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Measuring the Impact of the *Voices of Survivors* Program on Health Care Workers' Attitudes Toward Survivors of Intimate Partner Violence

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BACKGROUND: Most continuing medical education programs on intimate partner violence (IPV) use an expert-driven approach and focus on changing knowledge and screening behaviors. The *Voices of Survivors* program aims to also improve attitudes and empathy.

OBJECTIVES: To test the Attitudes Toward Survivors of IPV (ATSI) survey psychometrically. To assess the effectiveness of the *Voices of Survivors* program in changing health care workers' responsibility to assess for and counsel about IPV, respect for patient autonomy, empathy toward patients in abusive relationships, barriers, confidence, knowledge, and self-reported assessment behaviors.

SETTING: Thirty-one unaffiliated primary care practices in Washington County, Ore.

DESIGN: Comparison of ATSI survey results before and after a two-hour workshop including a 30-minute video and an advocate-led discussion.

PARTICIPANTS: Convenience sample of primary care providers, medical support staff, and other clinic employees.

RESULTS: Two hundred and eighty-four health care workers participated in the training. Two hundred and sixty-seven (94%) completed workshop evaluations and 187 (66%) completed both pre- and postintervention surveys. Cronbach's α for all scales ranged from 0.68 to 0.92. Postintervention, participants' summary scores improved for responsibility to assess for IPV (3.96 vs 3.64; $P < .0001$), respect for patient autonomy (2.78 vs 2.41; $P < .0001$), empathy (3.24 vs 2.99; $P = .002$), confidence (2.33 vs 2.07; $P < .0001$), knowledge (2.08 vs 1.64; $P < .0001$), and self-reported behaviors (3.08 vs 2.53; $P = .0001$). Barriers related to availability of resources and referrals also improved.

CONCLUSIONS: The ATSI scales demonstrated good internal reliability and responsiveness to change in all domains except responsibility to counsel. The *Voices of Survivors* documentary, along with a workshop based on its companion guide, improved clinic employees' knowledge, attitudes, empathy, and self-reported assessment behaviors about IPV.

KEY WORDS: intimate partner violence; continuing medical education; survey instrument; provider attitudes; measurement.

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Intimate partner violence (IPV) is a serious problem in our society. Population-based studies find that 31% of women have experienced IPV within their lifetimes, while studies of health care-seeking populations find prevalence rates from 21% to 55% over a lifetime and from 4% to 44% within the past year.¹ Many studies have noted associations between IPV and mental or physical health problems.²⁻¹⁶ Nonetheless, the literature is filled with studies documenting the gaps in knowl-

edge, skills, attitudes, and behaviors of health care workers regarding IPV and calls for increased education.¹⁷⁻²³

In response to such calls, a number of continued medical education (CME) programs about IPV have been evaluated.²⁴⁻²⁸ Most interventions have used an expert-driven approach focused on increasing knowledge about IPV, improving attitudes toward screening, and increasing screening rates. Qualitative work, however, has found that survivors feel that health care workers often have negative attitudes toward victims, do not show adequate respect toward patient autonomy, and have difficulty empathizing with patients who remain in abusive relationships.²⁹⁻³² Such aspects of clinical competence have rarely been measured when assessing the effectiveness of IPV programs or have not been shown to be responsive to change.²⁵ A few small interventions in medical school settings have incorporated testimony from IPV survivors,³³ but such programs can be hard to generalize to wider audiences owing to the difficulties in preparing and coordinating survivor visits. To address these gaps, we created the *Voices of Survivors* documentary from interviews with IPV survivors in order to provide a practical way of bringing patients' perspectives to busy practitioners.²⁹ We developed the Attitudes Toward Survivors of Intimate Partner Violence (ATSI) survey to measure health care workers' knowledge, sense of responsibility to assess and treat IPV, attitudes regarding patient autonomy, empathy toward patients in abusive relationships, confidence, perceived barriers, and self-reported assessment behaviors. We used these measures before and after an advocate-taught workshop based on the *Voices of Survivors* documentary and companion guide. This paper describes the development of the ATSI survey and its use in evaluating the effectiveness of the *Voices of Survivors* program.

METHODS

Recruitment

We compiled a comprehensive list of primary-care practices in Washington County, Ore ($N=92$). As initial recruitment letters mailed to primary care providers and follow-up phone calls produced no response, our project coordinator personally visited each practice, leaving information about the program or speaking to the office manager, medical director, or other key administrative staff. Each visit was followed by one or more telephone calls, and if necessary, a second in-person visit.

In keeping with the philosophy that system-wide changes and multidisciplinary efforts are needed to improve clinical care, we allowed all types of clinic employees, not just providers, to participate in the trainings. For example, nurses and

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medical assistants can perform important roles in IPV screening and safety planning.^{34,35} Similarly, administrative staff need to be aware of the importance of keeping patient information and appointments confidential from partners and can ensure that IPV-rated materials stay well-stocked and accessible. Moreover, the “culture” of a clinic, especially in smaller practices, is often greatly influenced by nonmedical staff. Because of the heterogeneous nature of the practices, we allowed the office manager or medical director to decide which employees should participate in the training. Administrators based their decisions on their particular clinic’s structure, training needs, and personnel schedules. All participants signed informed consent. The study was approved by the University’s Institutional Review Board.

Training Program

We conducted a 2-hour workshop at each practice based on the *Voices of Survivors* documentary and companion guide.^{29,36} Clinics could choose to do both hours together or on separate days. In the first hour, participants watched the 30-minute educational video and discussed their responses to it. The *Voices of Survivors* documentary is based on interviews with domestic violence survivors focusing on what they wish to teach physicians. Its goal is to allow health care workers to see IPV through the perspective of their patients. The video covers what survivors want health care workers to understand about IPV and what they would want providers to do at different times in their relationships. In the second hour, a domestic violence advocate, trained by the principal investigator, guided a discussion of the clinical aspects of caring for abused patients, including assessment strategies, clinical indicators of IPV, recommended responses to a positive disclosure, available resources, and documentation issues. Clinics were given free resource materials including posters, brochures, and wallet cards and could choose to have an individualized consultation with the project coordinator about ways to improve their domestic violence assessment and response protocols. Physicians and physician assistants received 2 hours of American Medical Association Category 1 Continuing Medical Education Credit.

Survey Instrument

We were unable to find a previously validated instrument that adequately assessed the domains most relevant to our intervention, especially health care workers’ attitudes about IPV. Several instruments have sections on “attitudes,” but items are often limited to attitudes about the importance of IPV or responsibility to address IPV.²⁴ The instrument with the most rigorous psychometric testing³⁷ has a scale called “victim-blame,” which addresses some of the negative attitudes about which we were interested, but prior studies have shown that health care providers score very well on this scale even prior to an intervention and that the scale did not respond to change.²⁵ It is unclear whether the lack of response was because of items that trigger socially desirable responses or an ineffective intervention. We found no instruments that addressed empathy with patients in abusive relationships or attitudes about patient autonomy. Given the limitations of previously validated instruments, we chose to create new measures based on a review of the literature and discussions with other experts in the field. We specifically included sections aimed at uncovering

some of the negative attitudes noted in qualitative studies of survivors.^{29–32} Two authors, as well as two domestic violence advocates, reviewed the survey to ensure that there was consensus on the desired answers to each item. We pilot tested earlier versions of the items with 49 Internal Medicine residents, making adjustments as needed to ensure that the items were easy to understand and had adequate variation in responses to each item.

The final questionnaire, the “Attitudes Towards Survivors of IPV” (ATSI) survey, addressed 8 preidentified domains of IPV-related attitudes and practices: responsibility regarding assessment for IPV, responsibility regarding counseling and management of IPV, attitudes toward patient autonomy, empathy for patients who remain in abusive relationships, barriers to screening, confidence, self-reported screening practices, and knowledge. (See Appendix, available online.)

Part 1 of the survey consisted of items beginning with “A primary care provider’s responsibility includes . . .” Participants were asked to respond using a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Items regarding a primary care providers’ responsibility to assess for IPV in patients presenting for routine health maintenance, injury, and chronic pain and 3 items about appropriate counseling practices were included. To assess for potential social desirability bias, we included an item about “. . . asking about domestic violence at every visit”—which we considered not to be a primary care provider’s responsibility. In order to assess attitudes about patient autonomy, we included the items: “a primary care provider’s responsibility includes making sure a patient gets to a shelter right away if he or she discloses abuse” and “a primary care provider’s responsibility includes telling a patient that he or she must leave their abusive partner.” These two items are reverse scored as they represent a lack of respect for patient autonomy. The item about making sure a patient gets to a shelter right away was also intended to assess unrealistic expectations.

Participants were then asked to “mark how easy or difficult it would be to empathise with each of the following patients’ decision to remain in an abusive relationship.” Participants were given 8 scenarios with varying gender, sexual preference, marital status, income, education, and disability. Response options ranged from 1 = very difficult to 5 = very easy.

A section on self-reported assessment behavior listed different presenting complaints and asked participants how often they had assessed for IPV when seeing patients in the past month with each condition. Again, in order to assess for potential social desirability bias, we purposely included one scenario (coronary artery disease) where we did not feel it was reasonable to always ask about IPV. Responses were rated on a 5-point Likert scale ranging from 1 = “never” to 5 = “always”. Participants were instructed to mark “not applicable” if they do not interview patients or if they have not seen a patient with this condition in the past month.

Additional survey sections addressed barriers to assessing and managing patients with IPV, confidence in clinical skills related to IPV, experience, availability of resources, knowledge, prior IPV training, and demographic characteristics. (See Appendix.) Responses to questions about confidence used a 3-point Likert scale, with 1 = “not confident,” 2 = “somewhat confident,” and 3 = “very confident.” Knowledge questions were in short-answer format. Each was worth 4 points, with predetermined rules for what would constitute a correct or partially correct answer.

Data Collection

Office managers distributed consent forms and preintervention questionnaires to employees they felt should participate in the training. We distributed postintervention questionnaires to all consented participants approximately 1 month after the training and when necessary, followed up with reminder notes, additional copies of the questionnaire, and telephone calls to the practice manager. Participants also completed a short anonymous evaluation form immediately after the second hour of the workshop to determine satisfaction with the documentary and advocate-led discussion.

Data Analysis

We created scale scores for each theoretical domain by summing the scores for items in the domain and dividing by the number of items answered. Scores for the responsibility to assess, responsibility to counsel, controlling attitudes, empathy, barrier, and self-reported assessment behavior scales could range from 1 to 5. Scores for the confidence scale could range from 1 to 3 and scores for the knowledge scale could range from 0 to 4. Questions meant to assess social desirability bias were not included in the summary scores.

Our primary analysis included data from all personnel who completed the pre- and postintervention questionnaires. A secondary analysis excluded administrative personnel ($N=47$) and participants with missing information regarding their professional role ($N=9$). Subgroup analyses separated primary care providers (physicians, nurse practitioners, and physician assistants), other patient care staff (nurses, medical assistants, social workers, community outreach workers, etc.), and administrative staff (office managers, receptionists, billing and file clerks, etc.).

We assessed consistency, a measure of reliability, for each scale using Cronbach's α . We compared pre- and postintervention responses using a two-tailed paired t test. As these measures are new, we assessed changes in responses to individual items and summary scores to better understand the impact of the workshop. We also carried out exploratory factor analyses of items with the same response options. However, these analyses were not helpful owing to their being few items in each analysis, and are not reported here. We include participants even if they did not attend both sessions of the training.

RESULTS

Participants

We identified 92 primary care practices in Washington County, Ore, of which 31 (34%) agreed to participate in the training program. As the management of each clinic could decide who should attend the program, we were not able to accurately ascertain how many health care workers were offered the opportunity to attend. Ultimately, 284 health care workers consented to the study. Two hundred and sixty-seven (94%) completed the workshop evaluation. One hundred and eighty-seven (66%) completed both pre- and postintervention questionnaires, an additional 91 (32%) only completed the preintervention questionnaire, and 6 (2%) only completed the postintervention questionnaire. These analyses use data from the participants who completed both the pre- and postinter-

vention questionnaires. Although we intended to collect postintervention questionnaires 1 month after the training sessions, some participants completed their postintervention questionnaire up to 6 months after the training. Table 1 shows the demographic characteristics of the 187 participants with pre- and postintervention questionnaires. Participants who did not complete both questionnaires were similar in terms of age, gender, medical specialty, prior domestic violence training, and personal experience with domestic violence, but had a higher proportion of primary care providers compared with those completing both questionnaires (36% vs 21%, respectively; $P=.001$).

Workshop Evaluations

Workshop evaluations were very positive. Of the 267 participants who completed the evaluation form, 92% agreed that the video added to their understanding and 94% agreed they learned new practical skills, the trainer facilitated their learning, and they would recommend this training to a colleague or friend. Approximately half (57%) rated the duration of the training as optimal while 37% rated it as too short and 6% as too long. Almost all (96%) gave the training an overall rating of "excellent" or "outstanding."

Psychometric Testing of the ATSI Survey

All 8 scales in the ATSI had fair-to-excellent internal reliability that did not differ substantially between pre- and postintervention responses (Table 2). All scales, other than responsibility to counsel, were responsive to change (Table 3).

Table 1. Demographic Characteristics

| | |
|---|----------|
| Professional role* | |
| Primary care providers | 37 (21%) |
| Medical support staff | 81 (46%) |
| Other patient care employees | 13 (7%) |
| Administrative staff | 47 (26%) |
| Medical specialty (providers only) | |
| Family Practice | 14 (36%) |
| Internal Medicine | 14 (36%) |
| Obstetrics/Gynecology | 8 (21%) |
| Other | 1 (3%) |
| Male gender† | 16 (9%) |
| Age (y): | |
| <25 | 22 (12%) |
| 25–39 | 77 (42%) |
| 40–49 | 50 (27%) |
| 50–59 | 29 (16%) |
| ≥60 | 5 (3%) |
| Prior DV training‡ | 79 (60%) |
| Self, family member or close friend with history of DV‡ | 89 (59%) |

*Primary care providers include 24 physicians, 9 nurse practitioners, 3 physician assistants, and 1 midwife; medical support staff include nurses, medical assistants, and technicians; other patient care employees include social workers and community outreach workers; and administrative staff include clinic managers, receptionists, records clerks, and billing clerks.

†Twelve of the 24 (50%) physicians were male.

‡Only 131 and 152 participants responded to questions about prior DV training or personal experience with DV, respectively. DV, domestic violence.

Table 2. Internal Consistency of the Attitudes Towards Survivors of IPV Scales

| Domain | Cronbach's α | |
|--|---------------------|------------------|
| | Preintervention | Postintervention |
| Responsibility to assess for IPV | 0.73 | 0.71 |
| Responsibility to counsel regarding IPV | 0.68 | 0.69 |
| Respect for autonomy | 0.70 | 0.75 |
| Empathy with patients in abusive relationships | 0.89 | 0.93 |
| Barriers to assessing or treating IPV | 0.79 | 0.77 |
| Confidence | 0.82 | 0.80 |
| Self-reported assessment behavior | 0.92 | 0.90 |
| Knowledge | 0.83 | 0.88 |

IPV, intimate partner violence.

Changes in Knowledge, Attitudes, and Self-Reported Assessment Behavior

Table 3 shows the results of our primary analysis comparing the pre- and postintervention survey responses of all participants who completed both surveys ($N=187$). There was a statistically significant improvement in all questions related to responsibility to assess for IPV, respect for patient autonomy, empathy, confidence, and knowledge, as well as in all questions about self-reported assessment practices except for the question on screening during prenatal visits. However, only 27 participants responded to that question, as the remainder did not perform prenatal care. There was also a significant improvement in each of the corresponding summary scores. There was no improvement on questions related to responsibility to counsel, but preintervention scores on these 3 questions were considerably higher than on other items. Although the barriers scale score showed improvement, the only items that showed a significant change were related to the availability of resources and referrals for patients who disclose abuse. A secondary analysis including only staff with direct patient care responsibilities yielded similar results. (Data not shown.) Results of subgroup analyses are shown in Table 4. As in the other analyses, none of the groups showed improvement in responsibility to counsel scores. Providers showed significant improvements on all other scales except for empathy. Other patient care staff showed significant improvements on all other scales except for barriers. Questions related to confidence, barriers, and self-reported assessment behavior were not applicable to administrative staff. Administrative staff showed significant improvements on the scales addressing responsibility to assess, respect for patient autonomy, and knowledge, and a trend toward improved scores on the empathy scale.

DISCUSSION

Our study found that a 2-hour CME program, based on the *Voices of Survivors* documentary and companion guide, improved clinic employees' sense of responsibility to assess for IPV, respect for patient autonomy, empathy with patients in abusive relationships, confidence in clinical skills related to IPV, knowledge, and self-reported assessment behaviors. Additionally, almost all participants rated the program highly and would recommend it to colleagues. There was no signifi-

cant change in participants' sense of responsibility to counsel about IPV when a patient discloses such information, but preintervention scores on those items were already very high, potentially producing a ceiling effect. The finding that there was a reduction in perceived barriers only on items related to the availability of resources and referrals is consistent with the fact that these were the only barriers our program directly addressed.

Although subanalyses based on participants' professional role are limited because of a small sample size, they offer additional insights into differences in health care workers' needs and the effectiveness of the intervention in various types of clinic employees. At baseline, providers had higher empathy scores than other employees. It is possible that higher empathy scores were related to providers' greater understanding of the complexities that patients face in trying to leave an abusive relationship. After the intervention, empathy scores of other clinical personnel improved significantly, but they only reached the level that providers had before the intervention. There was no significant improvement in providers' empathy scores. It is unclear whether this lack of improvement was because of insufficient power owing to small sample size or whether a different intervention is needed to further improve empathy scores.

Because of limitations with other measures, we created a new measure that specifically included sections on respect for patient autonomy and empathy with patients in abusive relationships, as well as scales regarding knowledge, responsibility to assess for and counsel about IPV, confidence, barriers, and screening behaviors. The ATSI scales have face validity and good internal reliability. Moreover, the scales are responsive to change in all areas except responsibility to counsel about IPV. Before the intervention, most participants felt that providers had a responsibility to counsel about IPV if a patient disclosed abuse, limiting that particular scale's utility. However, we would recommend retaining those items, or potentially substituting other similar items to make it harder for participants to recognize items measuring lack of respect for patient autonomy. Participants' improvement only on items regarding the barriers that were addressed by the intervention adds additional support for the validity of the instrument. Studies are needed to further evaluate reliability and validity and refine these scales.

Our study has several important limitations. First, it is possible that our sample had significant selection bias. We were only able to recruit 34% of eligible primary care practices to the intervention. It is possible that the intervention would have been less effective with employees of practices not choosing to participate. However, in most cases, administrative personnel, not individual health care workers, decided whether or not the practice would participate in the program. Owing to the complexities of scheduling trainings in busy primary care practices, we allowed administrators to determine which personnel would attend the trainings. We could not determine how many employees from each practice were offered the opportunity to participate and whether participants differed significantly from other employees. Second, only 70 of 284 participants were providers. Although we do not know the total number of eligible employees, it is probable that providers were less likely than other staff to participate. Providers were less likely than other participants to complete the follow-up questionnaire, leaving only 37 providers in our final sample.

Table 3. Survey Results Pre and Postintervention

| | Preintervention | Post intervention | Difference | P Value |
|--|-----------------|-------------------|------------|---------|
| Responsibility to assess for IPV* | | | | |
| Primary care providers are asked to do increasingly more for patients in increasingly less time. For each of the statements below please mark your level of agreement regarding what should be expected of a primary care provider | | | | |
| A primary care provider's responsibility includes: | | | | |
| Screening female patients for DV at every routine health maintenance visit | 3.68 | 3.98 | 0.29 | .0003 |
| Asking all patients with chronic pain about the possibility of DV | 3.58 | 4.00 | 0.42 | <.0001 |
| Asking about DV any time an injury is noticed, regardless of the stated cause | 3.66 | 3.93 | 0.27 | .0008 |
| Asking about DV at every visit. [#] (Social desirability) | 2.47 | 2.85 | 0.37 | <.0001 |
| <i>Responsibility to assess scale</i> | 3.64 | 3.96 | 0.33 | <.0001 |
| Responsibility to counsel about IPV* | | | | |
| A primary care provider's responsibility includes: | | | | |
| Telling a patient that an abusive partner's behavior is not acceptable | 4.45 | 4.41 | -0.04 | .52 |
| Telling a patient that a particular relationship is harmful to his or her health | 4.09 | 4.15 | 0.05 | .35 |
| Following up with a patient after making a referral to a DV agency | 4.16 | 4.10 | 0.06 | .42 |
| <i>Responsibility to counsel scale</i> | 4.23 | 4.22 | -0.01 | .87 |
| Respect for patient autonomy[†] | | | | |
| A primary care provider's responsibility includes: | | | | |
| Making sure a patient gets to a shelter right away if he or she discloses abuse | 2.34 | 2.74 | 0.40 | <.0001 |
| Telling a patient he or she needs to leave an abusive relationship | 2.48 | 2.83 | 0.35 | <.0001 |
| <i>Respect for autonomy scale</i> | 2.41 | 2.78 | 0.36 | <.0001 |
| Empathy with patients' choices[‡] | | | | |
| Health care providers find it easier to empathize with some people's choices than others. Imagine your patient is choosing to remain in an abusive relationship. For each of the patient types listed below, please mark how easy or difficult it is for you to empathize with their decision to remain in the abusive relationship: | | | | |
| An uneducated, low-income woman who is financially reliant on her partner | 3.41 | 3.61 | 0.20 | .04 |
| An educated middle-class mother of 2 | 2.92 | 3.16 | 0.24 | .02 |
| A single professional who has a thriving career | 2.43 | 2.73 | 0.30 | .01 |
| An educated gay male | 2.60 | 2.94 | 0.34 | .0007 |
| A woman with severe depression | 3.24 | 3.54 | 0.30 | .003 |
| A heterosexual married man with a steady income | 2.60 | 2.87 | 0.27 | .007 |
| A woman with severe physical disabilities | 3.42 | 3.61 | 0.19 | .07 |
| A man with severe physical disabilities | 3.38 | 3.62 | 0.24 | .02 |
| <i>Empathy scale</i> | 2.99 | 3.24 | 0.25 | .002 |
| Barriers[†] | | | | |
| Primary care providers face numerous barriers when it comes to screening for and treating DV. Please mark your level of agreement with each of the following statements: | | | | |
| I do not have enough time to ask about DV | 3.42 | 3.55 | 0.13 | .17 |
| I am afraid of offending the patient if I ask about DV | 3.38 | 3.54 | 0.15 | .10 |
| I find it difficult to get the patient alone if he or she is accompanied by a partner | 2.88 | 3.03 | 0.14 | .16 |
| I am afraid that a positive disclosure will take up too much of my time | 3.63 | 3.71 | 0.09 | .34 |
| I don't feel like I can help a patient who is in an abusive relationship | 4.05 | 4.04 | -0.01 | .94 |
| I feel patients who are being abused are unlikely to change their situation | 3.58 | 3.59 | 0.01 | .94 |
| I feel like I have wasted my time if I make an effort to help an abuse victim but he or she stays in the relationship | 4.02 | 4.01 | -0.01 | .93 |
| I don't have the resources to deal with a patient who discloses abuse | 3.77 | 4.03 | 0.26 | .01 |
| I have no place to refer patients who disclose abuse | 3.85 | 4.21 | 0.36 | .0004 |
| I am more interested in dealing with my patients' medical problems than their relationships | 3.88 | 3.90 | 0.01 | .86 |
| <i>Barriers scale</i> | 3.63 | 3.75 | 0.12 | .03 |
| Confidence[§] | | | | |
| If you interview patients, please indicate how confident you are in your ability to screen, diagnose, respond, refer, and document DV. If you do not interview patients please skip to the next section. | | | | |
| Screen for DV | 1.92 | 2.35 | 0.43 | <.0001 |
| Diagnose abuse as a cause of other medical problems | 1.72 | 1.91 | 0.20 | .02 |
| Respond effectively to a patient who discloses that he or she is experiencing DV | 2.28 | 2.47 | 0.19 | .02 |
| Make appropriate referrals to DV agencies at my institution and in the community | 2.22 | 2.53 | 0.31 | .0004 |
| Provide documentation about DV in a patient's records | 2.22 | 2.40 | 0.18 | .04 |
| <i>Confidence scale</i> | 2.07 | 2.33 | 0.26 | <.0001 |
| Self-reported assessment behavior | | | | |
| Please indicate how often you have asked a patient about the possibility of DV when you saw any of the following conditions in the last month? | | | | |
| If you have not seen this condition in the past month, mark N/A. | | | | |
| Please skip to the next section if you do not interview patients. | | | | |
| Injuries (bruises, lacerations, etc.) | 3.00 | 3.41 | 0.41 | .02 |
| Chronic pelvic pain | 2.34 | 2.91 | 0.57 | .008 |
| Irritable bowel syndrome | 2.04 | 2.47 | 0.43 | .02 |
| Headaches | 2.07 | 2.59 | 0.53 | .002 |
| Depression/anxiety | 2.71 | 3.26 | 0.55 | .002 |

Table 3 (continued)

| | Preintervention | Post intervention | Difference | P Value |
|--|-----------------|-------------------|------------|---------|
| Coronary artery disease [#] (social desirability) | 1.59 | 2.05 | 0.46 | .02 |
| Routine health maintenance exam | 2.62 | 3.31 | 0.69 | .0009 |
| Prenatal care | 3.32 | 3.54 | 0.21 | .41 |
| Self-reported assessment behavior scale | 2.53 | 3.08 | 0.55 | .0001 |
| Knowledge[†] | | | | |
| What question would you ask to screen for DV? | 0.48 | 0.83 | 0.35 | .0001 |
| List 4 reasons you may have an increased suspicion about the presence of DV | 1.92 | 2.29 | 0.37 | .002 |
| List 4 ways a batterer may control his or her partner | 2.08 | 2.57 | 0.49 | .001 |
| List 4 ways you can help a patient who has just disclosed to you that she is being abused | 1.91 | 2.36 | 0.45 | .0006 |
| List 4 pieces of information that should be documented in the medical records for a patient who is experiencing DV | 1.82 | 2.36 | 0.54 | .0002 |
| Knowledge scale | 1.64 | 2.08 | 0.44 | <.0001 |

*Items are on a 5-point Likert scale: 1 =strongly disagree to 5 =strongly agree.

†Items are reverse scored on a 5-point Likert scale: 1 =strongly agree to 5 =strongly disagree.

‡Items are on a 5-point Likert scale: 1 =very difficult to 5 =very easy.

§Items are on a 3-point Likert scale: 1 =not confident to 3 =very confident.

¶Items are scored from 0 to 4.

|| Items are on a 5-point Likert scale: 1 =never to 5 =always.

#Social desirability items are not included in summary scores

Summary scores for each scale are scored by summing the items and dividing by the number of items answered. DV, domestic violence.

Half of the participating physicians and 9% of the total sample were male. These proportions appear to be similar to the proportion of men working in primary care practices, but it is likely that men were underrepresented in the sample. Other recruitment efforts or other forms of training may be necessary in order to change the attitudes and practices of male health care workers and less-interested providers. Still, to our knowledge, our study is the largest example of a continuing medical education project on IPV that systematically recruited health care workers from unaffiliated primary care practices. The only other IPV CME project conducted outside of a single health system or network listing recruitment statistics included only 6% of eligible participants.²⁸ Third, our study was a before-and-after intervention study and not a randomized-controlled trial of the intervention. Finally, we only assessed self-reported behaviors and did not include patient surveys or chart reviews owing to resource limitation. There are many potential factors that can attenuate the association between self-reported be-

havior and actual behavior.³⁸ We do not know whether changes in participants' attitudes translated into changes in behaviors.

Despite these limitations, our study has several important implications. First, the *Voices of Survivors* documentary and companion guide offer a practical, survivor-informed method to change the knowledge, attitudes, and self-reported behaviors of primary care clinic employees regarding IPV. Second, our new measure, the ATSI scales, allows researchers to measure important aspects of health care workers' attitudes and empathy not previously assessed by other provider surveys. Future studies need to validate the ATSI scales, assess the program's effectiveness with learners in settings such as medical and nursing schools, explore how to improve recruitment efforts with men and providers less willing to attend IPV workshops, and most importantly, to evaluate the program's effectiveness in changing actual behaviors via patient surveys or chart reviews.

Table 4. Pre and Postintervention Results by Participants' Professional Role

| Scale | Providers (N=37) | | | Other Patient Care Staff (N=94) | | | Administrative Staff (N=47) | | |
|----------------------------------|------------------|------|---------|---------------------------------|------|---------|-----------------------------|------|---------|
| | Pre | Post | P Value | Pre | Post | P Value | Pre | Post | P Value |
| Responsibility to assess | 3.68 | 4.15 | .0002 | 3.63 | 3.88 | .002 | 3.62 | 3.99 | .005 |
| Responsibility to counsel | 4.13 | 4.14 | .9 | 4.22 | 4.25 | .7 | 4.32 | 4.22 | .2 |
| Respect for patient autonomy | 2.28 | 3.24 | .01 | 2.32 | 2.58 | .002 | 2.29 | 2.82 | .0008 |
| Empathy | 3.20 | 3.28 | .6 | 2.89 | 3.18 | .009 | 3.04 | 3.36 | .07 |
| Confidence* | 1.95 | 2.35 | .0000 | 2.16 | 2.31 | .048 | N/A | N/A | N/A |
| Barriers* | 3.50 | 3.79 | .002 | 3.68 | 3.72 | .6 | N/A | N/A | N/A |
| Knowledge | 2.45 | 2.87 | .05 | 1.55 | 1.99 | .007 | 1.22 | 1.68 | .01 |
| Assessment behavior [†] | 2.61 | 3.20 | .001 | 2.48 | 2.98 | .04 | N/A | N/A | N/A |

*Confidence and barrier items were pertinent only to staff with direct patient care.

†Participants were asked only to respond to items about their self-reported assessment behavior if they interview patients and if they had seen the condition within the past month. All providers responded to at least some assessment behavior items. 29 other participants involved in patient care responded to at least some items. Only 4 participants classifying themselves as administrative staff responded to any of those items. N/A, not applicable.

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Supplementary Material

The following supplementary material is available for this article online:

Appendix. Attitudes Towards Survivors of Intimate Partner Violence.