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KNOWLEDGE AND ASSESSMENT PRACTICES OF HEALTH PROFESSIONALS IN PRIMARY CARE RELATED TO BATTERING IN PREGNANCY

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Bonnie M. McClure

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Linda Bell Tudy
Major professor

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KNOWLEDGE AND ASSESSMENT PRACTICES OF HEALTH PROFESSIONALS IN PRIMARY CARE RELATED TO BATTERING IN PREGNANCY

By

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ABSTRACT

KNOWLEDGE AND ASSESSMENT PRACTICES OF HEALTH PROFESSIONALS IN PRIMARY CARE RELATED TO BATTERING IN PREGNANCY

By

Bonnie M. McClure

Between two and four million women are battered annually in this country by their partners. Battering often begins or escalates in pregnancy and affects 6-10 percent of all pregnant women. Health professionals in primary care have an ideal opportunity to intervene in the cycle of violence by routinely assessing and referring battered women during pregnancy. A self report survey was utilized to describe the knowledge, assessment practices and previous use of local referral resources related to battering in pregnancy by health professionals (N=109) caring for women in primary care. Relationships explored were: 1) knowledge and assessment practices; and 2) previous use of local referral resources and assessment practices.

Data were analyzed using ANOVA. Subjects: a) were knowledgeable about battering in pregnancy; b) rarely assessed for battering in pregnancy; and c) had only utilized one to two local referral resources in the past ($\bar{X}$=1.59). A significant positive correlation was found between knowledge and assessment practice (r=.26), and between previous use of referral and assessment practices (r=.45). Clinically significant differences were found between several sub-groups with relation to assessment practices and previous use of local referral resources. Implications for advanced nursing practice are discussed.

To my husband, George, and to my
children, Tracy, Amy and Christopher

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INTRODUCTION

Domestic violence, a public health menace, is the largest cause of injury to women in the United States, more common than automobile accidents, mugging and rape combined (Coleman, 1991). Between two and four million women in this country are battered annually by their partners (Strauss & Gelles, 1990; American Medical Association Council on Scientific Affairs, 1992). Battering of women, a form of domestic violence, often begins or escalates during pregnancy (Bohn, 1990; Hilliard, 1985; Kent, 1989; Helton & Snodgrass, 1987; and Campbell, 1991) and affects between seven and ten percent of all pregnant women (Hilliard, 1985; Helton, McFarlane & Anderson, 1987; Amaro, Fried, Cobral & Zuckerman, 1990; and Campbell, Poland, Waller & Ager, 1992). Battering in pregnancy is more common than conditions which are routinely assessed prenatally such as hypertension, preeclampsia, and diabetes (Helton, 1985) and may have serious ramifications for the woman and her children whether born or unborn (Helton et al., 1987; Parker & McFarlane, 1991). For women, battering in pregnancy has been correlated with depression, substance abuse and late prenatal care (Campbell et al., 1992). For the fetus, battering in pregnancy has resulted in miscarriage, fetal demise, and low birth weight (Worchester, 1992).

During pregnancy, many women begin to utilize the health care system on a regular basis, and the health provider in primary care has an ideal opportunity to establish a rapport, identify, and empower the

battered woman. Numerous authors have recommended routine screening of battering in pregnancy (McFarlane, Parker, Soeken, Bullock, 1992; ACOG, 1989; Chez, Esposito, Adams, & Kelly, 1987). Most physicians and nurses, however, receive little education about battering and lack knowledge regarding the issues of battered women (Young & McFarlane, 1991; Holtz, Hames & Safron, 1989).

The purpose of this study is to describe the knowledge, assessment practices, and use of local referral resources by health professionals in primary care with regard to battering in pregnancy. The research questions to be examined are: 1) Is there a relationship between knowledge and assessment practices of health providers in primary care related to battering in pregnancy? and 2) Is there a relationship between the previous use of local referral resources for battered women and the assessment practices of health professionals providing primary care to pregnant women?

DEFINITION OF TERMS

Knowledge

Webster's New Word Dictionary (1988) defines knowledge as, "an acquaintance with facts; range of information, awareness; or understanding (p. 748)." Gove (1984) defines knowledge as, "the fact or condition of knowing (p. 1252)." He further describes "to know" as having a practical understanding of or distinct skill through instruction, study, practice, or experience. For this study, knowledge of the health professional in primary care will be defined as their knowledge of: 1) the prevalence of battering in pregnancy; 2) the indicators of battering; and 3) local referral resources available to the battered woman.

Assessment Practice

Gordon (1988) describes assessment practice as an evaluation which is used to describe both the initial and continued health status of a person, family or community. This same author explains the process of assessment as a deliberate and intentional plan for collecting and organizing information through a history component, obtained by direct questioning; and an examination component, obtained through observation and other techniques. Questions about history should be stated clearly and concisely (Seidel, Ball, Dains & Benidict, 1991; Gordon, 1987) with the primary objective being to ascertain what is at the root of the client's concern and to help them do something about it (Seidel et al., 1991). In this study the term assessment will refer to: 1) questions about battering that are asked of each client initially and/or subsequently during the prenatal period; and 2) intentional ongoing examination for indicators of battering throughout gestation.

Previous Use of Local Referral Resources For Battered Women

Webster's New World Dictionary defines a resource as something that can be drawn on for aid or to take care of a need (Neufeldt & Guralnik, 1988). This same reference describes the term local as something within a specific area. Referral may be used as an adjective describing an agency which provides professional service, or as a noun indicating a process of being referred from one source to another for a particular service. The process of referral is especially important when the identified need is complex and beyond the scope of practice for the health professional. Previous use of local referral resources for battered women will be defined, in this research, as the past utilization of those resources available to aid and assist pregnant

battered women within a 15 mile radius of Lansing, Michigan. They include: the Council Against Domestic Assault (CADA); the local women's shelter; the Lansing Police Department; the Ingham County Prosecuting Attorney; Listening Ear, a phone hot-line available 24 hours/day; Legal Aid; and an open ended category of other services, for battered women, the health professional may have knowledge of, or have used as a referral source in the past.

Health Professional in Primary Care

The health professionals may be described by combining the definitions of health and professional. The health professional is a person practicing in a profession which is promoting both physical and mental well being (Neufeldt & Guralnik, 1988). These professions may include nurses, physicians, social workers, nutritionists and numerous other individuals who promote health. Primary care, a philosophy of care, is directed toward screening, prevention, maintenance and problem solving of health related issues. Professionals in primary care settings are the gate keepers of health care and refer clients to other resources when needed. Fagin (1978) states, "For medicine, primary care may be one of many specialties, for nursing it is the very essence of the profession (p. 750)."

In this research, the health professional in primary care is defined as an OB/GYN or family practice physician or nurse providing initial and ongoing prenatal care who practices in one of the following settings: private office; clinic, either hospital or government funded; health maintenance organization; or other, such as an academic setting. The physician, allopathic or osteopathic, may be practicing as an intern, resident, family practitioner or obstetrician. The nurse may be

practicing as a registered nurse, practitioner, or clinical nurse specialist.

Battering in Pregnancy

The term battering is often used synonymously with violence, abuse or assault. The American College of Obstetricians and Gynecologists (1989) states the "battered woman is 16 years of age or older and has evidence of physical abuse in at least one occasion at the hands of an intimate partner (p. 1)." Hilliard (1985) found the source of abuse in pregnant adolescents was sometimes the parent rather than the male partner. Helton (1987) describes battering as repeatedly subjecting a woman to forceful physical, social and psychological behavior in order to coerce her, without regard to her rights. The five types of violence described by Helton include: physical, sexual, property, psychological and social. Slapping, choking, punching, kicking, pushing, and the use of objects as weapons constitutes physical violence; forced sexual activity is sexual violence; and threatened or actual destruction of property is property violence. Psychological and social violence include threats of harm, physical isolation, extreme jealousy, mental degradation, and threats of harm to children (Helton, 1987).

In this study, battering in pregnancy, will be defined as: Single or multiple acts of physical, sexual, or psychological abuse directed at the pregnant female, regardless of age, by another person. The abuse may be physical which includes: slapping, choking, punching, kicking, pushing and use of objects as weapons. Sexual abuse is forced sexual activity without regard to the desire of the female. Psychological abuse includes threats from harm, physical isolation, extreme jealousy,

mental degradation and threats of harm to children or the developing fetus.

REVIEW OF THE LITERATURE

The relevance of the problem, battering in pregnancy, will be discussed from several perspectives. First, the primary care issues relative to knowledge, assessment and identification of the battered woman by the health care professional and common referral sources utilized for battered women will be presented. Second, the prevalence of battering in women, both pregnant and non pregnant will be reviewed to demonstrate the significance of the problem. Third, and finally, the potential dangers for women and their children, born and unborn, will be discussed to illustrate the impact battering in pregnancy may have on the future of those involved.

Primary Care Practices

Opportunities and barriers influencing practice related to battering in pregnancy for health professionals in primary care have been addressed in the literature. For a healthy woman, pregnancy is the only time frequent contacts will be made with the health care system (McFarlane, 1989; Schafer-Helmlinger, 1992) and the prenatal period provides an ideal opportunity for screening, education and primary intervention to prevent and interrupt battering (McFarlane, 1989). Repeated visits during the prenatal period potentiate a "trusting" rapport and may facilitate verbalization of abuse by the pregnant woman.

The American Medical Association's Council on Ethical and Judicial Affairs recently reported some of the barriers affecting the health professional's ability to help the battered woman in primary care include: 1) lack of knowledge; 2) social misconceptions; and 3) lack of

referral resources (1992). The council states lack of knowledge and training in domestic violence contribute to the inability of providers to recognize and correctly interpret behaviors associated with battering. Health professionals also are not exempt from the misconceptions surrounding the issues of battered women. Common societal misconceptions related to battering include: a) domestic violence is a rare occurrence; b) domestic violence is a private matter; c) domestic violence does not occur in normal relationships; and d) the woman is responsible for her abuse. Finally, the council addresses using referral resources as a primary aim of treatment for battered women and addresses the inadequacy of resources available and funding to support them (Council on Ethical and Judicial Affairs, AMA, 1992).

Few researchers have addressed knowledge and assessment practices of health professionals in primary care with regard to battering in pregnancy. Hilliard (1985) says awareness and direct questioning will result in an increased identification of women who are at risk for physical violence. Knowing the common patterns of abuse and recognition of the battered female will allow health workers to empower the woman to explore options which may be key to ending violence in her life (Worchester, 1992).

Holtz et al. (1989) surveyed 143 accredited U.S. and Canadian medical schools during 1987-88 and found 53 percent of the 116 schools responding stated their students did <u>not</u> receive instruction about adult domestic violence as part of the curriculum. Forty-two percent reported their students received instruction as part of at least one required course; and 5 percent received no required instruction but could choose an elective addressing the issues of domestic violence. Young et al.

(1991) and this author as well, have been unable to find a similar study for nurses. Helton, McFarlane & Anderson (1989) found in a survey conducted six months after an educational program on abuse in pregnancy that 75 percent of the agencies were routinely assessing prenatal patients for battering in pregnancy.

Sugg & Inui (1992) interviewed 38 physicians to explore their experiences and attitudes related to domestic violence to determine barriers of problem recognition and intervention in the primary care setting. The actual knowledge of the providers was not addressed. The attitudes related to domestic violence revealed many physicians were reluctant to ask. Asking was considered analogous to "Opening Pandora's Box" or "opening a can of worms." Most physicians felt reduced comfort, fear of offending the client, powerlessness in dealing with the complexity of the issue, loss of control because they couldn't expedite a resolution, time constraints due to a busy practice, and belief of reduced prevalence in their population. Two outliers in their study included one physician who had a history of abusive behavior for which he had received counseling, and a second who had experienced positive outcomes with battered clients early in his practice, and felt more competent in management because of additional reading and exposure. Both physicians addressed the issue of battering as "business as usual" and felt their role was to validate, discuss safety issues, and refer clients to appropriate resources.

Sugg et al. (1992) suggests that some physicians feel ineffective in their ability to intervene because their method of treating relies heavily on medication and/or surgery, whereas other physicians felt they could provide emotional support and referral but were frustrated by

their inability to control whether patients accepted what they offered (1992). These authors conclude that physicians need education in appropriate intervention strategies and need to be knowledgeable about expected time courses of battering to decrease the issue of lack of power and control felt by these professionals.

Bowker & Maurer (1987) surveyed 1000 battered women recruited through an advertisement in *Women's Day Magazine*. Approximately 30 percent said they received help from physicians and/or nurses on at least one occasion and when asked to respond to the effectiveness of the encounter, sixty-one percent found them to be either slightly effective (16%) or not effective (45%). In comparison with other help sources (social service agencies, clergy, police, lawyers, women's groups and shelters), physicians and nurses were found to be less effective. The possible reasons for low effectiveness suggested by these authors include: 1) women seek medical help on the spur of the moment, whereas the others help sources are sought after greater planning; 2) there is only a short amount of time available with medical professionals; and 3) there is goal incongruence between the woman and medical personnel. For the woman, the goal may be to end the violence. For the health professional, the goal may be to treat the physical effects, not to intervene with a pathological social problem.

To determine whether patients want primary care physicians to inquire about physical or sexual abuse and how frequently physicians make such inquiries Friedman, Samet, Roberts, Hudlin & Hans (1992) surveyed 164 patients and 27 physicians. The majority of the patients favored routine assessment for sexual abuse (68%) and physical abuse 78%) and approximately 90 percent stated they would answer questions

about sexual and physical abuse truthfully. Among the physicians, one third believed questions about sexual and physical abuse should be asked routinely. In their clinical practice, however, approximately 87 percent of the physicians did not question their patients about sexual abuse at initial or annual visits and approximately 63 percent did not question about physical abuse at these same visits. Both the patients and physicians indicated doctors could help the victim of abuse, which validates the need for routine assessment for the problem of battering in pregnancy.

Friedman et al. (1992) conclude that the first step in education of physicians involves increasing physician awareness that identification of abuse requires direct inquiry and that patients are willing to be asked questions about abuse. The authors recognize that counseling of victims is beyond the scope of practice for most primary care physicians but state all physicians should be aware of resources for victimized patients and make appropriate referrals.

McFarlane, Christoffel, Bateman, Miller & Bullock (1991) demonstrated the value of health professionals directly asking women about their history of abuse in pregnancy. Approximately 8 percent of 477 women in their study reported abuse on the standard medical history form, but when asked the same questions by a health care provider, 29 percent reported abuse. In another study, the Abuse Assessment Screen (AAS) was administered directly by a health professional on the first prenatal visit and repeated during each trimester to identify battering in pregnancy (McFarlane et al., 1992). Women were identified as battered if they answered positively to one of the following questions: 1) *Within the last year, have you been hit, slapped, kicked or otherwise*

physically hurt by someone?; 2) *Since you've been pregnant, have you been hit, slapped, kicked or otherwise physically hurt by someone*?; and 3) *Within the last year, has anyone forced you to have sexual activities*?. When evaluated against nationally tested research instruments, the AAS was sensitive and specific to abuse status. The findings revealed 17 percent or 1 in 6 pregnant women in the sample of 691 women had been either sexually or physically abused. Some women who did not report abuse at the first visit, reported abuse later in the pregnancy. The author of this study suggested the higher, reported rate obtained with the use of the AAS may have resulted because women were interviewed by their primary care provider with whom they would have return visits, and perhaps the women felt safer revealing their abuse to a clinician they would see on repeated visits.

Several studies examining assessment practices have been done in emergency rooms. In one such study, McLeer & Anwar (1989) reviewed the medical records of 359 women prior to implementing a protocol, which had specific questions about abuse, to enhance the identification of battered women. Approximately 6 percent were identified as battered before using the protocol and 30 percent of 412 women were identified as battered after implementing the standardized protocol.

Warshaw (1989), attempted to document discrepancies between the large number of women who come to health care settings with symptoms related to living in abusive relationships and the low rate of detection and intervention by health professionals. She analyzed 52 cases from a predominantly black, hispanic public hospital emergency department and found in a majority of cases, women gave very strong clues about being at risk for abuse. Though the clues were recorded, they were rarely

expanded upon regardless of the nurse or physician recording explicit information. In 92 percent of the cases, the discharge diagnosis did not reflect clues of abuse. Warshaw concluded that though there was awareness of abuse by some health professionals, neither doctors or nurses were willing or able to take on what would be entailed in directly addressing the issues of battered women. The author further suggested that overwork and understaffing in a high tech environment, where the medical model predominates, placed the psychosocial aspects of abuse outside the framework of medical intervention.

Knowing what local community resources exist for battered women and how to access them is essential for a referral to be activated by the health professional in primary care. Additionally, knowledge of local resources and how to access them may increase the health professional's confidence that there is something that can be done about battering and may therefore result in more routine assessment during the prenatal period. Newberger, Barkan, Lieberman, McCormick, Yllo, Gary & Schechter (1992) suggest that the establishment of linkages to battered women's services provides access to the practitioner, crisis intervention and support for battered women. These authors emphasize the goal of these linkages is to empower women to better protect themselves and their children and to develop networks of support in the community.

Resources available for referral of the pregnant battered woman may include: family and friends, the criminal justice system, clergy, health care professionals, and battered women's shelters (Bohn, 1990). Many programs, shelters, and resources were established for battered women in the 1970's, but at present, the needs of battered women and their children are insufficiently met in most communities (Griffith-

Kenney, 1986). The women located in rural settings are often more isolated from resources than the woman located in an urban setting (Bohn, 1990).

In summary, the primary care setting provides opportunities for the health professional to identify the battered pregnant woman, but barriers to assessment are numerous. Direct questioning has been found to be highly effective in identifying the problems of abuse, but health professionals often 1) lack knowledge about the issues of battering in pregnancy, 2) are overcome by societal misconceptions, and 3) lack standardized assessment practices. Prevalence of these barriers suggests that the frequency of assessment for battering in pregnancy is rare.

Prevalence of Battering in Women

In 1985, it was estimated from the National Family Violence Survey (Straus et al., 1990), that approximately two million women were battered annually by their male partners in the United States. In the same survey, 154 of every 1000 pregnant women were assaulted by their mates during the first 4 months of pregnancy and 170 per 1000 were assaulted during their 5th through 9th months of pregnancy. Severe physical battering of women by male partners is a real national problem and it continues to be underreported because it occurs within the privacy of the home (Hilliard, 1985).

In a publication by the American Medical Association's Council of Scientific Affairs, it is reported that the figures, based on national surveys, are markedly underestimated. This publication reveals that national researchers agree that the true incidence of partner violence is probably closer to 4 million (1992). These documents, and the work

provided by numerous researchers, support the concept that existing knowledge about the prevalence of battering, is probably equivalent to the "tip of the iceberg".

Several investigators have attempted to identify the prevalence of battering in pregnancy. Hilliard (1985) questioned 742 pregnant women from one clinic and found 10.9 percent (n=81) gave a history of abuse; of these, 35 percent reported abuse during the current pregnancy. Helton (1986) conducted 112 interviews in both private and public obstetrical clinics with 21 percent reporting a history of abuse in the past, with 9 percent occurring during the current pregnancy. While randomly interviewing 290 pregnant women from public and private prenatal clinics, Helton et al. (1987) found 8 percent were battered during their current pregnancy and an additional 15 percent were physically battered before the pregnancy for a total of 23 percent. As part of a prospective study, Amaro et al. (1980) assessed violent incidents in 1,234 pregnant women and found 7 percent (n=92) reported physical or sexual violence during their pregnancy. Campbell et al. (1992) found a prevalence of battering in 488 Medicaid eligible pregnant women to be 7 percent. McFarlane et al. (1992), using a 3 question Abuse Assessment Survey, detected 17 percent or 1 in 6 pregnant women experienced physical or sexual abuse. In summary, and based on most research, the prevalence of battering in pregnancy is estimated between 7 percent to 9 percent. The ranges of battering in pregnancy vary, however, based on direct verses indirect questioning as the method of assessment and whether the assessment was completed more than once during the pregnancy.

Knowledge about the prevalence of battering in pregnancy is a crucial issue for all health professionals in primary care. Recognizing a problem exists and being knowledgeable of prevalence will facilitate an understanding by the health care provider about how susceptible pregnant women are to this health malady. Additionally, knowledge of prevalence will actualize the true threat battering poses for women and their children.

Potential Dangers To Women

The female victim, in a relationship where battering exists, is at risk for numerous health problems. Approximately 1/4 to 1/2 are sexually as well as physically abused (Campbell, 1986). Amaro et al. (1990) have shown female victims of violence are at risk of depression, attempted suicide and are more likely to be users of alcohol and drugs. Campbell et al. (1992) found correlates of battering in pregnancy included: anxiety, depression, drug and alcohol use, and decreased prenatal care. McFarlane et al. (1992) found that abused women were two times more likely to begin prenatal care in the third trimester, which may be due to the woman's desire to hide the signs of abuse. Abused women may also experience somatic complaints such as insomnia, headaches, gastrointestinal symptoms, and pelvic, chest and back pain (ACOG, 1989). Knowledge of the dangerous health problems the abused pregnant woman may experience will allow the health provider, working in primary care, to better identify the often vague, as well as more direct, signs of battering in pregnancy.

Potential Dangers To Children/Fetus

The children of battered women may experience newborn feeding problems, failure to thrive (Helton, 1987), and over 1/3 will experience

sexual abuse at the hands of the violent perpetrator (Rosen, 1992). Older children witnessing violence, such as battering, may experience emotional trauma and may become active participants in violence as well (Campbell, 1992).

The fetus is at risk because adverse pregnancy outcomes such as miscarriage, stillbirths and premature delivery have been reported following battering episodes (Bullock, McFarlane, Bateman, & Miller, 1989). Pregnant women are more likely to have multiple sites of injury than nonpregnant women (Helton et al., 1987) and are more likely to be struck in the abdomen (Bohn, 1990). Two of the most common causes of blunt abdominal trauma to the pregnant woman are falls and assaults (Pearlman, Tintinalli & Lorenz, 1990; Rothenberger, Quattlebaum, Perry, Zabel & Fischer, 1978; Williams, McClain, Rosemurgy & Colorado, 1990). Pearlman et al. (1990), discuss that lethal placental or direct fetal injury can occur with minor maternal injuries resulting in death of the fetus. In their perspective cohort study of 85 women suffering varying degrees of trauma during pregnancy, these authors identified the immediate adverse outcomes of abruptic placenta (5.9%), ruptured membranes (4.7%), and fetal death (1.2%). Additionally they found that women with anterior placed placentas were at significant risk for fetomaternal transfusion following blunt abdominal trauma, which could result in Rh sensitization.

Bullock & McFarlane (1989) explored the issue of physical abuse and the incidence of low birth weight (LBW) infants. In their study of 589 postpartum women, a significantly greater number of LBW babies were born to battered women than to women who were not battered. Approximately 18 percent of infants born to battered women were below 2,500 grams verses

4.2% of the control infants. The fetus, infant, or child living in an environment where there is physical, sexual, or psychological abuse toward their mother is at risk for a lifetime of serious health consequences unless the problem is identified and efforts to correct the situation are made.

Nurses and physicians providing health care in primary care settings serve as gate keepers, and have an opportunity to intervene at a secondary level of prevention related to battering in pregnancy through detection and early intervention. In the previous section, an extensive list of barriers which interfere with the identification of the pregnant battered woman was discussed. The seriousness of the problem has been discussed relative to prevalence of battering in pregnancy and the dangers it poses to mothers and their children. Finally, systematic research has shown that direct questioning with a few specific questions will often identify the battered, pregnant women.

In summary, strengths of battering in pregnancy literature include numerous studies which have identified lack of education of health professionals, societal misconceptions, and barriers to assessment. In addition, the literature addresses: the need to directly ask women about battering; the importance of linkages with local referral resources; the prevalence of battering to women; and the dangers to women and their children. The major weaknesses of the literature is that few studies have measured the concept of knowledge, assessment practices and previous use of local referral resources for battered women by the health professionals caring for pregnant women in primary care and few studies have examined both physicians and nurses as health care providers. The intent of this research is to build on previous

research and validate the importance of the variables: knowledge, assessment practices, and previous use of local referral resources.

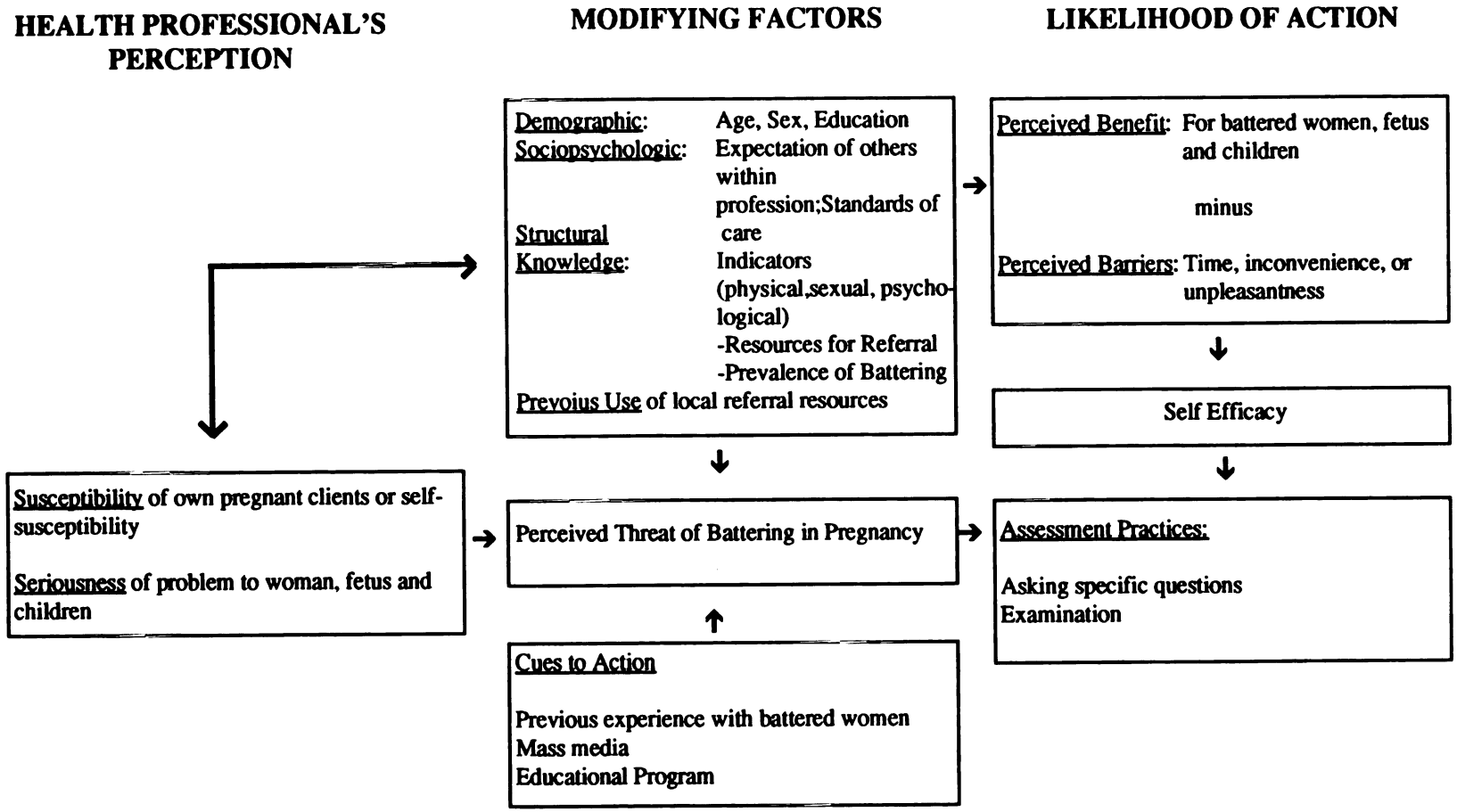
Theoretical Framework

The Health Belief Model (HBM), is a conceptual formulation for understanding why individuals do or do not engage in a wide variety of health related activities (Janz & Becker, 1984). The HBM has been selected to describe the variables in this study and their connections. The usefulness of the HBM is enhanced by its potential for applicability to a wide variety of health related actions in prevention, therapeutic and rehabilitative domains (Mikhail, 1981). The HBM has been utilized by many researchers to predict behaviors from the individual's or client's perspective. In this research, however, the behavior will be the "assessment practices" of the health professional, not the client, in primary care related to battering in pregnancy.

The Health Belief Model, developed by Becker and Maiman (1975) consists of three primary components: individual perceptions, modifying factors and likelihood of action. Figure 1 demonstrates the general application of battering in pregnancy to the HBM. The individual perceptions are derived from 1) perceived susceptibility or the individual's feelings of personal vulnerability to a condition (Janz et al. 1984); and 2) perceived severity or the person's beliefs regarding the seriousness or severity of a given health problem (Pender, 1987). Perceived susceptibility and perceived severity together determine the individual's perceived threat of the health related problem.

The modifying factors which often affect the predisposition to take preventive action consist of demographic, sociopsychological and structural variables, and cues to action (Pender, 1987). Sex, age,

Figure 1.
Battering in Pregnancy
Application of the Health Belief Model



Adapted from Becker and Maiman (1975).

education and socioeconomic status are examples of demographic variables. Sociopsychological variables include social pressures or social influence. These behavior norms may come from family, friends, or peers within the health profession. Structural variables include knowledge about the target disease and prior experience with it though few studies have addressed these variables (Pender, 1987).

Pender describes cues to action as "triggering" events which facilitate decision-making. Cues originating internally within the individual may include symptoms, feelings or recall of affected individuals with whom the person is close to. Motivating factors external to the individual may include mass media publicity, or reminder post cards to prompt preventative action.

The final component of the HBM is likelihood of action. Perceived benefits, minus the perceived barriers of the health related activity, will determine likelihood of action (Pender, 1987) and are influenced by the individuals perceptions and modifying factors. Benefit of action is the belief about the effectiveness of the recommended behavior. Barriers to action are beliefs about cost, time, inconvenience or unpleasantness of the recommended behavior.

Discussion of the HBM would not be complete without recognizing the concept of self-efficacy. Bandura (1977), and Janz et al. (1984) describe self-efficacy as the individual's conviction or confidence to successfully execute the particular behavior required to produce the desired outcome. Rosenstock, Stretcher & Becker, (1988), suggest the incorporation of self-efficacy in the HBM will provide a more powerful approach to understanding and will influence health related behaviors.

Janz et al. (1984) have also suggested the concept of self-efficacy can be incorporated into the HBM.

Figure 2 highlights the applications of the variables in this study to the HBM. The intent of this research is not to describe all of the reasons or underlying factors which may influence assessment behavior for battering, but to concentrate on describing the structural variables of knowledge and previous use of local referral resources and likelihood of action, the assessment practices of the health professional related to battering in pregnancy.

In addition to describing the three major variables, this study will explore relationships between variables. The first linkage explored is between the structural modifying factor of knowledge and the assessment practices of the health professional related to battering in pregnancy. The second linkage investigated is between the previous use of local referral resources, another structural modifying factor, and likelihood of assessment for battering.

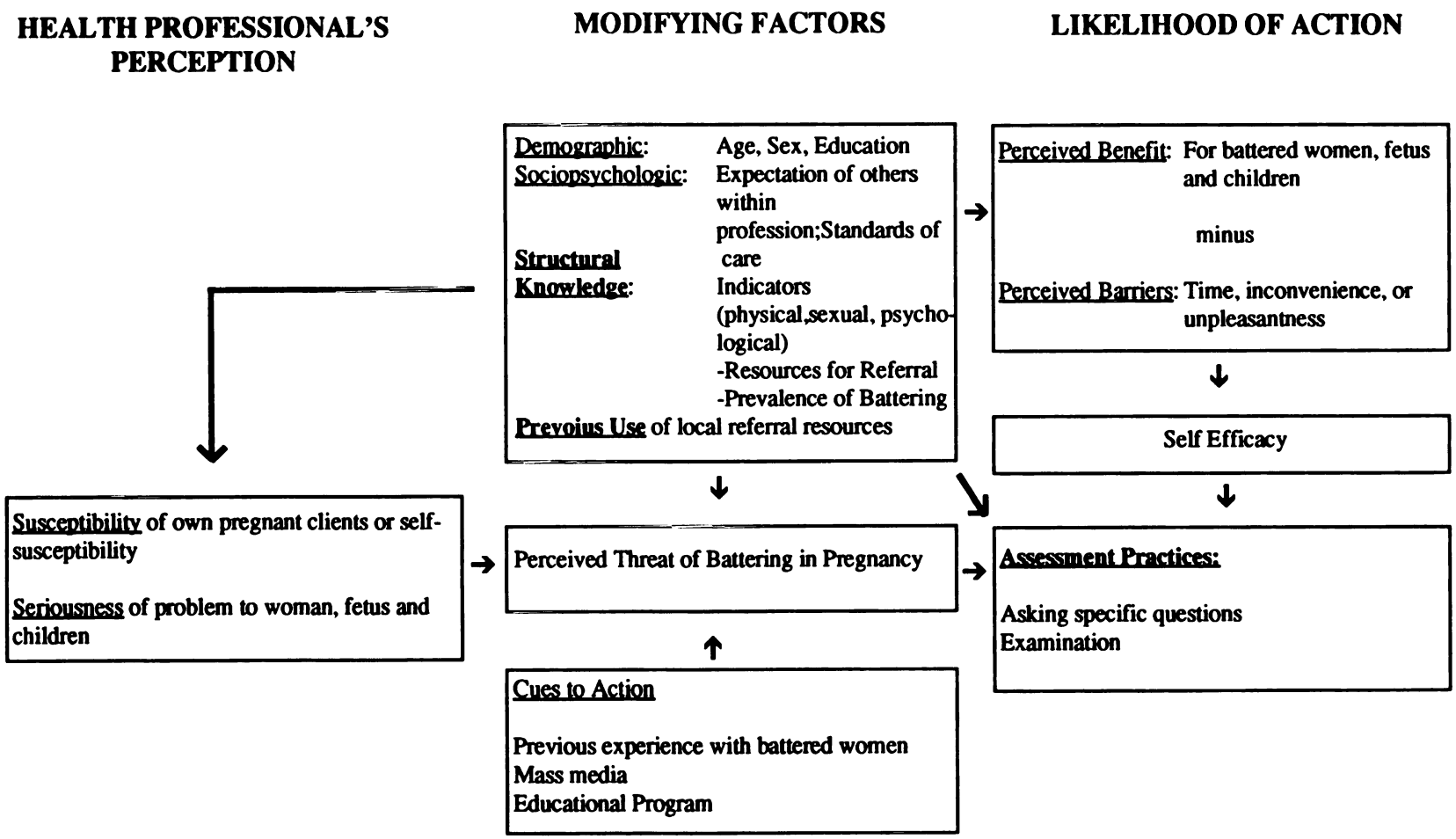
Use of the HBM provides the opportunity for numerous indirect relationships to be explored between the variables and other factors such as perceptions of the health professional, self-efficacy of the health professional, perceived benefits and perceived barriers of the health professional. These relationships, however, are not within the scope of this study.

METHODS

Sample

A nonprobability convenience sample of 191 nurses and physicians providing prenatal care to clients in primary care settings was recruited to participate in this descriptive survey. The health

Figure 2.
Battering in Pregnancy
Application of Research Variables to the Health Belief Model



professionals surveyed practice in private offices, clinics, health maintenance organizations or other settings within a 15 mile radius of Lansing, Michigan. Approximately 6500 infants are delivered per year within this geographic area.

Upon approval of the research proposal submitted to the Michigan State University UCRIHS in Appendix A, the names of potential participants were obtained from Lansing area hospital mailing lists and from the Lansing area phone book. The names of registered nurses, with a full range of educational backgrounds, were obtained from office managers in the physician practice settings.

Protection of Human Subjects

No identifying characteristics existed on the survey form. Completion and return of the survey was interpreted as permission to participate in the research. Those wishing to receive a copy of study results were provided with a self-addressed, stamped post card and were instructed to mail the post card separate from the returned survey to insure anonymity of individual survey findings.

Survey Tool

The questionnaire used in this survey, Appendix B, was developed based on content found in previous tools. The Conflict Tactics Scale (CTS) (Straus, 1979) was used for question 9 which addresses indicators of battering. This tool has been utilized in several studies and found to be both valid and reliable (McFarlane et al., 1992; Steinmetz, 1977). The second tool, the three question Abuse Assessment Screen (AAS) (McFarlane et al., 1992), was utilized to develop questions 17-19 of the survey. The AAS when compared with other research instruments, yielded

valid and specific identification of abuse (McFarlane et al., 1992). The remaining questions were developed by this researcher.

Questions 1-7 refer to demographic data about the sample and include profession, age, sex, years in practice, clinical practice setting, etc. The health professional's knowledge of prevalence of battering, indicators of battering and local community referral resources available for the battered woman are addressed in questions 8-10. The previous use of local community resources for referral of battered women is measured in question 11. Finally, the assessment practices of health professionals related to battering in pregnancy are addressed in questions 12-24.

The questionnaire was reviewed by two nationally recognized experts in the field of "battering in women", and determined to have content validity. Readability of the survey was established by a pilot group of five health professionals.

Scoring procedures for the survey are described in the following paragraphs. Knowledge was scored on a cumulative point system and ranged from 0-22. Each sub-component was determined separately with a summed score established for total knowledge. Knowledge of prevalence was scored from 0-2. Zero was given for prevalence of less than 6 percent and considered to be the most incorrect response based on the literature. One point was given for prevalence rate of 11 percent or greater, supporting the belief that prevalence estimates in the literature are highly underestimated. Two points were given for prevalence identification of 6-10 percent which is supported by the literature. Subjects were given a list of 14 indicators of abuse, with one point given for each indicator identified. Knowledge of local

referral resources was determined by Yes/No responses to a list of six resources. One point was given for each "Yes" answer and zero for each "No" answer with a total range of 0-6.

Previous use of referral resources was determined by Yes/No responses. The six options used for knowledge of resources were again listed under this category. A score of 1 was given for "Yes" answer and 0 for "No", with a range of 0-6.

Assessment questions were based on a likert scale of 1 "Never" to 5 "Always". Questions addressed general screening, use of specific questions which may be used for screening and examination indicators. Responses to the 12 items of assessment were summed and divided by the number of items answered to produce a mean score for assessment practices. Respondent's scores on assessment practices thus ranged from 1-5, which was consistent with the interpretation of the likert scale.

Data Collection Procedure

One hundred and ninety-one surveys with an explanatory letter (Appendix C) were mailed to physicians and nurses providing prenatal care to clients in primary care settings within a 15 mile radius of Lansing, Michigan. A self-addressed, stamped envelope was included with the survey to facilitate ease of return to the researcher. Two weeks after the survey was mailed, a post card was sent to the subjects as a reminder to prompt survey returns. One hundred and twenty surveys (62.8%) were returned over a six week period. Eleven surveys (5.7%) were deleted from the study because the health professionals were no longer providing prenatal care or were not directly involved with intake histories and ongoing assessment. Seventy-one surveys were not returned (37.2%).

Data Analysis

Data analysis consisted of frequency statistics related to the sample such as physician/nurse; male/female; age; and site of practice. The summed score of averaged score of items answered of each major variable was determined for the entire sample, and individual sub-groups of the sample. Correlations were utilized to determine relationships between knowledge and assessment practices and between previous use of referral resources and assessment practices for the total sample. Analysis of variance (ANOVA) was utilized to compare individual group differences in the three major variables: 1) knowledge, 2) assessment, and 3) previous use of referral resources.

RESULTS

Demographics

Table 1 describes the subjects participating in the study by health profession and sex distribution. Sixty-three were physicians (58%) and 46 were nurses (42%). There were 39 males (36%) completing the survey and 70 females (64%).

The educational background of the subjects is described in Table 2. Thirty-nine physicians (36%) had a medical degree (M.D.), while 24 (22%) had a degree in osteopathy (D.O.). Nurses, responding to the survey, were from various educational backgrounds. Thirteen (12%) had an associate degree, 15 (14%) had a diploma of nursing, and eight (7%) had obtained a bachelor's degree in nursing. The advanced practice group consisted of four (3%) nurse practitioners, one (1%) with a master's degree in nursing, and six (5%) credentialed as both a nurse practitioner and having a master's degree in nursing.

Table 1

Frequency and Percentage of Profession and Sex Distribution of Subjects (N=109)

Variable	# of Subjects	Percentage
Profession		
Physician	63	57.8
Nurse	46	42.2
Total	**109**	**100.0**
Sex		
Male	39	35.8
Female	70	64.2
Total	**109**	**100.0**

Table 2

Frequency and Percentage of Educational Background Distribution of Subjects (N=109)

Educational Background	# of Subjects	Percentage
Physician		
M.D.	39	36.0
D.O.	24	22.0
Nurse		
A.D.	13	12.0
Diploma	15	14.0
B.S.N.	8	7.0
N.P.	3	3.0
M.S.N.	1	1.0
N.P./M.S.N.	6	5.0
Total	**109**	**100.0**

The age range distribution of subjects is presented in Table 3. The subject's ages ranged from 28-63 years with a sample mean of 41 (S.D.=8.3) years. Six of the subjects (6%) were 56-65 years old, twenty-seven (25%) were between 46-55. Thirty-eight (35%) subjects were between the ages of 36-45, and thirty-one (28%) of the participants were between the years of 26-35. Seven (6%) subjects did not complete the age portion of the survey.

All health professionals were involved in primary care and had practiced a wide range of years. Their practice specialty included OB/GYN (60%) and family practice (39%). One subject (1%) did not identify type of practice. The years of practice experience ranged from one to forty, with a mean of 9.5 years (S.D.=8.0). Sixty-five (60%) of the subjects had between 1 and 10 years experience, while 44 (40%) had between 11 and 40 years of experience.

Table 4 describes the distribution of subjects relative to clinical practice setting. Forty-eight (44%) were in private offices, and 42 (38.5%) practiced in clinics which were government or hospital subsidized. Six (5.5%) professionals practiced in a health maintenance organization and 12 (11%) practiced in other settings such as an academic environment. One subject (1%) did not identify practice setting.

One final demographic question was asked of all subjects regarding their attendance at an educational program related to battering within the past year. All subjects responded and 20 (18%) had attended an educational program while 89 (82%) had not.

Table 3

Frequency and Percentage of Age Range Distribution of Subjects (N=109)

Age range (years)	# of Subjects	Percentage
56-65	6	5.50
46-55	27	24.77
36-45	38	34.87
26-35	31	28.44
Missing	7	6.42
Total	**109**	**100.00**

Table 4

Frequency and Percentage of Clinical Practice Setting Distribution of Subjects (N=109)

Clinical Practice Setting	# of Subjects	Percentage
Private Office	48	44.0
Clinic	42	39.0
H.M.O.	6	5.0
Other	12	11.0
Missing	1	1.0
Total	**109**	**100.00**

Other Findings

The description, means and standard deviations of the three major variables measured in this study, related to battering in pregnancy and the health professional in primary care, are presented in the following tables. These variables are knowledge, previous use of local referral resources, and assessment practices. Table 5 represents the findings or the three sub-components of knowledge related to battering: prevalence, indicators and local referral resources. One hundred and four subjects responded to question 8 about knowledge of prevalence of battering in pregnancy. The range of scores was 0-2. A score of two was given if the prevalence rate in pregnancy was identified as 6-10 percent, the answer considered most correct; a score of one was given to those who identified the prevalence rate as 11 percent or greater which takes into consideration that the prevalence is probably higher than current research shows; and zero was given to those who identified the prevalence rate of battering in pregnancy at 5 percent or lower. Most subjects correctly believed the prevalence to be 6-10 percent or greater with a mean of 1.26 (S.D.=.59).

The second sub-component of knowledge, question 9, referred to indicators of battering. All subjects responded to the list of physical, sexual and psychological indicators with a range of scores from 0-14. Most subjects identified all items as indicators with a mean score of 13.5 (S.D.=1.59) suggesting a very high level of knowledge related to indicators of battering.

The final sub-component of knowledge, survey question 10, related to awareness of local referral resources for pregnant battered women. Five local referral resources were listed along with an "other" category

Table 5

Description, Mean and Standard Deviation of Knowledge Subcomponents

(N)	Variable	Range	Mean	Standard Deviation
104	Prevalence of abuse	0-2*	1.26	.59
109	Indicators of abuse	0-14	13.51	1.59
109	Local referral sources	0-6	3.61	1.14
	Total Score	**0-22**	**18.42**	**1.84**

*=2 given for correct answer (6-10%)
1 given if prevalence 11% or greater
0 given if prevalence 5% or less

Table 6

Description, Mean and Standard Deviation of Previous Use of Local Referral Resources

(N)	Variable	Range	Mean	Standard Deviation
109	Use of referral sources	0-6	1.59	1.43

for the subject to list another option. The range of scores was 0-6 and the mean score for all subjects was 3.61 (S.D.=1.59), indicating that the most health professionals were aware of at least three local referral resources.

The total score of knowledge was determined from the sum of the three sub-components. The range of the total knowledge was 0-22 with a mean of 18.42 (S.D.=1.84). This finding indicated the subjects, in this study, were very knowledgeable of the prevalence, indicators and local referral resources available to pregnant battered women. High scores, however, may be explained by the list of 14 indicators which were given and served as "cues" in the identification of indicators by the subjects.

The second major variable, previous use of local referral resources, question 11 of the survey, consisted of the same options listed in question 10 and is presented in Table 6. All subjects responded with a range of scores from 0-6. The mean for previous use of local referral resources was 1.59 (S.D.=1.43), indicating that most health professionals had previously used only 1 and possibly 2 sources for referrals of battered women in the past. Their mean use of resources 1.59, however was far below their mean knowledge of them 3.61.

For the purpose of scoring, measurement of the third major variable, assessment, was coded into three sub-components: 1) general screening (questions 12-15); 2) specific direct questions (question 17-20); and 3) physical exam (questions 22-25). Question 16 was deleted because several subjects did not answer the question (25%) and because of its lack of clarity. The range for all assessment questions was 1 through 5: 1=Never; 2=Rarely; 3=Sometimes; 4=Often; and 5=Always.

The results of assessment are presented in Table 7. Ninety-seven percent of the subjects responded to the questions on assessment. The mean for general screening questions (2=rarely; 3=sometimes) was 2.26 (S.D.=.87), indicating that most subjects rarely screened for battering in pregnancy, at initial or subsequent visits and by verbal or written questions. Most subjects did not use the specific questions related to physical, sexual, or psychological battering. The mean for specific battering questions (1=never; 2=rarely) was 1.77 (S.D.=.88). The mean for physical exam questions (3=sometimes; 4=often) was 3.47 (S.D.=.70), indicating that most physicians and nurses sometimes consider abuse when seeing specific indicators during a physical exam. The total mean of all assessment components (2=rarely; 3=sometimes) was 2.49 (S.D.=.67). These findings indicate that most subjects rarely assess for battering in pregnancy via screening questions or by exam.

Instrument/Measures

Cronbach's Alpha was utilized to determine the reliability of the assessment questions in the survey. A coefficient was determined for the sub-components of assessment and for the total assessment. The reliability coefficients are as follows: .81 for the general screening (questions 12-15); .95 for the specific screening (questions 17-20); .80 for the exam (questions 22-25); and .87 for the total assessment criteria. These findings indicate high internal consistency for the assessment questions.

Research Questions

The Pearson Product Moment Correlation was used for obtaining correlations among the summed scores of the major study variables and to answer the research questions (see Table 8). The first question, *Is*

Table 7

Description, Mean, Standard Deviation and Alpha Levels of Assessment Subcomponents

(N)	Variable	Range	Mean	Standard Deviation	Alpha
106	General screening* (questions 12-15)	1-5	2.26	.87	.81
106	Specific questions (questions 17-20)	1-5	1.77	.88	.95
106	Physical Exam (questions 22-25)	1-5	3.47	.70	.80
Total		**1-5**	**2.49**	**.67**	**.87**

* = Higher values reflect greater use of assessment practices in all three areas.

Table 8

Correlation: Knowledge with Assessment Practices and Previous Use of Referral Resources with Assessment Practices

Variable	Correlation	Significance
Knowledge	.26	.01
Previous Use of Referral Resources	.45	.001

there a relationship between knowledge and assessment practices of health professionals in primary care related to battering in pregnancy?, was found to have significant correlation (r.26; p.01). These results indicate a moderate relationship between knowledge and assessment practices.

The second question, *Is there a relationship between previous use of local referral resources for battered women and assessment practices of health professionals providing prenatal care to pregnant women?*, was found to have a strong correlation (r.45 and p.001). These results indicate that professionals, in this study, who have previously used local referral resources were much more likely to assess for battering in pregnancy.

Further analysis were completed to examine differences between groups means related to total scores for: 1) knowledge; 2) assessment practices; and 3) previous use of local referral resources. Using One-Way Analysis Of Variance (ANOVA), no significant differences were found when comparing groups by: sex, years in practice, type of medical education, or age.

A comparison of group means for nurses in advanced and non-advanced practice (Table 9) showed that nurses in advanced practice scored significantly higher in assessment ($F(1, 42)=4.40$; p. 04) and were more likely, though not significantly so, to have previously used local referral resources than nurses with non-advanced practice ($F(1, 44)=2.88$; p. 10).

Attendance at an educational program related to battering in pregnancy produced significant differences in mean scores related to assessment ($F(1, 101)=15.07$; p.001) and previous use of local referral

Table 9

One Way Analysis of Variance Between Advanced Practice and Non-Advanced Practice Nurses

	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	F Prob
Knowledge Differences					
Between Groups	1.82	1	1.83	.37	.55
Within Groups	202.92	41	4.95		
Total	204.74	42			
Assessment Difference					
Between Groups	1.14	1	1.14	4.40	.04
Within Groups	10.60	41	.26		
Total	11.73	42			
Previous Use of Referral Resource Differences					
Between Groups	4.53	1	4.53	2.88	.10
Within Groups	69.21	44	1.57		
Total	73.74	45			

resources (F (1, 107)=4.62; p.03) when compared to those who had not attended a program within the past year (see Table 10).

Those subjects practicing in family practice, when compared to those practicing in OB/GYN (Table 11), were found to have significantly higher mean scores in both assessment (F (1,100)=4.36; p.04) and previous use of local referral resources (F (1, 106)=4.64; p.03).

Significant group differences occurred in the assessment practices and previous use of referral by health professionals working in clinic and private office settings (Table 12). Those working in clinic settings were significantly more likely to assess for battering (F (1,83)=19.05; p.001) and significantly more likely to have utilized local referral resources (F (1,88)=5.16; p.02) than those working in private offices.

Finally, when comparing physicians with nurses (Table 13), physicians were significantly more likely to assess (F (1, 102)=6.89; p.01) for battering in pregnancy than nurses and were more likely, though not significantly so, to have previously utilized local referral resources (F (1, 107)=3.15; p.08).

Interpretation of Findings

Interesting conclusions can be drawn from the interpretation of the findings of this study with respect to the HBM and the literature. The HBM, as it is described by Pender (1987) and Becker et al. (1975) provides an excellent conceptual framework for the variables in this study. In addition, the use of the health professional, rather than the client, in exploring likelihood of action, provides a new avenue for investigating behaviors. The hypothesized relationships between

Table 10

One Way Analysis of Variance Between Attendance and Non-Attendance of Educational Program

	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	F Prob
Knowledge Differences					
Between Groups	1.58	1	1.58	.46	.50
Within Groups	347.80	102	3.41		
Total	349.38	103			
Assessment Differences					
Between Groups	5.93	1	5.93	15.07	.001
Within Groups	39.78	101	.39		
Total	45.72	102			
Previous Use of Referral Resource Differences					
Between Groups	9.20	1	9.20	4.62	.03
Within Groups	213.22	107	1.99		
Total	222.42	108			

Table 11

One Way Analysis of Variance Between Family Practice and OB/GYN Practices

	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	F Prob
Knowledge Differences					
Between Groups	.53	1	.53	.16	.70
Within Groups	346.80	101	3.43		
Total	**347.34**	**102**			
Assessment Differences					
Between Groups	1.86	1	1.86	4.36	.04
Within Groups	42.59	100	.42		
Total	**44.44**	**101**			
Previous Use of Referral Resource Differences					
Between Groups	9.30	1	9.30	4.64	.03
Within Groups	212.77	106	2.01		
Total	**222.07**	**107**			

Table 12

One Way Analysis of Variance Between Clinic and Private Office Settings

	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	F Prob
Knowledge Differences					
Between Groups	2.19	1	2.19	.63	.43
Within Groups	289.63	84	3.45		
Total	291.82	85			
Assessment Differences					
Between Groups	7.39	1	7.39	19.05	.001
Within Groups	32.20	83	.39		
Total	39.59	84			
Previous Use of Referral Resource Differences					
Between Groups	10.50	1	10.50	5.16	.02
Within Groups	178.89	88	2.03		
Total	189.39	89			

Table 13

One Way Analysis of Variance Between Physicians and Nurses

	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	F Prob
Knowledge Differences					
Between Groups	.31	1	.31	.09	.76
Within Groups	349.07	102	3.42		
Total	349.38	103			
Assessment Differences					
Between Groups	2.92	1	2.92	6.89	.01
Within Groups	42.80	101	.42		
Total	45.72	102			
Previous Use of Referral Resource Differences					
Between Groups	6.36	1	6.36	3.15	.08
Within Groups	216.06	107	2.02		
Total	222.42	108			

structural modifying factors and likelihood of action were supported in this research.

The first finding in this study was that knowledge, as a structural modifying factor in the HBM (Figure 1), is associated with likelihood of action (assessment), and had a positive correlation with assessment of battering in pregnancy. The literature often referred to lack of knowledge as one of the reasons why health professionals do not assess for battering. The subjects in this study are knowledgeable about 1) the prevalence of battering, 2) the indicators of battering, and 3) know of at least three referral resources available to pregnant women within this geographic region. This study refutes that lack of knowledge, as it is defined in this study, exists, however, variation in scores was constrained which may have artificially decreased the correlation. Further findings suggest that other factors such as attendance at a recent continuing education program, practice setting, or type of practice may have a far greater impact than mere knowledge on assessment practices though further research is needed.

The second finding, previous use of local referral resources, as a modifying factor in the HBM, had a strong positive correlation with assessment practices. This finding suggests that previous use of local referral resources not only improves likelihood of assessment, but may also reduce such barriers as fear or uncertainty of knowing what to do once battering is identified. Previous use of referral resources may also improve the health professional's feeling of confidence that they can indeed do something to help beyond the diagnosis and treatment. One can only surmise that health care professionals will be more apt to

recognize a condition or problem if they feel they have some power to treat it.

Finally, differences between the groups have presented thought provoking findings. Physicians, advanced practice nurses, family practice physicians, clinic settings, and those who have attended educational programs on battering are significantly more likely to assess for battering and use referral resources. Differences between physicians and nurses may be explained because 75 percent of the nurses responding were not practicing in advanced roles and may be less independent in initiating referrals. Additional education may explain the increase in assessment and use of referral by the advanced practice nurse. Family practice physicians often approach clients from a more holistic perspective than the specialist in obstetrics and gynecology and may identify indicators of abuse through other family members which may result in more frequent assessment and use of referral for the battered woman. Private offices may have less access to ancillary services to facilitate assessment and referral than clinic settings, which are often funding by government sources mandating services by social workers, nutritionists and other ancillary personnel. Attendance at timely educational programs potentiates frequent discussion of the problem of battering and also allows opportunity for publicizing local resources for referral. Current literature has few studies examining the issues discussed in this study and further research is needed.

IMPLICATIONS

Future Research

Future research is needed in the following areas: 1) exploring the prevalence of domestic violence content and battering content in the

curriculum of nursing schools at all levels; 2) adding the concept of self-efficacy to the Health Belief Model to better explain the health professional's practices regarding battered pregnant women; 3) revising the questions and/or applying the survey used in this study to a different population such as a rural community or other cities; 4) examining the impact of the health professional on the battered woman's use of referral agencies; 5) introducing a specific protocol for battered women and examining pre and post-protocol findings longitudinally; and 6) examining assessment practices before and after educational programs more systematically to determine the effectiveness of such programs.

The above research suggestions focus primarily on secondary levels of intervention: identification and referral. Primary intervention research addressing prevention, such as the use of conflict resolution in the elementary school systems, and tertiary interventions research, such as use of treatment programs for perpetrators of battering, would provide additional approaches for society in overcoming the problem of battering in pregnancy.

Advanced Nursing Practice

This study presents several implications for nurses in advanced practice in primary care settings who are caring for women, pregnant or nonpregnant. They may be applied to the roles of: educator, assessor, advocate, and leader. These implications apply to other health professionals as well.

For nurse educators, the issues affecting the battered pregnant women and other family violence concerns must be incorporated into all levels of nursing curriculums: graduate and undergraduate.

Additionally, timely review of these same concerns should be revisited through continuing education programs on an annual or biannual basis. Continuing education programs should involve inpatient and outpatient settings and may be extended as an outreach endeavor by large tertiary centers and universities so information reaches rural areas. The educational emphasis should focus briefly on prevalence and indicators, with a greater amount of time devoted to: routine assessment throughout the prenatal period; what referral resources are available in the local community; and how to access these resources. Having representatives from local referral resources present a panel discussion of the services they offer at educational meetings or grand rounds may also serve to enhance referrals. Use of actual case scenarios, or having battered women speak, would also make the issues of battering in pregnancy more "real" to those attending educational programs.

The second CNS role is assessor. As the assessor in primary care, the advanced practice nurse can serve as a role model to other professionals by continuously collecting data on battering, both subjective and objective, which may facilitate early identification of the pregnant battered woman. Routine assessment initially, and at each trimester of pregnancy, may lead to identification of those who are not willing to verbalize their battering experience the first time they are asked. The use of direct questioning in addition to written intake forms, which the client completes, may lead to more accurate identification of those women experiencing battering. The role of assessor also includes knowing what local resources are available for pregnant women so an appropriate referral may be activated when battering has been identified.

Third, the advanced practice nurse is an advocate. The foundation of the advocacy role is establishing a relationship with the client that promotes mutuality, trust and empowerment. Once battering is identified, the advocacy role expands to include informing the battered pregnant woman of her rights, dangers, and resources, so she can make the decisions which are best for her at the time. The pregnant battered woman should trust that the advanced practice nurse will continue in an advocacy role, providing information and resources, even if the woman decides to remain with the person who batters her. Advocacy also includes making information available to women even if the woman chooses not to confide in the nurse. Informational materials on community resources for battered women may be placed in restrooms or waiting rooms.

The leader role of the advanced practice nurse may include efforts which direct professional colleagues toward a specific standard of care or involvement in political policy. These efforts may include the development, implementation, and evaluation of a protocol for pregnant battered women which facilitates identification and referral, or may be as simple as including specific questions related to battering on revisions of intake history forms. Additional efforts may focus on standards established by the nursing profession, such as mandatory domestic violence education in all nursing programs, and legislative matters which support battering issues and/or funding, such as mandatory treatment for batterers and their families.

In summary, the use of specific roles of the CNS, are not all inclusive, but demonstrate how the advanced practice nurse through educating, assessing, advocating, and leading may make a significant

difference in the future of the pregnant battered woman and her children.

Limitations/Assumptions

This research is not without limitations and assumptions. First, a non-probability convenience sample was used and therefore, the results of this data may not be generalized to all health care providers. Second, parts of the instrument utilized were untested tools without proven reliability and validity. Third, there was little variation in knowledge scores which may limit correlations. Finally, self-reporting by the subject was not validated through other sources.

Nonetheless, the following conclusions can be drawn from this study: 1) Health professionals are knowledgeable about the prevalence of battering, indicators of battering, and local referral resources for battered women; 2) health professionals have utilized, at most, 1 or 2 local referral resources in the past; 3) health professionals rarely assess for battering in pregnancy through direct questioning or by exam; 4) a positive correlation exists between knowledge and assessment practices of health professionals in primary care related to battering in pregnancy; 5) a positive correlation exists between previous use of local referral resources and assessment for battering in pregnancy by health professionals in primary care; and finally, 6) numerous differences exist between groups related to use of referral resources and assessment practices.

Summary

In summary, it is clear from this research and the findings of numerous studies that battering in pregnancy is a significant problem for women and their children. The health professional in primary care

through knowledge, assessment and referral can make a difference in the cycle of violence that engulfs the battered woman and her children. These efforts, are however, aimed at identification and treatment, not prevention. Prevention, such as teaching non-violent problem solving to children, must be the first priority, followed by early identification and intervention, for all health professionals involved in primary care.

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APPENDIX A

MICHIGAN STATE UNIVERSITY

OFFICE OF VICE PRESIDENT FOR RESEARCH
AND DEAN OF THE GRADUATE SCHOOL

EAST LANSING • MICHIGAN • 48824-1046

February 12, 1993

TO: Ms. Bonnie McClure
P.O. Box 324
Williamston, MI 48895

RE:	IRB #:	93-054
	TITLE:	KNOWLEDGE AND ASSESSMENT PRACTICES OF HEALTH PROVIDERS IN PRIMARY CARE RELATED TO BATTERING IN PREGNANCY
	REVISION REQUESTED:	N/A
	CATEGORY:	2-I
	APPROVAL DATE:	02/12/1993

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete. I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS approved this project including any revision listed above.

UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Investigators planning to continue a project beyond one year must seek updated certification. Request for renewed approval must be accompanied by all four of the following mandatory assurances.

1. The human subjects protocol is the same as in previous studies.
2. There have been no ill effects suffered by the subjects due to their participation in the study.
3. There have been no complaints by the subjects or their representatives related to their participation in the study.
4. There has not been a change in the research environment nor new information which would indicate greater risk to human subjects than that assumed when the protocol was initially reviewed and approved.

There is a maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for complete review.

UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. Investigators must notify UCRIHS promptly of any problems (unexpected side effects, complaints, etc.) involving human subjects during the course of the work.

If we can be of any future help, please do not hesitate to contact us at (517) 355-2180 or FAX (517) 336-1171.

Sincerely,

David E. Wright, Ph.D.
UCRIHS Chair

DEW:pjm

cc: Dr. Linda Beth Tiedje

APPENDIX B

February 27, 1993

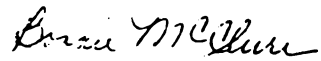
Dear Health Professional,

This letter is to request approximately five minutes of your time to complete a survey on battering in pregnancy. The information will be utilized to complete a descriptive study examining the knowledge and assessment practices of health professionals providing prenatal care to women in primary care settings.

Return of the survey in the self-addressed, stamped envelope will be interpreted as consent to participate in this study. If you would like a copy of the survey results, please write your name and address on the enclosed post card and mail it separately from the survey so your response will remain anonymous.

Your time and honesty in completing this survey are truly appreciated.

Sincerely,



Bonnie McClure, R.N.C., B.S.N.
M.S.U. School of Nursing
Graduate Program-Family C.N.S.

APPENDIX C

Survey: Battering In Pregnancy

For the following, please check the appropriate space or enter the data which applies to you and your practice specialty.

1. Physician (check one): ____ M.D. ____ D.O.

   Registered Nurse (check highest degree earned):

   ____ A.D. ____ Diploma ____ B.S.N. ____N.P. ____M.S.N. ____ N.P./M.S.N.

2. Date of Birth: ____ Month ____ Day ____ Year

3. Years In Current Specialty (Round to nearest year): _____.

4. Sex: ____ M ____ F

5. Clinical Setting (check one):

   ____ Private Office

   ____ Clinic (hospital or government funded)

   ____ Health Maintenance Organization

   ____ Other, please specify _____

6. Type of Practice (check the one which best describes your primary focus):

   ____ OB/GYN

   ____ Family Practice

7. Have you attended an educational program on battering of women within the last year?

   ____ Yes ____ No

For the following questions, please answer as honestly as possible.

8. To the best of your knowledge, how frequently does battering in pregnancy occur? (check one)
   ____ 0-5% ____6-10% ____11-15% ____16-20% ____21-25% ____26% or >

9. Battering in pregnancy may occur in the form of physical, psychological or sexual abuse. Based on your knowledge, what do you consider indicators of such abuse? (check all you consider appropriate).
   ____ Broken bones
   ____ Report of Choking
   ____ Bruises
   ____ Lacerations
   ____ Report of Punching
   ____ Report of Kicking
   ____ Report of forced sexual contact
   ____ Black eye(s)
   ____ Report of Slapping
   ____ Report of threats of harm to the woman
   ____ Report of threats of harm to children
   ____ Report of partner jealousy
   ____ Report of verbal degradation
   ____ Report of physical isolation
   ____ Other indicators of abuse (please list)

   _____

10. Local community resources which are available for the referral of pregnant battered women are listed below. Which are you aware of? (check yes or no to each source listed).

	Yes	No
Council Against Domestic Assault (CADA)	____	____
Listening Ear Crisis Line	____	____
Lansing Police Force	____	____
Lansing Prosecuting Attorney's Office	____	____
Legal Aid	____	____
Other (please list)		
_____	____	____

11. Local community resources which are available for the referral of pregnant battered women are listed below. Which have you referred patients to? (check yes or no to each source listed).

	Yes	No
Council Against Domestic Assault (CADA)	____	____
Listening Ear Crisis Line	____	____
Lansing Police Force	____	____
Lansing Prosecuting Attorney's Office	____	____
Legal Aid	____	____
Other (please list)		
_____	____	____

For the following questions, please circle the number on a scale of 1 (Never) to 5 (Always), which most accurately describes your assessment practice for battering in pregnancy.

	Never	Rarely	Sometimes	Often	Always
12. During a routine prenatal intake history, how often do you screen women for battering?	1	2	3	4	5
13. During prenatal visits, do you routinely screen women about battering more than once?	1	2	3	4	5
14. Do you verbally ask pregnant women about battering?	1	2	3	4	5
15. Do you include a question(s) related to battering on a history form which the pregnant patient completes?	1	2	3	4	5
16. Do you ask the pregnant woman directly only if she has indicated the occurrence of battering on the written history form?	1	2	3	4	5
17. Do you verbally ask pregnant women, *Within the last year, have you been hit, slapped, kicked or otherwise physically hurt by someone?*	1	2	3	4	5
18. Do you verbally ask women, *Since you've been pregnant, have you been hit, slapped, kicked or otherwise physically hurt by someone?*	1	2	3	4	5
19. Do you verbally ask pregnant women, *Within the last year has anyone forced you to have sexual activities?*	1	2	3	4	5
20. Do you verbally ask pregnant women, *Within the last year have you been afraid of your partner or anyone close to you?*	1	2	3	4	5

21. If you routinely inquire about battering during pregnancy and the question is not listed above, what question(s) do you use?

_____

_____

_____

For the following questions, please circle the number on a scale of 1 (Never) to 5 (Always), which most accurately describes your physical examination practice for battering in pregnancy.

	Never	Rarely	Sometimes	Often	Always
22. During an examination of a pregnant woman, do you consider abuse when seeing *injuries which do not match their cause?*	1	2	3	4	5
23. During an examination of a pregnant woman, do you consider abuse when seeing *depression, withdrawal or lack of eye contact?*	1	2	3	4	5
24. During an examination of a pregnant woman, do you consider abuse when *prenatal visits have been frequently missed?*	1	2	3	4	5
25. During an examination of a pregnant woman, do you consider abuse when *a male partner will not leave the woman unattended?*	1	2	3	4	5

26. Other physical exam practices you use to assess for battering in pregnancy. (please list).

_____

27. I am interested in your reactions/comments; please feel free to share personal observations or experiences with battered clients below.

_____

_____

_____

_____

Thank you for completing this survey. If you would like copies of the results, complete and return the enclosed post card separate from your survey.