

Changing the Health Care Response to Battered Women: A Health Education Approach*

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Abstract:

Numerous factors are thought to prevent the successful implementation of domestic intervention protocols and programs that are designed to encourage physicians and nurses to identify and appropriately treat battered women. Using the PRECEDE-PROCEED model of behavior change as a guide, this study investigated baseline factors associated with clinician screening behaviors prior to its implementation. Perceived competence, a composite measure of self efficacy around specific clinically relevant behaviors, emerged as the primary predictor of all behaviors. In addition, belief that clinicians should screen all women as part of a routine history or physical examination emerged as a predictor for routine screening. Key words: battered women, domestic violence, enabling factors, perceived competence, PRECEDE PROCEED model. predisposing factors, reinforcing factors

Article:

AN ESTIMATED 2 TO 4 MILLION WOMEN are battered by their husbands or boyfriends each year in the United States and between 21% and 34% of all American women will be physically assaulted by a male partner at least once over their lifetime. 1 Research conducted with battered women on their perceptions of the violence in their lives reveals that battering is a complex experience that is conceptually distinct from episodic physical assault. » Battering generally consists of men's continuous use of physical and often sexual assaults along with verbally and emotionally abusive behaviors that include threatening, intimidating, and humiliating women: isolating them from family and friends; restricting their access to money and other resources; threatening the safety of children and others in the women's families; and controlling women's activities outside the home.3 We define battering here as a process whereby one member of an intimate relationship experiences vulnerability, loss of power and control, and entrapment as a consequence of the other member's exercise of force through the patterned use of physical, psychological, sexual or moral force.

Battering is a traumatic experience that shapes women's behavior, minimizes positive views of themselves, and undermines their confidence and beliefs in the controllability of their own lives.2 It is reasonable to expect that women who live in an environment that causes them to be fearful, to feel unsafe, and to suffer a continuous loss of personal power and shrinking self-concept would experience compromised health, indeed, there is growing evidence that battered women are at increased risk for many acute and chronic health problems including injury, sexually transmitted diseases, depression, anxiety, posttraumatic stress disorder, chronic pain, gastrointestinal disorders, substance abuse, suicide, and homicide.4 This recognition has been accompanied by a proliferation of domestic violence intervention programs in emergency department and outpatient health care settings, thereby increasing the level of responsibility physicians and nurses have in identifying and appropriately treating battered women.5 Research to date indicates, however, that there are numerous factors that prevent the suc-

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successful implementation of domestic violence intervention protocols and programs designed to encourage physicians and nurses to identify and appropriately treat battered women.

BACKGROUND

The PRECEDE-PROCEED model of behavior change provides a useful way to organize research on both clinician attitudes, beliefs, knowledge, and skills and on organizational factors that influence the success of these intervention programs. This approach, which is widely used by health educators in program planning, suggests that behavior change is a function of three sets of factors: (1) Predisposing factors provide a rationale or motivation for the behavior and include knowledge, attitudes, and beliefs. (2) Enabling factors include skills as well as availability and accessibility of resources that facilitate motivation. Self-efficacy, or belief in one's ability to engage in the behavior required to produce intended results, can be conceptualized as either a predisposing or enabling factor. (3) Finally, reinforcing factors are those that come into play after the initiation of the behavior that contributes to its persistence or demise. These factors include incentives to continue the behavior and consequences of the behavior for the individual, such as positive or negative feedback, social support, peer influences, and feelings about the behavior.

Predisposing factors

Research in this area indicates that many clinicians believe abuse to be infrequent among their patients and tend to underestimate the prevalence of abused women.⁹ Jecker¹⁰ for example, found that physicians believed that 1 of 35 patients was battered when a more accurate approximation was 1 in 4. Lack of knowledge about how to identify and care for battered women patients is an additional predisposing factor that prevents 50% of clinicians from intervening with this population.

In addition, researchers have found that some clinicians hold attitudes about domestic violence or battered women that prevent them from even wanting to identify battered women among their patients. In some cases, physicians do not believe that domestic violence is an issue appropriately addressed in health care settings.⁹ Rather, they believe that it is simply not their place to intervene in the personal lives of their patients and that domestic violence is better handled by the criminal justice system and social services.¹⁰

However, even physicians who believe that it is appropriate for them to address domestic violence issues may feel out of control and powerless when dealing with battered women, frustrated and helpless because of the chronicity of battering, and uncomfortable in dealing with areas that are culturally defined as private.¹¹ Additionally, clinicians who hold negative stereotypes about battered women may be less likely to intervene. Some have referred to battered women as "repeaters," implying that these women could easily change their situation if they wanted to,¹² while others believe that people merit their own fate and that bad things happen to bad people.^{9,13} Other studies have found that some physicians and nurses hold battered women responsible for the violence they experience and that this attitude prevents them from wanting to inquire about battering.⁹ Kurz and Stark¹² and Kurz¹⁵ found that physicians may be more likely to intervene if they believe a battered woman is taking some action to change her situation or if she is in immediate physical danger.³ However, lack of knowledge by clinicians about the social and economic factors that make it difficult for a battered woman to leave her abusive partner may result in a clinician's inability to see the significance of much of battered women's coping behavior.

Enabling factors

Less research seems to have been conducted on the role of enabling factors in clinician behavior. Sugg and Inui¹¹ found that physicians often do not feel they have the "tools" to deal with the complex problem of battering.³ Other researchers have identified resource or environmental factors in the health care system itself that may reduce the effectiveness of health care interventions for battered women. Yam¹⁴ concludes that nurses who endorse the "medical model" of patient care—which conceptualizes patients as weak or ill, passive, and not responsible for the illness or the solution and providers as rescuers¹⁶—report seeing fewer battered women patients each year. Similarly, Warshaw¹⁷ has argued that clinicians trained in the biomedical model reduce

information to diagnostic categories they can manipulate and control and reconfigure patients' histories from a context that has meaning for the patients into a medical event that has meaning for them.³ She goes on to argue that clinicians practice this way because battering leaves them feeling overwhelmed, with the feeling that they cannot -fix- battered women's problems and uncomfortable with the professional uncertainty that battering presents. Time constraints, partly imposed on clinicians by the work environment, are also thought to loom as a tremendous barrier to inquiring about battering. »¹ Under the pressure of time clinicians are forced to prioritize and, very often, assessing for battering is not a high priority.

Reinforcing factors

Once clinicians do inquire about battering with their patients, others factors may intervene to prevent their continuing to screen. Some may become frustrated by what they perceive to be, correctly or not, a lack of change in the battered woman's situation.¹⁸ Some also have low confidence in the medical system's ability to respond effectively to battered women or believe that inquiring negatively affects the physician-patient relationship.⁹ Other factors that are thought to discourage continuing inquiry include feeling uncomfortable discussing abuse and believing that asking about abuse offends patients.¹⁹

PRESENT STUDY

The setting for this study was outpatient clinics affiliated with a major university teaching hospital in the Southeast. This hospital is implementing a combined individual- and organizational-level intervention designed to provide clinical training as well as comprehensive coordinated care to battered women through screening, health assessment, case management, referral, and on-site counseling and advocacy.³ Program services include conducting clinical training, offering patient and clinical consultation by an on-site nurse advocate, and organizing a monthly multidisciplinary care conference where clinicians can discuss and receive ongoing education about the social and medical issues related to battering. As part of an ongoing evaluation of this program, we investigated predisposing, enabling, and reinforcing factors associated with nurse and physician screening behavior prior to program implementation. We report on these findings here and discuss -their implications for physician training and program implementation.

METHODS

Study participants

Prior to clinician training we delivered in campus mail a self-administered three- page questionnaire to 272 physicians and 77 nurses practicing in the following 14 outpatient care settings; internal medicine, obstetrics and gynecology, urgent care, family practice, psychiatry, pediatrics. surgery, orthopedics. dermatology, ophthalmology, nutrition, gastrointestinal/digestive diseases, pulmonary/critical care, and cardiology. We sent nonresponders a second questionnaire 1 to 2 weeks following the mailing.³

Conceptual model

The PRECEDE-PROCEED framework for conceptualizing behavior change guided our data collection and analysis."¹ This framework provides a useful way of conceptualizing and developing the intervention because it encourages focusing on the intervention as being, in part a physician behavior change program rather than one designed to change the behavior of battered women patients and provides a systematic way, to link physician characteristics and needs with a training program.

Study measures

To measure current screening behavior we asked clinicians how frequently (always. often, sometimes, rarely or never) they screened women patients for abuse under a variety of circumstances_ when a woman has been physically injured when a woman exhibits symptoms (unspecified); once; or at each visit (universal screening). Table 1 presents prang, enabling and reinforcing factors that we measured. The response options for most of these items were 4-point Likert: scales assessing the respondent's level of agreement (eg, strongly agree to strongly disagree) and perception of professional preparation (eg very prepared to very unprepared) For the items measuring obstacles to identification, respondents were asked to indicate whether each item was a major obstacle. minor obstacle, or not an obstacle. For items assessing attitudes toward physician responsibility

respondents were asked to indicate whether they believed the behavior did or did not fall within the responsibilities of physicians.

Analysis plan

Descriptive and bivariate (chi-square and t-test) statistics were used to gain an initial understanding of the variables influencing behavior and any differences between nurses and physicians. Multiple linear regression was then used to identify the factors associated with how likely the clinicians were to engage in the four different screening behaviors that represent different levels of thoroughness in screening. Clinicians who screen only women with physical injuries are considered to be practicing the least thorough form of screening- while those screening each woman at each visit are practicing the most thorough screening behavior.

Because the four practices represent increasingly more thorough forms of screening behavior, it is theoretically likely that respondents who successfully screen, at any of the three behaviors above the lowest level of thoroughness would also consistently screen at all lower levels of thoroughness, Bivariate analysis not shown) indicated that this theory was supported empirically and that it was reasonable to combine these behaviors into a Guttman scale that tapped progressively higher levels of thoroughness in screening behavior.³ In this variable_ called the Screening Thoroughness Scale, respondents were assigned a value (from 0 to 4) that represented their highest level of thoroughness. The value 0 was assigned to those who had not successfully (where success was defined as "always- or "often engaging in that behavior) achieved even the lowest level of screening, while the highest value, 4. was assigned to

Table 1. Stage 1 analysis: Pearson-product moment correlations between screening behaviors and predisposing, enabling, and reinforcing factors

	Likelihood of screening battered women				
	With injuries	With symptoms	Once	At each visit	Screening Thoroughness Scale
Predisposing factors					
Knowledge					
Training or educational background	.48*	.51*	.47*	.43*	.47*
Knowledge of legal issues	-.30*	-.35*	-.35*	-.33*	-.33*
Knowledge of referral sources	-.27*	-.34*	-.23*	-.28*	-.39*
Attitudes about battered women or domestic violence					
Victim shares some of the responsibility for the batterer's abusive behavior	-.10	-.16	-.10	-.02	-.09
Acceptable to use physical force to settle disputes in intimate relationships	-.02	-.05	.02	.01	-.00
Attitudes about physician responsibility					
Residency programs should teach physicians about how to intervene	.09	.01	.08	.03	.01
Addressing needs of battered women is more the responsibility of nurses or social workers than of physicians	.05	.08	.11	.12	.15
Beliefs about appropriate role behavior					
Talk with women patients about abuse	.10	.16	.12	.11	.08
Talk to perpetrator about his violent behavior	.22*	.18*	.21*	.12	.11
Suggest the couple seek marital counseling	.13	.02	.04	-.005	-.02
Give woman information about community resources	.11	.12	.15	.11	.11
Persuade her to leave the relationship	.17*	.19*	.19*	.22*	.17*
Help her make a safety plan	.26*	.32*	.21*	.21*	.27*
Document abuse in medical records	.25*	.16	.08	.06	.15

continues

Table 1. Continued

	Likelihood of screening battered women				
	With injuries	With symptoms	Once	At each visit	Screening Thoroughness Scale
Contact the police	.12	.05	.009	-.01	-.01
Suggest the woman seek psychiatric care	.13	.08	.05	.12	.03
Ask all women patients if they are being abused as part of a routine history and physical examination	.41*	.37*	.58*	.54*	.48*
Enabling factors					
Perception of preparation for Asking women if they have been abused	.49*	.49*	.43*	.32*	.39*
Counseling abused women	.40*	.53*	.55*	.55*	.59*
Appropriately treating abused women	.49*	.56*	.49*	.50*	.57*
Documenting abused women's injuries	.44*	.50*	.40*	.46*	.49*
Assisting abused women in preparing a safety plan	.40*	.53*	.47*	.46*	.55*
Referring abused women to community resources	.45*	.50*	.40*	.38*	.50*
Perception of obstacles to behavior					
Lack of time	-.03	-.10	.11	-.14	-.21
No initiative or help from patient	-.23*	-.20*	.15	-.29*	-.28*
Having to deal with legal issues	-.27*	-.30*	.28*	-.24*	-.30*
Patient unwilling to disclose or minimizes abuse	-.35*	-.30*	-.19*	-.28*	-.38*
Reinforcing					
Asking about abuse helps clinician to more effectively treat women	.31*	.33*	.36*	.30*	.33*
Asking about abuse opens the door to time-consuming activities that are not reimbursable	.16	.06	.07	.01	.001
Asking women about abuse is frustrating because of the difficulty in effecting change in abused women's lives	.09	-.06	-.06	.02	.02
Asking about abuse is an intrusion into women's lives	-.06	-.13	-.03	-.14	-.06
Uncomfortable asking about abuse	-.43*	-.40*	-.37*	-.27*	-.36*
Concern for false labeling	-0.16	-0.21*	-0.22*	-.19*	-.25*

*Significant at $p < .05$

those who successfully achieved the highest level of screening thoroughness.

We chose a multistage approach to multiple regression analysis because of sample size constraints. In the first stage, we used correlation analysis to determine which of the many variables were associated in bivariate analysis with each of the four screening behaviors plus the Screening Thoroughness Scale. We considered as significant those variables associated with the behaviors at $p < .05$. In the second stage we created a separate regression equation for each of the seven categories of predisposing, enabling, and reinforcing factors. In this stage each variable was included in a multiple regression equation only with variables measuring the same

concept (eg, know]- edge, beliefs about appropriate role behavior, obstacles). In this manner we determined which of the variables measuring each of the concepts was significantly related to the behaviors while controlling for other variables measuring the same concept.

There were two exceptions to this general approach. First, we combined five variables measuring background experience or training into a composite Training Index, These included having attended a grand round; attended a lecture or workshop/symposium on partner abuse; taken a course on partner abuse or violence generally during medical training; read journal articles on partner abuse; or participated in a volunteer training at a shelter or clinic for battered women_ The second exception was for six variables in the enabling category measuring clinicians' perceptions of how well prepared they were to perform the tasks associated with domestic violence intervention (Table 1). Pearson-product moment correlations between these six ranged from 0.47 to 0.79, indicating they were too intercorrelated to include together in a regression equation. These six combined to form a reliable scale (Cronbach's alpha .91). While each of the items comprising this scale measures self-efficacy as it pertains to a particular skill the scale was conceptualized as tapping clinicians' generalized sense of competence, hence, we named it the Perceived Competence Scale in the third stage, all the variables that were significant within one of the seven conceptual categories were considered together in a final multiple regression equation_ This equation also included the Training Index and the Perceived Competence Scale. This process resulted in a final set of variables that remained significantly related to the dependent variable while controlling for all others in the model. We repeated this process for each of the four screening behaviors plus the Screening Thoroughness Scale.

RESULTS

We received questionnaires from 22 nurses and 138 physicians the response rate was 28% for nurses and 51% for physicians. These 160 clinicians were affiliated with 11 different medical departments. Nearly all of these clinicians were white (93.3%) and married (91.5%). The majority of nurses were female (90%) while most of the physicians were male (60.9%).

Frequency of current screening behavior

Clinicians currently exhibit a range of screening behaviors (Table), The most commonly reported behavior of the four was to ask women who have physical injuries if they have been abused. This approach to screening was always practiced by 37% of respondents and often by an additional 26.7%. The second most common practice was to screen women with "symptoms" (unspecified), which was always practiced by 23% and often by 26.39%. Less common practices were to screen each woman at least once or at each visit- Only 9.6% physicians always practiced this behavior while 12.6% indicated that they often screen each woman once. Universal screening, or the practice of screening each woman at each visit, was the least commonly practiced of the four behaviors, always practiced by 5.1% and often 5.1%.

The Screening Thoroughness Scale identified the percent of clinicians who successfully achieve higher levels of screening thoroughness. Analysis indicated that 32.2% of the clinicians were not currently screening at all, while 14.3% had achieved only the lowest level of screening. However, nearly half (49.6%) indicated they were successfully screening at higher levels_ 24.8% stated they always or often screened women with symptoms as well as those with injuries, while 17.0% also always or often screened each woman patient at least once. The least common practice was to screen each woman at each visit, as well as all the other behaviors, which was successfully practiced by 11.33%. This analysis indicated that although the behavior most frequently practiced was to screen women with injuries, most clinicians indicated they were screening at a higher level of thoroughness.

Predisposing factors associated with clinician screening behavior

Knowledge

Analysis indicated that the study population has been, as a group, exposed to

Table 2. Frequency of four different clinician screening behaviors

Screen women patients	Always %	Often %	Sometimes %	Rarely %	Never %	% who achieved highest level of screening thoroughness
With physical injuries	37	26.7	13.3	8.1	14.8	14.3
With symptoms	23	26.9	20	11.5	18.5	24.8
Once, usually at first visit	9.6	12.6	18.5	25.2	34.1	17.3
At each visit	5.1	5.8	11.6	34	43.4	11.3

continuing education or training in the area of domestic violence.³ Nearly half (45%) have read journal articles on the topic, 32.35% have attended a grand round or lecture, have attended a workshop on domestic violence, and 11.3% have participated in volunteer training at a domestic violence shelter. In addition, 3.38% had taken a course on domestic violence or violence in general while in medical or nursing school. This background experience varied significantly for nurses and physicians.³ While most of the physicians surveyed had been exposed to, or taken advantage of available, continuing education or training in the area of domestic violence, the majority of nurses had not. Physicians were significantly more likely than nurses to report having attended a grand round, lecture, or workshop on partner abuse. Nurses, in contrast, were significantly more likely than physicians to have read journal articles on domestic violence, in stage 1 of the analysis, the Training Index, was significantly related to the four screening behaviors and to thoroughness in screening (Table 1).

We also asked clinicians about their knowledge of legal issues and referral sources. The majority indicated that their lack of knowledge of legal issues (70%) and knowledge of referral sources (58%) were obstacles to the identification and treatment of battered women. These two measures of knowledge were also significantly related to all dependent variables in bivariate analysis.

Attitudes about domestic violence and battered women

The majority of clinicians disagreed (72.5%) that the victim shares responsibility for the batterer's abusive behavior, and almost everyone (98%) disagreed that it was sometimes acceptable to use physical force to settle personal disputes in intimate relationships. It was not surprising that neither of these was related in bivariate analysis to screening behavior (Table 1).³

Attitudes about physician responsibility

The majority (97.5%) believed residency programs should teach physicians about how to intervene in partner abuse and the majority (81%) disagreed that addressing the needs of battered women is more the responsibility of nurses or social workers than that of physicians.³ Although both nurses and physicians disagreed with the latter, nurses were significantly more likely to disagree with it ($t=3.1083$, $p = .002$). This indicated that nurses were more likely than physicians to believe that intervention in domestic violence is as much the role of physicians as nurses. As shown in Table 1 neither of these two indicators was significantly associated with any of the screening practices.

Beliefs about appropriate role behavior

The majority of those surveyed believed that the following activities associated with domestic violence intervention appropriately fall within the responsibilities of physicians and nurses as they care for and treat their patients: asking patients with nonspecific or somatic complaints if they have ever been abused (87%) communicating concerns to women they believe are abused (95%); talking with women about domestic violence (5%) giving women information on community resources (7%); discussing current safety and helping

women make safety plans (90%); and documenting the battering in the medical records with notes or photos (5%). In addition, a majority (63%) believed that it is appropriate to suggest that battered women seek psychiatric help and that it is appropriate to suggest that the couple seek marital or couples counseling (86.5%). About half (51%) believe that clinician should ask all women patients if they are being abused as part of a routine history and physical examination. In contrast, the minority think it is appropriate that physicians talk to perpetrators about their violent behavior (30%), persuade women to leave the abusive relationship (21%), or contact the police (44%). Nurses are significantly less likely than physicians to believe that it is appropriate to ask women about abuse who have nonspecific or somatic complaints ($t = 2.87, p = .008$), suggest that the couple seek marital counseling ($\chi^2 = 4.1, p = 0.41$), or to document the abuse in medical records ($\chi^2 = 10.98, p = 0.001$).

As shown in Table 1, some of these beliefs about appropriate role behavior were significantly related to screening practices in bivariate analysis. The analysis indicated that for the most part, those that were significantly related to one were significantly related to four of the screening behaviors as well as to the measure of screening thoroughness. Clinicians were more likely to engage in screening behaviors if they believed that they should screen women who exhibit nonspecific or somatic symptoms: that they should routinely screen all women; and that these are appropriate role behaviors: communicating concerns to battered women, persuading women to leave the relationship, and helping women make safety plans. Those same beliefs, as well as the belief that it is appropriate to talk with the partners of battered women, were associated with thoroughness in screening. Believing that it is appropriate to document abuse in medical records was significantly associated with screening on the basis of injury but not the others.

Enabling factors associated with clinician screening behavior

Perceived competency

The majority of clinicians surveyed indicated that they feel prepared to ask women if they have been abused (65%), document abused women's injuries (60%), and refer women to community resources (57%). In contrast, most did not feel prepared to counsel battered women (38%), appropriately treat battered women (34%), or assist battered women with making a safety plan (37%).

Physicians, however, were significantly more likely than nurses to feel prepared to appropriately treat battered women: ($t = 2.07, p = .0035$). All of these individual variables measuring self-efficacy, as well as the composite Perceived Competency, were significantly associated with all of the screening practices.

Obstacles

The clinicians indicated a number of factors to be either major or minor obstacles to the identification and treatment of battered women, including lack of time (59%); no initiative or help from the patient (24%); the patient being unwilling to disclose or minimize abuse (92%); and having to deal with legal issues (81%). Physicians were significantly more likely than nurses to report that lack of time was an obstacle ($t = 2.05, p = .04$), whereas having to deal with legal issues was significantly more likely to be reported by nurses as a barrier ($t = -3.90, p = .0001$).

The only obstacle not significantly associated with the screening behaviors was lack of time. In contrast, having to deal with legal issues and patient's unwillingness to disclose or minimize her abuse were both significantly associated with all four screening behaviors and thoroughness in screening. Having no initiative or help from the patient was significantly associated with universal screening and screening on the basis of injury or symptoms, but not with screening each woman once or thoroughness in screening.

Reinforcing factors associated with clinician screening behavior

Reinforcing factors are those that we conceptualized as possibly having an impact on whether clinicians would continue the screening behaviors they initiate. The majority (83.4%) agreed with the one factor we conceptualized as positively reinforcing screening behavior: asking about abuse helps clinicians to more effectively treat women. This factor was significantly associated with all of the screening behaviors.³ We also

asked about an additional five factors that could, if endorsed, negatively reinforce screening behavior. Three of these were endorsed by the majority of respondents: asking about abuse opens the door to time-consuming activities that are not reimbursable (53.2%); asking women about abuse is frustrating because of the difficulty in effecting change in abused women's lives (60.3%); and being uncomfortable asking about abuse (53.46). Of these three, however, only the latter (being uncomfortable) was significantly associated with screening behavior. The last two reinforcing factors were endorsed by only a minority of the respondents: asking about abuse is an intrusion into women's lives (22%); and falsely labeling women as abused (46.5%). Neither of these was significantly related to screening behavior.

Multiple regression analysis: predictors of current behavior

We ran separate equations for each of the five dependent variables. The sample size for each equation varied because the procedure we used excluded cases that had missing data for the variables in that equation. The sample sizes were reduced primarily because of the composite variables leg, Background hides (N = 160), Perceived Competence Scale (N = 89), and Screening Thoroughness Scale (N = 133). The weakness of this approach was that it substantially reduced the number of cases available for analysis.

Only a small group of variables emerged as significantly related to the dependent variables after stage 2 data not shown), This small group, however, represented predisposing, enabling, and both positive and negative reinforcing factors. These remaining factors, listed in column 2 of Table 3, were then included together in multiple regression.

An even smaller group emerged as predictors across the five dependent variables after controlling for other variables (Table 3). Perceived competence emerged as the primary predictor of all five behaviors and the single predictor for three: screening women with injuries, screening women with symptoms, and thoroughness in screening. Believing that clinicians should screen all women as part of a routine history or physical examination emerged as a predictor, along with perceived competence, for screening all women once and screening each woman at each visit.

DISCUSSION

These results indicate that this population of nurses and physicians at a major university teaching hospital were informed about domestic violence as a health concern and about the changing role of the clinician in caring for battered women. Unlike the findings reported in much of the published literature, this group overwhelmingly endorsed items that reflected the importance of physician and nurse involvement in identifying, counseling, treating, and referring battered women. Furthermore, although one did not report screening successfully at even the lowest level, two thirds were successfully screening women for battering at some level of thoroughness and most of these were not limiting assessment to women with visible physical injuries.

This study found no relationship between any of the reported screening behaviors and any indicators of knowledge, attitudes toward battered women or domestic violence, or most of the variables measuring attitudes about appropriate role behaviors. These findings are possibly attributable to the fact that there was little variation in these variables across the respondents or that few measures of these concepts were included in the study. Additionally, the measures of knowledge were crude, Combining the training and experience variables into a Training Index suggests that the knowledge gained from these experiences is equivalent and additive: each experience was assumed to lead to equal knowledge and those with more of these experiences were credited with having more knowledge than those with fewer. These assumptions may, however, be false. The one predisposing factor that emerged as significantly related to the likelihood of screening all women at least once or at each visit was the belief that routine screening is an appropriate role behavior, Interestingly however, this belief was not related to thoroughness in screening.

These results suggest that before clinicians will screen for battering in their patients it may be necessary for them to have knowledge about domestic violence, to hold positive attitudes about battered women, and to believe that assessment for battering and counseling

Table 3. Factors predicting screening behaviors: results from final multiple regression equations (type III sums of squares)

PRECEDE- PROCEED categorization	Possible independent variable	Dependent variables: likelihood of screening women				Screening Thoroughness Scale
		With injuries	With symptoms	Once	At each visit	
Predisposing knowledge	Training/educational background	SS = 1.67 F = 1.64	SS = .06 F = .06	SS = 1.11 F = 1.70	SS = .19 F = .54	SS = .22 F = .27
	Lack of knowledge of legal issues a barrier	Not included in this model	Not included in this model	SS = .91 F = 1.40	SS = .15 F = .42	SS = .02 F = .02
Predisposing: Appropriate role behavior	Clinicians should commu- nicate concerns to abused women	SS = 1.78 F = 1.75	Not included in this model	SS = .23 F = .36	Not included in this model	SS = .14 F = .18
	Physicians should ask all women about abuse as part of a routine history	SS = 1.57 F = 1.54	SS = 1.86 F = 1.90	SS = 4.07 F = 6.25	SS = 6.55 F = 18.03	SS = 1.36 F = 1.67
Enabling: Skills	Perceived competence	SS = 6.33 F = 6.21 ¹	SS = 11.27 F = 11.51 ²	SS = 4.37 F = 6.71	SS = 3.50 F = 9.63 ³	SS = 7.64 F = 9.37
	Having to deal with legal issues	SS = .0010 F = 0.00	SS = .86 F = .88	SS = 12 F = .19	SS = .15 F = .42	SS = .02 F = .02
Enabling: Obstacles	Patient unwilling to disclose or minimizes abuse	SS = .609 F = .60	SS = 1.37 F = 1.40	Not included in this model	Not included in this model	SS = .73 F = .90
	Feel uncomfortable asking about possible abuse	SS = .06 F = .06	SS = .23 F = .24	SS = 1.17 F = 1.80	SS = .009 F = .03	SS = .01 F = .02
Reinforcing: Negative	Asking woman about abuse allows clinicians to more effectively treat abused women	SS = .60 F = .59	SS = .28 F = .28	SS = .34 F = .52	SS = .01 F = .03	SS = .05 F = .06

¹p < .001; ²p < .01; ³p < .05

battered women are appropriate role behaviors. However, these predisposing factors alone are insufficient to bring about the behavior.³ Indeed, the results of the present study highlight the relationship between clinicians' screening behavior and their perceptions of their skills. These results suggest that the perception of professional

preparation is the primary factor distinguishing clinicians who generally engage in any of the screening behaviors from those who do not, and clinicians who engage in higher levels of screening thoroughness from those engaging in lower levels.

Interestingly, although a majority of the clinicians agreed that there were obstacles to identifying and treating battered women, no obstacles were related to screening behavior in the final multiple regression equations. In addition, the variable assessing time constraint as a barrier was not significantly related to any of the behaviors in simple bivariate analysis. These results suggest that although clinicians perceived obstacles as being present, these obstacles may not prevent clinicians from screening if they feel prepared to screen and manage the consequences or professional expectations that result from identifying battered women patients.

It is interesting to note that two of the three obstacles that were significantly related to physician behavior in bivariate analysis were characteristics of patients (eg. battered women's unwillingness to disclose their abuse and lack of initiative or help), not of physicians or institutions. This finding suggests that many clinicians still view the patient as being the party responsible for initiating discussions about battering.³ In contrast, however, other factors related to patients were not of particular importance to the clinicians in this study. Unlike the findings of some other research, the majority of the respondents indicated that they did not perceive asking about battering as being an intrusion into patients' lives and the majority did not see falsely labeling a patient as battered as being a barrier even for routine screening. Neither of these variables was significantly related to any of the behaviors in simple bivariate analysis.

This study did not find reinforcing factors to be significantly related to screening behavior. This is not particularly surprising given the study design and the focus on current screening behavior. The cross-sectional study design precludes our ability to assess whether the behaviors identified were in the process of changing, how recently adopted any of the screening behaviors were, or whether there were clinicians who have discontinued screening recently or in the past. Since reinforcing factors are conceptualized as being consequences of action they may be more relevant to our understanding of why clinicians continue or discontinue screening behavior, which was not the focus of this study.

IMPLICATIONS FOR TRAINING

The findings from this study suggest that changing the behavior of physicians and nurses in the area of domestic violence intervention is complex.³ As predicted by the PRECEDE-PROCEED Model, as well as most health behavior theory, behavior is not simply the function of changing knowledge, attitudes, and beliefs,²¹ Rather, behavior is strongly and primarily associated with perceived preparation for assessment and treatment. The primary training implication of this research is that training needs to be skill- rather than knowledge-based. Clinician training programs need to provide physicians and nurses with the skills they need to not only ask women about abuse but to appropriately counsel them, treat them, help them develop a safety plan, document their injuries or other relevant health-related outcomes, and refer them to appropriate agencies and resources.³

It is possible that other domestic violence intervention programs around the country may be targeting clinical populations that have less knowledge of the issues and are less certain about their appropriate role behaviors than was the case in our organizational setting. However, our program, like others around the county, is being implemented in a changing social environment regarding clinician intervention in violence. It is, therefore, likely that clinicians in other areas and types of settings are also increasingly predisposed to intervene with battered women.³ It seems prudent, therefore, to assess target clinical populations to determine "where they are" in terms of their attitudes, beliefs, and skills prior to developing training programs. This study would indicate, however, that even for populations who are not predisposed to intervene it would be wise to go beyond trying to improve knowledge and facilitate attitudinal change by helping clinicians develop, and gain confidence in, the skills necessary to effectively intervene with battered women.

A second training issue involves focusing on changing clinicians' attitude about the importance of routine screening. This involves helping them to appreciate why, if it is important to identify abused women among our

patients, screening on the basis of injury or symptoms is inadequate. In this vein, it is important to stress that screening protocols that identify battered women on the basis of physical injuries Or other symptoms miss many, perhaps most, battered women.²² VV Reasons for this low case ascertainment include symptoms that may vary across battered women and that maybe difficult to identify (cg, self-esteem, anxiety, posttraumatic stress disorder). Routine screening reduces the uncertainty of sporadic inquiry, increases case ascertainment, and makes it more likely that clinicians can uncover battering before it reaches the stages that make it more obvious (cg, serious injury, attempted suicide r major depression).²³

This study identified other factors related to clinicians' knowledge and attitudes about battered women and domestic violence that might be important to include in clinician training. Even though these factors failed to be significantly related to screening in multiple regression analysis, they may have implications for how physicians interact with battered women and the likelihood of their continuing to engage in routine screening once they start. These include discussions about the inappropriateness of discussing the battering with the perpetrator and strategies for referring battered women to marital or couples counseling or to psychiatrists. Talking with the perpetrator violates the battered woman's confidentiality and could prove dangerous to both the battered woman and the physician.²⁴ Referring battered women to marriage counselors and psychiatrists are controversial practices not always endorsed by advocates for battered women, Clinicians who refer battered women to mental health professionals should clarify to the woman the reason for the referral. She may fear being labeled "crazy- or responsible for the violence or that the referral could cause her to lose custody of her childreran.²³ For this reason, mental health referrals should not be seen as a "curs" or a substitute for appropriate health care.

Additionally training programs may wish to provide clinicians with information on battering from the point of view of battered women to help them understand why battered women might be unwilling to disclose the abuse, and why they might minimize it, or not provide any initiative in the physician-patient encounter.² Finally, training may also want to address clinicians' expectations for patient outcomes. both health and behavioral. This is a potentially critical reinforcing factor since the majority of clinicians Indicate that they believe screening will lead to more effective treatment: hence. whether clinicians' expectations are met could be one of the critical points on which a successful intervention depends. However, it is not clear from the literature what clinicians' and patients' expectations and preferences are for outcomes, Successful programs may depend on the clinicians and battered women patients sharing similar expectations for outcomes and on consistency between clinicians' expectations for outcomes and the reality of battered women's lives and experience.³

This study points to the complexity of measuring clinician screening behavior and suggests that future stud may want to include multiple specific indicators of different screening approaches. The measures of screening behavior used in this study assessed clinicians' perceptions of their nun behavior; they did not, however, provide information on how effective the clinicians were communicating with women, whether screening resulted in identification. or what happened after the clinicians identified battered women patients.³ In fact, correlation between the Screening Thoroughness Scale and clinicians' estimates of the percent of their women patients who are abused was not significant ($r = 0-006$): Similarly, t-test analysis indicated no relationship between clinicians' estimates of the percent of women patients who are abused and their having successfully achieved any of the four screening behaviors, This, however. may result from the fact the mean estimate of the percent of women patients who are abused was 13, which is high compared with the literature. One passible explanation for these results is that clinicians' estimates reflected their knowledge of the issues rather than their behavior.

Future research may also want to focus more attention on enabling and reinforcing factors. Of interest are factors, including but not limited to, prior education and training, that influence clinicians' perceptions of professional preparation and their sense of competence and self- efficacy for the different skills involved in appropriately treating battered women. Additionally, this study cannot rule out the possibility that lack of perceived competence may be as much an excuse as a reason for not assessing women for battering. Finally, since screening is a repetitive behavior, additional research is needed on the factors influencing its dis-continuation.

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