

RESEARCH ARTICLE

OSTEOPATHIC STUDENT TRAINING ON PREVENTING DOMESTIC VIOLENCE

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Education

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Medical education

Abstract

Introduction: Domestic violence is a serious and preventable public health issue. Student Training on Preventing Domestic Violence (STOP-DV) is an extracurricular program that educates medical students on domestic violence. This study sought to determine if STOP-DV is an effective method to increase the knowledge of domestic violence among medical students.

Methods: This study utilized a quasi-experimental research approach. Participants were recruited through a convenience sample of first- and second-year medical students from an osteopathic medical school with three campuses. The intervention group included the campus where STOP-DV was implemented and was then compared to the control group (the other two campuses) without the program. Intervention and control groups were given the same pre-survey and post-survey to assess for baseline knowledge, awareness, self-efficacy and health-seeking behaviors. Bivariate and multivariate statistical analysis of matched pre-surveys and post-surveys was completed during the 2018 and 2019 school year.

Results: Medical students in the intervention group (n=100) showed a statistically significant increase in self-efficacy and in the ability to recognize domestic violence in patients ($p<0.001$) and to discuss domestic violence with patients ($p=0.004$) compared to the control group (n=47). Based upon general linear regression analysis, survey stage significantly contributed to participants self-efficacy and domestic violence knowledge in both cohorts. Additionally, intervention group significantly contributed to participants' medical domestic violence knowledge.

Conclusions: This study was successful in implementing a domestic violence program and increasing awareness in medical students. The ultimate goal is to encourage schools to utilize a similar program to understand how domestic violence affects patients and their communities.

INTRODUCTION

Domestic violence (DV) is abuse to any member of a household and can include intimate partner violence, child abuse and elder abuse.¹ It encompasses multiple capacities of abuse, including physical, emotional, sexual, digital and financial, along

with sexual/reproductive coercion.² In cases of physical abuse, only 34% of survivors injured by intimate partners receive medical care.³ Survivors of DV may face several barriers when trying to access healthcare services, including personal factors, such as willingness to disclose the event; perception of safety; consequences of disclosure, such as increased abuse; and fear of losing children.⁴⁻⁷ Survivors attribute difficulties at a healthcare level to inappropriate responses by healthcare professionals, perceived barriers to disclosing DV, absence of relationship with the healthcare provider and a lack of confidence in the outcomes of disclosure.^{4,5,8-13} These barriers continue to persist despite improved policies and regulations within healthcare settings.⁶

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Medical students, physicians and allied healthcare professionals need more training in DV and proper healthcare protocols to increase their knowledge to effectively help survivors of DV.¹³⁻¹⁶ One study revealed the most important responsibility of healthcare professionals is identifying abuse, assessing safety and offering empathy, acknowledgement and support to survivors.¹⁷ Several studies suggest that providing violence education to health professionals could increase the likelihood of reporting abuse.¹⁸⁻²⁰ This DV education includes screening tools, learning signs and symptoms suggestive of abuse, discussing interview strategies and providing resources with a safety plan for survivors.¹⁷

Students report barriers to identifying DV, such as a low index of suspicion, perceived need for certainty of the abuse, fear of incorrect diagnosis, the impact of report on physician-patient/parent relationship and perceived low incidence.²¹⁻²³ One study implemented a DV advocacy program at a women's shelter trained by undergraduate students.²⁴ DV survivors found community-based interventions effective in acquiring and utilizing local resources, such as housing, education, transportation, employment and healthcare information.²⁴ Furthermore, this study supported that comprehensive programs can change the behavior-seeking pattern of DV survivors to increase seeking resources on their behalf.²⁴

This study aimed to create an open educational space for medical students to acquire knowledge and awareness of general and healthcare-related DV issues. It assessed whether exposure to DV education through a program called Student Training on Preventing Domestic Violence (STOP-DV) raised significant knowledge and awareness of DV among medical students.

METHODS

Study design

This study utilized a quasi-experimental study design conducted at the Edward Via College of Osteopathic Medicine (VCOM), across the Blacksburg, Virginia; Spartanburg, South Carolina; and Auburn, Alabama campuses. The study was approved as exempt by the Edward Via College of Osteopathic Medicine Institutional Review Board.

PARTICIPANTS

All currently enrolled first- and second-year medical students at a VCOM campus during the 2018 and 2019 academic year were eligible to participate in the study. Students were non-randomly assigned to the intervention (Carolinas campus) and control (Auburn campus and Virginia campus) groups. The intervention group was subcategorized into two groups: "attendees" and "exposed." Attendees were defined as VCOM-Carolinas students who self-reported attending at least one STOP-DV event, while exposed were defined as VCOM-Carolinas students who did not participate in STOP-DV events but were on campus during its implementation.

STOP-DV

STOP-DV was a voluntary extracurricular course provided to students after lecture hours from January to April within each academic year of 2018 and 2019. The course consisted of a speaker addressing attending students of the intervention group once a month on a topic about DV. Speakers varied from physicians, counselors, lawyers and program developers; event format differed by lecture and participation. STOP-DV events included hearing from a child abuse pediatrician; working with a local organization that assists with teen pregnancy and education; a program dedicated to ending human trafficking and sexual exploitation in upstate South Carolina; viewing a Med Talk with written reflection about adverse childhood experiences; participation in the Child Protection Training Center at The University of South Carolina Upstate; and a discussion with a sexual assault nurse examiner.

Before the start of STOP-DV, intervention and control groups were provided with a pre-survey consisting of 59 questions to record baseline demographics, self-efficacy, DV resources, knowledge and awareness. The survey had a variety of question formats, including true/false, multiple choice and categorical. It was adapted and modified from the Suicide Prevention Exposure, Awareness and Knowledge Survey (SPEAKS).²⁵ SPEAKS is used for assessing knowledge, awareness and perception of suicide on college campuses, specifically around prevention activities; perception of stigma surrounding mental health issues and seeking services for support; and myths and facts surrounding suicide, along with knowledge of resources for individuals in distress. SPEAKS was modified from suicide to DV with minor other additions, such as STOP-DV events, comments and DV counselor and contact information. To the best of our knowledge, this is the first application of SPEAKS to assess DV. However, due to the similar sensitive nature, stigma surrounding the topic, lack of public awareness and knowledge, and associated risk factors of DV and suicide, the SPEAKS survey was an appropriate tool.²⁶⁻²⁸ Surveys were emailed on a secure server and responses were documented after obtaining free and informed consent. The appendix includes a full copy of the survey.

Over the course of 5 months, intervention participants had the opportunity to attend 1 of 5 STOP-DV events; the control group had no events. Upon completion of STOP-DV events, a post-survey, consisting of 72 questions was sent to both groups. The surveys would then be analyzed for significant outcomes. The increased question total of the post-survey accounted for questions evaluating event participation and event satisfaction.

Analyses

Descriptive statistical analysis and general linear regression analysis were performed to assess for significant ($p \leq 0.05$) differences between control versus intervention groups and attended versus exposed groups. Pre-surveys and post-surveys had to be at least 50% completed to be included in statistical analysis. Each participant's pre-survey was matched to the same participant's post-survey through a random 4-digit code assigned

during analysis. Variables of analysis included demographics, self-efficacy, knowledge and awareness of DV resources, general DV knowledge and medical DV knowledge.

RESULTS

Participants

Similar demographics were found between control and intervention groups and exposed and attendees. In 2018, 46 students completed both the pre- and post-surveys (22 of the intervention group with 4 as attendees and 24 of the control group); in 2019, 101 students completed the pre- and post-surveys (78 of the intervention group with 76 as attendees and 23 of the control group). Analysis of 147 matched surveys was completed over a span of 2 years (47 control and 100 intervention). The subdivisions were further divided into 80 participants who attended STOP-DV

and 18 participants who were exposed on campus. The average survey response rate was 25% for the pre-survey and 13% for the post-survey. From year 1 to 2, there was a 4- and 19-fold increase in matched surveys for intervention and attendees, respectively. The study population's majority included females (70%), expected graduates of 2022 (51%), age 20–25 years old (74%), and white (77%). Similar demographics were seen within the exposed and attended groups. A significant difference ($p \leq 0.05$), regarding graduation year and survey year, existed between intervention and control groups as well as exposed and attended ($p < 0.0001$).

An average of 77.5% of participants reported having prior healthcare work experience. An average of 43.5% reported witnessing a patient affected by DV, 44% knew of a DV protocol and 37% were provided with DV training. Only 38.5% of participants felt very confident or confident carrying out DV protocol in their settings.

TABLE 1:

Participant Demographics.

		CONTROL (N=47)	INTERVENTION (N=100)	TOTAL (N=147)	p-value	EXPOSED (N=18)	ATTENDEE (N=80)	TOTAL (N=98)	p-value
		Frequency (%)	Frequency (%)	Frequency (%)		Frequency (%)	Frequency (%)		
Graduation Year					0.0061*				0.0001*
	2020	4 (8)	11 (11)	15 (10)		8 (44)	2 (2)	10 (10)	
	2021	27 (57)	30 (30)	57 (39)		10 (56)	19 (24)	29 (30)	
	2022	16 (34)	59 (59)	75 (51)		0 (0)	59 (74)	59 (60)	
Gender					0.2361				0.4073
	Male	11 (23)	33 (33)	44 (30)			4 (22)	28 (35)	32 (33)
	Female	36 (77)	67 (67)	103 (70)		14 (78)	52 (65)	66 (67)	
Age					1				0.4117
	20–25	35 (74)	74 (74)	109 (74)		12 (67)	60 (75)	72 (73)	
	26–30	12 (26)	24 (24)	36 (24)		5 (28)	19 (24)	24 (24)	
	>30	0 (0)	2 (2)	2 (1)		1 (6)	1 (1)	2 (2)	
Race					0.598				1
	Asian	8 (17)	13 (13)	21 (14)		1 (6)	11 (14)	12 (12)	
	Black	1 (2)	4 (4)	5 (3)		0	4 (5)	4 (4)	
	White	35 (74)	78 (78)	113 (77)		17 (94)	60 (75)	77 (79)	
	Mixed	2 (4)	4 (4)	6 (4)		0	4 (5)	4 (4)	
	Other	0	1 (1)	1 (<1)		0	1 (1)	1 (1)	
Survey Year					0.0004*				0.0001*
	2018	24 (51)	22 (22)	46 (31)		16 (89)	4 (5)	20 (20) [†]	
	2019	23 (49)	78 (78)	101 (69)		2 (11)	76 (95)	78 (80)	

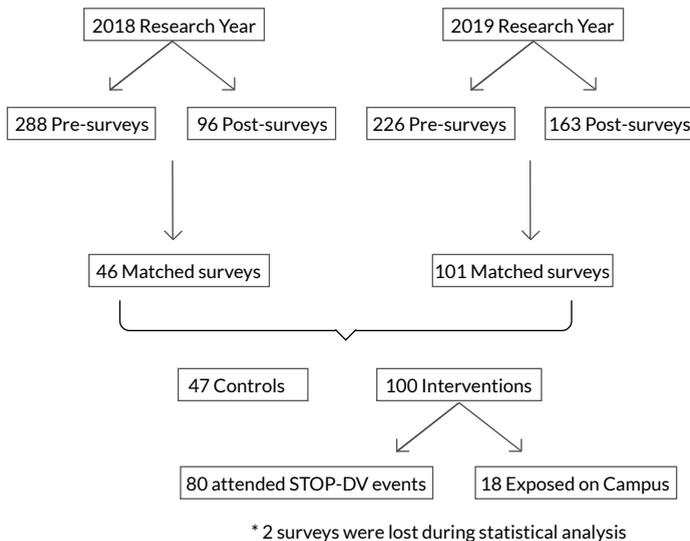
Chi-square and Fisher's Exact test analyzed the differences between intervention and control groups.

*Statistically significant p-value (≤ 0.05)

[†]Two participants are missing from data collection

FIGURE 1:

Subjective reporting of overall improvement in sinus symptoms with OMT



Self-efficacy

Self-efficacy was defined as a confidence level to which participants identified to a given question or scenario. There was no statistical difference ($p>0.05$) regarding self-efficacy questions in the pre-survey between the intervention and control groups. The post-survey results showed a statistically significant increase in the intervention compared to the control in the ability to recognize DV in patients ($p<0.001$) and to discuss DV with patients ($p=0.004$). No significant difference ($p=0.3$) was found between the control and intervention in the ability to refer DV patients to resources.

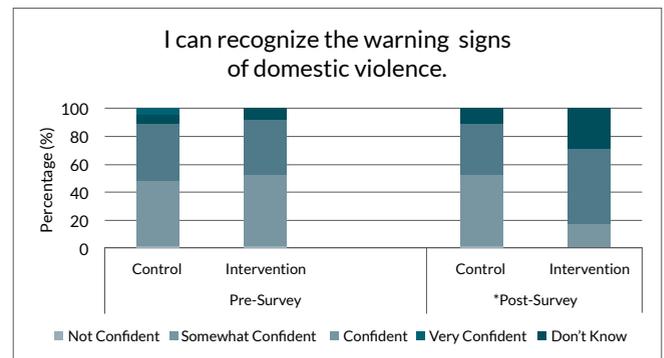
Further analysis of self-efficacy between exposed and attended showed no significance ($p>0.05$) in pre-surveys about recognition of DV warning signs and referral of patients at risk for DV. Statistical difference ($p=0.040$) of the pre-survey was of questions asking if someone was exhibiting DV warning signs and asking if they were in an abusive relationship. In the post-survey, the self-efficacy of the ability to recognize DV warning signs in patients increased with significance ($p=0.004$) in the attendees compared to the exposed. No significant difference was found between exposed and attended in the post-survey questions asking if someone was in an abusive relationship and if they would connect/refer to DV resources.

Knowledge and awareness

The pre-survey had no significant difference in knowledge of local DV resources for the control or intervention group. The post-survey showed a significant difference ($p=0.012$) in knowledge of local DV resources. The intervention group increased by 7%, while control decreased by 7%. In the attended and exposed groups, there was no statistical significance ($p>0.05$) found during the pre-survey in the knowledge of local DV resources. However, those who attended STOP-DV events showed a significant difference ($p=0.029$) in the knowledge of local DV resources.

FIGURE 2:

Participants' confidence level for the survey question "I can recognize the warning signs of domestic violence."



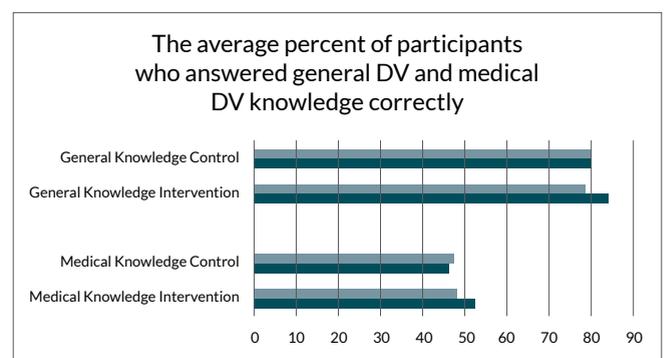
*Post survey statistically significant, $p<0.0001$

Assessment of general DV knowledge contained 17 questions. The control group averaged 80% correct in the pre-survey and 80% correct in the post-survey. While the intervention group initially averaged 79% correct in the pre-survey, they improved to an average of 84% correct in the post-survey. While there was no significant difference in the overall score among both the intervention and control groups, two post-survey questions were significant ($p<0.05$): the false statements that DV causes minimal economic impact and police intervention is recommended in most DV situations. Exposed and attendees increased their averages from pre-survey to post-survey. The exposed increased by 3.7% and attendees increased by 6.7%. The exposed had higher averages in both pre-survey and post-survey compared to the attendees.

Sixteen questions were specific for medical DV knowledge. The control group averaged 48% correct in the pre-survey and 46% correct in the post-survey. While the intervention group initially averaged 48% correct in the pre-survey, they improved to an average of 52% correct in the post-survey. Four medical DV post-survey questions were significant. The exposed group increased their average by 0.48% correct from pre-survey to post-survey and had higher scores compared to attendees. The attendees showed a 6.8% average increase.

FIGURE 3:

The average percent of participants who answered a series of 16-17 questions related to general and medical DV knowledge correctly.



Multiple regression results

General linear regression analysis for self-efficacy, general DV knowledge and medical DV knowledge used the following predictors: intervention groups (intervention vs. control or exposed vs. attendee), survey stage (pre-survey vs. post-survey) and the interaction term of the intervention group and survey stage.

Within the self-efficacy model—the intervention cohort including students only from the Carolinas campus—the survey stage significantly contributed to participants' self-efficacy ($p=0.0104$). Within the exposed group, the effect of the intervention on participants' self-efficacy was 0.22. Within the attendee group, the effect of the intervention on participants' self-efficacy was 0.97. For the cohort including students from all 3 campuses, the intervention group and survey stage significantly contributed to participants' self-efficacy ($p<0.05$). Within the control group, the effect of the intervention on participants' self-efficacy was 0.064. Within the intervention group, the effect of the intervention on participants' self-efficacy was 1.31.

Within the general DV knowledge model using the cohort with students only from Carolinas campus, the survey stage significantly contributed to participants' general DV knowledge ($p=0.0046$). Within the exposed group, the effect of the intervention on participants' general DV knowledge was 1.05. Within attendees, the effect of the intervention on participants' general DV knowledge was 0.67. For the cohort including students from all three campuses, the survey stage significantly contributed to participants' general DV knowledge ($p=0.0098$). Within the control group, the effect of the intervention on participants' general DV knowledge was 0.40. Within the intervention group, the effect of the intervention on participants' general DV knowledge was 1.17.

Within the medical DV knowledge model using the cohort with students only from Carolinas campus, the treatment group and survey stage both significantly contributed to participants' medical DV knowledge ($p<0.0001$). Within the exposed group, the effect of the intervention on participants' medical DV knowledge was 2.72. Within attendees, the effect of the intervention on participants' medical DV knowledge was 5.79. For the cohort including students from all 3 campuses, the treatment group and survey stage both significantly contributed to participants' medical DV knowledge ($p<0.0001$). Within the control group, the effect of the intervention on participants' medical DV knowledge was 1.53. Within the intervention group, the effect of the intervention on participants' medical DV knowledge was 3.52.

DISCUSSION

The STOP-DV program is an innovative and educational program aimed to increase DV education in medical students. STOP-DV has continued to grow in interest and support from the medical student body. The results of this study indicate that STOP-DV was successful in its goals of increasing self-efficacy, knowledge and awareness of DV resources, general DV knowledge and medical topics in medical students. Similar studies showed the integration of a DV curriculum helped improve self-efficacy and knowledge.²⁹

In addition, this curriculum, along with other DV curriculums within medical training, received positive feedback about its benefit to future care.^{30,31}

The World Health Organization states that survivors of interpersonal violence and DV require services from many different sectors, including health care, to fulfill their needs and that the best way to improve service response to these survivors is to provide education/training and reform throughout all these institutions.¹ STOP-DV, on a smaller scale, provides building blocks to ensure survivors are getting the care they need and deserve from future healthcare providers.

One of the main barriers to physicians not discussing DV with patients is the physicians' lack of self-efficacy.^{32,16} The intervention group showed a significant increase in self-efficacy at the end of the program compared to the control group. Within the intervention group, those who attended STOP-DV had a significantly higher increase in self-efficacy compared to those who were exposed. The data supports having the STOP-DV program on the campus. Regardless of whether students attended STOP-DV events, their DV self-efficacy increased. We suspect this relates to increased DV discussions, flyers and increased materials present on campus. If medical students become more confident and efficient in discussing DV with their peers, patients and attending physicians, both personal and perceived patient barriers may be reduced surrounding DV.¹⁶

Studies have shown survivors of DV support training of medical students in DV, with an emphasis on being trained to listen.³³ It has been suggested by other studies and academic leadership for schools to include DV training multiple times in standard curriculum through a student's academic career.²⁹ This study implemented the STOP-DV program was a step toward achieving that goal.

The philosophy of osteopathic medicine is built upon tenets. Two of these core tenets are that a person is a unit of body, mind and spirit and that the body is capable of self-healing. These 2 tenets are vital to osteopathic medicine and are also reflected in the aims of STOP-DV. This program provides the foundation to educate future physicians about domestic violence with the impactful aim to help those at risk. When healthcare providers integrate these practices, it reinforces the concepts osteopathic medicine were initially built upon. Survivors of domestic violence may initially present with physical symptoms; however, their mind and spirit are also equally affected. One key pillar of the STOP-DV curriculum was to go beyond just identifying domestic violence by providing patients with supportive resources.¹⁶ Through the STOP-DV program, future physicians have increased awareness and confidence to approach a patient population present in every community.

CONCLUSION

Overall, the STOP-DV program suggested an increase of DV self-efficacy, DV awareness of resources, and knowledge based on general and medical concepts within the intervention group. STOP-DV was well received by medical students, and we hope

future groups will continue to expand the program to positively impact more healthcare providers. Based on the data and overall success of this program, we would recommend implementing STOP-DV at medical schools. In addition, continued research is needed to develop a STOP-DV model other healthcare professional schools can utilize. If 1 DV survivor is discovered and receives the necessary resources and health care due to STOP-DV, this research team will consider this program a success.

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APPENDIX :

1. Have you been exposed to any materials on your campus related to domestic violence (eg, brochures, posters, videos, radio messages, orientation materials, etc.)?

- 1. Yes
- 2. No
- 3. Don't know

1A. If yes, what materials have you been exposed to?

2. Have you directly participated in any domestic violence prevention activities sponsored by your campus (eg, seminar, workshop, orientation program, etc.)?

- 1. Yes
- 2. No
- 3. Don't know

2A. If yes, what activities have you participated in?

Please rate your level of confidence in your ability to interact with patients about the domestic violence behaviors described below from not confident to very confident. (check one). I feel confident that:

3. I can recognize the warning signs of domestic violence in patients.

- Not Confident Somewhat Confident Confident
- Very Confident Don't know

4. I would ask someone who was exhibiting the warning signs of domestic violence if they are in an abusive situation.

- Not Confident Somewhat Confident Confident
- Very Confident Don't know

5. I would connect or refer a patient at risk for domestic violence to resources for help (e.g., hotline, social services, counseling, ER, etc.). Next, we would like to know a little bit about your campus, hospital, or healthcare clinic and resources available for students or patients at risk for domestic violence. Please respond to each of the items using the response options provided that best represents your answer.

- Not Confident Somewhat Confident Confident
- Very Confident Don't know

6. There is a domestic violence protocol for students on my campus.

- 1. Yes
- 2. No

7. I am aware of at least one local resource to which I could refer a patient who is at risk for or involved in domestic violence relationship.

- 1. Yes
- 2. No

8. My campus values the mental health and wellbeing of its students.

- Strongly Disagree Disagree No Opinion
- Agree Strongly Agree

9. If you knew a patient that was involved in a domestic violence situation, where would you refer him/her? (Free response)

10. How confident are you with talking to a patient involved in a domestic violence relationship?

- Not Confident Somewhat Confident Confident
- Very Confident Don't Know

11. How confident are you with talking to a professor/physician/attending about a patient involved in domestic violence relationship?

- Not Confident Somewhat Confident Confident
- Very Confident Don't Know

12. Have you ever identified a student, patient, family or friend who was at risk for domestic violence?

- 1. Yes
- 2. No

12A. Have you ever referred a student, patient, family or friend to campus or community counseling services?

- 1. Yes
- 2. No

12B. Have you ever provided someone the number to a hotline (eg, National Domestic Violence Hotline)?

- 1. Yes
- 2. No

13. Have you worked/volunteered or are currently working/volunteering in a healthcare setting? ***For post-test, changed to: "Have you started working/volunteer or continued working/volunteering at a healthcare setting since you took the STOP DV pretest?"

- 1. Yes
- 2. No (If no, skip to question 14)

13A. At your healthcare setting, were or are you aware of domestic violence protocol for patients?

- 1. Yes
- 2. No (If no, skip to question 14)

13B. At your healthcare setting, were you trained in patient domestic violence protocol?

- 1. Yes
- 2. No (If no, skip to question 13d)

13C. At your healthcare setting, what did your training entail? (Free response)

13D. At your healthcare setting, how confident were you in carrying out the patient domestic violence protocol?

- Not Confident Somewhat Confident
- Confident Very Confident Don't Know

13E. At your healthcare setting, did you ever encounter or witness a patient(s) who was in a domestic violence situation?

- 1. Yes
- 2. No (If no, skip to question 14)

13F. At your healthcare setting, what happened with the patient(s) above?

(Free response)

We'd like to understand your perceptions of domestic violence help seeking. Please respond to each of the following using the scale provided. Select the number that best represents what you think. Personally:	Not Confident	Somewhat Confident	Confident	Very Confident	Don't know
14. I think that it is a sign of personal weakness or inadequacy to receive help for relationship problems.					
15. I would see a person in a less favorable way if I came to know that he/she is seeing or has seen a mental health professional.					
16. I think that it is advisable for a student to hide from other students that he/she has been seen by a mental health professional.					
17. I think that it is advisable for a student to hide from faculty that he/she has been seen a mental health professional.					

We'd like to understand the perceptions of help seeking on your campus. Please respond to each of the following using the scale provided. Select the number that best represents what you think most people on your campus think. On my campus:	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
18. It is a sign of personal weakness or inadequacy to receive help for relationship problems.					
19. People would see a student in a less favorable way if they knew that he/she sought help from a domestic violence professional.					
20. It is advisable for a student to not tell other students that he/she is seeing or has seen a domestic violence professional.					
21. It is advisable for a student to not tell faculty that he/she is seeing or has seen a domestic violence professional.					

The following statements represent myths or facts about domestic violence. Some are true and some are false. Please indicate whether you believe the statement is true, false, or don't know (select one).	True	False	Don't Know
22. Domestic violence is rare.			
23. The presence of a gun in a domestic violence situation greatly increases the risk of homicide.			
24. The majority of individuals injured by intimate partners receive medical care.			
25. Few children are exposed to domestic violence.			
26. Physical abuse is the most common type of domestic violence.			
27. Healthcare workers are required to report adult domestic violence.			
28. All hospitals and other healthcare settings use effective evidence-based research in their domestic violence protocol for patients.			
29. Domestic violence has minimal economic impact.			
30. Healthcare workers are required to report child abuse.			
31. Women abused by their intimate partner are more likely to contract STIs.			
32. Men are not victims of domestic violence.			
33. Individuals living in low socioeconomic conditions are more likely to be in domestic violence situations.			
34. Children who are abused or witness abuse are more likely to become abusers as adults.			
35. Men are rarely affected by domestic violence.			
36. Less than half of teenage dating abuse survivors tell someone about their situation.			
37. 18–24-year-old women are the most frequently abused by an intimate partner. <i>(*this is only on the 2018 survey)</i>			
38. Campus sexual assault, date rape and rape are uncommon.			
39. Survivors of domestic violence who continually return to their abuser are weak.			
40. Most medical schools provide adequate information for students to deal with domestic violence in healthcare.			
41. Physicians frequently screen for domestic violence.			
42. Psychological abuse is the most common type of domestic violence.			
43. Hospitals are required to have at least one healthcare worker trained in domestic violence.			
44. All survivors of domestic violence want to leave their partner.			
45. Police intervention is recommended in most domestic violence situations.			
46. Healthcare facilities are required to have a domestic violence protocol.			
47. The emergency medicine physicians see the most patients affected by domestic violence compared to non-emergency medicine physicians.			
48. Couples involved in domestic violence relationships should undergo general couples counseling.			

Background Information

49. Which best describes your graduation year?

- 2019
- 2020
- 2021
- Other

50. What is your gender (select one)?

- Female
- Male
- Transgender
- Other (specify): _____

51. What is your age? years _____

52. Are you Hispanic or Latino (select one)?

1. Yes
2. No

53. What is your race (select one or more)?

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White
- Other (please describe: _____)

2019 ADDITIONAL QUESTIONS 54–59 (NOT ON 2018)

We'd like to understand your knowledge of domestic violence. Please respond to each of the following question with the best answer choice.

54. Women in what age group are most frequently abused by an intimate partner?

- A. 12–17 years old
- B. 18–24 years old
- C. 25–31 years old
- D. 32–37 years old
- E. 38–45 years old

Answer: B

55. A 6-year-old male presents to the office with his mother for a well-child check. His mother says the child's behavior in school has been bad and he frequently gets sent to the principal's office where she must pick him up. Physical examination reveals a circular erythematous mark on his thigh and a couple residual scars on bilateral arms and buttocks. His mother explains the child likes to play with the car cigarette lighter when she is not looking. What is your next most appropriate step in treatment?

- A. Ask more questions to mother and child about the history of these marks.
- B. Ask mother to leave the room and privately interview mother outside.
- C. Ask mother for permission to interview child separately.
- D. Continue with the examination and plan for further review on next visit.
- E. Refer to a social worker without further questioning.

Answer: C

56. A 10-year-old female presents to the office with her mother due to decline in academic achievement over the past 2 months. Her mother is worried about her daughter lacking the ability to pay attention and not doing well in school. She looked up information on the internet and is concerned her child has attention-deficit-hyperactivity disorder (ADHD). Her mother works as a nurse in the evenings, and the grandmother takes care of the girl while she works. She explains that the father is not involved, and they divorced about 2 years ago due to irreconcilable differences. What is the next best step in management of this patient?

- A. Tell mother she needs to take more nights off at work to spend time with her daughter.
- B. Explain that this is a phase in every child's life, and she will grow out of it.
- C. Prescribe the child ADHD medications and ask them to return in 2 months to evaluate if any progress has been made.
- D. Refer both mother and daughter to therapy for further evaluation.
- E. Explain to mother this is normal behavior for a child prior to puberty.

Answer: D

57. A 9-year-old female presents with her mother to her pediatrician's office for a well-child checkup. Her mother expresses concern that she is acting different. After an in-depth interview and examination, there is suspicion she is a victim of sexual abuse. Which of the following findings is most suggestive of this diagnosis?

- A. She is fearful of her father and other male adults.
- B. She has cut marks to both wrists.
- C. She has interest in things of sexual nature.
- D. She has no friends at school or in her neighborhood.
- E. She has decreased interest in school activities.

Answer: C

58. A 42-year-old female returns to her primary care physician's office for follow-up on her past diagnosis of tension headaches. She states the headaches have not improved with naproxen or meditation. She has been married to a policeman for the past 8 years and has 3 children (aged 4–10 years old). She begins to cry when asked if she has any increased stressors. On further questioning, she states her husband hits her when he is drunk. She says, "He is a good husband when he's sober. But when he drinks, oh, he's awful! Last night, he said he would kill me if I tried to leave him." Her husband is also a patient of the physician. Physical examination reveals ecchymosis on both arms, and her lip has a healed abrasion. Which of the following is the most appropriate intervention?

- A. Tell her to leave immediately without her children.
- B. Recommend her husband attend an Alcoholics Anonymous meeting and get therapy.
- C. Gather more information while remaining neutral, since both are clinic patients.
- D. Refer her to a domestic violence program.
- E. Seek a restraining order against her husband on her behalf.

Answer: D

59. A 4-month-old male presents to the emergency department as he has been unconscious for the past 20 minutes. He is accompanied by his mother and father, who are 23 years old and 34 years old, respectively. The mother reports she was holding the baby having a conversation with the father while preparing dinner for the other 3 children in the home. The father cuts in and says, "She is so clumsy. She should not multitask. Right, don't you always drop things." Mother agrees to the father's statement and continues to say that

while conversing about financial problems the conversation became intense. The father cuts in again, "Don't you love to shop online? Did you not just buy a new crib yesterday?" As the mother again agrees to the father's response, she can barely continue when he again comments, "She just was not paying attention when I was trying to explain the importance of money, and she bumped our baby's head against the wall, leaving him unconscious." Vital signs reveal a respiratory rate of 22 breaths/min. All other vitals are normal. Physical examination reveals no response to stimulation and decreased respiratory effect. What is the method used by the father in this conversation?

- A. Gas lighting
- B. Verbal abuse
- C. Physical abuse
- D. Hoovering
- E. Financial abuse

Answer: A

FOR POST-SURVEY ONLY

60. Did you attend any STOP-DV events?
 1. Yes
 2. No

61. If you attended any STOP-DV events, which ones did you attend? (Please select all the events you attended.)
 (All events will be listed, and participant will check off)

62-66. From the events you attended, please select how beneficial or not beneficial they were.
 (Events they attended will be selected from the previous question: very beneficial, beneficial, neutral, not beneficial)

67. What events did you like the best. Why?
 (Free response)

68. What events did you like the least. Why?
 (Free response)

69. Did you attend any domestic violence related events that were not a part of STOP-DV? (No: Skip to end of survey)
 1. Yes
 2. No

70. What events that were not a part of STOP-DV did you attend?
 (Free response)

71. What did you like about these events?
 (*this is only on the 2018 survey) (Free response)

72. What did you not like about these events?
 (*this is only on the 2018 survey) (Free response)

Survey Questions and Measures

Question Numbers	Measures	Answers	Pretest	Posttest
1-2	Prior school related DV exposure	Yes/No & FR	X	X
3-5	Self-efficacy	Likert Scale	X	X
6-7	Health Seeking Behavior	Yes/No	X	X
8	Health Seeking Behavior	Likert Scale	X	X
9-12B	Knowledge and Awareness	Likert Scale, Yes/No & FR	X	X
13	Pretest: Ever worked/volunteered in a healthcare setting. Posttest: Started working/continued working since pretest.	Yes/No	X	X
13A-C	Knowledge and awareness	Likert Scale, Yes/No & FR	*X	*X
13D-F	Self-efficacy	Likert Scale, Yes/No & FR	*X	*X
14-21	Health seeking behavior	Likert Scale		
22, 23, 25, 26, 29, 33, 34, 35, 36, 37, 38, 39, 42, 44, 45, 48, 54#	General knowledge and awareness	True/False	X	X
24, 27, 28, 30, 31, 32, 40, 41, 43, 46, 47, 55-59#	Medical knowledge and awareness	True/False	X	X
49-53	Participant demographics		X	X
60-72	STOP-DV perception "posttest only"	Yes/No & FR		X
FR= Free Response, *X= dependent on previous answers. #Questions only on 2019 survey				