

Evaluating the Implementation of Hospital-based Domestic Violence Programs

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INTRODUCTION

Domestic violence (DV) has been recognized as an important public health problem. With research demonstrating the high prevalence of DV in the health care setting and associated adverse health consequences to women, victim advocacy organizations have urged health care providers to improve their recognition and response to DV victims. Over the last 15 years, health care systems, providers, and professional organizations have attempted to meet this challenge. In 1992, the Family Violence Prevention Fund and the Pennsylvania Coalition Against Domestic Violence collaborated to design a model program to strengthen a hospital's response to DV (Warshaw,

Ganley, & Salber, 1998). Since that time there has been a proliferation of similar programs implemented in a variety of health care settings. The majority of these programs have focused on the screening, identification, and provision of services for victims of DV. Prior evaluations of these programs have found them to be effective in improving staff attitudes, knowledge, and beliefs about DV, improving protocols and training, increasing the identification of DV, and increasing the referral and acceptance of community-based services (Campbell et al, 2001; McCaw, Bauer, Berman, Mooney, Holmberg, & Hunkeler, 2002; Short, Hadley, & Bates, 2002; Krasnoff & Moscati, 2000; Thompson et al, 2000). However, to date there have been no published studies that evaluate the long-term impact of health care-based DV programs. Recent systematic reviews have highlighted the need for additional research to further delineate the potential health and safety benefits as well as the possible adverse consequences of screening for DV in the health care setting (Ramsey, Richardson, Carter, Davidson, & Feder, 2002; U.S. Preventive Services Task Force, 2004; Nelson, Nygren, McInerney, & Klein, 2004; Wathen & MacMillan, 2003).

While the need for additional outcomes research is evident, DV victims continue to present to the health care setting. Health care providers and victim advocates alike are attempting to meet the needs of victims and implement high quality programs to address these needs. The Family Violence Prevention Fund estimates that all states have been involved in implementing some type of health care-based DV programs over the

last 10 years, with seventeen states being directly involved in the National Health Care Standards Campaign and the preceding Ten-State Program (Family Violence Prevention Fund, 2005; Marjavi A., Family Violence Prevention Fund. Personal communication; May 25, 2004). Recently, potential measures of successful DV program implementation have been developed and published (Coben, 2002). While these consensus-derived measures do not directly assess health or safety outcomes, they at least provide a method to determine successful program implementation which is a prerequisite for outcome effectiveness.

Since 1991, the Pennsylvania Coalition Against Domestic Violence (PCADV) has supported the development and implementation of health care-based DV programs within Pennsylvania. In this paper, we report our experience in conducting a statewide evaluation of the PCADV program using previously developed performance measures. In particular, we document the variation in program implementation, changes in program performance over time, factors associated with successful program implementation, and challenges identified in meeting the needs of DV victims and health care providers.

METHODS

Overview

The evaluation project was commissioned by PCADV and the PCADV-supported medical advocacy programs were required to participate. Evaluations were conducted at 34 different health care sites throughout Pennsylvania. Each site involved a collaborative program involving a local domestic violence (DV) service agency and a health care organization. Sites were visited twice during the course of the evaluation, over a

21-month time period between May, 2002 and February, 2004 with the second visit being at least 12 months after the first visit. Progress with program implementation was determined by computing scores on the Delphi Instrument for Hospital-Based Domestic Violence Programs (Agency for Healthcare Research and Quality, 2002). In addition, we conducted semi-structured interviews with program planners and participants. All aspects of the project were approved by the Institutional Review Board of Allegheny General Hospital.

Program Description

Per PCADV, medical advocacy is the health care-based identification of DV victims seeking health care services and the provision of support, information, education, resources and follow-up services within the health care setting. Medical advocacy also includes the development, refinement and implementation of policies and procedures to enhance the health care response to victims of DV, as well as ongoing training of health care personnel.

PCADV provides both financial and technical support to their medical advocacy programs. Each site receives an approximate annual allocation of \$60,000. The funds are typically used to support program staff and other associated expenses. Mandatory two day training is provided to new sites at the time of program start-up. Technical assistance to all sites is provided by PCADV staff and via bi-monthly PCADV-convened meetings in different regions throughout Pennsylvania. Additional ad hoc training sessions are provided on emerging topics of interest.

Setting and Participants

PCADV began funding medical advocacy programs in 1993 with three demonstration projects. In 1995 and 1996, two more projects were added. The number of projects increased considerably when 12 were funded in 1999 and an additional 18 received funds in 2001. Thirty-four sites participated in this evaluation. All programs were collaborations between DV programs and health care facilities. With one exception, all the DV specialists were employed by the local DV agency. The one exception was a social worker, who was hospital staff, but hired from the DV agency. The health care facilities were predominately hospitals. One program was based in a community health center and another in a community mental health agency. In several cases, the local DV program had established collaborations with multiple health care organizations in their community. For this evaluation, one representative hospital or clinic was chosen from each site.

Measures

The Delphi Instrument for Hospital-based Domestic Violence Programs (Delphi) is a consensus-driven quality assessment tool. It is based on the views of national experts in the field of DV who took part in a year-long consensus development process. The experts achieved consensus on 37 performance measures that fell within nine different domains of DV program activities including: 1) Policies and Procedures; 2) Physical Environment; 3) Cultural Environment; 4) Training of Providers; 5) Screening; 6) Documentation; 7) Intervention Services; 8) Evaluation Activities; and 9) Collaboration. These measures were then expanded into a working instrument with the performance measures taking the form of questions, each with a list of possible responses.

Within each domain, sites could achieve a possible score ranging from zero to 100 points, based upon their responses to the questions and a weighting scheme derived through the consensus development process. Prior to initiating this evaluation, the instrument was pilot-tested at four sites and achieved excellent inter-rater reliability [Kronbach's alpha ranging from 0.96 to 0.99] (Agency for Healthcare Research and Quality, 2002).

In addition to administering the Delphi, a semi-structured interview was conducted with all programs, either during the site visit or via telephone shortly thereafter. This interview was used to clarify any remaining ambiguities and to obtain additional details on the policies being implemented, the extensiveness of staff training, the type of intervention services provided, and the type and quantity of public educational materials used at each site. This provided more in-depth qualitative data to help supplement the quantitative information obtained from the Delphi instrument. While we do not report the results of these interviews separately, we do incorporate these qualitative findings in our overall discussion.

Procedures

We attempted to visit each of the sites twice during the course of this evaluation. The same research assistant conducted all site visits. At each site, the DV program coordinator participated in the process by providing information to the research assistant, who completed the Delphi instrument. To assist in the evaluation, we requested each site to assemble the following materials and information prior to the site visit: all policies and procedures regarding DV, task force documentation, training materials and schedules, internal forms and checklists regarding DV, information on prior

evaluations, documentation of hospital preventative outreach and public education on DV, educational materials for victims and the public, and the percentage of patients screened from a random audit of charts.

Analysis

Data from the Delphi instrument were entered into SPSS on a personal computer and frequency distributions, measures of central tendency, and variance were computed for each domain. We used Paired Samples T-Tests to analyze the significance of changes in scores from the first year to the second year. Qualitative data obtained from semi-structured interviews with program coordinators were examined for common themes by the Principal Investigator and Research Assistant.

RESULTS

Aggregate results of the two rounds of Delphi assessments are displayed in Table 1 (*See Page 10*). All thirty-four sites participated in the first round of site visits and thirty-three of the sites participated in the second round. The mean scores and standard deviations across each of the nine domains are provided as well as the total weighted scores for all sites. In addition to these quantitative findings, we detected a number of consistent issues across these programs.

The first domain of the Delphi examines policies and procedures relevant to DV. While the majority of sites had some written policies and procedures regarding DV assessment and treatment, less than 40% of the sites had a mandatory universal screening policy in place, and only one-third had mandated training on DV for any of their staff. Although we found evidence of a hospital-based DV task force at more than two-thirds of the

programs, only one-half of these met monthly. Less than one-half of the task forces included physicians from the medical staff and there was generally lack of involvement of representatives from the hospital's security department and administration.

The second Delphi domain, determined, among other measures, to what extent posters and brochures related to DV were on display in the hospital. Sites improved substantially in this category from the time of our first site visit to the time of our second visit.

Domain three, hospital cultural environment, examines the general institutional support and cultural milieu related to DV. In general, we found that most sites did not undertake formal assessments of the hospital staff's knowledge and attitudes about DV.

Domain number four assessed the training being provided on DV to health care staff. This category received the highest score of all the categories. Despite these high scores, opportunities for improvement were identified. We found that less than two-thirds of the sites had what we considered to be formal training plans in place. While the majority of sites provided DV training as a part of mandatory orientation for new staff, there was often little evidence of continuing, on-going training beyond this orientation period.

Screening and safety assessment are addressed in domain five. The majority of sites demonstrated good improvement in this category over time. Specific improvements were seen in the number of programs conducting routine screening and the number utilizing a standardized safety assessment with victims who

screened positive for DV. Despite these improvements, we continued to find that less than one-third of the programs had a standardized screening instrument with at least three questions about DV. Those that did have a standardized screening instrument most often included it as a separate form, and not as questions incorporated in the clinical record. Sites often relied upon one question for their screening protocol.

The sixth Delphi domain, documentation, examines how sites document abuse if it is detected. Almost all of the hospital sites had standardized documentation instruments to record cases of DV, but the documentation forms often lacked much of the needed information about the abuse. Although all the forms included information about the results of the DV screening and more than one-half documented injuries and recorded the referrals provided to the victim, less than one-quarter had the victim's description of current or past abuse and less than one-fifth contained the perpetrator's name. Forensic photography was incorporated into the documentation procedure at the vast majority of hospital sites, but less than one-half of the hospitals had staff members who received on-going training on the use of the camera and very few photographed all injuries.

Domain seven, intervention services, assesses site-specific service provision activities. More than three-quarters of the sites provided on-site victim advocacy services at all times as well as follow-up counseling with the victim after the initial assessment. However, we found that very few sites had a standardized intervention checklist for staff to use when victims were identified.

The eighth domain of the Delphi examines program internal evaluation

activities. More than three-quarters of the sites had some formal evaluation procedures in place to monitor the quality of their DV programs. While more than three-fifths of the programs included periodic monitoring of charts to audit for DV screening, less than one-half included peer-to-peer case reviews focused on DV as part of their evaluation activities.

The last domain, collaboration, explored hospital collaboration with DV programs, local law enforcement agencies, and other health care facilities. All the sites reported collaboration between the hospital and the local DV agency. Collaboration with law enforcement occurred less often, with less than three-quarters of the sites reporting collaboration with law enforcement agencies in conjunction with their DV program.

Across the 34 sites in Pennsylvania, we found significant variation in Delphi performance when scores were examined according to the duration that the program had been in existence (Table 2 – *See Page 11*). During the second year of the evaluation, the sixteen sites that were in their second year of development had a mean total score of 55.7. The twelve sites that were in their fourth to sixth year of program development achieved a mean score of 52.2. There were 5 sites that had been in existence for at least 6 years each. The mean score across those 5 sites was 66.0. For sites in their second year of existence, there were positive changes in all domains between year one and year two of the evaluation. For domains five, six, eight, and the total scores, these increases were statistically significant.

DISCUSSION

The primary objective of this evaluation was to assess the progress made with DV program implementation in health care settings across Pennsylvania. Using previously established performance measures and instruments, we have demonstrated that such an evaluation is both feasible and beneficial. We found significant variation in performance across sites, variable success in different domains of program activities, general improvement over time, and a number of critical issues affecting program development and delivery.

LESSONS LEARNED AND RECOMMENDATIONS

DV Task Force

At the hospital level, the importance of a strong interdisciplinary DV task force was a recurring theme. To be effective, this task force needs to have the ability and authority to influence hospital policy. Therefore, representation from the medical staff and hospital administration is very important. In addition, ongoing staff training on DV is an essential element of these programs and we recommend that programs establish a formal written training plan for the involved health care facility. A formal training plan indicates that training needs to be systematic and ongoing, rather than haphazard and irregular. It should indicate specifically who will be trained, what the training will cover, the length of the training and how often the training will be provided.

Screening

We found significant variability across the sites with respect to screening (or routine assessment) activities. We found numerous instances where sites are relying upon a single question (e.g., “Do you feel

safe at home?”) for their domestic violence inquiry. Recent research suggests that this approach is not a valid method of assessment (Peralta & Fleming, 2003). Program planners need to specifically consider how screening is conducted, who performs the screening, and the quality of the screening methods.

Safety Assessments

Safety is of paramount importance in the provision of services to victims of DV. Therefore, we believe all sites should be completing standardized safety assessments with all identified victims, whether or not there is an on-site DV advocate. The safety assessment needs to address the safety of the victim while she is in the health care environment as well as her safety once she leaves. It is important that the same safety assessment be provided, whether it is administered by a DV advocate or health care provider. We found numerous examples where safety assessments were lacking when the health care provider performed the on-site intervention (e.g., during weekends, after hours, or at programs where the responsibility for the initial intervention was with the health care provider). Having a standardized instrument for providers to refer to could help address this deficiency.

Standardized Intervention Checklists

Similarly, while the majority of sites provide numerous intervention services, a standardized intervention checklist was rarely used. Once again, this is particularly problematic when the interventions are provided by hospital staff as often occurs when the DV advocate is not immediately available or in program models that rely fully or partially upon hospital staff. We found that the DV advocates were often unaware of the type of intervention services provided in their absence by hospital staff. Interventions by hospital

staff were often more limited than interventions done by DV advocates. The use of a checklist in these situations would encourage more thorough and consistent interventions by both hospital staff and advocates.

DV Champion

Finally, implementing new initiatives within complex health care systems requires time, persistence, and skill. Our interviews and observations revealed that sites generally required at least three years to reach a stage of maturation and stability that was reflected in better program performance. Identifying a “champion” within the health care setting who helps sustain and elevate the program profile can be extremely beneficial. The community-based DV advocates involved in these programs are often a key factor in determining success. These individuals have very challenging positions, requiring multiple different skill sets. The activities associated with these positions often include system advocacy, training and education, leadership and coordination, and direct service to victims. However, we believe the positions are typically under-funded with salaries that are not commensurate with the degree of responsibility and skills required. Often this leads to frequent staff turnover, instability in the advocate position, and resulting instability in the program itself. Program planners contemplating the implementation of such an initiative should carefully consider the skills and resources needed to sustain this effort.

Delphi Instrument

We would like to highlight our experience using the Delphi instrument. Several key issues emerged that are relevant to DV program planners, evaluators, and researchers. First, the instrument is rigorous and this is reflected in site-specific scores. The instrument is derived

from “best practice” recommendations and the scoring system reflects these recommendations (Coben, 2002). While implementing all best practice recommendations to their fullest possibility is an important goal, the feasibility of achieving this goal is difficult given the realities and competing demands present in the health care environment. Sites were occasionally disheartened by the scores they achieved and it was important that the evaluators and program leaders proactively encouraged using the evaluation results for quality improvement. When approached as a quality improvement activity, sites became less concerned with their actual scores and much more engaged in using the Delphi process as a method to enhance their programs. In fact, numerous sites indicated that they were able to use initial Delphi scores as leverage to influence hospital decision makers on the need to make changes in policies and procedures. Sites were also generally able to demonstrate quantitative improvements in their performance from one round to the next, suggesting that the initial Delphi results provided some impetus for program enhancements.

The data reported from Pennsylvania represent the first large-scale use of the Delphi instrument. It is important to note that Pennsylvania’s DV health care program has been lauded nationally and that many of the sites had been in operation for more than three years at the time of our initial assessments. Therefore, the aggregate data from Pennsylvania may not be representative of what programs in other settings might expect to achieve. For newly implemented programs, we expect that the best comparative data would be those scores achieved by the Pennsylvania sites after one year of program implementation (see Table 2 – *See Page 11*). Recent reports from

ongoing Delphi evaluations in New Zealand (Koziol-McLain, et al, 2004) and in Kansas City, Missouri (Stallbaumer, J., personal communication; December 10, 2004) have confirmed these expectations.

The Delphi instrument has been used in several other small projects and these projects report similar beneficial experiences (Agency for Healthcare Research and Quality, 2004). In addition to hospital settings, we are aware of several projects that have adapted or started to adapt the instrument to other settings, including primary care and outpatient clinics, schools, and the workplace environment. The instrument is available and can be used free of charge, downloaded from www.ahrq.gov or www.endabuse.org. We encourage the continued adaptation and application of this approach. While the instrument does not capture individual-level outcomes, it is an effective measure of program implementation and performance. As additional programs utilize the instrument, a larger database with normative values across a variety of different settings can be established for comparative purposes. Such a database would enable analyses by hospital type, program duration, geographic location, hospital size, and other important characteristics. Towards that end, the corresponding author extends an open invitation to other researchers and practitioners to submit the results of any past, current, or future Delphi assessments. All submitted data will be stripped of identifiers and aggregated into the larger database. We will also derive scores for any site submitting their data and we will provide comparative scores using data from sites in similar stages of development. Further research examining the relationship between program Delphi scores and short-term and long-term patient outcomes is warranted.

In summary, improving the health care response to domestic violence is a goal shared by clinicians, patients, and advocates. Over the last ten years there has been widespread implementation of programs designed to attain this goal. We believe that standardized measures now exist for evaluating the performance of these programs and we encourage the adoption and/or adaptation of these instruments. Further, we hope that the lessons learned from our field work will be useful to those engaged in similar activities.

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TABLES

Table 1. Delphi Scores by Domain and Evaluation Year

Domain		Year 1 Scores	Year 2 Scores
		(n=34)	(n=33)
		Mean (Std Deviation)	Mean (Std Deviation)
1	Policies and Procedures	43.1 (19.6)	42.8 (17.8)
2	Physical Environment	44.0 (29.2)	60.0* (26.3)
3	Cultural Environment	40.6 (16.6)	43.8 (16.5)
4	Training of Providers	66.6 (24.3)	68.2 (23.1)
5	Screening	41.7 (27.8)	56.2* (23.7)
6	Documentation	45.2 (26.1)	48.8 (24.1)
7	Intervention Services	57.7 (18.9)	63.2 (15.9)
8	Evaluation Activities	50.3 (33.0)	52.1 (32.7)
9	Collaboration	60.1 (19.1)	66.1 (17.8)
Total weighted mean score		50.6 (14.7)	56.2** (13.1)

* = significant difference between years, $p < .01$

** = significant difference between years, $p < .05$

Table 2: 25th and 50th Percentile Scores by Year of Program Implementation

Domain		Percentile	Year 1	Year 3	Year 5
1	Hospital Policies and Procedures	25th	26	28	49
		50th	39	43	71
2	Hospital Physical Environment	25th	25	32	57
		50th	46	47	63
3	Hospital Cultural Environment	25th	29	33	45
		50th	34	40	66
4	Training of Providers	25th	45	46	56
		50th	71	73	83
5	Screening and Safety Assessment	25th	34	36	38
		50th	46	46	80
6	Documentation	25th	20	30	45
		50th	35	45	60
7	Intervention Services	25th	35	51	60
		50th	60	63	67
8	Evaluation Activities	25th	27	32	30
		50th	44	44	80
9	Collaboration	25th	54	45	72
		50th	61	63	73