholarship as well as training of health care professionals and health policy change since the 1980s have been crucial to the growing awareness of domestic violence in the health care system. Karil Klingbeil (Klingbeil and Boyd, 1984; U.S. Department of Health and Human Services, 1986), who established a program of family violence hospital-based interventions isolated at Harborview in Seattle, was also a pioneer in demonstrating the potential effectiveness of health care system interventions for battered women. Former U.S. Surgeon General C. Everett Koop convened a groundbreaking conference in 1985 to advance using the public health perspective to address violence (U.S. Department of Health and Human Services, 1986). In medicine, Ronald Chez and Robert Jones (1995) were instrumental in starting an American College of Obstetrics and Gynecology initiative for educating physicians to screen for and appropriately refer abused women. As president of the American Medical Association, Robert McAfee made family violence his first priority and started a highly visible and effective initiative against family violence in 1992 (American Medical Association, 1992). The Family Violence Prevention Fund

became the National Health Resource Center under the U.S. Department of Health and Human Services in 1992, providing training and materials for health care professionals on domestic violence. On the international front, Lori Heise has led efforts to document the health care effects of abuse for women around the world (World Bank, 1993; World Health Organization, 1997). The Departments of Justice and Health and Human Services have formed a groundbreaking partnership to formulate policy, with their research arms (Centers for Disease Control and Prevention, National Institutes of Health, and National Institute of Justice) collaborating to fund research.

Nursing has also been part of, and provided leadership in, all these efforts. The first nursing research study on domestic violence was published in 1977 (Parker and Schumacher, 1977), and Burgess' first study was published in 1979 (Burgess and Holmstrom, 1979). At least 20 nurses attended the Surgeon General's Task Force meeting in 1985. In the same year, members of that group held the first nursing conference on violence against women, where the Nursing Network on Violence Against Women, International was begun (see www.nnvawi.org). This organization is dedicated to ending violence against women and transforming the health care system to become more responsive to the health care needs of victimized women and their children. The American Nurses Association passed major resolutions on domestic violence in 1988 and 1990 calling for screening of women for domestic violence in all health care settings. The first nursing-social work hospital-based family violence intervention program was started in 1987 at Rush-Presbyterian St. Luke's Medical Center in Chicago. Many hospital-based intervention programs have been initiated since then, although evaluations of such programs have yet to be published (Page-Adams and Dersch, 1998). Nursing research has also contributed significantly to the body of knowledge about the health effects of domestic violence and sexual assault (Campbell and Parker, 1992, 1999).

Research-Based Practice Recommendations

Because the health care system is just beginning to establish interventions for battering, research on their effectiveness is limited. Nevertheless, there are opportunities for adopting certain practices and policies. It is not feasible to wait until all the evidence is in before acting. The following practice recommendations have been derived from the research on health effects reviewed above. Many of the recommendations have also been made by professional organizations.

Increase Screening of Women for Abuse and Sexual Assault at Health Care Visits

Routine universal screening is not endorsed by all health care professional organizations and has not been demonstrated through experimental design studies to definitely improve the health and safety of women. However, the research evidence on prevalence of abuse and on health effects is considered strong enough by professional associations[4] and by an interdisciplinary panel of health care experts convened by the Family Violence Prevention Fund (1999) to recommend that *all* women age 14 and older be screened according to the following protocol:

- Primary care settings—every first visit for a new chief complaint, each new patient encounter, each new intimate relationship for an ongoing patient, and all periodic exams.
- Emergency department and urgent care settings—all visits, all women.
- OB/GYN—each prenatal and postpartum visit, new intimate relationships, routine gynecological visits, and family planning, STD, and abortion clinics.
- Mental health settings—every initial assessment, each new intimate relationship, at least annually if ongoing or periodic treatment.
- Inpatient—as part of admission and discharge.

Periodic universal screening of women (including adolescents) for intimate partner violence and all forms of forced sex at all health care settings is warranted, based on the following research-based rationale:

- Change in relationship status over time (before, during, and after pregnancy and throughout the woman's life) (Campbell, Miller et al., 1994; Gielen et al., 1994; McFarlane et al., 1992).
- The variety of physical and mental health problems (most often *without* injury) women who are victimized experience (Dearwater et al., 1998; Koss et al., 1994; Ratner, 1993).
- The lack of consistently identified personal or demographic characteristics (risk factors) that can identify women more likely to be abused or having a history of sexual assault in any setting (Page-Adams and Dersch, 1998; Hotaling and Sugarman, 1990) or more likely to continue in battering relationships than other abused women (Campbell, Miller et al., 1994).
- The likelihood that abuse or a sexual assault history can aggravate an existing condition, compromise the treatment of an existing condition, or directly or indirectly cause a health problem.
- The willingness of the majority (approximately 80 to 90 percent) of both abused and nonabused women to undergo screening for abuse (Gielen et al., 2000; Glass, Dearwater, and Campbell, 2001; Parsons et al., 1995).

Thus, screening should not be limited to women presenting with trauma because evidence indicates that women are more likely to present with other conditions (Koss et al., 1994; Quillian, 1996). Adolescents abused by parents or other adults need to have their cases reported to child protective services under the mandatory child abuse reporting laws.

Research has indicated that chart prompts are important in increasing screening for abuse, as is system-change-oriented, regular staff training (including administration) (Campbell, Coben et al., 2001; Covington et al., 1997). As more and more health care is delivered as managed care, there is even more need for universal screening (at least for those under age 60) and interventions for abuse of women in those settings. Because of the frequency of abuse during pregnancy and after pregnancy, routine screening of women at *all* prenatal care visits, at delivery, and at the post-partum check is recommended. Intimate partner abuse should also be particularly assessed at family planning visits, well-child visits, occupational health settings, and all programs directed to childbearing women such as WIC,[5] Healthy Mother-Healthy Baby programs, and adolescent pregnancy prevention and intervention programs.

Separate Women From Male Partners and Family Members During Intimate Partner Violence Screening

All screening protocols need to include a procedure for regularly separating the woman from all male partners and family members during the abuse screening process. Women who do not speak English should not be asked about abuse using a family member as an interpreter.

Use Nontraditional Health Settings to Prevent and Address Intimate Partner Violence and Sexual Assault

Nontraditional health and public health settings should be used as opportune settings to prevent future, and address existing, intimate partner violence and sexual assault. School-based clinics and STD clinics are excellent examples of community health settings where health care providers can be used in programs to prevent domestic violence and to assess for and intervene with both victims and perpetrators of intimate partner violence. Occupational health and employee assistance programs are also extremely important arenas where screening, information, referrals, and coordinated workplace responses to intimate partner violence may be provided.

Adopt a Wait-and-See Policy Regarding Mandatory Intimate Partner Violence Reporting

Mandatory reporting of domestic violence by health care providers to criminal justice agencies should not become policy or law until subsequent safety is investigated by research (Chalk and King, 1998). Although the majority of nonabused women support mandatory reporting of domestic violence by health care providers, significantly more abused women do not favor mandatory reporting (Coulter and Chez, 1997; Gielen et al., 2000; Rodriguez et al., 1999a; Rodriguez et al., 1999b). Mandatory reporting requirements may make women less likely to tell a health care provider about their abuse, and no studies have been conducted thus far that address women's relative safety when abuse is reported to the police by the provider. Civilian criminal justice authorities already have difficulty in responding to all the 911 calls related to intimate partner violence and are not equipped to handle more such reports, especially written reports (Lund, 1999). If there is uncertain criminal justice response to such calls, it is problematic to make the reports. Finally, mandatory reporting takes away the battered woman's agency to make her own decisions about what should be done next. It may be that it would be helpful for a health care professional to make the report to the criminal justice system because it takes the onus of

responsibility off the woman. In fact, that can and should be one of the options offered to her. But until more definitive research is conducted, women are in the best position to make that decision (Chalk and King, 1998).

Provide Routine Intimate Partner Violence Screening for All Women Who Come to Family Planning Centers

All women coming to family planning centers (e.g., Planned Parenthood) should be routinely screened for intimate partner violence and a history of sexual assault, and interventions should be provided for the battered women themselves. The significant physical and mental health effects (i.e., lower self-esteem) specific to forced sex and the possibility of unintended pregnancy clearly support such a mandate (Campbell, 1989b; Campbell and Alford, 1989; Campbell, Pugh et al., 1995; Eby et al., 1995; Weingourt, 1985, 1990). Bullock and McFarlane (1989) demonstrated that women can be successfully screened for abuse in a family planning setting.

Include Careful Assessment and Interventions in All HIV/AIDS and STD Prevention and Intervention Programs

All HIV/AIDS prevention programs and STD interventions/special programs for women should include careful assessment and interventions for intimate partner abuse and sexual assault history. It is clear that battered women, especially those who also are sexually abused, are at increased risk for HIV/AIDS and other STDs (Eby et al., 1995; Gielen et al., 1997; Ratner, 1993). Complex interactions related to this issue need to be investigated further. Evidence shows that abusive men may be particularly reluctant to use condoms and/or their sexual partners are afraid to insist on condom use (Campbell, Pugh et al., 1995; Eby et al., 1995). Other abusers, already prone to jealousy, may interpret a request for safe sex practices as meaning that the woman has been sexually unfaithful. In actuality, the reverse is more likely to be accurate. To place the onus of responsibility on women to insist that their partners use a condom to prevent HIV and repeat STDs may put women at risk for violence.

Include Intimate Partner Violence Assessment and Interventions in Treatment for Depression and Substance Abuse

Treatment for depression and substance abuse in primary care and other settings needs to include assessment and interventions for domestic violence and sexual assault. Based on the research documenting depression as the primary mental health response to battering, interventions in the health care system for depression need to include domestic violence assessment and interventions. Even if health care providers conceptualize major depression as a primarily neurophysiological, genetically based disorder with abuse as a stressor that triggers depressive episodes, treating only the depression will not end the violence. Specific and separate interventions are needed for the violence issues also. The same is true for substance abuse treatment for both perpetrators and survivors. Similarly, community domestic violence interventions (e.g., shelters) need to include routine screening for depression and substance abuse with referral if needed. These systems can benefit from close collaboration with cross-training and collaborative interventions to make their interventions appropriate for both problems.

Provide SANE Nurses and Advocate Companions for Appropriate Victim Examination and Intervention

SANE (Sexual Assault Nurse Examiner) nurses and advocate companions should be available for all victims of sexual assault to provide appropriate examination and interventions. Nurses are being trained in increasing numbers to provide appropriate examination, preservation of evidence, and sensitive assessment of victims of sexual assault (Lynch, 1993; Ledray and Simmelink, 1997). Their practice is performed in conjunction with volunteer sexual assault advocates, and all victims of sexual assault who desire these services should have access to them.

Include Intimate Partner Violence Assessment and Interventions in Child Abuse-Related Programs

Programs addressing child abuse (e.g., hospital-based multidisciplinary child abuse teams, child protective services, home visitation programs, and family preservation programs) and inpatient nursing care for abused children need to include domestic violence assessment and intervention. Research indicates a strong overlap between wife abuse and child abuse; child abuse exists among as many as 77 percent of couples in which severe wife abuse also exists (Straus and Gelles, 1990). Programs in whole or in part that are designed to prevent or address child abuse (e.g., family preservation programs, Healthy Mothers-Healthy Babies, hospital multidisciplinary child abuse teams) need to assess the mothers of the children abused or at risk for abuse and intervene accordingly.

Although there have been tensions between child protective service workers and domestic violence advocates, collaborations for cross-training and children's programs are starting to address these issues (Edleson, 1999). Programs such as AWAKE at Children's Hospital of Boston have been designed specifically to address the needs of abused mothers of abused children. Although not yet rigorously evaluated, preliminary indications suggest that this program is helpful not only in protecting the abused mothers but also in protecting the children (Chalk and King, 1998). Pediatric nurses could also provide assessment and interventions for domestic violence for the mothers of hospitalized abused children in hospitals where programs such as AWAKE do not exist. The David Olds model of home visitation for new mothers and infants at risk has been shown to be effective in preventing child abuse and improving other outcomes (Olds et al., 1999). A panel of experts convened by the Institute of Medicine and the National Research Council (Chalk and King, 1998) recommended testing the inclusion of domestic violence assessment and intervention in those programs.

Provide Culturally Specific Assessment, Interventions, and Research

Assessment, interventions, and research with battered women need to be culturally specific and sensitive. Doris Campbell and colleagues' (1994) study of the use of the Index of Spouse Abuse with African-American women suggested the importance of developing culturally sensitive assessment for battered women and considering ethnicity-specific interpretations of abuse when providing health care interventions. Referrals need to be available for battered immigrant women. Translation issues are also complex. Often, such complexities as back-translation procedures and standards, differences in Spanish-language dialects (for example, Cuban, Puerto

Rican, Mexican, and Guatemalan Spanish are not all the same), and the importance of *not* using family members as translators are not fully taken into account in research instruments or in health care system assessment forms and resource materials (Porter and Villarruel, 1993). Both the Abuse Assessment Screen and the Danger Assessment (Campbell, 1995) have been translated into Spanish and used successfully with Spanish-speaking women from many countries.

Some nursing research has addressed issues of ethnic influences on battering (e.g., Torres, 1987), a field where the state of the science in relationship to culture is underdeveloped. Several clinical nursing articles have addressed nursing care of battered women, taking culture into account (e.g., Campbell, 1998; Campbell, Ulrich et al., 1993). In nursing research with important clinical implications, McFarlane et al. (1992) specifically examined the prevalence as well as the frequency and severity of abuse during pregnancy in three different cultural groups (Hispanics, African-Americans, and Anglos). They found prevalence significantly lower among Hispanic women and frequency and severity lowest among African-American couples. In contrast, in investigations of the influence of ethnicity (African-American versus Anglo) on depression and subsequent violence in battered women, no differences were found (Campbell, Kub et al., 1997; Campbell, Miller et al., 1994).

Consider Denial of Health Care Coverage in Making Written Diagnosis

Although documentation of abuse is critical for women to use for legal proceedings (e.g., citizenship application for battered immigrant women and child custody hearings), there is concern about the use of International Classification of Disease Diagnoses (e.g., Adult Maltreatment Syndrome) because there is a chance that battered women will be denied health care insurance because of being abused. Continued policy work is needed in this area. Abuse has been used as a preexisting condition for insurance denial. The Women's Law Project and the Pennsylvania Coalition Against Domestic Violence (2002) have taken the leadership in addressing this issue, and have received many assurances that insurance companies will not discriminate on the basis of domestic violence. However, women need to be consulted about their wishes in this matter until legislation and regulation have been crafted on privacy of health care records that addresses this concern.

Use a Proven, Research-Supported Intervention

The one tested domestic violence health care system intervention demonstrated to result in greater safety behaviors and less abuse for pregnant women should be considered as a promising intervention and tested in other health care settings. The Parker and McFarlane (Parker et al., 1999; McFarlane, Parker et al., 1998) intervention for pregnant abused women was tested using a control group quasi-experimental design. Although this design is not as strong as a random assignment experimental design, the results of greater safety behaviors and less physical and emotional abuse for the women receiving the intervention is extremely promising. The intervention was tested with ethnically diverse, urban and rural samples of battered women and is not specific to pregnancy or to nurses as interveners. However, it needs to be replicated and tested further with other groups of battered women in other settings, in sufficiently large samples so that particular effects for specific cultural groups can be assessed, and with other health care providers. In this intervention, nurses use a preprinted brochure to explain some of the dynamics

of abuse, conduct a lethality assessment (based on the Danger Assessment, Campbell, 1995), and discuss safety strategies and referrals with abused women. It is the only research-supported intervention available in health care settings at this time and needs to be widely disseminated.

Design Interventions That Transform Controlling, Abuse Relationships to Nonviolent, Supportive Ones

New and innovative interventions are needed that are secondary preventive in nature and seek to transform controlling and abusive relationships to nonviolent and supportive ones. The desired outcome of abuse interventions in the health care system is not necessarily leaving the relationship, at least immediately. In fact, research suggests that the majority of battered women do eventually leave the violent relationship (Campbell, Campbell et al., 1994; Campbell, Rose et al., 1998). However, leaving is a process that often involves returning several times; therefore, this leaving and returning needs to be interpreted as normal rather than pathological (Landenburger, 1989; Ulrich, 1994).

Interventions also need to recognize that women experience considerable abuse after they leave, ranging from mild forms of harassment to serious property destruction, stalking, and physical violence (Campbell and Humphreys, 1993; McFarlane et al., 1999; Tjaden and Thoennes, 1998). This is not to argue that battered women *should* stay in the relationship, but that health care professionals should be aware of the continued abuse that most often occurs if they do leave and their need for continued protection. Several studies suggest that at least some abusive relationships *can* become not only nonviolent but also noncontrolling and nonemotionally abusive (Campbell, Campbell et al., 1994; Fagan and Browne, 1994; Feld and Straus, 1989). Public health principles would predict that identifying with and intervening in battering relationships early would increase the chances of successful relationship transformation.

Abused women seen in health care settings often are not seeking intervention for the abuse per se and, if in the early stages of a violent relationship, usually do not even define themselves as abused or battered (Campbell, Rose et al., 1998; Campbell, Ulrich et al., 1993; Landenburger, 1989). They most often wish to maintain the relationship because of concerns for children, financial issues, love for the spouse, pessimism that they will find a better relationship, or a sense that the partner has other problems that are causing the abuse (e.g., substance abuse, unemployment, discrimination) and can possibly be solved (Campbell, Rose et al., 1998; Ulrich, 1994). Minority cultural groups also express the concern that criminal justice or relationship dissolution solutions for domestic violence are destructive for their communities and families (Moss et al., 1997). Thus, nursing and the health care system should be proactive in designing interventions in conjunction with the advocacy, battered women's community, and the women themselves that promote transformation to nonviolent, noncontrolling relationships.

Research indicates that women are most at risk for homicide from an intimate partner and that a woman's abuse is the major identifiable precursor of the homicide (e.g., Campbell, 1992; Campbell, 1995). Experience also indicates that women are at particular risk for homicide immediately after they leave the battering relationship (Wilson and Daly, 1992). Although no domestic homicide risk factor lists include actual evidence of predictive validity, several have

been developed and published with widespread support for some sort of lethality assessment (Campbell, 1995). The Danger Assessment was specifically designed for health care system administration to increase battered women's awareness of the potential for homicide and thereby enhance their self-care agency (Campbell, 1986). It has some construct validity support and has been used widely in many different kinds of health settings; the assessment may be obtained from the author or through a number of nursing publications (Campbell, 1995; Campbell and Humphreys, 1993).

More research is needed to identify other health care system-related interventions that can contribute to the empowerment and safety of battered women and sexual assault victims.

Conduct Collaborative, Interdisciplinary Research

Collaborative, interdisciplinary research among health care system professionals and among the health care, legal, and advocacy systems is needed, especially partnerships to implement longitudinal and intervention evaluation studies. This kind of partnership research is characterized by true interdisciplinarity, respect for complementary areas of expertise rather than the sometimes patronizing attitudes of researchers in the past, understanding of the past and present realities that cause distrust between disciplines and between researchers and advocates, a commitment to long-term working relationships and working through inevitable conflicts and misunderstandings, and mutual commitment to inclusion of the communities served by interventions (Campbell, Dienemann et al., 1999; Gondolf, Yllo, and Campbell, 1997; Short, Hennessy, and Campbell, 1996). Traditional experimental design evaluations need to be augmented by qualitative data to capture the complexities of both process and outcomes. Several recent documents have made excellent specific recommendations as to the type of research that is needed (e.g., Chalk and King, 1998).

Provide Increased Training to Nurses and Other Health Care Professionals

Increased training of nurses and other health care professionals about violence against women is needed in both basic and continuing education. The American Association of Colleges of Nursing (1999) has recently adopted an action plan for increasing nursing education in the area of violence against women. Increased educational programs and advanced nursing certification are also needed for forensic nursing in the areas of sexual assault examination, evidence collection, and mental and physical health response, assessment, and interventions for victimization. Research has clearly demonstrated that such education is lacking, and this deficit contributes to failure of nurses and other health care professionals to screen for and adequately respond to violence against women (Tilden et al., 1994; McGrath, Hogan, and Peipert, 1998). An experimental study demonstrated that training increased emergency department nurses' identification of battered women (Tilden and Shepard, 1987). However, staff training needs to be accompanied by administrative support, inclusion of screening questions on intake forms, and changes in system and culture to achieve lasting improvement in health care response (Glass, Dearwater, and Campbell, 2001; Covington et al., 1997; Lo Vecchio, Bhatia, and Sciallo, 1998).

Conclusions

With appropriate routine screening as well as thorough assessment of all aspects of the abuse (physical, emotional, sexual, and lethality risk) and the entire range of physical and mental health effects, health care professionals can identify the immediate problem and provide culturally competent solutions and offer safety planning, followup provisions, and appropriate referral for battered women. Interventions already developed and tested and those being further developed can be implemented to develop battered women's abilities to care for themselves and their children. Although much more research is needed (especially in evaluating the effects of routine screening and interventions in managed care, the culturally specific health effects of abuse and appropriate interventions, the safety outcomes of mandatory reporting, and partnership intervention evaluations), investigators may build on an impressive existing research base. The health care system can become a place for battered women and their children to find safety, respite, support, affirmation for their strengths, appropriate diagnosis, and assessment of their psychosocial conditions and the full context of their situation, including their children.

Notes

1. It is imperative that practitioners are able to recognize research that is credible (worthy of belief). Using refereed journals ensures some credibility through peer review or review and approval by other scientists in the field. The findings are further considered credible because they have been found in studies that have a control group for comparison and/or are based on a sample that is representative of (i.e., resembles) the entire population (i.e., it is population based on or "generalizable" to the entire population); they use ethnically and socioeconomically diverse samples; and they have been replicated (repeated with approximately the same results) in more than one study using more than one kind of research method. No single study, no matter how well done, should be considered the definitive answer to any scientific question in any field. Findings should always be seen in more than one study before they are used as the basis for policy decisions or cited as "fact."

2. Descriptive (i.e., studies without a control group, non-population-based studies) or indepth studies with qualitative data (i.e., words rather than numbers, as from focus groups or from indepth interviews) are extremely useful and often superior for investigating the context, intricate time ordering, and complex, interacting etiological factors that contribute to the physical and mental health effects of violence against women. Such studies can also suggest health effects that can later be investigated in controlled studies. Yet standing alone, descriptive studies cannot establish that a health effect results from battering without a control group of nonabused women. Even controlled investigations frequently use only a sample from one particular socioeconomic group or do not have enough representation from ethnic minority groups to investigate health effects in those groups separately. Fortunately, more than a decade of reliable research may be drawn on in this field, including both population-based and clinical sample quantitative inquiries and indepth investigations with qualitative data. Therefore, research findings can and should be reported as an accumulation of evidence rather than as findings presented as "fact" based on the

findings from just one study. In addition, careful notation of the limits to any investigation's generalizability and other research limitations needs to be made when presenting research results.

3. Percentages have been rounded throughout.

4. The professional organizations are the American College of Obstetricians and Gynecologists, the American Nurses Association, the Nursing Network on Violence Against Women, International, and the Association of Women's Health, Obstetric, and Neonatal Nurses.

5. The Special Supplemental Nutrition Program for Women, Infants, and Children administered by the U.S. Department of Agriculture.

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