# **Acquired Brain Injury and Intimate Partner Violence**



Sarah Kishpaugh (2018) "Insult to Injury"

A Research Report Women's Interval Home of Sarnia-Lambton August 2023



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#### 1. Introduction

### 1.1 Intimate partner violence and acquired brain injury

Available evidence confirms that intimate partner violence (IPV) can result in trauma to the brain<sup>1</sup>, referred to in this report as the ABI-IPV nexus. Strangulation or hypoxic ischemic brain injury (HIBI) is the most common form of injury harmful to the brain. Strangulation is also the most common form of IPV. Other examples of IPV that can cause acquired brain injury (ABI) are blunt force to the head or neck or penetration of the skull with a sharp object.<sup>2</sup> Injuries to the brain range from mild to severe and may have significant long-term impacts even if there is no evidence of harm in the short term.

While there is overwhelming evidence of brain injury and its life altering impacts following motor vehicle accidents and sports injuries, the ABI-IPV nexus does not enjoy similar attention in public health and brain injury awareness material. However, specialized IPV service providers and academic institutions and researchers are at the forefront of promoting and investigating the ABI-IPV nexus and its impact on individuals with IPV-related brain injuries.

More women than men experience and are at risk of IPV, which means that more women are at risk of IPV-related brain injury. Official statistics and anecdotal evidence suggest that women who experience other forms of social discrimination, for example, indigenous women, women of color, older women, young women, women living with disabilities, and trans women, are at increased risk of hidden IPV and therefore, undiagnosed brain injury.

Women's increased risk of becoming ABI-IPV survivors requires health care provider knowledge of the ABI-IPV nexus. This brings into sharp relief two critical issues regarding women's health: disclosure of IPV when seeking medical care and effective diagnostic tools for health providers when IPV is reported but also especially in cases where IPV is not disclosed.

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<sup>&</sup>lt;sup>1</sup> St. Ivany and Schminkey, 2016

<sup>&</sup>lt;sup>2</sup> Weidner, 2022

The process of a brain injury diagnosis requires an awareness of the ABI-IPV nexus and the treatment of IPV in clinical context. The ABI-IPV nexus adds another layer over IPV, an already complex socio-medical phenomenon.

#### 1.2 WIHSL's response to the ABI-IPV nexus

WIHSL aspires to develop new research capacity to expand existing knowledge of the ABI-IPV nexus and become a leading institution in understanding and addressing the impacts of ABI-IPV particularly as it intersects with cycles of poverty, violence, addiction, and multiple overlapping forms of exclusion. This statement of commitment to action and leadership is the result of community consultations WIHSL conducted as part of its Restorative Practice Project, funded by the Ontario Trillium Foundation Resilient Communities Fund. These consultations revealed that ABI-IPV can be a causal factor, when perpetrators of violence are aggressive because of an ABI, and a consequence of IPV. Through their participation in the Restorative Practice Project, participants noted that the ABI-IPV nexus is overlooked by most social service agencies that they access.

WISHL's Concurrent Mental Health and Addiction pilot program implemented between February 2021 and February 2022 further highlighted the need for a review of WIHSL programming and resources with a view of incorporating mental health, addiction, and brain injury.

As WIHSL learn more about the impacts of ABI-IPV, it intends to supplement existing crisis support services with proactive programs that prevent violence and social exclusion among women in the Sarnia-Lambton community. It is particularly interested in understanding cycles of violence within families and the associated problems of intergenerational violence, substance abuse, economic vulnerability, and social exclusion linked invariably to brain injury.

As a first step in realizing the WIHSL's vision regarding the ABI-IPV nexus, it commissioned a research scoping exercise resulting in this report and the accompanying Advocacy Brief. The report confirms the existing evidence of the ABI-IPV nexus; discusses the scope of the problem; highlights existing programs and services both in Canada and internationally; and explores some of the complexities regarding an

official brain injury diagnosis. Methodologically, this report is a desk review drawing on a wide range of sources including peer-reviewed publications, academic research, media reports, and information generated by non-profit organizations in the gender-based violence (GBV) and the brain injury sectors both in Canada and internationally. By making this report publicly available, the WIHSL is sharing its journey in response to this complex issue and how it intends to incorporate post-brain injury pathways for clients who are ABI-IPV survivors into existing WIHSL programming or, where applicable, design new services.

Based on this research scoping exercise, WIHSL's realization of its the commitment to action and leadership begins with advocating for an expansive brain injury diagnostic tool, the bio-psycho-socio-ecological lens; and a feminist rights-based approach to understanding and responding to the impacts of the ABI-IPV nexus.

### 2. The silent public health pandemic: ABI and IPV

#### 2.1 The ABI-IPV nexus

Brain injuries caused by IPV are known as acquired brain injuries (ABIs) as opposed to congenital brain injuries. The two types of ABIs are traumatic brain injury (TBI) and hypoxic ischemic brain injury (HIBI), also known as brain injury by strangulation.

The distinction between ABI, TBI, and HIBI is important for understanding the ABI- IPV nexus.

ABI is not hereditary, congenital, or induced by birth

More than 212,000 women will experience an IPV-related brain injury every year.

Intimate Partner Violence and Brain Injury Soarproject.ca/

but rather the result of an injury that results in a change in the neuronal activity, affecting the physical integrity, metabolic activity, or functional ability of nerve cells in the brain. ABI is an umbrella term for all post-birth brain injuries. ABI can be traumatic (TBI) or non-traumatic (nTBI). With any form of ABI, the alteration in the brain function is caused by external forces such as a hit, blow, bump or other impact to the head, neck,

face, or body. In addition to blunt force trauma, forceful and repeated shaking can damage the brain as well as penetration of the skull, for example a shooting or stabbing. Any of these damaging actions can be the result of assaults perpetrated by another individual, a motor vehicle accident or a sports injury. In nTBI cases, the brain is damaged by internal factors, such as a lack of oxygen, exposure to toxins, and pressure from a tumor. Thus, nTBI is similar to HIBI regarding cause and type of injury.

During an HIBI episode, such as strangulation, suffocation, choking, and near drowning; blood flow to the head is reduced, and the brain is deprived of oxygen and nutrients. This form of injury creates a toxic environment for brain cells as an individual can lose consciousness after the brain is deprived of oxygen for a mere 15 seconds and brain injury occurs after four minutes. Any act of strangulation lasting longer than four minutes can induce a coma and potentially death.

The final type of brain injury is chronic traumatic encephalopathy (CTE). The latter is a result of repeated concussions. Women who are in abusive relationships for long periods of time may also incur repeated blows to the head and thus be highly vulnerable to CTE.

ABI is common amongst women survivors of IPV. Strangulation is the most dangerous form of IPV. More than 90 per cent of IPV involves strangulation or hits to the head, face, or neck. Other common forms of physical violence causing brain injury include being pushed down or falling down the stairs or being shaken.

### 2.2 Scope and nature of the ABI-IPV nexus

Given how widespread domestic abuse is combined with the many forms of violence that can cause a brain injury, it becomes a staggering number very quickly.

Weidner, 2022

In addition to establishing a link between ABI and IPV, it is also important to understand the scope of the ABI-IPV nexus because public policy, research funding, adequate and sufficient services all rely on the existence and scope of the problem. According to the 2021 census report, two in five women and one in three men had experienced IPV in Canada and women disproportionately experience the most severe forms of IPV.<sup>3</sup> For the same period, Saskatchewan had the highest rate of IPV. Globally, approximately 30% of women over the age of 15 years will have been exposed to physical or sexual IPV.

Thirty-five to eighty percent of women affected by IPV experience symptoms of TBI and up to 92% of IPV incidents involve hits to the head and face, and strangulation.<sup>4</sup> There are indications that 60–92% of women with a history of IPV experience head and facial injuries.<sup>5</sup> The full extent of the ABI crisis becomes visible when compared to some health conditions that receive extensive funding and public education: more Canadians will experience TBI (165,000) than, for example, breast cancer (26,900), new cases of spinal cord injury (4,300), or multiple sclerosis (4,015).<sup>6</sup> Cotter's Statistics Canada report further notes that there are subsets of women whose risk to IPV, and by implication IPV related brain injury, are higher and these are Indigenous women, women living with disabilities, immigrant and refugee women, older women, younger women, sex workers, and members of the LGBTQ2IA community.

The contemporary socio-economic environment and legacies of colonialism combine to create conditions that put Indigenous women and girls at risk of IPV. They experience higher rates of violence, and more extreme forms of violence, than non-Indigenous women in Canada. These realities increase the risk of IPV-related brain injury in Indigenous women and girls.

Living with a disability is a considerable risk factor for IPV and brain injuries. Women with disabilities are more likely to experience psychological, financial, and emotional abuse – abusive behavior that can compromise women's physical health. According to Statistics Canada 36% of women with disabilities compared to 19% of women without, are more likely to experience physical and sexual violence during their lifetime. The type of violence exercised on the bodies of women with disabilities are being shaken, pushed, grabbed, or thrown. Within this subset of women, more women with mental health-related disabilities (46%) are far more at risk of physical and sexual violence,

<sup>&</sup>lt;sup>3</sup> Cotter, 2021; Burczycka 2016

<sup>&</sup>lt;sup>4</sup> Cotter. 2021; Brain Injury Canada. Undated; and Kwako et al. 2011

<sup>&</sup>lt;sup>5</sup> Esopenko et al. 2021

<sup>&</sup>lt;sup>6</sup> www.braininjurycanada.ca

than women with cognitive (43%), sensory (36%) or physical (36%) disabilities than women without a disability (19%).

Immigrant and refugee women face multiple livelihood-related insecurities and when they experience IPV, they face unique challenges that often affect their ability to access services. They may, for example, fail to report abuse or seek medical care, due to pre-immigration cultural values, language barriers, lack of knowledge of the Canadian legal system or social services. Failure to report can also be influenced by fears that reporting could jeopardize their status in Canada or their dependents' status or damage the migration prospects of other family members.

## 2.3 Complexities of a brain injury diagnosis

The prospects of diagnosing ABI after an IPV incident and securing an official ABI diagnosis are both complex issues.

# 2.3.1 Difficulty in diagnosing IPV-related brain injuries

ABI-IPV survivors and care providers can mistake brain injury symptoms for emotional distress because of the abuse. This can happen especially in cases of mild TBI, which can present as confused or disorientated. The misdiagnosis can also be the result of a variety of physical, social, and mental health conditions.

Accurate and timely brain injury diagnoses are deemed "resource heavy". The diagnostic tools can be costly, for example, purchasing equipment, which typically comprise neuroimaging, and training staff. It may be possible to carry out a diagnosis using non-clinical methods – observing certain signs and symptoms, but without a clinical diagnosis, the chances are high that traumatic injury to the brain is missed.

Brain injury is an invisible wound that often goes unnoticed, is mislabeled, or misunderstood. It can cause physical, mental, and emotional difficulties, as well as changes in behavior.

SOAR: Survivor Brochure

#### 2.3.2 An official IPV-related brain injury diagnosis

Any trauma to the brain can have life altering effects and sustained and repetitive injuries to the brain can have a cumulative effect over time. These facts alone necessitate a formal diagnosis. Further, since 80% of all reported TBIs are mild, and the incidence of mild TBIs severely underreported, it's easy to foresee the devastating consequences for ABI-IPV survivors. Even mild TBI has long-term impacts on the ABI-IPV survivors' quality of life.

Even if no short term or immediate effects of brain injury are evident, long-term effects may well intensify and become more complex. ABI-IPV can cause severe mental health impacts and psychological trauma including anxiety and depression. Common symptoms of ABI-IPV include problems with cognition (thinking, memory, and reasoning), sensory processing (sight, hearing, touch, taste, and smell), communication (expression and understanding), and behavioral or mental health (depression, anxiety, personality changes, aggression, acting out, and social inappropriateness).



**Image:** Brain injury from Abuse Puts Women at Risk in Court<sup>7</sup>

It is obvious from this list of ABI-IPV conditions; survivors will experience difficulties performing personal and/or domestic activities of daily living (ADLs). Personal ADLs include washing, dressing, brushing hair, shaving, applying makeup, or even taking

<sup>&</sup>lt;sup>77</sup> Wyton, 2023

medication. Domestic ADLs, especially important for women who want to care for their children, include cooking housework, laundry, managing household finances, shopping, and caring for children.

Considering the mild to severe impacts of ABI-IPV, a formal diagnosis of suffering from a brain injury can facilitate access to social and health services. The question is when and in what circumstances the official brain injury diagnosis or even the underlying cause of the disability should be revealed. Feminist theory argues that a formal brain injury diagnosis for an IPV survivor, i.e., a diagnosis of a disability, should only be disclosed when such a diagnosis can assist in accessing mental or physical health care. Without such a limitation, a disability label can result in unnecessarily pathologizing normative and adaptive responses employed by survivors especially when receiving personal or domestic ADLs. These support services and help-seeking behaviors should be considered as part of trauma-informed feminist therapy, a form of trauma treatment where the (service) user is the expert of her own experience with agency about what she needs and when she needs it to allow her to live a full life despite the brain injury.

### 2.4 Profiling ABI-IPV nexus stories: Evidence of the silent public health crisis

Acknowledging the existence of the ABI-IPV nexus and mapping the scope of the problem is important. It is equally important to recognize the fact that the ABI-IPV nexus is a silent public health crisis. What follows are some key examples demonstrating this status of the ABI-IPV nexus.

#### Omitting IPV from list of personal stories of brain trauma

Brain Injury Canada has a rich online database including scientific evidence of brain injury, support services from across Canada, and an extensive list of awareness and training materials. As part of these resources, Brain Injury Canada has a community page<sup>8</sup> profiling the personal brain trauma stories and journeys of individuals. The page also includes a link to a form that encourages people to share their story. However, in

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<sup>8</sup> www.braininjurycanada.ca/en/community/

June of 2023, the main community page with profiles does not include any ABI-IPV story. This failure to elevate ABI-IPV alongside other causes of brain injury is perplexing given the fact that Brain Injury Canada has resources about this ABI-IPV nexus in other sections of their website.

#### Hockey players versus IPV

For every NHL player who suffers a concussion in sport, more than 5,500 Canadian women sustain the same injury from domestic violence.

This is part of the evidence that NDP MP Alistair MacGregor included in his petition to encourage the government to adopt legislation in support of the ABI-IPV nexus.

It is estimated that for every NHL player who suffers a concussion during the season, approximately 7,000 Canadian women suffer the same injury at the hands of their intimate partner each year...this equates to about 250,000 new cases every year.

This is a statement by Dr. Paul van Donkelaar, co-founder of the Supporting Survivors of Abuse and Brain Injury through Research (SOAR) to advocate for greater understanding and acceptance of the ABI-IPV nexus.

## Brain injuries as invisible injuries

Brain injury is often invisible until it is no longer the case. In some instances, like mild TBI, may show no external evidence of a trauma or disability. The IPV survivor may thus not be aware of the trauma to their brain and not seek medical care. Similarly, if a patient does not disclose IPV, health care providers may not be aware and not ask about IPV incidents. Consequently, a brain injury can go undiagnosed.

#### Health care providers' response to IPV

Anto-Ocrah and colleagues wrote about the "elephant in the room" in 2022 where, in certain clinical contexts, the cultural norms of 'turning a blind eye' to avoid actual or, the appearance of an intrusion into a patient's private life. This action ends up avoiding the fact that a patient may be experiencing IPV, but the health care provider does not initiate any inquiry instead relies on the patient to explain the context of their injuries. IPV is seen as a cultural as opposed to clinical issue.

There may well be instances when a cultural lens is critical in the assessment of the ABI-IPV, for example, in under-resourced settings or where gender is a social determinant of brain health.

### IPV & brain injury is under-researched

In 2020, the Government Accountability Office (USA) found that data on IPV-related TBI prevalence and outcomes is limited and the importance of more research on the topic is needed to inform public health. Research in Canada has also shown that front line service providers lack knowledge and training/awareness about brain injury.

## Challenges in building a knowledge bank for ABI-IPV nexus

A desk and literature review to determine the state of knowledge of the ABI-IPV nexus is complicated due to several factors that include both clinical practice notes and scholarly conventions. Researchers found the mix of medical and non-medical terminology used in provider reports and patient medical records increased the difficulty in finding applicable information and publications. For example, use of the term "busted lip" instead of "laceration". In addition, a wide range of key words employed by researchers introduces a form of heterogeneity that further complicates finding information. For example, describing elements of trauma as symptoms, e.g., "facial fractures", but not including or using the consequences (sequelae), for example, "traumatic brain injury", means that some information may not be included in the ABI-IPV knowledge bank. Other factors that impede locating literature or information include screening protocols, locations / clinical setting (health clinic vs. Integrated health delivery system), survey methods (anonymous vs. Clinic screening), definition of IPV / IPV incident (emotional, physical, sexual, psychological), type of injury (blunt force, strangulation), and timeframe (lifetime vs. recent).

#### Undiagnosed brain injuries for IPV survivors

At least a decade's work on concussion and sports injuries produced greater awareness of brain injury and the importance of diagnosis and treatment of concussion / mild TBI. However, research results highlight the different ways in which sex and gender influence recovery outcomes after mild TBI.

There is consensus among IPV and brain injury service providers, researchers, and policy makers that the time has come to make the hidden, visible; to reject the notion that IPV is a cultural issue, and seriously endorse the clinical and pathological consequences of gendered violence and IPV, and that the high prevalence of mild TBI in survivors of IPV as well as challenges in diagnosis and recovery should not pose a barrier.

#### 3. ABI-IPV resources and services

Even though the ABI-IPV nexus remains a hidden public health crisis, GBV service providers and brain injury specialists in Canada and internationally are providing important services to address the problem. These service providers include non-profit organizations, private institutions, and governments and given the multi-scaler and multi-sectoral impact of ABI-IPV, some of the services are the result of private-public partnerships. The list of resources below is a selection to profile types of services and service providers profiling what is possible. Additional and in-depth research is required to determine whether any program or service can be adapted and/or scaled up.

#### 3.1 Research and knowledge mobilization

The *Pauktuutit Inuit Women of Canada* provides information and resources directed at Indigenous women, including information on IPV, TBI and types of violence that causes brain injury.

For at least 30 years the Centre for Research and Education on Violence against Women and Children (CREVAWC) aimed to respond to the needs identified in a

national study on the nature and extent of violence against women.<sup>9</sup> The primary goal of the center is to "invest and conduct research that investigates systemic and structural barriers to the safety of women and children, reflecting Western's desire to serve the public interests and advance knowledge locally and globally"<sup>10</sup>.

Supporting Survivors of Abuse and Brain Injury through Research is one of the leading IPV and brain injury institutions. Its stated goal is to explore the intersection of ABI and IPV and use available scientific evidence to increase awareness and improve support services for survivors. SOAR works with a range of institutions and organizations including academic research, post-secondary institutions, and community partners. The organization has an extensive library of resources accessible on their website including basic information on brain injury, an information guide for workers, information for ABI-IPV survivors, and strategies for talking about brain injury in IPV.<sup>11</sup>

Abused & Brain Injured is another agency with wide-ranging resources including the long-term effects of brain injury<sup>12</sup>; general information describing signs and symptoms of brain injury<sup>13</sup>; an overview of the legal rights and procedures of persons with brain injury<sup>14</sup>; and advocacy information and tools, in particular, a step-by-step guide to develop a self-advocacy plan<sup>15</sup>.

The Knowledge Hub located at Western University, London, Ontario, and led by the CREVAWC with funding from the Public Health Agency of Canada aims to connect innovative trauma-and violence-informed health promotion projects. <sup>16</sup> It facilitates distribution of research findings through a Community of Practice, including web-based seminars, reports, and videos.

An IPV study by the *Drake Foundation* in Scotland investigated changes in neuroimaging and cognitive test data in individuals exposed to domestic abuse and

<sup>&</sup>lt;sup>9</sup> www.learningtoendabuse.ca/index/html

<sup>10</sup> http://www.learningtoendabuse.ca/

<sup>&</sup>lt;sup>11</sup> https://soarproject.ca

<sup>12</sup> https://abitoolkit.ca/brain-injury/long-term-effects/

<sup>13</sup> https://abitoolkit.ca/brain-injury/signs-and-symptoms/

<sup>&</sup>lt;sup>14</sup> https://braininjurycanada.ca/en/brain-injury-law

<sup>&</sup>lt;sup>15</sup> https://braininjurycanada.ca/en/issues-advocacy/advocacy/

<sup>&</sup>lt;sup>16</sup> http://www.learningtoendabuse.ca/research/index.html

compared these with population controls with no reported history of abuse, in order to better understand IPV-related head injury and its contribution to dementia risk.

An example of generating and distributing information to professionals is the Ontario Brain Injury Association, which has resources for professionals.<sup>17</sup>

#### 3.2 Services involving men or male perpetrators of violence

The UK based organization, Respect, is a self-described 'pioneering domestic abuse organization' committed to developing safe, effective work with perpetrators. <sup>18</sup> Respect already works with men, for example, their work with male victims and individuals, including youth, who use violence. This type of work features as one of the strengths when the organization extended their programming to include work with male perpetrators of IPV.

### 3.3 Personal and domestic ADL support services

In 2022, CTV news reported the Cridge Centre for the Family<sup>19</sup> initiated a program supporting 20 women who have suffered brain injuries because of domestic abuse. The program is a client-driven / client-informed support service: "they are the ones telling us what they need, and we get to help them figure out how to get there"<sup>20</sup>.

The Nova Scotia government expanded its personal alert assistance programme supporting people living with brain injuries.<sup>21</sup> The qualifying criteria include 19 years and older, diagnosed with an ABI, earn \$22,125 a year or less, live alone, have a history of falls in the last 90 days and be receiving home support or nursing. This program provides individuals access to personal alert devices that allows them to connect to 911, the emergency services. The main program objective is to support independent living.

<sup>&</sup>lt;sup>17</sup> https://obia.ca/resources/brain-injury-information/concussion-resources-for-professionals/

<sup>18</sup> https://www.respect.uk.net/

<sup>&</sup>lt;sup>19</sup> https://cridge.org/ipv-bi/

<sup>&</sup>lt;sup>20</sup> https://vancouverisland.ctvnews.ca/you-re-not-alone-victoria-group-supports-women-with-brain-injuries-caused-by-domestic-violence-1.6171697

<sup>&</sup>lt;sup>21</sup> https://globalnews.ca/news/6101407/nova-scotia-low-income-brain-injury-survivors-support/ and https://novascotia.ca/dhw/ccs/FactSheets/Personal-Alert-Assistance-Program.pdf

Social Protection Strategies<sup>22</sup> have proven to be an effective support to individuals and families in need and may therefore be also be an effective support for those experiencing economic insecurity associated with violence against women. Operating both as prevention and response mechanisms, social protection interventions can help women avoid or leave abusive relationships, soften / reduce the economic hardship, and enable economic independence. No single social protection policy, program, or service can provide adequate coverage for the full range of risks, vulnerabilities, or shocks that an individual may encounter throughout the course of their lives. Consequently, a social protection systems perspective to IPV recommends a combination of different instruments to ensure adequate protection. This compilation of national data is useful as service providers in Canada can compare this international information with federal and provincial social protection programmes.

These recommendations are informed by data from multiple national programs and thus, local conditions and the complementary nature of social protection strategies will determine adaptability.

# 3.4 Comprehensive support services

There are organizations that provide services not specifically for ABI-IPV, but that can be accessed to enhance such services. The goal of the Compassionate Justice Fund, launched in 2021, is to "bridge a critical gap in funding and available rehabilitation services" for those with TBI because of IPV, abuse, or violence and also for "those who have experienced unstable housing or homelessness". <sup>23</sup> The Canadian Women's Foundation is another agency that provides funding to, among other, support survivors of GBV with the help they need to heal and rebuild their lives <sup>24</sup>. Specifically, the Rebuilding Lives grants help survivors find safe housing, sexual violence support, counselling, and legal support. Finally, the Canadian Observatory on the Justice System <sup>25</sup>, an international inter-jurisdictional partnership monitoring the justice system's response to IPV. This monitoring and research work focuses on identifying policies and strategies to resolve intimate partner violence and exploring how the justice system

<sup>&</sup>lt;sup>22</sup> Cookson et.al. 2023

<sup>&</sup>lt;sup>23</sup> compassionatejusticefund.org

<sup>&</sup>lt;sup>24</sup> www.canadinawomen.org/out-of-violence/

<sup>25</sup> https://observ.ext.unb.ca/

functions. In March 2016 the Observatory and the Canadian Association of Chiefs of Police produced the *National Framework for Collaborative Police Action on IPV*. The framework provides police service members with information on practices to address IPV informed by a shared language and understanding of IPV with the goal of keeping individuals, families and communities safe.<sup>26</sup>

### 4. Developing a response to the ABI-IPV nexus

Reflecting on the WIHSL commitment to leadership and action in relation to ABI-IPV, it began a process of knowledge mobilization to advance the understanding of the ABI-IPV nexus. The research aided in the development of a cohesive narrative to conceptualize and respond to the ABI-IPV nexus involving the adoption and promotion of, firstly, an expansive, multi-faceted brain injury diagnostic lens and secondly, a feminist rights-based approach to ABI-IPV.

### 4.1 A bio-psycho-socio-ecological diagnostic lens

WIHSL already responds to IPV with a comprehensive theoretical and practical understanding of violence, including the drivers and impacts of IPV. To respond to the ABI-IPV nexus, this research suggests that it must begin with a similar framework for brain injury and how it intersects with IPV. The bio-psycho-socio-ecological lens described in the *Traumatic Brain Injury: A Roadmap for Accelerating Progress,* is a multi-faceted diagnostic tool that recognizes the intersection of physical and medical, psychological and behavioral, and social and economic factors in diagnosis, causes, treatments, and available resources.<sup>27</sup> This approach to understanding brain injury enables the inclusion of IPV as one of the causes of brain injury when a patient presents with trauma to the face and/or neck but does not disclose an IPV incident nor a history of IPV. This approach can also normalize the inclusion of IPV in mainstream brain injury narratives but, more importantly, it expands the understanding of the

<sup>27</sup> National Academies of Sciences, Engineering, and Medicine. 2022

<sup>&</sup>lt;sup>26</sup> https://cacp.ca/index.html?asst\_id=1200

impacts of post-injury pathways beyond medical interventions.

### 4.2 A feminist rights-based approach to ABI-IPV

The Ontario Human Rights Code (OHRC) is a mechanism available to WIHSL to advance and mainstream a rights-based approach the ABI-IPV nexus. At a minimum, the OHRC promotes and protects the rights of individuals who experience IPV-related brain injury; ensures that public health responses to brain injury are cognizant of equity and inclusion; and together with feminist theory, such a rights-based approach addresses the question of gender and power relations in IPV-related brain injury.

#### 4.2.1 Rights of individual IPV survivors

ABI-IPV survivors, as demonstrated above, are not one dimensional and while they are predominantly women, they have intersecting social identities. A human rights lens requires full access for survivors without regard for age, race or ancestry, citizenship, ethnic origin, place of origin, creed, disability, family status, marital status, gender identity, receipt of public assistance, record of offence (in employment of providers), sex, and sexual orientation.<sup>28</sup>

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<sup>&</sup>lt;sup>28</sup> https://www.ohrc.on.ca/en/ontario-human-rights-code

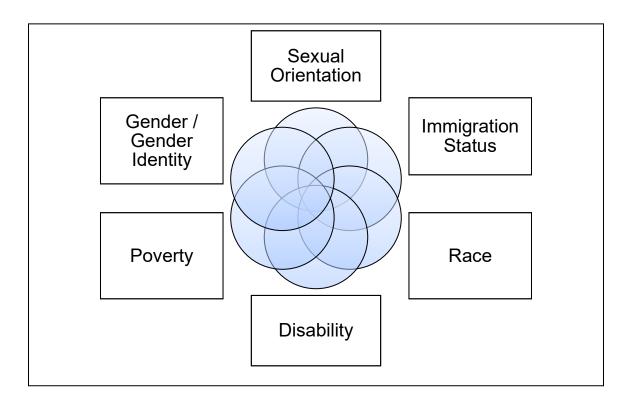


Image: Intersection of identities

#### 4.2.2 Health Equity: Access to social and health services

Health equity in public health ensure the design and implementation of public health strategies that reduces the impact of structural barriers and provides equitable access to brain injury care for those populations currently underserved. The causes and impacts of the ABI-IPV nexus are clearly social, environmental, cultural, and economic with mild to severe long-term consequences for survivors. Existing public health strategies already allow service providers including health care providers to address some of the non-medical causes of what presents as a medical condition. Further, a public health approach can deploy a range of financial and human resources transforming ABI-IPV not only into a public issue but destigmatize ABI-IPV to ensure diagnosis and treatment.<sup>29</sup>

<sup>29</sup> Health Partners on IPV + Exploitation. 2023

19



Image: Addressing Partner Inflicted Brain Injury with a Health Equity Lens<sup>30</sup>

Discrimination and exclusion in health care settings, health promotion messaging, health provider attitude and service provision experienced by certain populations, such as Indigenous people, are well documented.<sup>31</sup> The information about youth and concussion / mild TBI in sport is an ideal template to mainstream, destigmatize, secure funding, and encourage research for the ABI-IPV nexus. What is missing however, is the gendered nature and impacts of brain injury in sports. The US-based organization, Pink Concussions, is the first non-profit organization to focus primarily on pre-injury education and post-injury medical care for women and girls with brain injury including concussion incurred from sport, violence, accidents or military service. According to Pink Concussions, after more than two decades of research, the gendered nature of

<sup>&</sup>lt;sup>30</sup> Wyton, 2023

<sup>&</sup>lt;sup>31</sup> For example, McCallum and Perry. 2018

brain injury is well documented in research on athletes but "most women, coaches and their doctors are still unaware of this differential impact". 32 It notes that:

Women and girls sustain more concussions at a higher rate than their male counterparts in sports with similar rules.

Women and girls have been documented to have a higher number and more severe symptoms than males.

In some studies women have been found to have longer recovery periods than males, and more prolonged concussion symptoms.<sup>33</sup>

## 4.2.3 Challenging unequal exercise of power

The unequal expression and enjoyment of power and access to resources are critical factors in IPV that affect the diagnosis and response to ABI-IPV. A feminist rights-based approach to the ABI-IPV nexus brings women's rights, equality, and structural barriers that continue to put women at risk of IPV-related brain injury. As discussed above, available data suggests that certain subsets of women face a higher risk of IPV and thus, brain injuries because of IPV. Indigenous women, women living with disabilities, and immigrant and refugee women are covered in the Canadian literature and younger and older women also show up as particularly vulnerable in Statistics Canada data. These subsets of individuals are more vulnerable to brain injury than athletes making the exclusion of IPV extremely problematic.

#### 5. Conclusion

This report presented only a fraction of the existing evidence of the existence of the ABI-IPV nexus, its causes, and wide-ranging impacts. In addition, the report highlighted existing services available to IPV-related brain injury survivors. There are significant gaps in knowledge on the impacts of the ABI-IPV nexus, nature of services required,

34 Clark et.al. 2018

<sup>32</sup> www.pink.concussions.com/taskforcecalls

<sup>33</sup> Ibid.

and more research is needed on diagnosing IPV-related brain injury. As WIHSL begins to realize its commitment to action and leadership in response to the ABI-IPV nexus, this research scoping exercise builds on the systematic integration of IPV-related brain injury in its programming.

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