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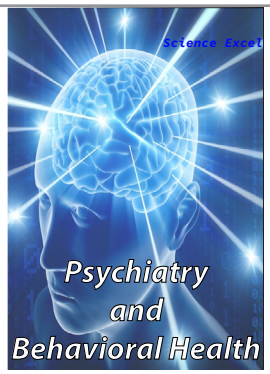

Struggling to Breathe: Hidden Dangers of Nonfatal Strangulation for Women Victims of Intimate Partner Violence

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Abstract

Nonfatal strangulation (NFS) is the application of external pressure to the neck constricting blood flow to the brain and/or airway. Depending on the duration and severity of the assault, NFS can result in consequences encompassing physical injuries, to a range of neurological insults and emotional effects. Strangulation is also one of the best predictors for homicide in relationships characterised by intimate partner violence (IPV). As the majority of women experiencing NFS do not appear to seek medical care following an assault, prevalence rates are difficult to ascertain. However, evidence based on a small number of epidemiological studies indicates rates could be as high as 68% in some populations of women abused in violent relationships, with many women being strangled on multiple occasions. While the low level of reporting of abuse by those victims who present to primary health care (PHC) facilities can make the recognition of NFS difficult, it is important that PHC providers understand the range of signs and symptoms commonly associated with NFS and question directly about IPV. Management must include the careful documentation of the assault and presenting difficulties, as well as the formulation of a safety plan.

Introduction

Historically referred to as wife beating, domestic or intimate partner violence (IPV) was viewed almost exclusively in terms of physical assault, with consequences similarly documented as constituting a range of cuts, bruises, and broken bones [1,2]. Ongoing research has continued to inform our understanding of the nature of IPV such that contemporary definitions generally describe a pattern of coercive and controlling behaviours between current or former intimate partners, with these behaviours encompassing physical, sexual, emotional, and financial aspects [3]. However, despite there now being a better understanding of the dynamics of IPV, there has been an aspect of this violence that, until relatively recently, has received little attention either in clinical or research literature; namely, that of nonfatal strangulation.

Nonfatal strangulation (NFS) is pressure placed externally on the neck constricting blood flow to the brain and/or airway, causing an inability to breathe and depriving oxygen to the brain [4, 5]. Strack and Gwinn [6] emphasized that strangulation should always be understood as denoting external neck compression, and that the term "choking" should be reserved for internal airway blockage. Resulting injuries from strangulation can include blocking of the airway (asphyxia), blocking of the carotid arteries (cerebral hypoxia), blood-pressure related injuries (aneurism or stroke), or structural damage to the neck or throat [7]. Depending upon the pressure exerted, Victoire, De Boos and Lynch [8], for example, estimated that loss of consciousness can occur around six seconds, possible anoxic seizure by 14 seconds and, occasionally, urinary incontinence from 15 seconds. These authors added that there is often a period of post-strangulation confusion, with a lack of awareness of loss of consciousness being commonly reported.

As IPV is characterized by repeated patterns of abusive behaviours that occur over time, women can frequently be subject to multiple instances of assault by their intimate partners which can result in a dose effect with respect to the severity of injuries. On the basis of their survey of 101 female survivors of NFS, Smith and colleagues [4] found that women who had experienced more than one strangulation attack on separate occasions reported an increased incidence of neck and throat injuries, more frequently reported neurologic disorders such as dizziness, headache, and memory loss and, in general, reported more psychological

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distress than women who had experienced a single episode of strangulation.

Strangulation is also one of the best predictors for the subsequent homicide of victims of IPV [6], with Glass and colleagues [9] estimating that prior strangulation was associated with a greater than six-fold odds of becoming an attempted homicide, and over seven-fold odds of being killed. Commenting on the few reports describing manual strangulation in the medical literature up until the late 1990s, Taliaferro, Mills and Walker [10] had pointed out in 2001 that most identified victims of strangulation had sustained immediate fatal asphyxiation, brain anoxia, or cardiac arrest, and that such cases were usually examined by a forensic pathologist. These authors proposed that surviving manual strangulation victims might be more common than previously realized, and indeed might be a new "hidden" epidemic. The authors added that, as a consequence, many "walking and talking" victims of strangulation attempts were under-reported and generally under-recognized both in the legal and medical spheres. Nevertheless, the few studies conducted in the USA and elsewhere from the late 1990s onwards revealed alarmingly high rates of NFS in women victims of IPV.

Estimated Prevalence of NFS

While Glass and colleagues [9] had set out to examine strangulation by an intimate partner as a risk factor for major assault or attempted homicide of women, they had also reviewed the incidence of strangulation assaults in both the attempted and completed homicide cases. These authors' findings confirmed that strangulation was an important form of physical violence against women who are in abusive relationships, and that strangulation attempts had been found in 45% of the attempted homicide cases and 43% of the completed homicide cases. Similarly, a study led by Jacquelyn Campbell [11] of an 11-city review of female homicide cases (n=220) in the USA, found that strangulation leading to death had been a feature of the violence in 56% of cases. This compared to approximately 10% of cases in a group of abused control women (n=343) residing in the same metropolitan areas as the victims who had experienced NFS. The authors explained that a woman was considered "abused" if she had been physically assaulted or threatened with a weapon by a current or former partner during the past two years.

A survey conducted by Wilbur and colleagues [12] of 62 women from two women's shelters in Dallas and Los Angeles, found some 42 (68%) women had been strangled by their intimate partner. Abusers were identified as being the husband in 56% of cases, a boyfriend in 31%, and fiancé in 5%, with manual strangulation reported as being the most common form of assault (54%). In addition, 33 (87%) women reported that they had been threatened with death by their abusers and 28 (70%) women feared they were going to die in the assault, although only 12 (29%) women had sought medical help following their assault. Finally, these authors reasoned on the basis of their results that strangulation attempts were more likely to occur later in an abusive relationship (M=5.2 years), and on average some three years after other methods of physical abuse had begun.

NFS has also been recorded as occurring in the context of sexual assaults. An Australian study led by Renate Zilkens [13] involving over 1,000 women referred to a sexual assault centre found that almost 60% of all sexual assaults involving NFS were perpetrated by an intimate partner. More recent data from the UK has also confirmed significant rates of NFS associated with sexual assault [14]. Over a three-year period from January 2017 a total of 2196 women presented to a sexual assault referral centre for an acute forensic medical examination following a rape or sexual assault. The prevalence of NFS was 18.9% when the perpetrator was a partner or ex-partner, with 27% of these women reporting that the perpetrator had also strangled them on previous occasions. The authors added that over a third of the women thought they were going to die during the assault, with approximately one in six women reporting loss of consciousness, suggesting they were victims of a near fatal attack.

In summary, research over the past 20 years has reported assaults involving strangulation attempts in both IPV populations and on women referred to sexual assault services. Estimates of the incidence of NFS range from 27-68% in women experiencing IPV, with manual strangulation being the most prevalent form of assault. In addition, one domestic violence survey [4] reported over 50% of women experienced more than one strangulation attempt, with a similar survey of women referred to a sexual assault service finding 27% of victims being strangled more than once [13].

Effects of NFS

Strangulation generally occurs during chaotic and violent interactions, where pressure to the neck can be gradually exerted, sudden, or on-off in nature, particularly during a prolonged struggle [8]. Thus, depending upon the duration of the assault, as well as the degree and area of pressure applied, consequences can range from physical injuries to neurological and psychological effects. The major mechanisms causing injury include anoxia from occlusion of the arteries, thus depriving the brain of oxygen and resulting in loss of consciousness and impairments of memory, venous congestion, followed by anoxia from venous occlusion, and hypoxia from occlusion of the airways, which can result in difficulties in breathing and swallowing [8]. .

Physical Injuries

Visible physical injuries have been reported as occurring in in less than 50% of cases at presentation [6, 13]. However, injuries that are visible can include red marks on the neck and neck swelling, as well as reported injuries such as sore neck and/or throat, and damage to the larynx causing difficulty swallowing and hoarseness [15]. Of concern for the victims of NFS is the delayed development of oedema in the neck which develops within 24 to 48 hours of the assault, and has the potential for lethality because of occlusion of the airways [4]. In addition, as a result of venous congestion, petechial haemorrhages (seen as tiny red dots on the skin) can occur at or above the level of compression. There can also be bleeding in the eye (subconjunctival haemorrhage) or throughout the brain, which may not become immediately apparent, but which can be considered a marker of a life-threatening assault [8, 16]. Bleeding in the brain, together with anoxia from occlusion of the arteries, lead directly to a consideration of the potentially more serious adverse neurological outcomes.

Neurological effects

Outward signs of neurological injury include headaches, cognitive confusion and impairments of memory, vertigo and fainting, as well as seizures, strokes, and cardiac arrest

[5, 8]. Symptoms commonly displayed by women subject to prolonged physical violence can mirror symptoms associated with post-concussion syndrome (PCS), a cluster of symptoms that can last for at least three months, and includes headaches, dizziness, memory loss, and apathy. These symptoms are also similar to those occurring as a consequence of traumatic brain injury (TBI) [17]. Although the incidence of IPV-related TBI is not well documented, TBI can result as a consequence of repeated strangulation irrespective of additional blunt force trauma to the head. In the absence of death, brain injuries are often one of the most devastating and long-lasting consequences of strangulation. Haag and colleagues [18], for example, cautioned against allowing TBI to go undetected in IPV survivors as the resulting cognitive difficulties can result in impaired decision making and executive functioning which, in turn, can affect quality of life generally but also make women vulnerable to further assaults.

In addition, Valera and colleagues [19] considered that an alteration in consciousness during a strangulation incident may be an important warning indicator, as such an alteration suggests a hypoxic or ischemic insult to the brain indicating a possible acquired brain injury. Such injuries can have an immediate, and possibly enduring, impact on the survivor's cognitive, psychological, or behavioural functioning. In support, these authors reported findings that indicated women who had experienced strangulation-related alterations in consciousness had performed more poorly on a test of memory, and had higher levels of depression and PTSD symptomatology than women who had not experienced alterations in consciousness.

Psychological and emotional effects

NFS in the context of IPV is frequently accompanied by threats of death [12, 20], with women reporting a fear of dying during the assault ranging from 36-70% [12, 14]. It is unsurprising, therefore, that in addition to the reported physical injuries outlined above there should also be significant psychological effects consequent to such assaults. Psychological effects include anxiety, insomnia, nightmares, depression, suicidal ideation, as well as PTSD [4,12,15]. On the basis of their research Thomas and colleagues [20] found that strangulation elicited immediate and lasting fear, together with a heightened sense of vulnerability. Many women reported feeling trapped, and described how they altered their behaviour to placate the abuser – a common reaction given that resistance is associated with re-abuse. And as Smith and colleagues [4] reminded us, as the number of strangulation assaults increases, so does the frequency of reported symptoms and increase in emotional distress, placing the victim at risk for the development of permanent changes in physical and/or mental health status.

In summary, NFS can result in a broad range of physical, neurological, and psychological/emotional effects. Although the physical signs of strangulation are usually visible in less than 50% of cases [6,13], the effects of NFS must always be taken seriously. Resultant oedema in the neck, for example, can cause occlusion of the airways, while bleeding in the brain can result in a range of outcomes, including cognitive confusion, seizures, and strokes. Together with the concomitant psychological effects that include anxiety, depression, and PTSD symptomatology, NFS can result in a number of serious injuries that may be immediately apparent, or may take weeks to appear [16]. If not recognised and treated appropriately such injuries can result in permanent disability or death.

Barriers to Recognition of NFS

It has been previously documented that victims of IPV tend not to disclose the violence to primary health care (PHC) providers, and that PHC providers tend not to enquire unless there are clear signs of violence [21]. Health-seeking following intimate partner strangulation varies widely, with many women never accessing health care services. Patch and colleagues [22] suggested that not seeking care may be a function of under-estimating potential injury or risk, fear of retaliatory violence from their intimate partner, attempting to protect an intimate partner, or a lack of confidence in a health care facility to provide safety and help. Complicating the issue further, the delayed or long-term effects of TBI may hinder a survivor's awareness and insights into their own health status, which may not provide the necessary motivation to seek medical assistance [18].

With respect to those women who do seek medical assistance, research suggests that this is only a minority, with estimates ranging from 5-29% [4,6,12]. Apart from the need for hospitalisation, data from a survey of strangulation survivors led by Manisha Joshi [15] showed that less than half their study participants had sought medical care following an assault, and that of those who sought medical care, only a quarter disclosed voluntarily that they had been strangled. A similar picture was painted by Morse and colleagues [23], who reported that only 31% of women had disclosed their IPV status to PHC providers, although among those who did not disclose, 63% of women stated that they would have disclosed had they been asked.

Even when asked, however, some women may have difficulty making the connection to NFS and some of their injuries. Women may be unaware of the of the risks associated with strangulation, may minimize the assault, or be fearful or ashamed to share abuse information [22]. Joshi et al. [15], for example, found few women were able to link the strangulation to the variety of medical conditions that had emerged after the assault, or that had continued to affect them over time. In similar vein, Victoire et al. [8] advised that even when disclosing an assault, the victim might not be able to provide a clear narrative of events due to extreme distress or fear, or if there had been a period of anoxia affecting memory. In the context of a sexual assault, these authors cautioned that the sexual aspect may divert attention away from other aspects of the assault, and the victim might minimise or forget to mention the strangulation, so asking about strangulation must be explicit.

Management of NFS

As women who seek medical assistance following an incident of NFS tend not to voluntarily disclose details of the assault, in the absence of specific indicators, e.g., in the form of physical injuries, it can be easy to overlook the potential seriousness of assaults involving strangulation. However, even vague presenting complaints of arousal or distress (such as headaches, dizziness, or hypervigilance), or signs of neurological disorders in a young woman, should act as indicators eliciting questioning from PHC providers [4,24].

Documentation of assault

The first requirement is for careful and accurate documentation of the incident, which should include information on the assailant, e.g., present or past intimate partner, whether the strangulation was part of a sexual assault, whether the assault was accompanied by threats to kill, and whether the assault was a feature of increased frequency or severity of domestic

violence. Information should also be gathered on whether the victim lost consciousness or there was a loss of bladder control during or subsequent to the assault [8].

A history of past domestic violence incidents should also be taken, to include such information as what other forms of violence the victim might have experienced, whether the victim had experienced previous episodes of strangulation, i.e., a history of multiple or recurrent strangulations, and whether there was a subsequent history of symptoms indicative of neurological insult such as headaches, dizziness, blackouts, or poor memory or cognitive confusion, that had not resolved. It is also important to discover whether the victim had sought medical assistance previously and, if so, what treatment she may have received and if she had been prescribed medication.

Documentation of presenting difficulties

Presenting difficulties can be variable depending upon factors such as the duration and degree of violence involved in the assault, as well as whether the assault was compounded by other forms of violence. While serious injury may occur without visible signs at presentation, physical symptoms of NFS where present may include neck pain, difficulty swallowing and/or breathing, shortness of breath, coughing and hoarseness of voice [15]. In addition, PHC providers must be mindful of symptoms indicative of potential serious underlying neurological injury. Where these are identified it is strongly recommended that such symptoms require medical attention from a hospital ED within 72 hours of the incident [25].

As well as signs of physical injury, the psychological impact of the assault must also be assessed, as these can result in a range of symptoms that adversely impact quality of life and compromise daily functioning, particularly high levels of anxiety, depression, and thoughts of suicide. In addition to detailing the assault itself, presenting difficulties also require careful documentation in order to formulate appropriate treatment and safety plans, as well as for possible evidentiary purposes.

Formulation of safety plan

A further important task is the formulation of a plan for the safety and long-term wellbeing of the woman, and her children, if any. As Glass and colleagues [9] had estimated that prior strangulation was associated with a greater than seven-fold odds of being killed, PHC providers should be aware of red flags indicating the potential for further intimate partner assault. These include [8,24];

- Previous strangulations
- Coercive control
- Jealous behaviour by the partner, including accusations of sexual infidelity
- The woman being isolated from extended family, friends and social supports
- Recent separation from partner
- Assault while pregnant or post-partum
- Drug and/or alcohol abuse
- Weapons accessible in the home.

Where an ongoing risk of harm has been identified, referral to a specialist domestic violence service or the police should be discussed with the women. Lynch et al. [24] cautioned that many women may not be ready to exit the situation, or may have valid safety concerns about trying to do so immediately, and that in such cases GPs may provide ongoing connection through offering regular appointments even when there is no acute crisis. However, these authors also advised that if acute risk of imminent serious harm to a woman (or child/ren) is identified, the need for safety is a priority that may outweigh a woman's consent for a referral. Where it is safe to do so, it is recommended that the woman be discharged with a referral for a follow-up appointment in 48 to 72 hours in order to monitor symptoms, as a number of effects of NFS can be delayed. It also provides an opportunity to review the safety plan [8, 24].

Conclusion

Prevalence data support the view that NFS is a particularly gendered form of assault [14,20], with assaults involving strangulation being reported in episodes of both intimate partner and sexual violence. Prevalence rates of NFS are difficult to ascertain as the majority of women experiencing such assaults do not appear to seek medical assistance [4,6,12], however evidence from a small number of studies suggests that rates could be as high as 68% in women seeking refuge in women's shelters [12]. In addition, many women experience multiple episodes of strangulation [4,13-15], increasing their risk for a range of serious injuries and adversities, and possibly death. Documented injuries encompass physical, neurological, and emotional effects, although physical injuries are usually only visible in less than 50% of cases [6,13].

Despite the fact that many women seeking health care following a strangulation assault have no, or minor injuries, the potential for severe morbidity and mortality exists, and is often underestimated. De Boos [16], for example, noted that the assessment of injury can be made more difficult by a lack of external signs despite serious injury, and cautioned that fatal strangulations can occur without external signs of injury, adding that rates of up to 40% of fatal strangulations with no external signs have been reported. Of concern for victims of NFS is the delayed development of some symptoms which can make it difficult for women, as well as PHC providers, to relate these symptoms to a prior strangulation assault.

As a general observation Patch et al. [22] commented on the fact that women may be unaware of the risks associated with strangulation, or minimize the effects on themselves, and noted that many women failed to recognise that changes in their health status had occurred subsequent to their abuse. Joshi et al. [15] likewise found few women in their study were able to link strangulation to the variety of medical conditions that emerged after the incident or that continued to affect them. Such communication difficulties have the potential to lead to the under-identification of IPV in general, and NFS in particular. As a consequence, women may be vulnerable to further abuse, but equally importantly be undiagnosed or misdiagnosed in a medical setting, resulting in inappropriate medical interventions.

Given the potential for diagnostic confusion in this area it is important that PHC providers working in the area of women's health be trained to properly identify how NFS manifests physically and psychologically, as well as in the careful documentation of the assault and its circumstances for the formulation of the most appropriate treatment and safety plans [20,22]. Joshi et al. [15] reinforced the recommendation that all professionals working in the area of women's health, and particularly those who attend to the needs of abused women regardless of setting, be trained in intimate partner strangulation,

pointing out that, although some survivors of NFS may seek care in EDs, it would be a mistake to assume that EDs are the sole, or even primary, settings to which a strangulation survivor may present. While some symptoms may lead strangulation survivors to see PHC providers, e.g., through ED or GP settings, mental health consequences, such as anxiety, depression, or insomnia, suggest that clinical psychologists or social workers both within and outside medical settings may encounter clients who have experienced a strangulation assault.

This underlines the importance of both primary health care and mental health professionals who attend to the needs of abused women being able to accurately identify the signs and presenting symptoms of NFS, in addition to the careful documentation of all aspects of the assault, both for treatment and safety planning, but also for possible evidentiary purposes. All such professionals should be mindful of the fact that in countries where attempted strangulation is a criminal offence, e.g., USA, Canada, Australia, UK [26], there may also be a mandated notification requirement, particularly if the woman has been assessed as being at imminent risk of harm or death.

Finally, strangulation in the context of IPV warrants increased attention in the form of well-designed research projects, particularly longitudinal studies, in order to better understand the range of potential health risks and health outcomes for women survivors of NFS. Patch and colleagues [22], for example, pointed out that current studies are limited in their ability to provide a broader description of who presents to an ED or GP, and is subsequently recognised as having been strangled. Nor are there useful data on women's understanding of the effects of strangulation on their short and long-term health, and what may prompt some women to seek medical help while others do not. Thus, research aimed at providing a better understanding of this complex area for PHC and mental health providers will assist in the implementation of interventions that are both timely and effective.

References

1. Gayford J. Wife battering. A preliminary survey of 100 cases. British Medical Journal. 1975; January: 194-197.
2. Hilberman E, Munson J. Sixty battered women. Victimology: An International Journal, 1977; 2(3-4): 460-470.
3. Keynejad R, Baker N, Lindenberg U, Pitt K, Boyle A, Hawcroft C. Identifying and responding to domestic violence and abuse in healthcare settings. British Medical Journal. 2021;373:n1047.
4. Smith D, Mills T, Taliaferro E. Frequency and relationship of reported symptomatology in victims of intimate partner violence: the effects of multiple strangulation attacks. The Journal of Emergency Medicine. 2001;21(3):323-329.
5. Monahan K, Purushotham A, Biegon A. Neurological implications of nonfatal strangulation and intimate partner violence. Future Neurology. 2019;14(3):FNL21.
6. Strack G, Gwinn C. On the edge of homicide: Strangulation as a prelude. Criminal Justice. 2011;26(3):32-36.
7. Pritchard A, Reckdenwald A, Nordham C. Nonfatal strangulation as part of domestic violence: A review of research. Trauma, Violence & Abuse. 2017;18(4):407-424.
8. Victoire A, De Boos J, Lynch J. 'I thought I was about to die'. Management of non-fatal strangulation in general practice. Australian Journal of General Practice. 2022;51(11):871-876.
9. Glass N, Laughon K, Campbell J, et al. Non-fatal strangulation is an important risk factor for homicide of women. Journal of Emergency Medicine. 2008;35(3):329-335.
10. Taliaferro E, Mills T, Walker S. Walking and talking victims of strangulation: Is there a new epidemic? A commentary. The Journal of Emergency Medicine. 2001;2(3):293-295.
11. Campbell J, Webster D, Koziol-McLain J, et al. Risk factors for femicide in abusive relationships: Results from a multisite case control study. American Journal of Public Health. 2003;93(7):1089-1097.
12. Wilbur L, Higley M, Hatfield J, et al. Survey results of women who have been strangled while in an abusive relationship. The Journal of Emergency Medicine. 2001;21(3):297-302.
13. Zilkens R, Phillips M, Kelly M, et al. Non-fatal strangulation in sexual assault: A study of clinical assault characteristics highlighting the role of intimate partner violence. Journal of Forensic and Legal Medicine. 2016;43(October): 1-7.
14. White C, Martin G, Schofield A, Majeed-Ariss R. "I thought he was going to kill me": Analysis of 204 case files of adults reporting non-fatal strangulation as part of a sexual assault over a 3 year period. Journal of Forensic and Legal Medicine. 2021;79(February):102128.
15. Joshi M, Thomas K, Sorenson S. "I didn't know I could turn colours": Health problems and health care experiences of women strangled by an intimate partner. Social Work in Health Care. 2012;51(9):798-814.
16. De Boos J. Review article: Non-fatal strangulation: Hidden injuries, hidden risks. Emergency Medicine Australasia. 2019;31:302-308.
17. Kwako L, Glass N, Campbell J, et al. Traumatic brain injury in intimate partner violence: A critical review of outcomes and mechanisms. Trauma, Violence, & Abuse. 2011;12(3):115-126.
18. Haag H, Jones D, Joseph T, Colantonio A. Battered and brain injured: Traumatic brain injury among women survivors of intimate partner violence – A scoping review. Trauma, Violence, & Abuse. 2022;23(4):1270-1287.
19. Valera E, Daugherty J, Scott O, Berenbaum H. Strangulation as an acquired brain injury in intimate partner violence and its relationship to cognitive and psychological functioning: A preliminary study. Journal of Head Trauma and Rehabilitation. 2022;37(1):15-23.
20. Thomas K, Joshi M, Sorenson S. "Do you know what it feels like to drown?" Strangulation as coercive control in intimate relationships. Psychology of Women Quarterly. 2014;38(1):124-137.
21. Mertin P, Moyle S, Veremeenko K. Intimate partner violence and women's presentations in general practice settings: Barriers to disclosure and implications for therapeutic interventions. Clinical Psychologist. 2015;19:140-146.
22. Patch M, Anderson J, Campbell J. Injuries of women surviving intimate partner strangulation and subsequent emergency health care seeking: An integrative evidence review. Journal of Emergency Nursing. 2018;44(4):384-393.
23. Morse D, Lafleur R, Fogarty C, Mittal M, Cerulli C. "They told me to leave": How health care providers address intimate partner violence. Journal of the American Board of Family Medicine. 2012;25(3):333-342.
24. Lynch J, Stone L, Victoire A. Recognising and responding to domestic and family violence in general practice. Australian Journal of General Practice. 2022; 51(11):863-869.
25. NSW Agency for Clinical Innovation. Managing non-fatal strangulation in the emergency department. Clinical Practice Guide, 2022; Sydney: ACI.
26. Douglas H, Fitzgerald R. Women's stories of non-fatal strangulation: Informing the criminal justice response. Criminology & Criminal Justice. 2022;22(2):270-286.