Journal of Family Violence
https://doi.org/10.1007/s10896-023-00562-2

ORIGINAL ARTICLE

The Evaluation of a Domestic Abuse Response Team Program in an Emergency Department

Stefan Kurbatfinski[1,2] · Nicole Letourneau[1,2] · Mayara Alves Luis[3] · Jennifer Conlin[4] · Michelle Holton[4] · Ronnie Biletsky[4] · Robynne Hanrieder[5] · Julie Hansen[4] · Barbara Barber[6,7]

Accepted: 14 April 2023

Abstract

Purpose Domestic abuse (e.g., family violence) occurs globally and increases the risk for lifelong adverse health outcomes for all members involved. Although victims of domestic abuse often refrain from seeking support due to various reasons (e.g., fear), health centers such as emergency departments (EDs) can serve as outlets for assistance. The Domestic Abuse Response Team (DART) is a program working collaboratively with a regional hospital center in Alberta, Canada, uniquely providing immediate, expert, and patient-oriented services (e.g., safety plans) to domestic abuse victims within the ED. This study aimed to evaluate the DART program by: (1) using administrative data to characterize ED and DART patient characteristics and (2) examining staff perceptions about DART's operations, effectiveness, challenges, and improvements.

Methods A mixed-methods approach was used to collect data from April 1st, 2019 to March 31st, 2020. Quantitative data consisted of descriptive statistics on patient and staff characteristics and qualitative data was collected through two surveys to determine perceptions of the DART program.

Results Approximately 60% of ED patients were screened for domestic abuse and 1% were referred to DART, of which 86% were female. All referrals received support within an hour and were provided patient-oriented assistance. Qualitative data revealed that the DART program offers important support to patient victims, increases comfort around dealing with domestic abuse, and decreases ED staff workloads.

Conclusions The DART program offers valuable support to domestic abuse victims. Staff reported that DART is effective in providing victims with immediate care and services while also supporting ED staff.

Keywords Domestic abuse · Violence · Emergency department · Screening · Services and support

✉ Nicole Letourneau
nicole.letourneau@ucalgary.ca

Stefan Kurbatfinski
stefan.kurbatfinski@ucalgary.ca

Mayara Alves Luis
mayaraalves1219@gmail.com

Jennifer Conlin
jennifer.conlin@albertahealthservices.ca

Michelle Holton
michelle.holton@albertahealthservices.ca

Ronnie Biletsky
ronnie.biletsky@albertahealthservices.ca

Robynne Hanrieder
robynne.hanrieder@theoutreachcentre.org

Julie Hansen
julie.hansen@albertahealthservices.ca

Barbara Barber
barbara@sagesse.org

1 Owerko Centre, Alberta Children's Hospital Research Institute, University of Calgary, 2500 University Drive NW, Calgary, AB T2N 1N4, Canada

2 Community Health Sciences, Cumming School of Medicine University of Calgary, Calgary, Canada

3 Federal University of Espírito Santo, Vitória, Brazil

4 Alberta Health Services (AHS), Alberta, Canada

5 The Outreach Centre, Red Deer, AB T4N 7G3, Canada

6 Previously with The Outreach Centre, Red Deer, Canada

7 Present Address: Sagesse, Alberta, Canada

Published online: 28 April 2023

Domestic abuse is a form of interpersonal violence that occurs between any two individuals residing within the same household (Huecker et al., 2022). This form of violence can be categorized into different types, including family violence (which is further subdivided into intimate partner violence (IPV), child abuse and neglect, and elderly abuse and neglect) and violence between non-family members (e.g., friends, roommates; Huecker et al., 2022). IPV is defined as the occurrence of violent behaviours within an intimate relationship causing physical, psychological, spiritual, or sexual harm, whereas child and elderly abuse and neglect is defined as any form of physical, sexual, and emotional abuse or neglect that actually or potentially harms the child or elderly individual, respectively (Huecker et al., 2022). The presence of domestic abuse in an individual's life can create or perpetuate acute or chronic health conditions, interfere with recommended treatments for existing problems, increase the costs of health care, and potentially lead to serious injury or death (Taylor, 2016), incurring pervasive impacts that persist throughout the lifetime.

It is commonly understood that women, children, adolescents, the elderly, and people with disabilities are the most at-risk for experiencing domestic abuse in their everyday life, reflecting societal factors (e.g., gender, age) that are related to increased rates of victimization (Singhal et al., 2021; Taylor, 2016). This may be partially related to their vulnerability to coercive control, that is, manipulative behaviours employed by the perpetrator to increase control over their victims through increased fear and dependency such as threatening, violent, or isolating measures (Dichter et al., 2018). Children and adolescents' reliance on their caregivers for support and resources make them vulnerable to domestic abuse (Minayo, 2006). Consequently, children who experience or witness domestic abuse are more at-risk for developmental problems which can interfere with successful engagement in diverse social, academic, and employment contexts (Hukkelberg et al., 2019). Elderly individuals are also vulnerable to domestic abuse due to their reliance on others, especially when single, poorly educated, physically or psychologically dependent, disabled, or living with children or other relatives (Garbin et al., 2016).

From 2016 to 2019, police-reported domestic abuse rates in Canada increased annually with an overall increase of 13% (Conroy, 2021). During 2019, there were over 102,316 victims of domestic abuse, either committed by a spouse, parent, child, sibling, or other family member and representing 26% of all victims of police-reported violent crime (Conroy, 2021). Among reported cases, 44% of victims were abused by a spouse or an ex-spouse, 20% were victimized by a parent, and 22% by a sibling or child (Conroy, 2021), reflecting the ability for any individual to perpetrate violence. Females represented 67% of all domestic abuse victims, experiencing violence by their spouse or ex-spouse (51%) more of often than males (29%) but less often (49%) than males (71%) when perpetrated by someone other than a spouse or ex-spouse (Conroy, 2021). Nearly one-third (27%) of Canadians 15 years of age or older reported experiencing either physical or sexual abuse before the age of 15 and 44% witnessed violence (Heidinger, 2022), reflecting the prevalence of child abuse and neglect in Canada (which is likely underestimated due to the exclusion of other forms of abuse such as emotional abuse). Among the elderly, there were 4,518 victims of domestic abuse, representing 4.4% of all domestic abuse victims and most often perpetrated by an adult child (Conroy, 2021). These findings exclude non-familial interpersonal violence, likely underestimating the proportion of domestic abuse victims, however, they elucidate that domestic abuse is a public health problem with serious and far-reaching consequences to all patients, families, and communities.

According to Daugherty and Houry (2008), after being injured, victims of domestic abuse may turn to the emergency department (ED) as a primary source of care. One study conducted in Ontario showed that between 2012 and 2016, 10,935 visits made to the ED were related to family violence (which they described as domestic abuse), and most of the victims were females between 15 and 59 years of age (Singhal et al., 2021). However, domestic abuse is still often underreported or hidden by victims, restricting the possibility for timely and appropriate intervention and care (Gurm & Marchbank, 2020). The most common reasons that victims do not report IPV include hope and belief that the abuse will end, lack of financial resources, fear, pressure to remain in the relationship, housing, and lack of support from police, courts, and medical bodies (Gurm & Marchbank, 2020). Children and adolescents affected by domestic abuse, typically perpetrated by their caregivers, may be too young or need support from others to break the silence and report the abuse (Delziovo et al., 2017). Children may also be too young to understand that what they are experiencing is domestic abuse (Souza et al., 2014). Elderly individuals affected by domestic abuse may be reluctant to report due to embarrassment, guilt, fear of the caregiver, or being institutionalized (Lino et al., 2019).

Besides underreporting by victims, domestic abuse is often inadequately screened for in health services like the ED. Reasons for inadequate screening may include: health professionals' lack of education and instruction on how to ask domestic abuse screening questions (Mauri et al., 2015); lack of knowledge of referral services that are available to assist victim disclosures (Garbin et al., 2015); lack of guidelines, policies, and support from employers that causes anxiety about a potential disclosure (Henriksen et al., 2017; Kirk & Bezzant, 2020); privacy concerns; and time constraints (Guček et al., 2016). However, interventions that are integrated in settings such as the ED have the potential for

significant positive impacts for domestic abuse victims. One study of IPV victims showed that after receiving counselling in the ED and resource referrals, over 96% perceived an increase in their safety (Kendall et al., 2009). In contrast, lack of screening in the ED may allow for the continuation of abuse, re-admission in the ED for treatment of injuries related to domestic abuse, and even death (Daugherty & Houry, 2008). As a visit to the ED may be a victim's only contact with healthcare providers who can intervene and end the cycle of abuse, it is imperative to strengthen the capacity of health services to provide health and social care to all victims of domestic abuse.

To address these problems, the Domestic Abuse Response Team (DART) program was implemented in a regional hospital ED in Alberta Canada, to support victims of domestic abuse. The DART program consists of six on-call staff members trained in responding to domestic abuse, providing expert support to victims (when consented) in the ED within an hour. After assessments, DART staff identify the most suitable next steps for victims, with follow-up occurring three and six months later. The purpose of this evaluation was to assess how the DART program was operating by: (1) describing the referral process; (2) documenting characteristics of DART patients; (3) obtaining feedback about the impact of DART on domestic abuse victims accessing their services; (4) exploring how the current DART process is working for the regional hospital ED staff; and (5) exploring how the current DART process is working for DART staff. This was achieved through a mixed-methods approach using quantitative administrative data and qualitative responses from ED and DART staff regarding the program.

Materials and Methods

A mixed-methods approach was used to evaluate the DART program between April 1, 2019 and March 31, 2020. Quantitative data consisted of aggregate data attained via ED administrative statistics and DART discharge summary plans and were used to determine victim demographics information, domestic abuse statistics, and services accessed. Qualitative data were collected through two surveys to determine ED and DART staff members' perceptions of the DART program.

The DART Program Description and Goals

The DART program was fully implemented in a regional hospital ED, after a successful three-month pilot. The program team consists of six staff members who are on-call 24 h a day, seven days a week, with the following training and experience: at minimum a diploma in a Human Sciences field (e.g., social work); previous experience in supporting domestic abuse victims; knowledge of community resources; knowledge in substance use and mental health; training in Jacqueline Campbell's Danger Assessment to safely conduct domestic abuse assessments (Campbell, 2004); training in trauma-informed care; safety planning review; privacy of information review; and successful completion of a shadow shift and a mock assessment with a volunteer patient. The team responds when they receive a telephone call from the regional hospital ED after an ED patient discloses that they are experiencing domestic abuse themselves or by answering "yes" or "no", respectively, to one of the following two screening questions (when 14 years or older): 1) "We routinely ask all patients about abuse or violence in their lives. Is this a concern for you or your children in any way?" or 2) "Do you feel safe at home?". Parents of children under the age of 14 are asked about domestic abuse on behalf of the child. These calls, made to a single telephone number monitored by DART members, can be initiated by ED staff composed of nurses, psychiatric crisis response team (PCRT) members, and physicians, only if patient consent is received. Once a call is received, the DART program member connects with the patient while they are still in the ED.

The three primary goals of the DART program are to: 1) reach the patient at the time of crisis with the aim of preventing further injury or crisis; 2) to improve timely, appropriate access to community supports to ED patients experiencing domestic violence; and 3) to reduce the impact on ED staff by providing timely domestic violence support. To accomplish this, the team provides care to the patients within an hour after receiving a consented referral from the ED, thereby providing rapid support to victims of domestic abuse and reducing demand on the ED staff. In providing care, DART members use their clinical judgement to provide crisis intervention which may involve developing 24-h and/or safety plans, facilitating expedited patient referral and connection with outreach services in the areas of housing, legal aid and court support, assisting patients to contact the police and/or child protective services, providing shelter information, organizing transportation to a shelter or hotel, and connecting patients with mental health services. To adapt during the COVID-19 pandemic, DART members connected with patients in the ED, but over the telephone, rather than in person.

Quantitative Data Collection: Administrative Data

Aggregate quantitative data was collected in the ED consisting of administrative ED and DART data. Administrative ED data was provided to the team by Alberta Health Services Central Zone Analytics in the form of a PDF report. Quantitative data from patient charts included: the initial cause for accessing the ED; demographic information (e.g., sex, age, number of children, city of residence); and screening rates

(whether screening was completed or not). DART responders filled in a DART discharge summary plan that was attached to the patient chart following discharge and also provided the team with the data in an Excel file. These documents were used to obtain quantitative information related to domestic abuse including the type of violence experienced, the individual that perpetrated the violence, other members included in the violence, referral source, and types of service accessed or recommended.

Quantitative Data Analysis

Quantitative descriptive statistics (e.g., proportions, prevalence) from patient charts and DART discharge summary plans characterized the screening rates, prevalence of type of domestic abuse, and other characteristics of ED patients and prevalence of services accessed, mental health reports, substance use reports, and demographic information of DART patients, respectively. Quantitative ED administrative data were already analyzed by Central Zone Analytics and provided in a PDF report.

Qualitative Data Collection: Surveys

To obtain qualitative feedback, staff were emailed with the option of either partaking in an interview or anonymously completing an online structured survey, through voluntary participation. Posters were also placed around the ED. No staff member chose to complete an interview. Qualitative data consisted of staff perceptions of the DART program gathered via two structured, online surveys tailored to either: 1) ED staff (14 questions) or 2) DART staff (11 questions) (Table 1). Though both surveys examined whether DART was reaching its goals and how the process could be improved, questions on the ED staff survey also inquired about the ED staff's training/orientation to the program, understanding of DART, and how it impacted their work, whereas questions on the DART staff survey focused more on how DART members felt about the referral process and the impacts of the program on client outcomes. Overall, 43 staff members of 256 completed the online survey (overall participation rate of 17%). These included all DART members ($n=6$), as well as ED and triage nurses ($n=30$), psychiatric crisis response team (PCRT) members ($n=6$), and a physician ($n=1$), following online consent. Approximate participation rates for DART members, ED staff and nurses (including PCRT members), and physicians were 100%, 16%, and 5%, respectively. However, the rates for ED staff, nurses, and PCRT members along with physicians are likely underestimated as data pertaining to the number of staff receiving the survey was not collected and the denominators include staff that are casual or have other lines of duty who may not have been exposed to the survey.

Qualitative Data Analysis

Thematic analysis was performed by one author (MH) who manually analyzed the qualitative data through a deductive qualitative analytic approach, using structured, predetermined questions to acquire specific responses categorized under six themes: DART goal attainment, DART referrals, impacts on ED patients, impacts on the ED, communication, and opportunities for improvement. This was then reviewed by another author (JC) to increase rigor and ensure data was accurately categorized.

Ethical Considerations for Evaluation

This project underwent the A pRoject Ethics Community Consensus Initiative (ARECCI) screening process in 2017 to safeguard against ethical oversights, reduce the risk to participants, and to limit survey bias (Innovates, n.d.). Further, the project was reviewed by the ARECCI second opinion process, an additional review by a health service committee that is arm's length from the project. Although participation was voluntary, informed consent was also obtained for surveys completed by ED and DART staff. No conflicts of interest are reported. To promote confidentiality and anonymity, names of participants were not recorded. Evaluators performing data collection followed measures described by Alberta Health Services and promoted confidentiality by following their privacy policy. Electronic data is stored on a password-protected secured drive store in a secure location for five years, again following Alberta Health Services records retention schedule. After five years, electronic and paper data will be destroyed.

Results

Quantitative Findings

A summary of the monthly and total annual number of ED visits, the number and percentage of times questions 1 and 2 were asked, and the number of "yes" and "no" answers are provided in Table 2. Among those attending the ED aged 12 years or older, approximately 63.0% and 60.8% were asked questions 1 and 2, respectively (Table 2). On average, 28 and 32 patients provided an answer every month to questions 1 and 2, respectively, which suggested the presence of domestic abuse (Table 2). Of those screened over the year-long evaluation period, approximately 1% of individuals reported exposure to domestic abuse and 133 patients were referred to and accessed services from the DART program by ED (50%) and triage nurses (39%) (Fig. 1). In all 133 cases, a DART member connected with the recipient within one hour, unless otherwise requested to come later. DART

Table 1 List of survey questions asked to ED and DART staff

ED Staff Survey Questions ($n=14$)	DART Staff Survey Questions ($n=11$)
Are you currently: an ED staff member; a PCRT staff member; a physician; or other (please specify)?	The following are the goals of the DART Program: to reach the patient at the time of crisis with the aim of preventing further injury or crisis. DART aims to reach patients within one hour of receiving a call from ED staff; to improve timely, appropriate access to community supports to ED patients experiencing domestic violence; and to reduce the impact on ED staff by providing timely domestic violence support. Do you feel that the DART program is reaching these goals? (Yes) or (No). Please explain:
The following are the goals of the DART Program: to reach the patient at the time of crisis with the aim of preventing further injury or crisis. DART aims to reach patients within one hour of receiving a call from ED staff; to improve timely, appropriate access to community supports to ED patients experiencing domestic violence; and to reduce the impact on ED staff by providing timely domestic violence support. Do you feel that the DART program is reaching these goals? (Yes) or (No). Please explain:	Do you feel you have received enough information about Alberta Health Services and the [ED] to assist you in your DART work? (Yes) or (No). What would you require?
Does the training/orientation you receive about DART provide you with enough information to address the screening and referral process for domestic violence? (Yes) or (No). Please explain:	How has working with the [ED] made an impact on the work you do?
Do you understand your role in the DART process? (Yes) or (No). Please explain:	Do you feel the communication between DART responders and the ED staff is working? (Yes) or (No). Please explain:
Has the DART program influenced your comfort level with screening patients for domestic violence in the ED? (Yes) or (No). Please explain:	What has been your experience with receiving referrals for the [ED]? (For example, what works/doesn't work with the current referral process?)
Have you initiated the DART team on behalf of a patient? (Yes) or (No).	Please provide any recommendations/suggestions that you have for improving the referral process with the [ED]:
Has the DART program impacted your work in any way? (Yes) or (No). Please explain:	If patients decline DART, do you have a sense of why, or have you noticed any commonalities for why they are refusing?
What has been your experience with referring patients to the DART program? (For example, do you know when it's appropriate to refer? What works/doesn't work with the current referral process?)	What impact do you feel DART is having on client outcomes?
Do you have any recommendations/suggestions for improving the DART referral process?	Please provide any suggestions regarding additional supports that would assist you when working with the [ED]:
If patients decline DART, do you have a sense of why, or have you noticed any commonalities for why they are refusing?	Is there anything that you think could be done to improve the DART program?
Do you feel the communication between the ED staff and DART responders is working? (Yes) or (No). Please explain:	Do you have any additional comments/feedback?
What impact do you feel DART is having on client outcomes?	
Is there anything that you think could be done to improve the DART program overall?	
Do you have any additional comments/feedback?	

was most often called in the morning/early afternoon from 9:00 am to 1:00 pm.

Females accounted for nearly 86.5% of DART recipients, men accounted for 12.8%, and one recipient was transgender (Table 3). Of the 133 patients seen by the DART program, 50 (37.6%) cases had children involved, 7 (5.3%) were pregnant, 17 (12.8%) were homeless, and 90 (67.7%) had addictions or mental health issues, or both, but this may be higher as 32.3% of participants declined to answer or the information was not collected.

The main types of violence reported were both emotional and physical ($n=99$), constituting nearly three quarters (74.4%) of reports. When reported alone, emotional ($n=21$), physical ($n=5$), and sexual violence ($n=3$) accounted for 15.8%, 3.8%, and 2.3% of cases, respectively. Of the victims experiencing physical violence, 25.6% ($n=34$) were strangulated and many experiencing bruising to the face and/or neck ($n=19$). Collectively, financial and emotional violence ($n=8$) accounted for 6.0% of the type of violence reported. A history of sexual assault was disclosed by 10.5% of individuals ($n=14$). Of those accessing DART, the assailant was mainly an active intimate partner (Table 4).

The Outreach Centre provides services to individuals who have been referred to DART. Crisis intervention, safety

Table 2 Monthly ED domestic abuse screening statistics from April 1st 2019, to March 31st, 2020

Month	Total ED Visits	ED Visits by People Aged 12 Years and Older	Number (#) and percent (%) of visits where Question 1 was asked	Response Results		Number (#) and percent (%) of visits where Question 2 was asked	Response Results	
				Yes	No		Yes	No
April, 2019	4,819	4,154	2,649 (63.8)	20	2,629	2,531 (60.9)	2,514	17
May, 2019	5,040	4,474	2,736 (61.2)	33	2,703	2,681 (59.9)	2,647	34
June, 2019	4,832	4,291	2,761 (64.3)	37	2,724	2,683 (62.5)	2,643	40
July, 2019	4,987	4,509	2,844 (63.1)	27	2,817	2,750 (61.0)	2,703	47
August, 2019	4,932	4,460	2,873 (64.4)	33	2,840	2,827 (63.4)	2,786	41
September, 2019	4,859	4,352	2,746 (63.1)	30	2,716	2,631 (60.5)	2,599	32
October, 2019	5,046	4,576	2,873 (62.8)	17	2,856	2,777 (60.7)	2,745	32
November, 2019	4,893	4,426	2,778 (62.8)	44	2,734	2,666 (60.2)	2,611	21
December, 2019	5,143	4,385	2,639 (60.2)	20	2,619	2,517 (57.4)	2,483	34
January, 2020	5,000	4,330	2,630 (60.7)	31	2,599	2,536 (58.6)	2,488	48
February, 2020	4,736	4,170	2,669 (64.0)	24	2,645	2,618 (62.8)	2,590	28
March, 2020	3,927	3,505	2,253 (64.3)	33	2,220	2,178 (62.1)	2,135	43
Total	58,214	51,632	32,441 (63.0)	339	32,102	31,395	31,020	381

Question 1: "We routinely ask all patients about abuse or violence in their lives. Is this a concern for you or your children in any way?" and Question 2: "Do you feel safe at home?"

plans, and outreach programs were the most accessed services (Table 5). All 108 recipients accessing outreach programs were contacted within 24 h after accessing DART. The DART coordinator was able to engage with the clients the next business day if deemed appropriate. As three- and six-month follow-up calls are a part of the DART's mandate, contact was made with 53 and 25 clients, respectively.

Qualitative Findings

Findings pertaining to six pre-established themes are discussed: DART goal attainment, DART referrals, impacts on ED patients, impacts on the ED, communication, and opportunities for improvement.

DART Goal Attainment

Most ED staff who participated (97%) reported they had adequate training to the DART program and 100% understood their role in the collaboration. The ED staff indicated that their role was to provide a connection to DART when warranted and expressed a feeling of support by knowing this service is available. ED staff understood that they have the responsibility of providing accurate information to domestic abuse victims regarding DART's purpose and that they can only be referred to DART if consent is received. As one ED staff member stated: "My role is to initiate the process by asking the DV questions, informing the client of

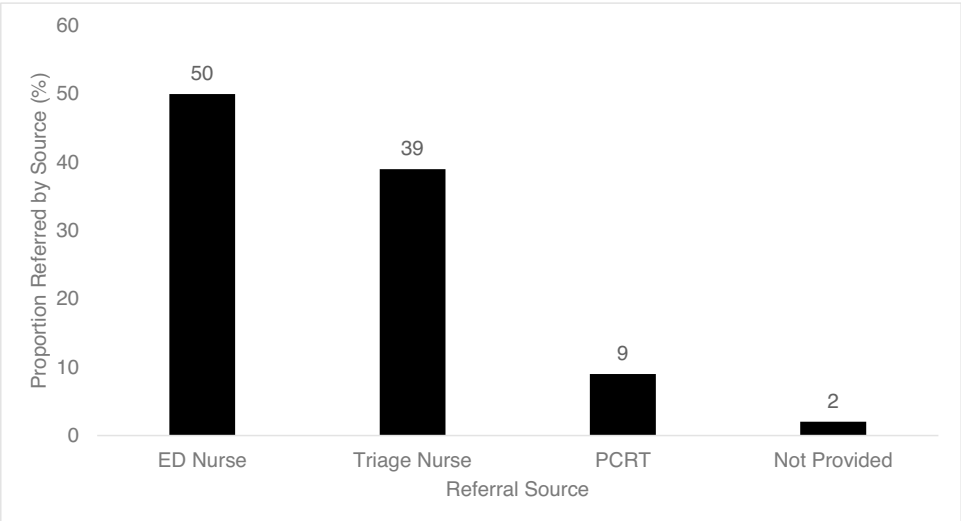

Fig. 1 Proportion of referrals to DART by type of referral source. *Note.* PCRT refers to the Psychiatric Crisis Response Team

Table 3 Age range of patients who received a service from DART ($n = 133$)

Age	Female	Male	Transgender
14–19	4	0	0
20–24	22	2	0
25–29	17	2	0
30–34	14	1	1
35–39	11	2	0
40–44	10	4	0
45–49	15	0	0
50 +	22	6	0
Total	115	17	1

the services that DART provides and getting their consent to contact DART."

ED staff also perceived that DART meets its described goals, reporting that the program provided assistance and crisis intervention to patients well within the defined timeframe. There was also mention that DART members engaged in supportive conversations with the patients and provided the necessary resources to promote safety and a level of comfort. ED staff reported that they realized that even with the arrival of DART, patients can choose not to access any resources offered from the DART program but felt that patients' knowledge of DART's existence provides a potential source of help. Despite the emergence of COVID-19, ED staff believed that DART had been able to effectively adapt and continue to provide the required support and resources to the ED and domestic abuse victims. These ideas are encapsulated in the following quotes from ED team members:

> "The DART program staff are an integral part of the domestic violence team. I have had many opportunities to work with this program and the patients have always had support, and interventions were provided that put the patients and other family members at ease when safe plans are put in place. This is a crucial role the team plays in the department and would be a huge loss to the ER department and the patients seeking help."
> "Even with COVID restrictions I feel DART and our Domestic Violence Question coordinator have worked very hard in ensuring the above goals are met."

DART staff members similarly reported that the program was operating successfully and that they were providing their services immediately to promote the level of support the patients received. As one DART member said: "I believe the program is succeeding in providing immediate resources, and support to the individuals accessing programming." However, one DART staff member did question why telephone calls had been slowing down in the past 6 months: "… I do wonder why calls have been so slow for the last 6 months."

Table 4 Number of cases by assailant type

Assailant Type	Number of Cases (#) ($n = 133$)	Percent Total (%)
Active Intimate Partner	109	82.0
Family Member (Non-Partner)	16	12.0
Inactive Intimate Partner	4	3.0
Roommate	2	1.5
Acquaintance of More Than 24 Hours	1	0.8
Friend	1	0.8

Table 5 Services accessed by DART recipients and 24-h safety plan components

Type of Services Accessed	Number
Crisis Intervention	133
Safety Plan	118
Outreach Programs	108
RCMP	59
Child Services	42
Shelter	33
Psychiatric Crisis Response Team (PCRT)	19
Housing Team	11
Taxi	9
Vouchers	6
Hotel	6
Safe Harbour	5
Admitted to Psych	4
Mental Health	3
Income Support	3
Central Alberta Sexual Assault Support Centre	3
Admitted to Unit 23	2
Vantage	2
Emergency Social Services	2
Victim Services	1
Mustard Seed	1
Outreach Worker Referral	1
Domestic Violence Intervention Response Team	1
Addictions and Mental Health	1
Central Alberta Sexual Assault Response Team	1
Counselling	1
Julietta's Place (Women's Shelter)	1
Suicide Information Services	1

DART Referrals

Overall, most ED staff described positive experiences with the referral process, indicating they understood which patients should be referred to the DART program. They also understood that the process can only be initiated if they receive patient consent. In cases where ED staff were uncertain of whether a patient should be referred to DART, they felt supported by DART through open discussion and a level of respect when asking any questions. These ideas are reflected in the following quotes from ED staff:

"When screened positive I have asked for consent to get DART involved. I then contact DART and recently have assisted in phone access to patient for the referral." and

> "I feel the process is very streamlined. The referral process is very clear and concise. I am able to discuss with staff any questions I have about whom to refer."

ED staff also identified three main reasons for patients refusing support from the DART program through a referral. One reason was that patients did not feel ready to receive the support or to leave the abusive relationship: "they are not ready to deal with the DV." Fear is another reason that patients did not access the services from DART as described by the following quote from an ED staff member: "I find that with some clients it is the fear of the unknown, the what happens to me if he/she find out." Lastly, ED staff categorized any alternate reason as "other", such as intoxication or not really understanding the role of DART: "patients may not understand the role and assume they have to charge the abuser."

Regarding referrals, approximately 83% of DART staff believed there was effective communication between the ED staff and the DART program. Two DART staff expressed that they believed that the current process works well. However, one DART staff member stated that "often times, more information than is necessary is provided…" and another indicated that "referrals are not always consistent with the mandate of family intimate partner violence…". Additionally, the last experience revealed that "sometimes a client is referred to DART and they are unable to consent. This could be they have taken medication… DART cannot do an assessment if they cannot consent." Therefore, there seems to be areas for improvement in relation to the referral process from the perspective of DART staff. DART staff also shared similar reasons for why patients might decline DART services, including "fear…" ($n=1$), not being "…ready to disclose domestic violence information" ($n=2$), and being "…under the influence to the point of not knowing what they are agreeing to…" ($n=1$).

Impacts on ED Patients

The most prominent positive impact identified by the ED staff was that victims of domestic abuse referred to DART received support, services, and resources that allowed for them to feel strengthened enough to leave the violent situation. Additionally, ED staff felt that the DART program provides domestic abuse patients with a plan that encourages feelings of safety for them and their children, with one staff even stating that the DART "saves lives of individuals and children by offering safe resources to leave the abuse." Overall, there was a common perception among ED staff that DART is the first step of domestic abuse victims' process of recovery. One ED staff member summarized these themes well: "There is no doubt that having access to DART in our department is positive for our patients. An ER visit may be one of few opportunities for someone to feel safe enough or alone and able to disclose domestic violence concerns. It is imperative to have a team such as DART be able to respond quickly and with appropriate knowledge/resources to ensure patients and often children can be safe from violence and feel empowered and cared for."

DART staff expressed similar themes as ED staff. Three respondents expressed that DART offers domestic abuse patients with safety, as reflected by the following statement: "DART provides patients with a safety plan, a safe haven and follow up…" One DART member stated that "clients seem appreciative of the time spent with responders", reflecting that there is gratitude among patients accessing DART services. It is clear that DART members aim to promote the wellbeing of patients accessing their services, as described by another DART member: "I HOPE it provides the patients with a sense of hope and more knowledge as to what is available for help should they want it."

Impacts on the ED

Overall, 33 of 37 ED staff stated that DART positively impacted their work. The remaining four had not yet had direct experience with DART during their employment. Those who stated that DART impacted their work indicated that DART instills confidence in screening for domestic abuse, supports staff when domestic abuse is identified, and provides direction on the necessary steps to provide care for victims which ED staff cannot. Additionally, ED staff believed that DART made their jobs easier and that the workload for staff in the ED decreased due to the support from the DART program. These findings are reflected by the following statement from an ED staff member: "Knowing there is resource on hand for the ER patient that is experiencing a crisis and help is available has impacted my work in a very positive way. Before DART, not having a person in the moment to speak with and the ER only having phone

numbers and paper information to give to the patient was not a good feeling, as I felt we did not help the patient in need."

Importantly, all ED staff indicated that DART increased their comfort level in dealing with domestic abuse. In general, they reported that DART provides an actual solution that can assist patients affected by domestic abuse. Respondents indicated that prior to the DART program, they were uncertain of what to do following a patient disclosing experiences of domestic abuse. The knowledge of having the DART program as a resource for domestic abuse victims increased the confidence of ED staff in supporting patients who screened positive for domestic abuse. For example, as two ED staff members stated:

> "Knowing what DART can do for clients presenting with domestic violence issues takes the pressure off the staff – it takes away the 'what can I do next' problem."
> "Because before DART I had no idea of how I could refer or help these people who screened positive."

DART staff also identified positive impacts that this collaboration has had on their work environment. One staff member believed that working with the ED staff allows them "to successfully help the client." Two DART staff identified that a sense of being a team facilitates their work ambitions to promote the wellbeing of domestic abuse victims: "I am in the field of helping others, because I care about others. We never know what impact we are making on anyone that we cross paths with, and I am thankful to be part of a team that can hopefully assist and leave a positive impact on the individuals who are accessing the program" and "working as a cohesive team unit allows seamless care for the patient/client."

Communication

Communication among the ED staff and DART members was described as strong among all ED staff, with "ongoing communication" and "emails [that] are very informative." One ED staff member stated that "the DART responders are very approachable…", reflecting that there is comfort in discussing matters with DART staff when dealing with a patient or inquiring about next steps. ED staff were also pleased that a process was introduced which requires DART staff to complete a paper assessment as a means of communicating with ED staff what occurred with the patients and to "close the loop." Lastly, any issues with communication were linked to the ED being too busy, as indicated by the following statement: "However, it is sometimes difficult to follow up with DART following their assessment due to the busy demands of the ER [department]."

Although no comments were recorded from DART regarding communication between the ED staff and the DART program, approximately 83% (5/6) responded "yes" to whether communication was working well.

Opportunities for Improvement

The following suggestions by ED staff were identified to improve the effectiveness of the DART program: expanding the service to rural areas to provide more inclusive service provision; receiving more funding from the government to enhance the quality of service provision and who can be supported; involving more staff members to ensure screening is always completed; implementing more education for the public to encourage disclosure and understandings of domestic abuse; expanding DART services to those experiencing violence from any individual residing in their home (e.g., a friend) to increase domestic abuse disclosure; and adding informative documents such as posters in the hospital's ED that are visible to all individuals accessing the ED to promote self-referral as they may be taken off guard during the screening process. Further, for unknown reasons, referral rates to the DART program had dropped, and therefore, some ED staff suggested increasing the number of referrals to the DART program so long as they align with the purpose of the program (e.g., violence within the home).

Derived from their survey responses, DART staff had three main suggestions for improving the DART program based on the survey: 1) increasing understanding among the minor treatment area regarding DART referrals to ensure appropriate usage of the DART program; 2) questions that were clearer when asking patients who the perpetrator is to better address their experiences of domestic abuse and provide support accordingly; and 3) increasing clarity of the referral process to ensure that individuals not experiencing domestic abuse are referred to more appropriate services in a timely fashion.

Discussion

The objectives of this paper were to evaluate the DART program by using administrative data to characterize ED and DART patient characteristics and qualitative data to examine staff perceptions about the DART program's operations, effectiveness, challenges, and improvements. Overall, the evaluation revealed that the DART program provided domestic abuse victims with an immediate outlet for support through direct and collaborative efforts with the ED. Qualitative data revealed six main themes about DART: (1) goal attainment; (2) referral process (3) impacts on ED patients; (4) impacts on the ED; (5) communication; and (6) opportunities for improvement.

The Implementation of Universal Screening

Over the year of the evaluation, approximately 58,214 individuals visited the regional hospital ED with 60.8% and 63% being screened via questions 1 and 2, respectively. In comparison, Miller et al. (2021) observed a median reach of IPV screening of 47% after conducting a systematic review, demonstrating the larger proportion of domestic abuse screens in this regional hospital ED relative to other EDs, if domestic abuse is even screened for. Though nurses or other health professionals have expressed discomfort in screening for domestic abuse (Garbin et al., 2015; Henriksen et al., 2017; Mauri et al., 2015), most patients expressed that they felt it was appropriate and important to screen for domestic abuse in the ED (Ben Natan et al., 2012). These discomforts and misconceptions may explain the lower screening rates in other literature and emphasizes a need to promote ongoing trauma-informed care for domestic abuse (e.g., improving sensitivity and comfort with responding to patients who disclose domestic abuse) in ED settings by implementing educational workshops and adapting programs as knowledge in the field continues to expand. Although the ED had high screening rates, screening could be further increased by integrating more confidential spaces in triage to encourage disclosures, place more resources within the ED to encourage self-disclosures, support victims experiencing violence from non-familial members or partners (e.g., friends), and ensure that all patients are consistently screened regardless of how they present in the ED to capture less evident forms of domestic abuse such as emotional or verbal abuse.

Training and workshops on screening for domestic abuse should place particular emphasis on including ED and triage nurses, as they were responsible for 50% and 39% of patient referrals to the DART program, respectively. This is expected as nurses are directly engaged with patients accessing the ED. Other studies further reinforce the role that nurses can play in helping victims of domestic abuse and also identify the barriers that prevent this from happening, including: cultural and lingual differences; time constraints; legal necessity to report; resources available for the victims; and personal experiences of domestic abuse (Alshammari et al., 2018). As mentioned, studies also indicate that discomfort among nurses and limited guidelines in responding to domestic abuse disclosures are barriers to screening in EDs (Garbin et al., 2015; Mauri et al., 2015). In the context of the ED and the DART program, this limitation is not apparent as there is an outlined response plan once domestic abuse is identified: to contact DART who will then follow-up and provide appropriate and immediate care. This was reflected in ED staff statements indicating that DART allowed them to feel supported in knowing they can refer patients to experts. However, incorporating modules and simulations regarding domestic abuse screening into educational curriculums may further encourage collaborative efforts such as those between the regional hospital ED and DART to be more effectively utilized.

Findings Pertaining to Domestic Abuse Disclosure

Among those that were screened for domestic abuse, approximately 1.1% provided an answer to the screening questions indicating they were victims. Another recent study performed in Canada indicated an annual average rate of 25.5 visits per 100,000 females and 6.1 visits per 100,000 males for domestic abuse in an ED (Singhal et al., 2021), reflecting similar trends in ED-reported domestic abuse. At first glance, 1% may appear to be low, but this would result in approximately 500 victims receiving support if 50,000 individuals were admitted to an ED each year, exemplifying its actual capacity for assisting domestic abuse victims. When further considered relative to other EDs that do not screen for or provide support for domestic abuse victimization, the collaborative work exhibited between the regional hospital ED and the DART program demonstrates increased opportunities for domestic abuse victims to receive support.

Results indicated an increased prevalence of female domestic abuse victims compared to males, approximating to 86% and paralleling other research that suggests increased vulnerability to domestic abuse among females (Breiding et al., 2014; Burczycka, 2014; Shah et al., 2012; Singhal et al., 2021). Other studies, such as one performed in India, have shown more proportionate results of domestic abuse between sexes, possibly due to cultural differences, where 51.5% of males experienced domestic abuse and half initiated it (Malik & Nadda, 2019). This reveals that domestic abuse may manifest uniquely in different contexts, intersecting with different societal factors such as culture. However, it also highlights that diverse social determinants of health (e.g., gender, age culture) should be carefully considered when planning and implementing a domestic abuse program such as the DART program into health care settings to promote inclusive and culturally-sensitive environments.

Out of all the types of violence reported, experiencing both physical and emotional violence was disproportionately more common. When considering the typical cycle of domestic abuse, where the perpetrator will alternate between violent behaviors to those that are apologetic, the cooccurrence of physical and emotional violence is expected (Rakovec-Felser, 2014). This cycle shares characteristics with a positive feedback loop, becoming increasingly violent with every occurrence (Rakovec-Felser, 2014); if the victim decides to leave the relationship, the perpetrator often attempts more apologetic maneuvers in hope of winning them back, and if this fails, novel violent tactics may be employed (Rakovec-Felser, 2014). This instability causes degradative psychological and physical impacts on victims

(Rakovec-Felser, 2014), potentially leading to health-compromising behaviors including drug use, binge drinking, or other activities associated with poor mental health outcomes (Mäkelä et al., 2014; Walsh et al., 2013). As observed among patients receiving services from the DART program, 68% had a mental health illness or a drug addiction, or both, reinforcing that these factors may either pose as risk factors for, or result from, domestic abuse occurrence (Addy et al., 2021; Capaldi et al., 2012; Rothman et al., 2012). Therefore, it is particularly important that patients exhibiting signs of mental health illness or drug misuse be carefully, and respectfully, screened for domestic abuse when accessing EDs and provided with the necessary supports.

DART's Response to Domestic Abuse Disclosure

All patients who disclosed experiences with domestic abuse were provided with a referral to the DART program and follow-up services when warranted, a significant characteristic of the DART and ED collaboration. This is particularly important as female domestic abuse victims have emphasized their desire in receiving follow-ups from health professionals after their initial disclosure (Heron & Eisma, 2021). Other than crisis intervention, safety plans and outreach programs were the most common services accessed by patients supported by DART, followed by police. These plans may simply involve the patients returning home or may require more complex approaches such as contacting child services to promote safety and reduce the possibility for further re-victimization of domestic abuse. After providing guidance and resources, the DART program ensures to follow-up via telephone to all recipients at three and six months following their initial referral to provide ongoing support, a unique attribute of the program. Health professionals will often attend to the injuries resulting from domestic abuse (tertiary prevention), rather than providing guidance on next steps and important measures to hopefully remove the source of injury infliction (in this case, domestic abuse), reflecting a more primary or secondary preventive approach to healthcare (Leppäkoski et al., 2014).

Perhaps the most significant aspect of the interconnectedness between the regional hospital ED and the DART program is the immediate intervention of domestic abuse support, making it a unique collaborative approach to supporting domestic abuse victims. Not only does this collaboration allow for the identification of domestic abuse among victims, it also provides in-person support within an hour (unless deemed implausible) with a certified professional from DART, reflecting rapid response times. This interdisciplinary and immediate strategy is more beneficial than booking follow-up appointments with recently identified victims of domestic abuse at a later date as it maximizes the opportunity for help to be accepted and provided while minimizing the time in which victims may regret disclosing their experiences of domestic abuse (Gurm & Marchbank, 2020; Heron et al., 2022). Women have also reported difficulty in finding services when victims of domestic abuse (Gurm & Marchbank, 2020), further epitomizing the importance of having domestic abuse programs (e.g., DART) linked to health care centers such as EDs, facilitating support and accessibility.

Perceptions from the Service Providers Themselves

Qualitative data showed that ED staff believed DART staff were prompt in providing their services and achieving the goals they initially set out to do (to support those victimized by domestic abuse). Further, ED staff were confident in their role for the collaborative efforts to work smoothly and felt that they were trained adequately to utilize the DART program when appropriate. ED staff also felt confident about who to refer to the DART program. DART responders expressed contentment with how the process was going but indicated that there could be improvements in identifying the criteria for those eligible for referral. There is a common perception among all staff indicating the positive outcomes observed for patients accessing the DART program, emphasizing the support and safety that patients can receive. Regarding impacts on the ED, the DART program provided relief regarding how to follow-up if domestic abuse is in fact disclosed, facilitating subsequent care and support to victims. The communication between DART members and ED staff was described as ongoing, informative, and approachable. Therefore, positive perceptions can be consistently observed among all who contributed to this collaborative approach.

Some areas for improvement identified by ED and DART staff included expanding DART services to rural areas, increasing the amount of funding from the government, increasing the workforce, and promoting education for the public. Studies examining domestic abuse in rural areas observed that females living in rural areas experienced significantly higher rates or severity of IPV than those residing in urban areas (Edwards, 2015; Peek-Asa et al., 2011), indicating the need to expand domestic abuse services to such areas. Increased support and funding could improve the provisions that the DART program could offer to victims including housing opportunities and employment training.

Limitations and Future Research Directions

One limitation of this study is that the evaluation was performed with the onset of the COVID-19 pandemic, no longer reflecting the effect of the DART program at baseline conditions. However, this acts as a framework to see how a domestic abuse program such as DART would function digitally or virtually in a health care setting during a pandemic. Survey

participation rates among ED staff and nurses (including PCRT members) along with physicians were also low, potentially reflecting nonresponse bias and increased error. Nevertheless, the reported participation rates are likely underestimated as data pertaining to the number of staff receiving the emailed survey were not collected and proportions were instead calculated using estimated numbers of total staff working in the ED. Additionally, the participation rate for DART members was 100%. Regarding reflexivity, authors attempted to report findings objectively, but acknowledge the subjective nature of data analysis and that their personal experiences and values within healthcare settings could have affected data interpretation and organization.

This evaluation is strengthened by integrating a mixed-methods approach to evaluating the DART program as descriptive statistics supported by statements expressed by those directly contributing to the collaboration between the regional hospital ED and DART provide strong findings regarding the implementation of the DART program. Additionally, few studies provide a description of the implementation of a domestic abuse program such as DART in healthcare settings through both quantitative and qualitative results. Future research should consider how patients' and health professionals' (e.g., nurses, physicians) identities may affect screening, disclosure, and treatment outcomes. Further, to better understand how the DART program functions, researchers should employ model for improvement strategies to capture successes and pitfalls when spreading such programs in other ED settings.

Conclusions

Using a mixed-methods approach, this evaluation aimed to reveal the impacts of the DART program within an ED. Overall, DART is a unique program that works in collaboration with the ED to provide immediate and expert support to victims of domestic abuse. Notably, due to the collaboration between the ED and DART, screening rates were higher within the ED compared to other studies. This can be linked to increased comfort and confidence expressed by ED staff supporting victims of domestic abuse, reflecting a significantly positive outcome of implementing a program such as DART in healthcare settings. During the year 2020, DART offered services to 133 domestic abuse victims ranging from crisis intervention to safety plans or alternate housing and was able to quickly adapt to a digital platform given the emergence of the COVID-19 pandemic. Importantly, DART provides follow-up services by phoning patients 3 months and 6 months after their initial encounter, a process that is not readily seen for domestic abuse victims. Additionally, this evaluation supports other literature indicating increased vulnerability among females to domestic abuse, indicating that health service centers such as EDs should consider adopting programs such as DART to support them in the context of domestic abuse disclosure and provide expert guidance and safety.

Several positive outcomes are apparent from this study, where DART: 1) provided immediate and effective support to domestic abuse victims accessing the regional hospital ED; 2) increased screening rates within the ED by encouraging ED staff to feel more comfortable supporting domestic abuse victims; 3) supported ED staff and decreased their workloads; and 4) provided domestic abuse patients with extended care through follow-ups. The collaboration between the DART program and regional hospital ED demonstrates the necessity to adopt more intensive resources in health care settings such as domestic abuse programs to encourage domestic abuse victims to seek support and safety. Until programs such as DART are integrated in health care settings, domestic abuse victims will struggle to find accessible and secure outlets to escape their violence, rendering their experiences and voices unheard.

Acknowledgements We would like to thank RESOLVE Alberta for their support in shaping the 2020 report into a manuscript and to Alberta Health Services for their support in developing the DART program.

Author Contributions SK contributed to investigation, data curation, writing the original draft, reviewing, and editing, supervision, and project administration. NL contributed to conceptualization, reviewing and editing, resources, supervision, project administration, and funding acquisition. MAL contributed to conceptualization, supporting some writing of the original draft, and reviewing and editing. JC, MH, RB, RH, JH, and BB contributed to conceptualization, reviewing and editing, methodology, data curation, and resources.

Data Availability Raw data were generated at Alberta Health Services Central Zone Analytics. Derived data supporting the findings of this study are available from the corresponding author (NL) upon request.

Declarations

Competing Interests The authors declare that they have no competing interests.

References

Addy, N. D., Agbozo, F., Runge-Ranzinger, S., & Grys, P. (2021). Mental health difficulties, coping mechanisms and support systems among school-going adolescents in Ghana: A mixed-methods study. *PLoS One, 16*(4), e0250424. https://doi.org/10.1371/journal.pone.0250424

Alshammari, K. F., McGarry, J., & Higginbottom, G. M. A. (2018). Nurse education and understanding related to domestic violence and abuse against women: An integrative review of the literature. *Nursing Open, 5*(3), 237–253. https://doi.org/10.1002/nop2.133

Ben Natan, M., Ben Ari, G., Bader, T., & Hallak, M. (2012). Universal screening for domestic violence in a department of obstetrics and

gynaecology: A patient and carer perspective. *International Nursing Review, 59*(1), 108–114. https://doi.org/10.1111/j.1466-7657.2011.00931.x

Breiding, M. J., Chen, J., & Black, M. C. (2014). *Intimate partner violence in the United States - 2010. Atlanta, GA: National center for injury prevention and control of the centers for disease control and prevention.*

Burczycka, M. (2014). Family violence in Canada: A statistical profile, 2014. Section 1: Trends in self-reported spousal violence in Canada, 2014. *Juristat*, 3–20. Last Modified: December 7, 2021.

Campbell, J. C. (2004). Danger Assessment. Johns Hopkins University, School of Nursing. A Modified Version for Swedish Population (Ingegerd Bergbom, Elisabeth Dahlborg Lyckhage, Darcia Pratt-Eriksson Copyright 2006 Sahlgrenska Academy, Gothenburg University, Institute for Health and Care Sciences).

Capaldi, D. M., Knoble, N. B., Shortt, J. W., & Kim, H. K. (2012). A systematic review of risk factors for intimate partner violence. *Partner Abuse, 3*(2), 231–280. https://doi.org/10.1891/1946-6560.3.2.231

Conroy, S. (2021). Family violence in Canada: A statistical profile, 2019. Section 1: Police-reported family violence in Canada, 2019. *Juristat, Catalogue* 85–002-X. Last Modified: March 2, 2021.

Daugherty, J., & Houry, D. E. (2008). Intimate partner violence screening in the emergency department. *Journal of Postgraduate Medicine, 54*(4), 301.

Delziovo, C. R., Bolsoni, C. C., Nazário, N. O., & Coelho, E. B. S. (2017). Características dos casos de violência sexual contra mulheres adolescentes e adultas notificados pelos serviços públicos de saúde em Santa Catarina, Brasil [Characteristics of sexual violence against adolescent and adult women reported by the public health services in Santa Catarina State, Brazil]. *Cadernos de Saude Publica, 33*(6), e00002716. https://doi.org/10.1590/0102-311X00002716

Dichter, M. E., Thomas, K. A., Crits-Christoph, P., Ogden, S. N., & Rhodes, K. V. (2018). Coercive control in intimate partner violence: Relationship with women's experience of violence, use of violence, and danger. *Psychology of Violence, 8*(5), 596–604. https://doi.org/10.1037/vio0000158

Edwards, K. M. (2015). Intimate partner violence and the rural–urban–suburban divide myth or reality? A critical review of the literature. *Trauma, Violence & Abuse, 16*(3), 359–373. https://doi.org/10.1177/1524838014557289

Garbin, C. A. S., Dias, I. D. A., Rovida, T. A. S., & Garbin, A. J. Í. (2015). Desafıos do profıssional de saúde na notificação da violência: Obrigatoriedade, efetivação e encaminhamento. *Ciência & Saúde Coletiva, 20*, 1879–1890.

Garbin, C. A. S., Joaquim, R. C., Rovida, T. A. S., & Garbin, A. J. I. (2016). Elderly victims of abuse: A five year document analysis. *Revista Brasileira De Geriatria e Gerontologia, 19*, 87–94.

Guček, N. K., Petek, D., Igor, Š, & Selič, P. (2016). Barriers to screening and possibilities for active detection of family medicine attendees exposed to intimate partner violence. *Slovenian Journal of Public Health, 55*(1), 11. https://doi.org/10.1515/sjph-2016-0002

Gurm, B., & Marchbank, J. (2020). Chapter 8: Why survivors don't report. In *Making sense of a global pandemic: Relationship violence & working together towards a violence free society*. https://kpu.pressbooks.pub/nevr/. Accessed 28 Mar 2023

Heidinger, L. (2022). Profile of canadians who experienced victimization during childhood, 2018. *Juristat*. Last Modified: December 12, 2022.

Henriksen, L., Garnweidner-Holme, L. M., Thorsteinsen, K. K., & Lukasse, M. (2017). 'It is a difficult topic'–a qualitative study of midwives experiences with routine antenatal enquiry for intimate partner violence. *BMC Pregnancy and Childbirth, 17*(1), 1–9. https://doi.org/10.1186/s12884-017-1352-2

Heron, R. L., & Eisma, M. C. (2021). Barriers and facilitators of disclosing domestic violence to the healthcare service: A systematic review of qualitative research. *Health & Social Care in the Community, 29*(3), 612–630. https://doi.org/10.1111/hsc.13282

Heron, R. L., Eisma, M. C., & Browne, K. (2022). Barriers and facilitators of disclosing domestic violence to the UK health service. *Journal of Family Violence, 37*(3), 533–543. https://doi.org/10.1007/s10896-020-00236-3

Huecker, M., King, K., Jordan, G., & Smock, W. (2022). *Domestic Violence*. StatPearls Publishing; 2023 Jan-. https://www.ncbi.nlm.nih.gov/books/NBK499891/. Accessed 28 Mar 2023

Hukkelberg, S., Keles, S., Ogden, T., & Hammerstrøm, K. (2019). The relation between behavioral problems and social competence: A correlational meta-analysis. *BMC Psychiatry, 19*(1), 1–14. https://doi.org/10.1186/s12888-019-2343-9

Innovates, A. (n.d.). *ARECCI: A project ethics community consensus initiative*. Retrieved February 3rd, 2022 from https://albertainnovates.ca/programs/arecci/. Accessed 28 Mar 2023

Kendall, J., Pelucio, M. T., Casaletto, J., Thompson, K. P., Barnes, S., Pettit, E., & Aldrich, M. (2009). Impact of emergency department intimate partner violence intervention. *Journal of Interpersonal Violence, 24*(2), 280–306. https://doi.org/10.1177/0886260508316480

Kirk, L., & Bezzant, K. (2020). What barriers prevent health professionals screening women for domestic abuse? A literature review. *British Journal of Nursing, 29*(13), 754–760. https://doi.org/10.12968/bjon.2020.29.13.754

Leppäkoski, T., Flinck, A., & Paavilainen, E. (2014). Assessing and enhancing health care providers' response to domestic violence. *Nursing Research and Practice, 2014*, 759682. https://doi.org/10.1155/2014/759682

Lino, V. T. S., Rodrigues, N. C. P., Lima, I. S. D., Athie, S., & Souza, E. R. D. (2019). Prevalência e fatores associados ao abuso de cuidadores contra idosos dependentes: A face oculta da violência familiar. *Ciência & Saúde Coletiva, 24*, 87–96.

Mäkelä, P., Raitasalo, K., & Wahlbeck, K. (2014). Mental health and alcohol use: A cross-sectional study of the Finnish general population. *European Journal of Public Health, 25*(2), 225–231. https://doi.org/10.1093/eurpub/cku133

Malik, J. S., & Nadda, A. (2019). A cross-sectional study of gender-based violence against men in the rural area of Haryana India. *Indian Journal of Community Medicine, 44*(1), 35–38. https://doi.org/10.4103/ijcm.IJCM_222_18

Mauri, E. M., Nespoli, A., Persico, G., & Zobbi, V. F. (2015). Domestic violence during pregnancy: Midwives′ experiences. *Midwifery, 31*(5), 498–504. https://doi.org/10.1016/j.midw.2015.02.002

Miller, C. J., Adjognon, O. L., Brady, J. E., Dichter, M. E., & Iverson, K. M. (2021). Screening for intimate partner violence in healthcare settings: An implementation-oriented systematic review. *Implementation Research and Practice, 2*, 263348952110398. https://doi.org/10.1177/26334895211039894

Minayo, M. C. S. (2006). *Violência e saúde*. Rio de Janerio: Editora Fiocruz. Temas em Saúde collection. 132 p. Available from SciELO Books

Peek-Asa, C., Wallis, A., Harland, K., Beyer, K., Dickey, P., & Saftlas, A. (2011). Rural disparity in domestic violence prevalence and access to resources. *Journal of Women's Health, 20*(11), 1743–1749. https://doi.org/10.1089/jwh.2011.2891

Rakovec-Felser Z. (2014). Domestic violence and abuse in intimate relationship from Public Health Perspective. *Health Psychology Research, 2*(3), 1821. https://doi.org/10.4081/hpr.2014.1821

Rothman, E. F., Stuart, G. L., Winter, M., Wang, N., Bowen, D. J., Bernstein, J., & Vinci, R. (2012). Youth alcohol use and dating abuse victimization and perpetration. *Journal of Interpersonal Violence, 27*(15), 2959–2979. https://doi.org/10.1177/0886260512441076

Shah, S. H., Rajani, K., Kataria, L., Trivedi, A., Patel, S., & Mehta, K. (2012). Perception and prevalence of domestic violence in the study population. *Industrial Psychiatry Journal, 21*(2), 137. https://doi.org/10.4103/0972-6748.119624

Singhal, S., Orr, S., Singh, H., Shanmuganantha, M., & Manson, H. (2021). Domestic violence and abuse related emergency room visits in Ontario Canada. *BMC Public Health, 21*(1), 1–9. https://doi.org/10.1186/s12889-021-10501-9

Souza, C. D. S., Costa, M. C. O., Assis, S. G. D., Musse, J. D. O., Sobrinho, C. N., & Amaral, M. T. R. (2014). Sistema de vigilância de violências e acidentes/viva e a notificação da violência infanto-juvenil, no sistema único de saúde/sus de feira de Santana-Bahia, Brasil. *Ciência & Saúde Coletiva, 19*, 773–784.

Taylor, G. (2016). The chief public health officer's report on the state of public health in Canada 2016: A focus of family violence in Canada. *Public Health Agency of Canada*. Last Modified: October 21, 2016.

Walsh, J. L., Senn, T. E., & Carey, M. P. (2013). Longitudinal associations between health behaviors and mental health in low-income adults. *Translational Behavioral Medicine, 3*(1), 104–113. https://doi.org/10.1007/s13142-012-0189-5