

Journal of the Academy of Forensic Nursing

Volume 2 • Number 1



Journal of the Academy of Forensic Nursing



Volume 2 • Number 1



Table of Contents

Editorial

Taking the Publishing Plunge

Kathleen Thimsen

p 1-2

Practice Perspectives

Remember the ACEs and PACEs

Paul T. Clements, Natalie Evenson, Leah R. Helmbrecht

p 3-11

Childhood Torture

Andrea Sebastian & Theresa Fay-Hillier

p 12-22

Case Study

Healthcare Needs of Sex Trafficking Patients

Natalie Calow

p 23-27

Research Corner

Looking for High Quality Research Evidence

Catherine J. Carter-Snell

p 28-38

Research Reviews

Research Reviews: Fall-Winter

Christine Foote-Lucero p 39-44

Community Updates

Stirring the Forensic Nursing Pot in South Africa

Celia Filmalter p 45-46

FNCB Update

Patricia Speck, Stacey A. Mitchell, Michelle Patch,
Debbie St. Germain, Brook McIllrot p 47

International Special Interest Group Updates

Catherine Carter-Snell p 48-49

Final Notes

Update on Upcoming Issues


Catherine Carter-Snell p 50



Editorial

Take the Publishing Plunge

Kathleen Thimsen, DNP, MSN, ET/WOCN, FNS¹

© Thimsen, K, 2024.  This is an Open Access article distributed under the terms of the Creative Commons-Attribution-Noncommercial-Share Alike License 4.0 International (<http://creativecommons.org/licenses/by-nc-sa/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly attributed, not used for commercial purposes, and, if transformed, the resulting work is redistributed under the same or similar license to this one.

¹ *Corresponding author:* Dr. Kathleen Thimsen
Associate Professor, University of Nevada Las Vegas
kathleen.thimsen@unlv.edu

Take the Publishing Plunge

Writing and submitting an article for publication can be intimidating to most of us. I reflect on my early nursing days as a wound specialist with writing and publication experience to share what I feel might benefit others by learning about the article development process and ultimately being published.

In conceptualizing an article, it is important to identify what aspect of clinical practice that issue is addressed through a literature search. Many ideas can be vetted, defined, and refined based on what the author finds in the published literature. In my early nursing career and writing experience, the medical team had identified a patient with fungating breast cancer, which was something none of us had seen or treated before. A young woman had presented with a large, external breast (fungating) tumor (42 cm in diameter). Once we identified the tissue type of malignancy, the quest to determine how to manage the desiccating tumor with horrific odor was our collective challenge. The literature revealed a gap in knowledge about treatment strategies, outcomes, and topical symptom management. The literature search yielded no published papers on the topic or about a similar experience. This solidified the need to develop a paper on the condition and the associated treatment strategies that our team ultimately employed to manage the complexities associated with the case.

Imposter Syndrome

As I developed my article manuscript, I learned about the case and medical and treatment regimens associated with our care. Still, I felt grossly incompetent to share the work, given I was a mere nurse in the trenches! I pondered the article, the case, and my writing until one of my surgeons finally asked when it would be published. He knew me well and that I was always rabid about finding a solution to a patient's problem. I asked several colleagues and that surgeon to

review and edit my work to ensure it was deemed worthy of publication. It was ready to be submitted after twelve revisions and multiple “final” versions. Once the article was received by the publisher, the clock began ticking, and my wait began. After two months, I finally received the response.

The letter acknowledged my submission and discussed how it might be improved, and should I accept those recommendations and make the corresponding edits, it would be published. When I reviewed the document, all I saw were red-lined comments. Swallowing hard (and with tears in my eyes), I began the humbling experience of revising my work. Once the changes had been made, the re-submission was sent off, and the wait continued. Three months later, I opened the journal and eagerly flipped through the papers to my article! I was so excited, gratified, and accomplished to see my work in print.

That one big step of publishing my work on a bedside intervention (novel as it was then) sparked in me a flame that compelled me to contribute to the nursing literature and set me on a career goal of publishing ideas, works, clinical practices, quality improvement, and my research projects. It was to embark on even bigger work and project development that I would have never entertained had I not submitted that first article about a challenging patient.

Your Opportunity

When the opportunity to serve as an Associate Editor for the Journal of the Academy of Forensic Nursing (JAFN) came about, I was excited and honored to be asked to serve. As the Charter Associate Editors—Dr. Theresa Fay-Hillier and Dr. Paul Thomas Clements and I, under the direction and guidance of our accomplished Editor-in-Chief, Dr. Catherine Carter-Snell—discuss JAFN, our mission, and values, we committed to fostering all levels of authors and their submissions by working closely with our peer reviewers and the authors to provide consultative collaborations that mentor and support all (novice to expert) authors in producing a quality, impact-focused journal that provides innovation and inspiration to our diverse readers across the globe.

As the editorial team, we invite you to actualize your work to advance practice by sharing your ideas and submitting an article for publication in JAFN. JAFN is one way the Academy of Forensic Nursing is action-focused by living our mission and values of Education, Scholarship, and Service.



Practice Perspectives

Remember the ACES and PACES: Asset-based Assessment for Traumatized Children


Paul Thomas Clements, PhD, RN, ANEF, DF-IAFN, DF-AFN¹

Natalie Evenson MSN, RN, SANE-A, SANE-P²

Leah Rachael Helmbrecht, RN, BSN²

Received: October 31, 2023

Accepted: July 10, 2024

© Clements, P T. et al, 2024.  This is an Open Access article distributed under the terms of the Creative Commons-Attribution-Noncommercial-Share Alike License 4.0 International (<http://creativecommons.org/licenses/by-nc-sa/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly attributed, not used for commercial purposes, and, if transformed, the resulting work is redistributed under the same or similar license to this one.

Corresponding author: Dr. Paul Thomas Clements
140 Double Crest Dr.
Taylors, SC 29687
ptclements@tamu.edu
828-654-0006

Affiliations: 1- Clinical Professor, Center of Excellence in Forensic Nursing, Texas A&M University, College Station, TX; 2- SANE Program Coordinator, St Michael Medical Center, Silverdale, WA; 3-2- Forensic Nurse Examiner/Sexual Assault Nurse Examiner, Denver Health Hospital and Authority, Denver, CO.

Abstract

While Adverse Childhood Experiences (ACEs) are well-established risk factors for mental illness, the protective factors that promote resilience are often less well-known nor, at times, highlighted at all. Protective and Compensatory Experiences (PACES) are positive experiences that can increase resilience and protect against mental and physical illness risk. PACES are powerful elements of everyday life that already exist or can be engineered to occur routinely and frequently and can be leveraged to support treatment goals and activities. Although it might never be possible to prevent ACEs from occurring in the lives of children, nurses can emphasize the value of PACES, healthy relationships, and resources to directly minimize the line between adverse childhood experiences and the sequelae of physical and psychological effects into adulthood. PACES are often-overlooked but powerful tools that can support therapeutic interventions and mental health throughout the life course.

Keywords: ACES, PACES, trauma, asset-based assessment

Remember the ACES and PACES: Asset-Based Assessment for Traumatized Children

Research suggests that approximately 25% of American children will experience at least one traumatic event by the age of 16 (The National Child Traumatic Stress Network [NCTSN], 2023). Specifically, for many children who suffer from emotional trauma, it is not a single event; instead, it is often ongoing abuse or neglect. This could be violence at home or in their neighborhood, and the related trauma can affect childhood behavioral manifestations. Children who have endured trauma exert their best efforts to hide the guilt and shame often associated with violence at home, or the pain associated with appearing “different”; however, it still manages to come through in ways that look like misbehavior (Child Mind Institute, 2022).

According to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2023),

- At least 1 in 7 children have experienced child abuse and/or neglect in 2022 and this was likely an underestimate.
- In 2019, 1,840 children died of abuse and neglect in the United States.
- Each day, more than 1,000 youth are treated in emergency departments for physical assault-related injuries.
- In 2019, about 1 in 5 high school students reported being bullied on school property.
- 8% of high school students had been in a physical fight on school property one or more times during the 12 months before the survey.
- Each day, about 14 youths die from homicide, and more than 1,300 are treated in emergency departments for violence-related injuries.

All nurses can benefit from ongoing enhancement of knowledge, experience, and confidence to provide care regarding most of these forensic issues and concepts because not all schools of nursing directly implement these concepts within their curricula (American Academy of Forensic Sciences [AAFS], 2022).

What are ACES?

Adverse Childhood Experiences, or “ACES”, are potentially traumatic events occurring before a child has reached 18 years of age (Centers for Disease Control and Prevention [CDC], 2023a). ACEs may include witnessing or directly experiencing domestic or community violence, having a household member struggling with mental illness, substance abuse, incarceration, or being affected by a difficult divorce. Between 1995 and 1997, the CDC and Kaiser Permanente jointly performed one of the largest and seminal studies investigating the relationship between child abuse and neglect and long-term health outcomes (CDC, 2021). The 10 ACEs the researchers measured included:

1. Physical, sexual, and/or verbal abuse
2. Physical and emotional neglect
3. Witnessing a mother being abused
4. Losing a parent to separation, divorce or other reasons
5. A family member who is:
 - depressed or diagnosed with other mental illness

ACES AND PACES

- addicted to alcohol or another substance
- in prison.

Subsequent to the ACEs Study, other ACE surveys have expanded the types of ACEs measured to include:

- racism
- gender discrimination
- witnessing a sibling being abused
- witnessing violence outside the home
- witnessing a father being abused by a mother
- being bullied by a peer or adult
- involvement with the foster care system
- living in a war zone
- living in an unsafe neighborhood
- losing a family member to deportation, etc.

Unfortunately, ACEs continue to be common. About 64% of U.S. adults report having experienced at least one type of ACE before age 18, and nearly 1 in 6 (17.3%) report having experienced four or more types of ACEs (CDC, 2023a). ACEs can have lasting, negative effects on health and well-being in childhood and, ultimately, life opportunities, such as education and job potential, well into adulthood. Research conducted across the globe and in many populations has consistently found that exposure to ACEs between birth and 18 years alters neurobiological adaptation to stress, increasing the likelihood of difficulties in emotion regulation, impulse control, attention, and social attachments, all of which contribute to mental health problems (Hays-Grudo & Morris, 2020; Webster, 2022). A cumulative ACE score of 4 or more increases the likelihood (using adjusted odds ratios) of panic reactions by 2.5 times, depression by 3.6 times, anxiety by 2.4 times, and hallucinations by 2.7 times (Anda, Felitti, et al., 2006; Morris & Hays-Grudo, 2023). These experiences can increase the risks of injury, sexually transmitted infections, maternal and child health problems (including teen pregnancy, pregnancy complications, and fetal death), involvement in sex trafficking, and a wide range of chronic diseases and leading causes of death, such as cancer, diabetes, heart disease, and suicide (CDC, 2023b, PACES Connection, 2023). ACEs fall into three large categories:

- *Adverse childhood household experiences* – e.g. abuse or neglect, parental mental illness, family member with alcohol or drug abuse, bullying, domestic violence or divorce.
- *Adverse community experiences* – e.g. discrimination or racism, violence, historical trauma, unemployment or underemployment, poor housing quality, poverty, poor education, lack of social capital or mobility, poor water or air quality.

Adverse climate experiences – e.g. climate crises (record heat/droughts, wildfires/smoke, record storms, rising sea level) or natural disasters (tornadoes/hurricanes, volcanic eruption, earthquakes or pandemics). ACEs and associated social determinants of health, such as living in under-resourced or racially segregated neighborhoods, can cause toxic stress (extended or prolonged stress).

Toxic stress from ACEs can negatively affect children's brain development, immune systems, and stress-response systems. These changes can affect children's attention, decision-making, and learning (Harvard University Center on the Developing Child, 2023; Office of Disease Prevention and Health Promotion, 2023).

Children growing up with toxic stress may have difficulty forming healthy and stable relationships. They may also have unstable work histories as adults and struggle with finances, jobs, and depression throughout life. These effects can also be passed on to their children. Some children may face further exposure to toxic stress from historical and ongoing traumas due to systemic racism or the impacts of poverty resulting from limited educational and economic opportunities. While ACEs can cause long-term adverse outcomes, they are not irreversible. Protective and Compensatory Childhood Experiences, or PACES, are positive relationships, experiences, and resources that build resilience and protect against the cumulative negative effects of ACEs (Morris, et al, 2021; Morris & Hays-Grudo, 2023).

Remembering the PACES

While trauma and adversity (i.e., ACEs) are well-established risk factors for mental illness, the protective factors that promote resilience are often less well-known nor highlighted. Protective and compensatory experiences (PACES) are positive experiences that can increase resilience and protect against risk for mental and physical illness. Numerous studies indicate that positive experiences during childhood set the foundation for on-time growth and development and subsequent adaptive adult mental health. Morris and Hays-Grudo (2023) have identified ten specific protective and compensatory experiences (PACES) that promote positive outcomes in the face of adversity, as well as overall healthy development. Similarly, to ACEs, they assess PACES as experiences that occur prior to age 18. They have categorized PACES into two **domains**: supportive relationships and enriching resources.

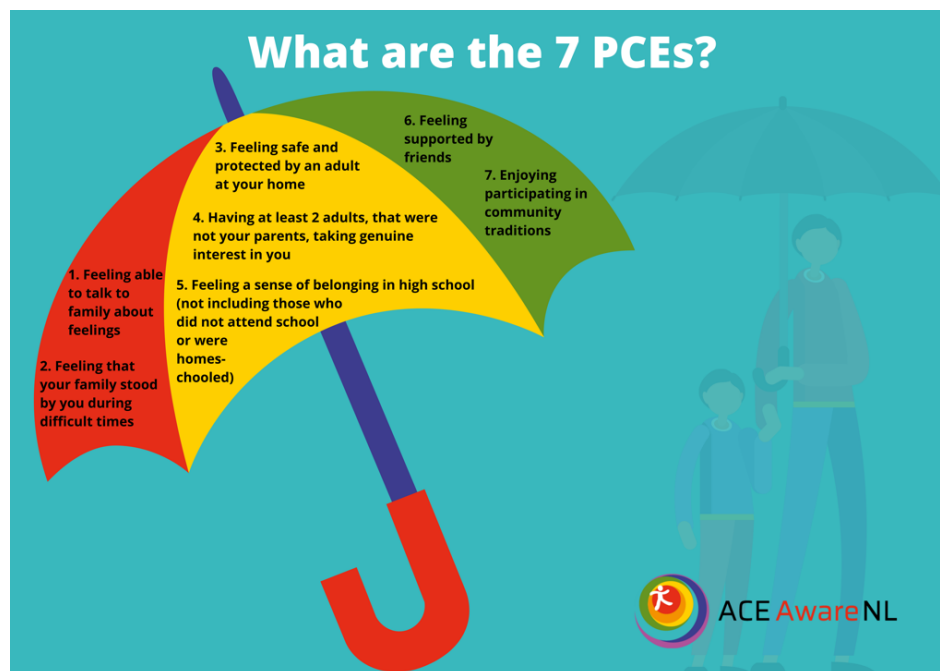
The first domain, **supportive relationships**, includes unconditional love from a caregiver; having a best friend; volunteering in the community; being part of a group; and having a mentor. Positive parenting, social support, and belongingness have been found to facilitate the development of children's empathy, self-regulation, and social skills. The second domain, **enriching resources**, includes living in a safe home where needs are met; getting a quality education; having a hobby; being physically active; and having rules and routines.

Research and anecdotal reporting are increasingly demonstrating that Protective and Compensatory Childhood Experiences (PACES) are vital to the well-being and health of every person, especially those who experience high numbers of Adverse Childhood Experiences (ACES). If PACES are so important, why has there been so much focus on the ACEs and ongoing overlook of the PACES? These authors are expressing the importance of combating the negative impact that ACEs can have on school-aged children's physical and mental growth into adulthood and stressing that nurses in all settings should also equally, if not more actively, look at the protective measures that can build resiliency in a child's life. Specifically, according to the National Institutes of Health (NIH), positive experiences during childhood set the foundation for adaptive adult mental health, and action steps using identification of ACEs and related trauma-informed care (PACES) to build greater capacity for self-regulation can be completed by providers understanding a model for facilitating resiliency (Leitch, 2017).

To evaluate the effect that Positive Childhood Experiences (PCEs) have in mitigating the effects of ACEs and in building resilience, researchers from the Johns Hopkins University defined the following and conducted a large-scale research study. Seven PCEs were researched. The first three focus on the child's family environment, and the rest focus on the child's friends and community. The PCEs are shown in Figure 1.

Figure 1:

The 7 Positive Childhood Experiences (PCEs) from the Johns Hopkins University Research Study



Used with permission: ACE Aware NL <https://aceaware.nl/en/2021/06/04/positive-childhood-experiences-building-resilience-and-mitigating-toxic-stress-through-safety-and-connection-2/>

The PCEs are further described as follows:

1. ***Feeling able to talk to your family about your feelings***

Sharing feelings and emotions to give you a sense of belonging and feeling understood. It is also an important, meaningful way to coregulate and bring down stress levels, which, in turn, helps to prevent them from becoming toxic. It is also a great opportunity for parents and caregivers to help children build emotional intelligence by coaching them through their feelings.

2. ***Feeling that your family stood by you during difficult times***

The adult's presence can have a buffering effect when the child is going through difficult times or experiencing stress that could become toxic without that buffering. Their presence, their soothing words, and their holding space can help children feel supported and comforted. It drives home the all-important message that they are not alone, that they are respected in their uniqueness and their emotions.

3. ***Feeling safe and protected by an adult at your home***

Feeling safe and protected is a basic human need; in fact, if you do not feel safe, other functions in your body might stop working properly until you have found safety again. There are many ways in which an adult can make a child feel safe and protected, like taking care of them physically by responding to their needs or talking them through overwhelming experiences and helping them coregulate after a stressful experience.

4. ***Having at least two adults, who are not your parents, taking genuine interest in you***
Supportive adults with whom a child can form healthy attachments and whom they can turn to, besides their parents, are very important for children. These adults are even more important if the child's parents have difficulty providing the aforementioned safety and support. They can be extended family members, neighbors, teachers, coaches, counsellors – it can be the most unexpected person, as long as they have a role in the child's life that allows for moments of connection and experiencing a safe haven in the midst of chaos and overwhelm.
5. ***Feeling a sense of belonging in high school (not including those who did not attend school or were homeschooled)***
Feeling a sense of belonging in school can help you build more resilience against adversity. Children who engage with others and in activities in school have higher rates of resilience and lower rates of chronic disease in childhood. Addressing childhood trauma in school settings deserves to be high on the agenda of national and local policies to mitigate the effects of toxic stress and ACEs.
6. ***Feeling supported by friends***
Knowing that you have friends to turn to, people who listen to you, who have your back and who will stand tall for you, who laugh and cry with you and understand what you need, are a wealth of support. Again, it is the nurturing, strong, and healthy relationships that will help you through the storms by means of the coregulation they have to offer.
7. ***Enjoying participating in community traditions***
Traditions help us feel part of a whole. They can help connect extended families, bring people together, and have them participate in traditions. They can help you find a sense of connectedness and purpose. There are lots of examples of communities, for example a neighborhood, a school, a town or a district, a support group for people with the lived experience of a certain difficulty or disability, a group that is formed to raise awareness about a certain issue, a group around a hobby, and more.

Asset-Based Assessment and Care

Discussions of healthcare typically surround levels of prevention. The National Children's Alliance (2023) estimated that 618,000 children experienced abuse and neglect in 2020. With so many children at risk for experiencing a wide range of ACEs, it is difficult to intervene and impossible to prevent all adverse childhood experiences. However, it can be easy to focus on fixing what is wrong versus being vocal about what is right: PACES. Specifically, although it might never be possible to prevent ACEs from occurring in the lives of children, nurses can emphasize the value of PACES, healthy relationships, and resources and directly minimize the line between adverse childhood experiences and the sequelae of physical and psychological effects into adulthood. One way to prevent and mitigate the impact of ACEs is to educate and address protective factors to create a safe and supportive environment for all children. **Strengthening Families™** is one research-informed approach to increase family strengths, enhance child development, and reduce the likelihood of child abuse and neglect. It is based on engaging families, programs, and communities in building five key protective factors. Specifically, this *protective factors* framework is an organized set of strengths-based ideas that

are used to guide programs, services, supports, and interventions aimed at preventing child maltreatment and promoting healthy outcomes. **Table 1** reviews these five key protective factors and the corresponding clinical strategies for resiliency.

Table 1:
About Strengthening Families™ and the Protective Factors Framework

Key Protective Factor	Clinical Strategies for Resiliency
Parental resilience	Managing stress and functioning well when faced with challenges, adversity, and trauma
Social Connections	Positive relationships that provide emotional, informational, instrumental, and spiritual support
Knowledge of parenting and child development	Understanding child development and parenting strategies that support physical, cognitive, language, social, and emotional development
Concrete support in times of need	Access to concrete support and services that address a family’s needs and help minimize stress caused by challenges
Social and emotional competence of children	Family and child interactions help children develop the ability to communicate clearly, recognize and regulate their emotions, and establish and maintain relationships

(Adapted from: Center for the Study of Social Policy [n.d.]. *About Strengthening Families™ and the Protective Factors Framework*. <https://cssp.org/wp-content/uploads/2018/11/About-Strengthening-Families.pdf>)

Conclusion

PACEs are often-overlooked but powerful tools that can support therapeutic interventions and mental health throughout life. What is lacking from many trauma-focused interventions is an acknowledgment that PACEs are powerful elements of everyday life that already exist or can be engineered to occur routinely and frequently and can be leveraged to support treatment goals and activities. Specifically, protective factors should be seen and sought out as characteristics or strengths of individuals, families, and communities that act to mitigate risks and promote positive well-being and healthy development for children. When seen as attributes that help children to navigate difficult situations successfully, the impact toward mitigating ACEs can be significant and beneficial.

References

American Academy of Forensic Sciences (2022). *Presidential spotlight on the forensic nursing science section*. <https://www.aafs.org/article/presidential-spotlight-forensic-nursing-science-section>

Anda, R.F., Felitti, V.J., Bremner, J.D., et al. (2006). *European Archives of Psychiatry and Clinical Neuroscience*, 256:174-86 doi.org/10.1007/s00406-005-0624-4

Bryant-Genevier, J., Rao C. Y., Lopes-Cardozo B., Kone A., Rose C., Thomas I., Orquiola D.,Lynfield R., Shah D., Freeman, L., Becker, S., Williams A., Gould D. W., Tiesman H., Lloyd G., Hill L., Byrkit R. (2021). Symptoms of depression, anxiety, post-traumatic, stress disorder, and suicidal ideation among state, tribal, local, and territorial public health workers during the COVID-19 pandemic-United States, March-April 2021. *MMWR*.

- Morbidity and Mortality Weekly Report*, 70(48), 1680-1685.
<https://doi.org/10.15585/mmwr.mm7048a6>
- Centers for Disease Control and Prevention (2021). *About the CDC-Kaiser ACE Study*.
<https://www.cdc.gov/violenceprevention/aces/about.html>
- Centers for Disease Control and Prevention (2023a). *Fast facts: Preventing adverse childhood experiences*. <https://www.cdc.gov/violenceprevention/aces/fastfact.html>
- Centers for Disease Control and Prevention (2023b). *Teen newsletter: Adverse childhood experiences (ACEs)*.
<https://www.cdc.gov/museum/education/newsletter/2023/mar/index.html>
- Center for Social Policy. (2014). *The Strengthening Families Approach and Protective Factors Framework*. <https://cssp.org/our-work/projects/protective-factors-framework/>
- Child Mind Institute (2022). How trauma affects kids in school: Signs of trauma and tips for helping kids who've been traumatized. <https://childmind.org/article/how-trauma-affects-kids-school/>
- Harvard University Center on the Developing Child (2023). ACEs and toxic stress: Frequently asked questions. <https://developingchild.harvard.edu/resources/aces-and-toxic-stress-frequently-asked-questions/>
- Hays-Grudo, J., & Morris, A.S. (2020). *Adverse and protective childhood experiences: A developmental perspective*. Washington: American Psychological Association.
- Leitch L. (2017). Action steps using ACEs and trauma-informed care: A resilience model. *Health Justice*, 5(1):5. doi: 10.1186/s40352-017-0050-5.
- Morris, A.S., Hays-Grudo, J., Zapata, M.I., Treat, A., & Kerr, K.L. (2021). Adverse and protective childhood experiences and parenting attitudes: The role of cumulative protection in understanding resilience. *Adversity and Resilience Science*, 2(3):181-192. doi: 10.1007/s42844-021-00036-8.
- Morris, A.S., & Hays-Grudo, J. (2023). Protective and compensatory childhood experiences and their impact on adult mental health. *World Psychiatry*, 22(1):150-151. doi:10.1002/wps.21042 .
- National Children's Alliance (2023). National statistics on child abuse.
<https://www.nationalchildrensalliance.org/media-room/national-statistics-on-child-abuse/#:~:text=More%20than%20600%2C000%20children%20are,which%20there%20is%20national%20data.>
- Office of Disease Prevention and Health Promotion (2023). Social determinants of health.
<https://health.gov/healthypeople/priority-areas/social-determinants-health#:~:text=What%20are%20social%20determinants%20of,of%20life%20outcomes%20and%20risks.>
- PACES Connection. (2023). *3 Realms of ACEs*.
https://www.pacesconnection.com/ws/Handouts_3RealmsACEs_EN.pdf
- Substance Abuse and Mental Health Services Administration (2023). Understanding child trauma.
<https://www.samhsa.gov/child-trauma/understanding-child-trauma>

ACES AND PACES

The National Child Traumatic Stress Network (2023). School personnel.

<https://www.nctsn.org/audiences/school-personnel>

Webster, E.M. (2022). The impact of adverse childhood experiences on health and development in young children. *Global Pediatric Health*, 26 (9) doi: 10.1177/2333794X221078708




Practice Perspectives

Through the Shadows: Exploring Domestic Child Torture

Andrea Sebastian, DNP, APRN, PNP-PC/AC, AFN-C, SANE-P¹
Theresa Fay-Hillier, DrPH, MSN, PMHCNS-BC²

Received: Sept 4, 2023

Accepted: July 3, 2024

© Sebastian, A. & Hillier, F, 2024  This is an Open Access article distributed under the terms of the Creative Commons-Attribution-Noncommercial-Share Alike License 4.0 International (<http://creativecommons.org/licenses/by-nc-sa/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly attributed, not used for commercial purposes, and, if transformed, the resulting work is redistributed under the same or similar license to this one.

Corresponding author: Andrea Sebastian, DNP, APRN, PNP-PC/AC, AFN-C, SANE-P
University of Tennessee Health Science Center
874 Union Ave. #312
Memphis, TN 38163
(901) 448-1110
ajone181@uthsc.edu

Affiliations: 1- University of Tennessee Health Science Center; Memphis TN; 2-Associate Clinical Professor, Drexel University College of Nursing and Health Professions, Philadelphia PA.

Abstract

Child torture is a severe form of child maltreatment. Children who are tortured are at high risk of death and/or re-traumatization. It is imperative both legally and ethically that health care providers recognize children who are being tortured in order to develop a safety plan to help prevent further abuse and trauma to the child. This article will define and address the following: child torture, intrafamilial child torture (ICT), common presentations of victims of ICT, risk factors of victims of ICT, and guidelines for healthcare practitioners working in the United States when they assess victims. Additionally, there will be a discussion on the importance of collaborating both on an interdisciplinary (e.g. medical, social workers, child protective case workers, psychology) and multidisciplinary (clinical and legal) level. and the utilization of self-care activities for clinicians, after treating a child who has been tortured.

Keywords: Torture, Child Abuse, Severe Child Abuse, Child Torture, Intrafamilial Child Torture

Through the Shadows: Exploring Domestic Child Torture

The World Health Organization (WHO) (2022) defines child maltreatment as “abuse and neglect that occurs to children under 18 years of age. It includes all types of physical and/or emotional ill-treatment, sexual abuse, neglect, negligence, and commercial or other exploitation which results in actual or potential harm to the child’s health, survival, development, or dignity in

the context of a relationship of responsibility, trust, or power” (para. 1). More than 600,000 children are abused in the U.S. each year (National Children’s Alliance, 2024). Based on seminal research from Knox & Sterling (2012), it is estimated that 1–2% percent of children who are maltreated are suffering from child torture, a severe form of child maltreatment (Knox et al., 2014). Collecting specific statistics related to child torture is not consistently reported at this time, and the United States does not separately identify child torture cases in child fatalities and abuse statistics (National Center for Child Abuse Statistics and Policy, n.d.). In addition to the United States not collecting specific data on child torture, knowing the extent of the problem is further complicated by the fact that not all cases of child abuse are reported (CDC, 2022). In a recent child torture study, 35% of the children tortured had a sole adult torturer, and 65% had a second adult also contributing to the torture. Approximately 70% of these children had a previous Child Protective Services (CPS) investigation. Many torturers reported they used torture as a form of discipline (Schlatter et al., 2024, p.3). Child torture differs from other forms of child maltreatment due to the type and extent of abuse and psychopathology and the lived experiences of the children (Miller et al., 2021). It is imperative, both legally and ethically, that healthcare providers recognize children who are being tortured in order to develop a safety plan to help prevent further abuse and trauma (Knox et al., 2016). This article will define child torture (with a focus on intrafamilial child torture) and discuss common presentations. It will also include assessment suggestions for victims presenting to a medical facility in the United States. Additionally, this article will include the utilization of self-care activities for clinicians treating children who have been tortured.

What is Child Torture?

Both the medical and legal definition of child torture can vary (Deutsch & O'Brien, 2024; National Center for Child Abuse Statistics and Policy, 2020). The most widely accepted medical definition of child torture is “a longitudinal experience characterized by at least two physical assaults or one extended assault, two or more forms of psychological maltreatment, and neglect resulting in prolonged suffering, permanent disfigurement or dysfunction or death” (Knox et al., 2016, p.37). Primary caregiver(s) torturing a child in their care is referred to as intrafamilial child torture (ICT). There is a growing initiative by professionals working with victims of child torture to have ICT become a separate category of child maltreatment due to the consistent psychopathology of the primary caregivers(s) torturing the child in their care (Miller, 2020; Miller et al., 2021). ICT is a severe form of child maltreatment and differs from other forms of child abuse due to the severity, continuous nature, perpetrator intent, and isolation of the child. Perpetrators of ICT use domination to control the child and often limit access to the child’s basic necessities, such as toileting, food, and water (Macy, 2019; Allasio & Fischer, 1998; Knox et al., 2016). Partners with children who are victims of ICT are often victims themselves. The abuser uses dominant techniques to control both the child and the partner (Fontes & Miller, 2022; Miller, 2020; Miller et al., 2021).

ICT is often hard to diagnose because most tortured children do not present to their pediatrician for regular health check-ups (Knox et al., 2016; Schlatter et al., 2024). When a child who has been a victim of ICT presents for medical care at a primary care office or the emergency department, conditions such as cutaneous injuries, burns, and fractures are often discovered. Once the children are discovered, they will often disclose a history of isolation, physical restraints, sexual abuse, restriction of bodily functions, forced exercise, and forced positioning or standing. Further, children or parents may disclose psychological maltreatment consisting of threats of

death or further torture, isolation from others, medical neglect, and being terrorized (Knox et al., 2016).

Medical providers should be diligent in identifying victims of ICT early due to the unique needs of tortured children and their high risk of fatality (Ratnayake, 2020). In the Knox et al., 2016 study, 36% of children who were tortured died due to their injuries, severe neglect, and starvation. A consistent crucial safety priority that healthcare providers need to address when identifying victims of ITC is the development of a safe discharge plan that includes removal from the abuser. A consistent crucial safety priority that healthcare providers need to address when identifying victims of ITC is the development of a safe discharge plan that includes removal from the primary care provider. The perpetrators involved with child torture have unique findings, including the need to control the child and the inability to meet the child's basic needs. Additionally, different than most other forms of abuse, perpetrators of ICT consistently present with psychopathology that is not easily treated in order to have abused children successfully return to the perpetrator(s)' home (Miller, 2020; Fontes & Miller, 2022). These findings are not able to be reversed by using the common interventions for other forms of child maltreatment that focus on the reunification process. Victims of ICT who remain in the home with their abuser will remain at high risk for revictimization and death (Steele, 1987; Miller, 2020).

Children who are victims of child torture are exposed to continuous, intense child maltreatment. Felitti et al. (1998), in their seminal work, identified an association in children between birth and 17 years old between exposure to various forms of traumatic events – referred to as Adverse Childhood Experiences (ACEs) – and negative lifetime consequences. Traumatic events are those that are overwhelming to children and can result in chronic levels of stress and anxiety (CDC, 2024). The frequency and duration of the traumatic experiences are associated with increased risks for adverse physical and mental health outcomes. These traumatic events are often referred to as toxic and are also associated with neurological alterations in a child's developing brain (Hakamata, et al., 2022). In addition to ACEs, there are identified protective factors that can provide opportunities for children exposed to adverse events to defend against the toxic impact on the developing brain. Some protective factors are associated with decreased risk of neurological alterations (Hakamata et al., 2022). Protective and compensatory childhood experiences (PACEs) are primarily separated into useful resources and healthy relationships. Children with social supports, a caregiver or other close relative who provides unconditional love, being part of a supportive group, and/or having a healthy mentor are examples of protective factors that can provide opportunities for children to lessen the impact of traumatic experiences. Some of the healthy resources include living in a safe environment, having a quality education, being provided with an environment for healthy exercise, and being provided with structure and consistent rules (Audage, 2021; Morris & Hays-Grudo, 2023). In addition to assessing for children's ACEs, nurses can also assess for the PACEs in the child's life. If the child is lacking PACEs, they can be included in plans to support the developments of protective factors to provide for the opportunity for positive outcomes as a child is recovering.

Why is Child Torture Overlooked?

Medical providers overlook ICT for many reasons, including the lack of proper training to recognize torture, and the lack of research and training on child torture (Clarysse et al., 2019; Miller, 2020). Also, children who are victims of torture are often isolated from other family, friends, and medical providers. Suppose the child has physical findings on their medical examination. In that case, the perpetrator may explain the medical findings by describing a

behavioral issue and the medical provider will then consider the findings to be related to the behavioral issue and not a result of starvation and torture (Knox et al., 2016). Lastly, many medical providers may feel that the disclosure from the child is “far-fetched” and could not be true, leading them to not report the disclosure (Miller, 2020).

What Workup is Suggested When Medical Providers Suspect Child Torture?

The initial management of a child who has been tortured involves first stabilizing the child and ensuring their safety. Once the patient is stabilized and in a safe environment, the provider is mandated to complete a history and conduct a head-to-toe physical examination. The medical history should be trauma-informed, patient-centered, and culturally sensitive. The physical examination should include a complete skin examination and documentation of all skin lesions, including patterned lesions (Clarysse et al., 2019).

Tortured children of all ages need a skeletal survey upon initial presentation and a repeat skeletal survey in two weeks (Kellogg & Nienow, 2023). Head CT scans are indicated for infants six months and younger who have injuries concerning physical abuse. In addition, any child with altered mental status or signs of neurologic or head injury should have a head CT and/or MRI. The provider also should consider ordering laboratory studies to evaluate bone health (e.g., calcium, magnesium, phosphate, alkaline phosphatase); hematologic disorders (e.g., CBC); coagulation disorders (e.g., PT, PTT, INR); metabolic disorders (e.g., glucose, BUN, creatinine, albumin, protein), liver conditions/injuries (e.g., AST, ALT); pancreatic conditions/injury (e.g., amylase and lipase); and bleeding problems (e.g., von Willebrand antigen, von Willebrand activity, Factor VIII, Factor IX, and platelet function assays). An expanded drug screen and forensic toxicology should also be considered, as many of these children have been given legal and illegal drugs to keep them sedated or as punishment.

The medical provider should request the child’s entire medical record and pay special attention to the child’s growth chart, as many children presenting with torture have been starved. Vitamin levels, IGF-1, and IGFB-3, should be ordered in children who disclose starvation or have a physical exam concerning starvation, as these levels are often low in children who have been starved. If the provider has concerns that the child has had a prolonged period of starvation, the child should be fed slowly, and the child should be monitored for refeeding syndrome (Pulcini et al., 2016). Restricting calories in children who are at high risk for refeeding syndrome can seem cruel and difficult for many providers. However, if the child is fed too quickly, it can lead to metabolic derangements and cardiac arrhythmia.

If the AST, ALT, lipase, and amylase levels are elevated or there is bruising to the abdomen, the provider should consider ordering an abdominal CT to assess for intra-abdominal injuries. CPK should be ordered in children with severe physical abuse or when exercise is used as punishment. If the result is elevated, the provider should monitor for rhabdomyolysis (Table 1). If the clinic or hospital cannot provide the level of care the patient requires at the time of presentation, the provider should follow federal and state laws in coordinating the needed care for the child. If state law supports the process, the child will usually be transferred to another institution that can provide the needed level of care. If transferring a victim of ICT to another facility is not possible, the healthcare team should consult with a child maltreatment specialist (which could be a forensic pediatrician or healthcare practitioners trained in working with children who have been tortured) (Fontes & Miller, 2022; Miller et al., 2021). As with any child maltreatment, healthcare providers are mandated to notify CPS and, in some states, notify police

CHILD TORTURE

directly. Since all healthcare providers are mandated reporters, if there is any suspicion of child torture, they should not delay notifying the appropriate authorities, including waiting for transfer to have another clinic or hospital call in the referral.

Table 1:

Diagnostic and Laboratory Studies for Children who are Tortured

Skeletal Survey	<ul style="list-style-type: none"> • Order to evaluate for acute and/or healing fractures • All children should receive a skeletal survey upon initial presentation • Repeat skeletal survey in 2 weeks
Head CT/MRI brain	<ul style="list-style-type: none"> • Order to evaluate for head injury • Children less than 6 months of age • Any child with mental status changes, neurological changes, or concerns about a head injury
Calcium, Magnesium, Phosphate, Alkaline Phosphatase	<ul style="list-style-type: none"> • Order to evaluate for bone health
CBC, PT, PTT, INR, von Willebrand antigen, von Willebrand activity, Factor VIII, Factor IX, platelet function assay	<ul style="list-style-type: none"> • Order to evaluate for hematologic disorders
Glucose, BUN, Creatinine, Albumin, Protein	<ul style="list-style-type: none"> • Order to evaluate for metabolic disorders
AST, ALT	<ul style="list-style-type: none"> • Order to evaluate for liver conditions/injuries
Amylase, Lipase	<ul style="list-style-type: none"> • Order to evaluate for pancreatic conditions/injuries
Expanded drug screen	<ul style="list-style-type: none"> • Order to screen for legal/illegal drugs
Review the entire Medical Record/Growth Chart	<ul style="list-style-type: none"> • Request to evaluate growth, previous injuries/illnesses
Vitamin levels, IGF-1, IGF-3	<ul style="list-style-type: none"> • Order to evaluate for starvation
Abdominal CT	<ul style="list-style-type: none"> • Order if the AST, ALT, amylase, or lipase is elevated or there is bruising to the abdomen • Will assesses for intra-abdominal injuries
CPK	<ul style="list-style-type: none"> • Order in children with severe physical abuse or when exercise is used as punishment • Screens for rhabdomyolysis

Suppose a sexual assault has been disclosed or the healthcare provider has concerns that the child may have been sexually assaulted. In that case, the child should receive sexually transmitted infection (STI) testing, including HIV, gonorrhea, chlamydia, trichomonas, hepatitis, and a pregnancy test. Depending on the last known contact with the perpetrator, the provider should consider collecting evidence. The medical provider should consider STI prophylaxis based on the history and their medical facilities protocols.

Since child torture is more severe than other forms of child maltreatment, interventions must vary and be focused on protecting the children and helping them heal. Accordingly, mental health professionals should be consulted, and therapy should begin after the child's physical and psychological safety has been met. Tortured children may continue with many behaviors that are difficult for their guardians, and it may take years for a child to feel safe in their new environment. Many have been isolated and will not know how to interact with adults or children and may even develop eating disorders, such as hoarding food because of starvation, food gorging, or hiding food (Perry, 2013; Schlatter et al., 2023).

Using a multidisciplinary team (MDT) is imperative to improve the understanding, recognition, treatment, and prosecution of child torture. The team should work together to meet the immediate and long-term needs of tortured children, along with discussing the risk factors and protective factors (Miller, 2021). Due to the legal challenges associated with child torture, including the gaps in some states' criminal justice system, the MDT must work together to ensure the children are in a safe environment. In most states, there is further legislation needed to protect children who are tortured (Macy, 2019; Deutsch & O'Brien, 2024).

Aftercare for the Medical Provider Caring for a Child Who has Been Tortured

Healthcare providers who encounter children who are victims of trauma (which includes ICT) are at risk for suffering from compassion fatigue, secondary traumatic stress, and vicarious trauma (Lee et al., 2021; Vang et al., 2020; Xu et al., 2024; Zhang et al., 2018). Although some literature uses the terms of compassion fatigue, secondary traumatic stress, and vicarious trauma interchangeably because they can all result from exposure to traumatic events, the actual exposure of the traumatic experience and impact differs between the experiences (Lee et al., 2021; Nimmo & Huggard, 2013; Peacock, 2023). Figley (1995), in seminal work, identified compassion fatigue as the emotional distress someone experiences when caring for a patient in their workplace who has been exposed to trauma. Further developed and defined, compassion fatigue occurs over time with ongoing exposure to stressful encounters with patients and colleagues, and it affects their ability to be productive in their professional expectations. Furthermore, in the development of compassion fatigue is that healthcare providers' exposure to stress consistently exceeds their ability to restore through healthy lifestyle practices (Zhang et al., 2018). Signs that a provider may be suffering from compassion fatigue may include mood swings, experiencing disconnection of emotions and social relationships, feelings of depression and anxiety, being unable to complete expected tasks in both professional and personal life, impact on sleep, and somatic symptoms (Bhandari, 2022; Peters, 2018).

The seminal work of Figley (1995) also included one of the first definitions of secondary traumatic stress as the result of healthcare providers experiencing overwhelming levels of stress that result in behavioral changes due to learning about a traumatic event experienced by a patient in their care. Some nurses are more vulnerable to developing secondary traumatic stress due to the length of time spent with their patients and family, their empathy, their coping skills, and their frequency of encountering victims of trauma (Arnold, 2020; Xu et al., 2024). The overall symptoms of secondary traumatic stress are similar to post-traumatic stress disorder (except indirectly rather than directly experiencing the trauma) and include having physical, emotional, and social symptoms. A systematic review and meta-analysis conducted by Xu et al., 2024 obtained a pooled prevalence of nurses experiencing secondary traumatic stress by emergency nurses to be 65%—the symptoms experienced by nurses impact both their professional and

personal lives. Nurses who encounter victims of child torture are at greater risk for developing secondary traumatic stress (Children's Hospital of Philadelphia, 2021).

Different from secondary traumatic stress, vicarious trauma was first noted by Pearlman & Saakvitne (1995) to describe the negative impact that can occur for individuals working in fields that expose them to encountering victims of trauma and violence frequently. Vicarious trauma typically results in changing how individuals view the world. It can make one more pessimistic and fearful about how one views life. Some individuals who experience vicarious trauma rather than having a negative view can have a positive or resilient response that strengthens their appreciation of what they have in their own lives and appreciation for the work they do (Nimmo & Huggard, 2013; Peacock, 2023; OVC, n.d.).

In addition to some nurses having a positive response to vicarious trauma, other protective factors that may limit or reduce the negative consequences of compassion fatigue, secondary traumatic stress, and vicarious trauma are compassion satisfaction, a supportive work environment, and healthy self-care practices (Lee et al., 2021; Peacock, 2023; Zhang et al., 2018). Compassion satisfaction is a perspective that the work conducted by healthcare providers (which includes nurses) who work with victims of violence and trauma matters, and they have a sense of meaning and purpose (Lee et al., 2021; OVC, n.d.; Peacock, 2023; Zhang et al., 2018). Zhang et al. (2018), in their correlative meta-analysis evaluating the impact nurses' mental health had on the development of either compassion fatigue or compassion satisfaction, found that nurses who have a positive or contented affect and are socially engaged may support the development of compassion satisfaction. Nurses who can maintain a healthy work and personal life balance have the opportunity to be more resilient in managing the emotional tolls of encountering ICT.

Supportive working environments can also promote or minimize the impact of traumatic encounters on nurses. One way to help cope with compassion fatigue is to debrief as a team after seeing a difficult patient. The provider needs to have a safe person and place where they can discuss their feelings. Providers should be encouraged to seek help when they feel like they are suffering after seeing a victim of trauma. Some institutions have found it helpful to debrief after every case of child abuse and neglect, which has allowed their staff to learn more about trauma-informed healthcare environments and has decreased provider burnout (Bennett & Christian, 2023). Included in a supportive environment is to be aware of the symptoms of potential negative consequences from exposures to trauma and violence and provide appropriate referrals to promote health and recovery (Children's Hospital of Philadelphia, 2021; Peacock, 2023; Peters, 2018).

Conclusion

Children who survive child maltreatment, specifically child torture, may experience lifelong physical and psychological consequences. For this reason, anyone who provides care to children must have knowledge of the definition, shared presentations, medical findings, medical workup, and follow-up for children who are tortured. Tortured children need an immediate response by healthcare providers to decrease the physical and psychological effects of torture, along with preventing a child fatality. Due to the potential for negative consequences that healthcare providers may experience as a result of their work with ICT, it is also imperative that they are informed of the potential risks and are supported and provided with the necessary resources.

The authors recommend that further research should be developed for ICT to address the complex needs of undocumented and potentially human-trafficked children who are victims of child torture.

References

- Allasio, D., & Fischer, H. (1998). Torture versus child abuse: what's the difference? *Clinical Pediatrics*, 37(4), 269–271. doi:10.1177/000992289803700410.
- Arnold, T.C. (2020). An evolutionary concept analysis of secondary traumatic stress in nurses. *Nursing Forum*, 55(2), 149–156. <https://doi.org/10.1111/nuf.1240>
- Audage, N. (2021, May 19). Positive and adverse childhood experience (PACEs): What happens in childhood matters. <https://www.pacesconnection.com/blog/better-normal-march-26-positive-and-adverse-childhood-experiences-paces-what-happens-in-childhood-matters>
- Bennett, C. E., & Christian, C. W. (2023) How should clinicians and students cope with secondary trauma when caring for children traumatized by abuse or neglect? *AMA J Ethics*, 25(2), E109-115. doi: 10.1001/amajethics.2023.109. PMID: 36754072.
- Bhandari, S. (2022, December 12). Compassion fatigue: Symptoms to look for. *WebMD*. <https://www.webmd.com/mental-health/signs-compassion-fatigue>
- Children's Hospital of Philadelphia. (2021). Pediatric medical traumatic stress. <https://www.healthcaretoolbox.org/self-care-for-provider>
- Clarysse, K., Grosber, M., Ring, J., Gutermuth, J., & Kivlahan, C. (2019). Skin lesions, differential diagnosis and practical approach to potential survivors of torture. *Journal of the European Academy of Dermatology and Venereology: JEADV*, 33(7), 1232–1240. <https://doi.org/10.1111/jdv.15439>
- CDC. (2022, April 6). *Fast facts: Preventing child abuse & neglect*. <https://www.cdc.gov/violenceprevention/childabuseandneglect/fastfact.html>
- CDC. (2024, April 9). *Adverse childhood experiences*. <https://www.cdc.gov/aces/about/index.html>
- Deutsch, S. A., & O'Brien, E. (2024). Child torture victimization: Review of criminal statutes and medico-legal issues. *Child Abuse & Neglect*, 151, 106750. <https://doi.org/10.1016/j.chiabu.2024.106750>
- Figley, C. R. (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. New York: Brunner/Mazel.
- Felitti, V.J., Anda, R.F., Nordenberg, D., Williamson, D.F., Spitz, A.M., Edwards, V., Koss, M.P., & James S Marks, J.S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14(4), 245-258. ISSN 0749-3797, [https://doi.org/10.1016/S0749-3797\(98\)00017-8](https://doi.org/10.1016/S0749-3797(98)00017-8)
- Fontes, L.A., & Miller, P.J. (2022, November 18). Understanding coercive control & intrafamilial child torture. *Psychology Today*. <https://www.psychologytoday.com/us/blog/invisible-chains/202211/understanding-coercive-control-and-intrafamilial-child-torture>

- Hakamata, Y., Suzuki, Y., Kobashikawa, H., & Hori, H. (2022). Neurobiology of early life adversity: A systematic review of meta-analyses towards an integrative account of its neurobiological trajectories to mental disorders. *Frontiers in Neuroendocrinology*, 65, 100994. ISSN 0091-3022, <https://doi.org/10.1016/j.yfrne.2022.100994>.
- Kellogg, N. & Nienow, S. (2023). *Torture and Starvation*. [Online Learning Module] Evidentia Learning. <https://www.evidentialearning.com/products/ffcea2bd-40d7-4233-8c84-3651b29e91fb>
- Knox, B. L., & Starling, S. (2012, November 27). *Child torture: Case reviews and analysis of institutional responses*. Paper presented at the National District Attorneys Association National Center for the Prosecution of Child Abuse Investigation and Prosecution of Child Fatalities and Physical Abuse Conference, Honolulu, Hawaii.
- Knox, B.L., Starling, S.P., Feldman, K.W., Kellogg, N.D., Frasier, L.D. & Tiapula, S.L. (2014) Child torture as a form of child abuse. *Journal of Child & Adolescent Trauma*, 9(1), 249–265. Available from: <https://doi.org/10.1007/s40653-014-0009-9>.
- Knox, B. L., Starling, S. P., Feldman, K. W., Kellogg, N., Frasier, L., & Tiapula, S. (2016). Child torture as a form of child abuse. *Journal of Child & Adolescent Trauma*, 9(3), 265–265. <https://doi.org/10.1007/s40653-016-0108-x>
- Lee, H. J., Lee, M., & Jang, S. J. (2021). Compassion Satisfaction, Secondary Traumatic Stress, and Burnout among Nurses Working in Trauma Centers: A Cross-Sectional Study. *International journal of environmental research and public health*, 18(14), 7228. <https://doi.org/10.3390/ijerph18147228>
- Macy, A. (2019). A precarious gap in US criminal codes for cases of child torture and suggested model statute. *Children and Youth Services Review*, 96, 500-508.
- Miller, P.J. (2020). Intrafamilial child torture: Training mandated reporters. *APSAC Advisor*, 32, 1, 3-8. https://www.apsaclibrary.org/publications_all.php?dir=2020%20Number%201#
- Miller, P.J., Rycus, J.S., & Hughes, R.C. (2021). *Intrafamilial child torture: Making the case for a distinct category of child maltreatment*. The American Professional Society on the Abuse of Children Center for Child Policy. <https://cmprc.org/intrafamilial-child-torture>
- Morris, A. S., & Hays-Grudo, J. (2023). Protective and compensatory childhood experiences and their impact on adult mental health. *World Psychiatry: Official Journal of the World Psychiatric Association (WPA)*, 22(1), 150–151. <https://doi.org/10.1002/wps.21042>
- National Center for Child Abuse Statistics and Policy. (n.d.) *What is child torture?* <https://www.nccasp.org/fighting-child-torture>
- National Children’s Alliance. (2024). *National statistics on child abuse*. <https://www.nationalchildrensalliance.org/media-room/national-statistics-on-child-abuse/>
- Nimmo, A., & Huggard, P. (2013). A systematic review of the measurement of compassion fatigue, vicarious trauma, and secondary traumatic stress in physicians. *Australasian Journal of Disaster and Trauma Studies*, 2013(1), 37-44. URL: http://trauma.massey.ac.nz/issues/2013-1/AJDTTS_2013-1_Nimmo.pdf

CHILD TORTURE

- Office for Victims of Crime (OVC). (n.d.). *What is vicarious trauma?*
<https://ovc.ojp.gov/program/vtt/what-is-vicarious-trauma>
- Peacock A. (2023). Compassion satisfaction, compassion fatigue, and vicarious trauma. *Nursing management*, 54(1), 14–22. <https://doi.org/10.1097/01.NUMA.0000905000.95966.96>
- Pearlman, L. A., & Saakvitne, K. W. (1995). Treating therapists with vicarious traumatization and secondary traumatic stress disorders. In C.R.Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*, (pp.150-177). New York, NY: Brunner/Mazel.
- Perry, B.D. (2013). *Bonding and attachment in maltreated children, Consequences of emotional neglect in childhood*. The Child Trauma Academy. www.childtrauma.org
- Persaud (2018, January 18). The Psychology of Child torture. *Psychology Today*.
<https://www.psychologytoday.com/us/blog/slightly-blighty/201802/the-psychology-of-child-torture>
- Peters, E. (2018). Compassion fatigue in nursing: A concept analysis. *Nursing Forum*, 53(4), 466– 480. <https://doi.org/10.1111/nuf.12274>
- Pulcini, C. D., Zettle, S., & Srinath, A. (2016). Refeeding syndrome. *Pediatrics In Review*, 37(12), 516–523. <https://doi.org/10.1542/pir.2015-0152>
- Ratnayake, M. A. (2020). Domestic Child Torture – Identifying Survivors and Seeking Justice. In: Geffner, R., White, J.W., Hamberger, L.K., Rosenbaum, A., Vaughan-Eden, V., Schlatter, A., Wiester, R.T., Thompson, A.D., Gilbert, J., Forshag, T. & Feldman, K.W. (2024) Child torture: A Washington state case series. *Child Abuse Review*, 33(1), e2848. <https://doi.org/10.1002/car.2848>
- Steele, B. (1987). Psychodynamic factors in child abuse. In R. Helfer, C. H. Kempe, & R. S. Krugman (Eds.), *The Battered Child* (pp.81–114). Chicago: University of Chicago Press.
- Vang, M. L., Gleeson, C., Hansen, M., & Shevlin, M. (2020). Covariates of burnout and secondary traumatization in professionals working with child survivors of trauma: A research synthesis. *The British Journal of Social Work*, 50, 1981–2001, <https://doi.org/10.1093/bjsw/bcz117>
- Vieth, V.I. (Eds.), *Handbook of Interpersonal Violence and Abuse Across the Lifespan*. Springer, Cham. https://doi.org/10.1007/978-3-319-62122-7_323-1
- World Health Organization. (2022 September 19). *Child maltreatment*.
<https://www.who.int/news-room/fact-sheets/detail/child-maltreatment>
- Xu, Z., Zhao, B., Zhang, Z., Wang, X., Jiang, Y., Zhang, M., & Li, P. (2024). Prevalence and associated factors of secondary traumatic stress in emergency nurses: a systematic review and meta-analysis. *European Journal of Psychotraumatology*, 15(1), 2321761. <https://doi.org/10.1080/20008066.2024.2321761>
- Zhang, Y., Zhang, C., Han, X., Li, W., & Wang, Y. (2018, June). Determinants of compassion satisfaction, compassion fatigue and burn out in nursing: A correlative meta-analysis. *Medicine*, 97(26), 11086. DOI: 10.1097/MD.0000000000011086

Acknowledgements


This work is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) issued to the University of Tennessee Health Science Center under grant #T96HP42064-02-00 entitled Advanced Nursing Education: Sexual Assault Nurse Examiner Program totaling \$1,500,000.00 with zero percent financed with non-governmental sources. This information or content and conclusions are those of the authors and should not be construed as the official position or policy of nor should any endorsements be inferred by HRSA, HSS, or the U.S. Government.



Case Study

Healthcare Needs of the Sex Trafficking Patient

Natalie Calow, MSN RN, CEN, AFN-C

© Calow, N., 2024.  This is an Open Access article distributed under the terms of the Creative Commons-Attribution-Noncommercial-Share Alike License 4.0 International (<http://creativecommons.org/licenses/by-nc-sa/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly attributed, not used for commercial purposes, and, if transformed, the resulting work is redistributed under the same or similar license to this one.

Corresponding author: Natalie Calow MSN, RN, CEN, AFN-C
Indiana University Health – Methodist Hospital
Health Care Needs of the Sex Trafficking Patient
ncalow@iuhealth.org

Abstract

In this case study, the author reviews the healthcare needs and recommended treatment for a victim of sex trafficking. Challenges and opportunities for the case are presented with implications for practice.

Keywords: trafficking, sex trafficking

Health Care Needs of the Sex Trafficking Patient

Sex Trafficking in the United States is an established public health crisis. Many trafficked women, men, and transgendered individuals do not seek medical attention or have routine appointments with their providers. Although it is estimated that 50% of trafficking victims saw a health care professional during their exploitation (Waugh, 2018), it is also likely that they are often accompanied by their trafficker and are nervous during their appointment (Lepianka & Colbert, 2019). Further, when victims of sex trafficking do see a health care professional, signs of sex trafficking may not be obvious to the provider, making recognizing a trafficking victim challenging; particularly as some patients do not even identify as a victim.

Health care professionals are usually the first to contact a trafficking victim (Waugh, 2018). Recognizing the signs and conditions associated with trafficking offers an opportunity to treat properly and provide resources. The health care needs of the patient must be addressed while they are in the provider's care. There are several key indicators associated with trafficking, including: lack of a primary care provider, obvious mental health issues, evidence of drug addiction, unexplained injuries, presence of infectious diseases, and a history of multiple abortions (Toney-Butler, et al, 2023). A systematic review completed by Lepianka and Colbert

(2019) found the United States health care system is grossly inadequate in providing the health care services to a person experiencing trafficking, which suggests that there are opportunities for improvement.

Case Presentation

A 21-year-old woman, Kasha, is brought to the emergency department by EMS for a physical and sexual assault. She is noted to have a C-collar in place, blood covering her face, with notable abrasions. Kasha has difficulty providing a history but immediately shares that she has dissociative identity disorder (DID). Per EMS, the patient was found in an abandoned house by local construction workers when they heard her scream for help. Upon entering the house, they found Kasha on the floor with a man standing over her, hitting her with a brick. The assailant then ran from the scene. Then medics arrived shortly thereafter. Kasha reports spending a couple days with a man she met at a local gas station and that she was physically and sexually assaulted and held captive. The assailant made her take Methamphetamines and that she has periods of memory lapses and thinks she was sexually assaulted during some of those times because when she woke up afterwards, she was “sore down there”. Kasha further reports, she was strangled multiple times during the physical assaults and that she is having a difficult time swallowing. The patient was evaluated by trauma services because of her injuries and subsequently underwent CT scan, MRI of the neck, X-rays, and blood work. The patient was then medically cleared by the trauma team for a medical forensic examination (which she consented to) Kasha agrees to file a police report for sexual and physical assault, however she was unable to state her home address and stated she repeatedly dissociated when she was assaulted and doesn't remember much of the events surrounding the physical and sexual assault. The patient thoughts were disjointed, and she displayed delusions of grandeur; for example, during the history taking portion of medical forensic exam, she referred to herself as God and asserted that she is psychic. During another part of the exam, she referred to herself as Galina (apparently, one of the other dissociative “alters”).

The patient disclosed being adopted from Russia and revealed a history of experiencing abuse by her adoptive parents in America. The patient stated she was recently kicked out of her boyfriend's house and is now homeless. The patient stated her boyfriend was forcing her have sex with others for money to help pay rent. During the history taking portion of the forensic interview, she identified different names to call her and at one point she stated she was an 8-year-old girl names Karina. The patient remembered being strangled multiple times, hit with bricks and pipes, and stated she remembered falling about 10 feet through the attic roof of the abandoned house. The patient also remembered being sexually assaulted vaginally and made to perform oral sex on the assailant.

A physical assessment showed multiple areas of abrasions, bruising, and dried blood to the body. The patient's body was covered in housing insulation. A 3cm laceration to the middle of forehead and multiple scratch marks to neck were also noted. Patients oral-pharyngeal area swabbed for sexually transmitted infections testing. Evidence swabs were obtained orally and from bilateral regions of the neck due to patient compliance. External genital evidence swabs were also obtained, and a pelvic exam was attempted but the patient became uncooperative and declined a pelvic exam.

Management and Outcome

The patient was categorized to be a trauma level two per emergency department protocol which states she was be seen immediately by an Emergency Medicine (EM) attending physician

and a trauma resident within 15 minutes of arrival. The trauma team completed a primary and secondary survey of the patient. Pain was addressed upon arrival to hospital and fentanyl IV given. X-rays of chest, bilateral hand, bilateral humerus, bilateral knees and bilateral radius/ulna were all negative for fractures. CT scan of head, abdomen and pelvis were all negative. CT scan of the maxillofacial area showed a right mildly displaced maxillary sinus fracture with no surgical intervention needed. Due to the patient stating she had been strangled multiple times with a loss of consciousness and during her physical assessment, it was noted she had swelling to the neck and multiple scratch marks to the neck. A CTA scan of the neck was ordered per the Training Institute on Strangulation Prevention “Recommendations for the Medical/Radiographic Evaluation of Acute Adult, Non-Fatal Strangulation” algorithm (Smock & Sturgeon, 2017). A CTA scan of the neck for strangulation showed an asymmetrical widening of C6-C7 which indicated a possible ligamentous injury, and an MRI of the neck was ordered. Consequently, the MRI showed intact ligaments of the spine and no acute injury.

Labs were drawn per Centers for Disease Control and Prevention (CDC; 2021) recommendations; specifically, HIV, Hepatitis B qualitative and quantitative, Hepatitis C, Syphilis, and urine pregnancy test. A urine drug screen was obtained by trauma services, which is trauma protocol for all trauma patients, which was positive for cocaine, cannabinoids, and methamphetamines. The patient was swabbed in the oral-pharyngeal area due to a report of oral copulation on assailant and a high suspicion of patient being a sex trafficking victim. Patient test results from the oral-pharyngeal area were positive for gonorrhea and chlamydia. The forensic examiner attempted to complete rectal and vaginal exam and swab areas for STI testing but the patient declined any further examination. Specifically, the patient stated she was tired and wanted to just leave. The patient was given ceftriaxone 500mg IM, azithromycin 2 grams by mouth, metronidazole 2 grams by mouth, and Plan B 1.5mg orally.

The patient stated she did not want to go to a shelter and expressed feelings safe to go back out on the streets upon discharge; this was despite the assailant not being arrested. The patient gave no home address or phone number for follow up care. The patient was instructed to call the forensic phone number in 3 days for lab results. The patient was additionally given information on the local women’s advocacy shelter for counseling and to talk with an advocate about her case. Lastly, the patient was given strangulation discharge instructions and told how to measure her neck in the next 4 days, consistent with typical strangulation protocols (Dunn et al., 2023; International Association of Forensic Nurses-IAFN, 2016; White, 2024).

The patient’s lab results for gonorrhea, chlamydia, and trichomonas did not come back for 3 days. The patient never called the office for lab results and the forensic team had no way to contact the patient for her positive oral-pharyngeal gonorrhea and chlamydia results. The lead detective on the case tried to find the patient on the streets due to the fact she had told him where she usually “hangs out” in the city, which is a location in the city with high prostitution activity.

One week later a call to the forensic team from a nurse practitioner at the local Salvation Army wanting the recommended follow up protocol for sexual assault victims because they believed she had a patient staying there that was sexually assaulted. The nurse practitioner had noticed discharge paperwork the patient was carrying, and the paperwork was from the treating hospital. The patient was then notified of the positive lab work and instructions on follow up care.

Discussion

Multiple red flags for sex trafficking were identified during the medical forensic exam. The patient stated she was adopted and grew up in an abusive home. She had mental health issues for which she stated she did not take her medications for her dissociative identity disorder, depression, and autism. The patient was very private about her personal life and would not discuss in much detail her recent boyfriend who had kicked her out of his house. She would not go into detail when asked about her boyfriend trafficking her for rent money. The patient was unsure as to what city she was in at the time of admission. Further, the patient would not leave a phone number or address for follow up care and was in a rush to leave the hospital once medical care was completed.

During the medical forensic exam, the patient was screened for sex trafficking by using the National Human Trafficking Resource Center screening questions (NHTRC; 2016). The patient answered no to all questions except to the question “Has anyone physically or sexually abused you?” due to what brought her into the hospital. The patient could have been answering no to all questions due to wanting to leave the hospital and being mentally and emotionally exhausted at that time. A psychiatry consultation was attempted before the medical forensic exam, but the psychiatry personnel declined to see the patient as she was not actively suicidal or homicidal.

The patient was not given the CDC recommended 7-day course of metronidazole and doxycycline at the time of discharge (CDC, 2021). This was due to a high probability of non-adherence with medications. The non-occupational post-exposure prophylaxis (nPEP) medication for HIV was not prescribed for the patient due to not being able to come back for follow-up care at the time of discharge. The patient’s prescribed NPEP medications needed to be followed up by a provider within 3-7 days of starting the medication per CDC guidelines (CDC, 2021). The Nurse Practitioner at Salvation Army was instructed to provide follow up care to the patient and recheck the status of the sexually transmitted infections and HIV.

Implications for Practice

Oral, anal, and vaginal swabs for sexually transmitted infections should be considered when sex trafficking is suspected in a patient. The CDC has guidelines for treatment of gonococcal and chlamydia pharyngeal infections with a recommendation of a test of cure in 7-14 days after a positive test (CDC, 2021). Since this might be the first-time sex trafficking victims see a health care professional, forensic nurses are able to advocate for appropriate medical care for their patients and assist in identifying potential sex trafficking victims. Following the CDC guidelines for care and treatment of a sexual assault patient is best practice when caring for sexual assault victims. Follow up with these types of patients can be challenging. In this case, written discharge instructions that the patient held on to was successful in getting the patient the follow up care she needed.

References

- Centers for Disease Control and Prevention. (7/23/2021). Sexually Transmitted Infections Treatment Guidelines, 2021.
<https://www.cdc.gov/mmwr/volumes/70/rr/rr7004a1.htm#diseasescharacterizedbyulvovaginalitching,burning,irritation,odor,ordischarge>

CASE: HUMAN TRAFFICKING


- Dunn, R. J., Sukhija, K., & Lopez, R. A. (2023). Strangulation Injuries. *Stat Pearls*(April). <https://www.ncbi.nlm.nih.gov/books/NBK459192/>
- International Association of Forensic Nurses-IAFN. (2016). *Non-fatal Strangulation Documentation Toolkit*. International Association of Forensic Nurses-IAFN. https://www.forensicnurses.org/wp-content/uploads/2022/01/strangulation_documentation_.pdf
- Lepianka, C. & Colbert, A. (2020). Characteristics and Healthcare Needs of Women Who Are Trafficked for Sex in the United States: An Integrative Literature Review. *International Association of Forensic Nurses*, 16(1), 6-15. Doi: 10.1097/JFN.0000000000000273
- National Human Trafficking Resource Center. (2016). *Framework for a Human Trafficking Protocol in Healthcare Settings*, Retrieved from <https://humantraffickinghotline.org/sites/default/files/Framework%20for%20a%20Human%20Trafficking%20Protocol%20in%20Healthcare%20Settings.pdf>
- Office on Trafficking in Persons. (n.d.). *Fact Sheet: Identifying Victims of Human Trafficking*. Retrieved from <https://www.acf.hhs.gov/archive/otip/fact-sheet/fact-sheet-identifying-victims-human-trafficking>
- Smock, B. & Sturgeon, S. (2017). Recommendations for the Medical/Radiographic Evaluation of Acute Adult, Non-Fatal Strangulation. *The Institute on Strangulation Prevention*, Retrieved from <https://www.familyjusticecenter.org/wp-content/uploads/2019/04/Recommendations-for-Medical-Radiological-Eval-of-Non-Fatal-Strangulation-v12.17.19.pdf>
- Toney-Butler TJ, Ladd M, Mittel O. Human Trafficking. [Updated 2023 Jun 11]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK430910/>
- Waugh, L. (2018). Human Trafficking and the Health Care System. *National Conference of State Legislatures*, 26(14) Retrieved from <https://www.ncsl.org/research/health/human-trafficking-and-the-health-care-system.aspx#:~:text=Health%20issues%20can%20include%20sexually,injuries%20and%20diseases%2C%20and%20tuberculosis.>
- White, C. (2024). Guidelines for clinical management of non-fatal strangulation in acute and emergency care services. In Institute for Addressing Strangulation (Ed.), (pp. 1-8). https://www.entuk.org/_userfiles/pages/files/guidelines/guidelines_acuteemergency_feb24_1.pdf



Research Corner

Looking for High-Quality Research Evidence

Catherine J. Carter-Snell, PhD RN SANE-A DF-AFN

© Carter-Snell, C, 2024  This is an Open Access article distributed under the terms of the Creative Commons-Attribution-Noncommercial-Share Alike License 4.0 International (<http://creativecommons.org/licenses/by-nc-sa/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly attributed, not used for commercial purposes, and, if transformed, the resulting work is redistributed under the same or similar license to this one.

Corresponding author: Dr. Catherine Carter-Snell
School of Nursing and Midwifery
Mount Royal University
4825 Mount Royal Gate SW, Room Y355
Calgary, Alberta, Canada
ccartersnell@mtroyal.ca
403-542-4529

Abstract

Forensic professionals need to have the highest level of research evidence to support their practice, in combination with patient preferences and the professional's skill level. It is not always easy to find the evidence quickly. This article includes a discussion of different levels of evidence and their implications for supporting practice change, where to find high-level evidence, and factors affecting credibility. This article is used ideally in combination with the information in a previously published article on trustworthiness of research results (Carter-Snell & Singh, 2024).

Keywords: evidence, research, quality, evidence-informed practice

Looking for High-Quality Research Evidence

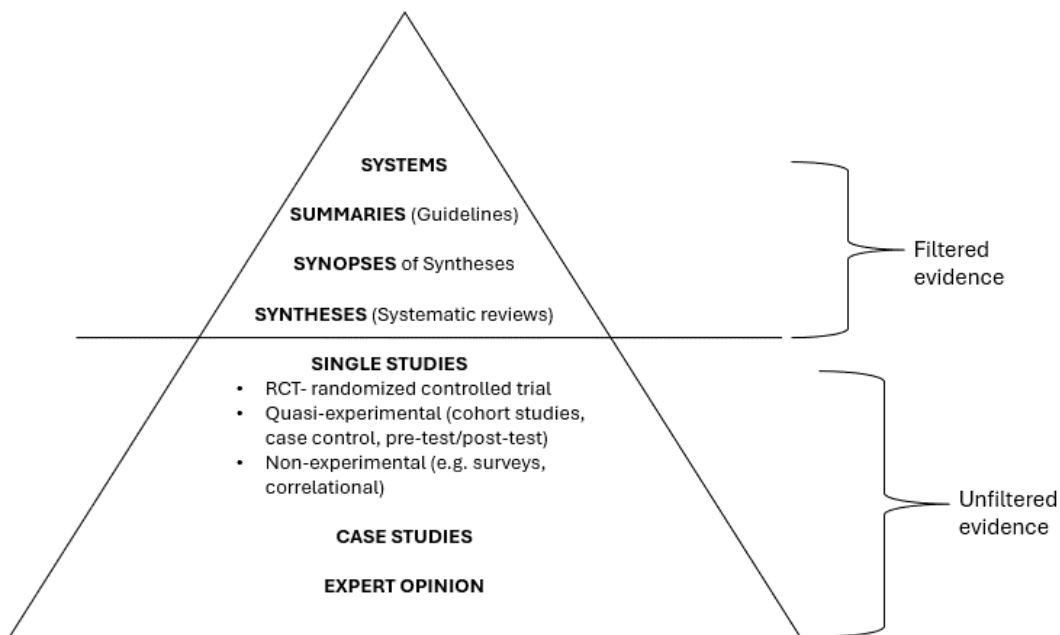
You have had a turnover of staff and one of the newer nurses suggests you consider using one of the newer prophylactic broad-spectrum antibiotics for any of your patients who sustain open injuries from assaults. The team is concerned about treatment resistance with unnecessary antibiotics, but the nurse argues that many of their vulnerable are high-risk for infection and unlikely to return until an infection is in later stages. They had a few patients returning with severe infections and sepsis and they decided to initiate prophylaxis pre-discharge. As the clinical educator you are asked to investigate the evidence behind this and make a recommendation to the team. When you go online, you find numerous articles: a pharmaceutical site which quotes some statistics from a single study they funded, a few clinical case studies, and a series of research studies. How will you decide if there is sufficient evidence to support the practice? The purpose

of this brief article is to discuss levels of research quality, factors involved in choosing studies, and sources of strong evidence for practice.

Levels and Quality of Research

There is a hierarchy, or levelling, of research evidence based on the type of study design (Figure 1). This pyramid is adapted from a combination of the “6S” pyramid (DiCenso et al., 2009) and other models that further differentiate single-study levels (Melnik & Fineout-Overholt, 2015; Woo, 2019). The “6S” consists of single studies, synopses of single studies (critiqued by other experts), syntheses (systematic reviews), synopses of syntheses, summaries, and systems.

Figure 1. Evidence Hierarchy



Used with permission, C. Carter-Snell 2024

At the base of this combined pyramid is expert opinion. A consensus statement among experts is sometimes all that is available with a new disease or innovation such as seen in the initial stages of COVID in the absence of research evidence. When nothing is known about a clinical issue, such as in the initial stages of COVID, experts collaborate to give their best assessment as to the nature of the problem. Often, as case studies emerge, data is gathered to begin exploring key variables, frequency, and relationships between factors, such as with correlational studies and cohort studies. Randomized controlled trials (RCT) are the highest level of single-studies research evidence, especially if both random assignment and random selection are used. There are many issues with single studies causing room for variability and misinterpretation as discussed in the trustworthiness article (Carter-Snell & Singh, 2024). The confidence in findings increases when multiple single studies are available with similar findings. Synthesis provides a higher level of confidence in findings, using systematic review techniques. This is helpful when single studies may have varying results and the effectiveness of the

HIGH-QUALITY RESEARCH EVIDENCE

treatment is unclear. In a systematic review, efforts are made to locate all research done on a particular topic, and then assess the quality and potential bias of each of the studies. If studies are similar, then samples and results are pooled for one large sample and analyzed. This enables a clearer estimate of the effect of the intervention. In certain conditions, quantitative systematic reviews meet sufficient criteria to be statistically analyzed in a process known as “meta-synthesis”, which provides an estimate of the significance of the effect. If these criteria are not met, then the researchers use descriptive techniques to summarize the data. Some authors argue that systematic reviews of qualitative studies are lower in the hierarchy than for quantitative data, but there is not universal agreement on this. If there is more than one systematic review on a topic, as knowledge advances, the synthesis results in a synopsis of the reviews. The creation of clinical guidelines is considered higher than systematic reviews as experts are evaluating all the available data and combining them into clinical recommendations. At the top of the pyramid is “systems,” such as computerized systems for triage or wound care based on the best evidence.

Another system used for assessing the validity or strength of studies is a classification grading system. This is based on the type of study design as per the pyramid, assigning a number to the level of research (CEBM). An example from the Centre for Evidence-based Medicine is shown in Table 1.

Table 1. Levels of Evidence

Grade	Class	Description
A	Ia	Systematic review of randomized controlled trials (RCTs) with homogeneity/limited variability
A	Ib	Individual RCT with narrow confidence interval or strong cohort study (experimental studies)
B	IIa	Systematic review of homogenous cohort (quasi-experimental) studies with low variability
	IIb	Individual cohort study / low-quality randomized controlled trials
B	III	a) Systematic review with homogeneity using case control studies b) Individual case control studies or poor-quality cohort studies
C	IV	Case series (non-experimental) or poor-quality cohort or case control studies (quasi-experimental)
D	V	Expert opinion without explicit critical appraisal, using non-systematic reviews, or bench research

The grade of recommendation helps determine the strength of the research. This is used to support decisions to implement. There are numerous grading systems, but they are relatively consistent. Examples include the “Strength of Recommendation Taxonomy” or SORT grading (Ebell et al., 2004), the American Society of Plastic Surgeons (Burns et al., 2011), and the Agency for Healthcare Research and Quality (Berkman et al., 2015). These are combined in Table 2. Nursing authors have described a similar levelling system but instead of having subcategories as shown in Table 1, there are seven levels (Brunt & Morris, 2023). Regardless of

HIGH-QUALITY RESEARCH EVIDENCE

the system used, it is clear that a systematic review with limited homogeneity (variability) between multiple single studies on the same topic are stronger sources of evidence. The choice to use the findings depends also on the patient population being studied, and the nurse's clinical expertise or ability to implement the intervention. The recency of the research is also important. If there is a systematic review from a few years ago but practices have changed (e.g. a new medication or new technique) and are not covered in the review, then it would be best to look for the most recent single study on the topic.

Table 2. Evidence level and strength of recommendations

Grade	Evidence level	Typical Practice Recommendation
A	Research findings are consistent and based on level I studies or multiple studies at level II, III or IV	Beneficial, strong evidence to recommend. High confidence in the findings.
B	Studies are level II, III, or IV, and somewhat consistent	Could be beneficial and implementation may be considered but watch for further research. Moderate confidence in findings.
C	Levels II, III, or IV but inconsistent findings	May be considered, limited confidence in findings/numerous deficiencies in evidence. Might consider if patient prefers.
D	Level V evidence: Based on consensus, usual practice, expert opinion, disease-oriented evidence (e.g. pathophysiologic indicators, vital signs), or case series	No evidence or confidence in evidence. May implement if strong patient preference.

Let's go back to our question at the beginning. Imagine in your search you found a good quality recent systematic review. It would be considered grade A and would be eligible for implementation. Grade B research findings would likely suggest waiting until further evidence is available, due to the inconsistent findings.

Sources of Evidence

Where do you find the research? Fortunately, there are a growing number of sites that help us identify levels or quality of research quickly. Just a few examples of key databases are the Trip Medical Database, PubMed, and Health Evidence. These are available through most clinical libraries and university libraries but are also free to individuals online.

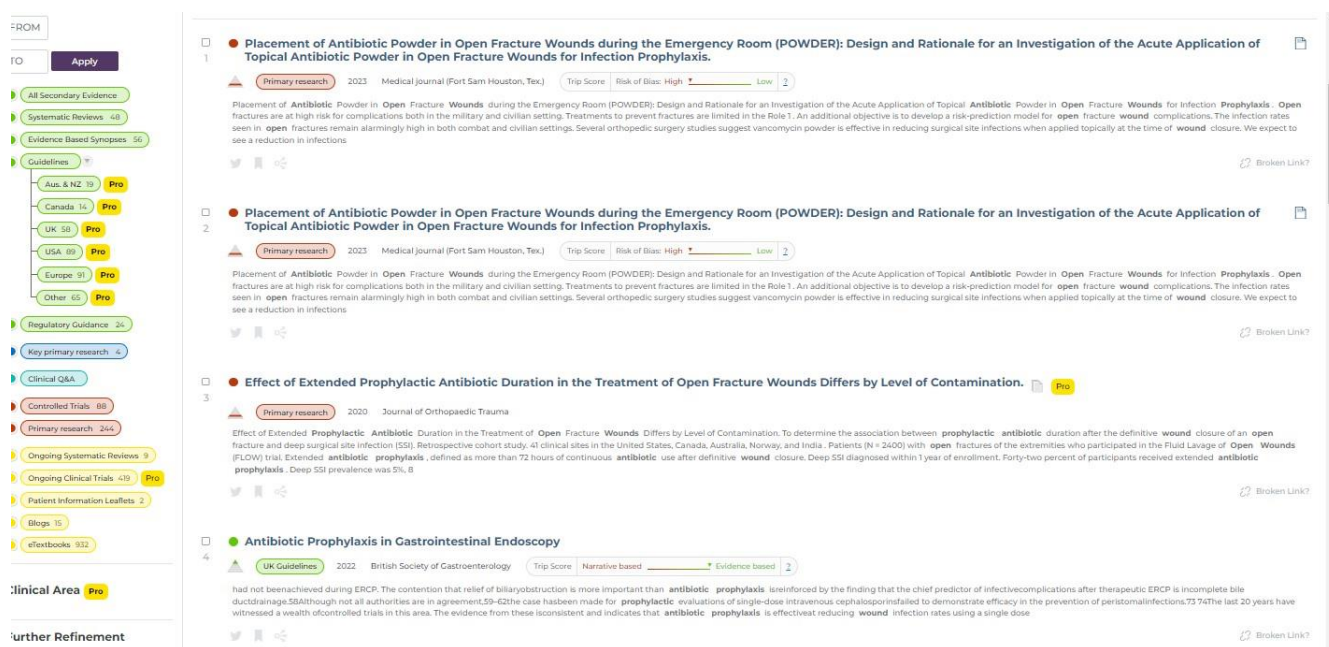
Trip Medical Database

This database is located at <https://www.tripdatabase.com/> to the public. There is a free version, and is searchable using the PICO or PICOT (Brunt & Morris, 2023) research format for your question: Population/problem, Intervention, Comparison, and Outcome (and Timing if using PICOT). For instance, if you wanted to know about efficacy of prophylactic antibiotics for wound

HIGH-QUALITY RESEARCH EVIDENCE

care, the population would perhaps be open wounds or trauma, intervention would be antibiotics, the comparison (if known) would be specific types of antibiotics or with/without, and the outcome would be infection. If you don't know all the parameters, you can just insert a search term such as "prophylactic antibiotics for open wound care". An example of this open search is shown in Figure 2, a screen shot from Trip Medical Database. Note that on the left margin there are multiple choices. If you only want systematic reviews, there are 40 available highlighted in green. When clicked, only these will appear. There are numerous guidelines (a higher level than systematic reviews) for various countries. If the systematic reviews are not recent or relevant, then you can search the red tabs to look at the randomized controlled trials or primary research (244 available). On the right of the screen are the titles and abstracts. Below each title is a pyramid to show the level of evidence. The red primary research is shown for the first three studies listed. Guidelines are shown in article 4 for the UK and the pyramid and green color shows it is a high level of research. You would sort through these to see which is closest to answering the question, the level of research, and the recency of the findings. There are some related to the open wound question (e.g. the antibiotics for surgical wounds may be relevant but open trauma wounds may be contaminated and thus different). We keep looking.

Figure 2.
Trip Medical Database Search Results



Used with permission, C. Carter-Snell, 2024. Screenshot Trip Medical Database

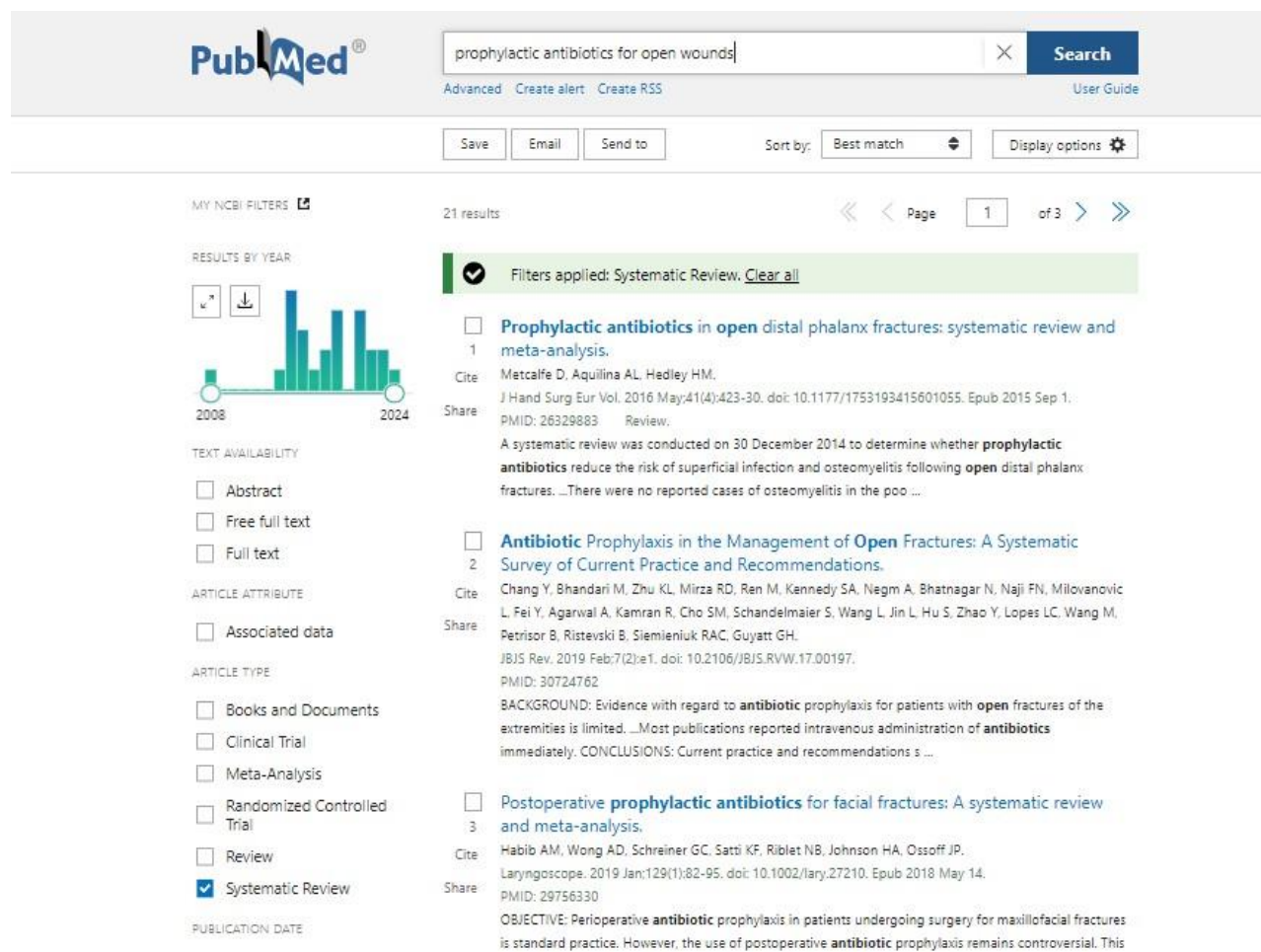
PubMed

PubMed is a search engine linked to millions of journals and articles in biomedicine. The abstracts are provided, and searches can be conducted based on the type of evidence. There are links to some of the full articles but, if not free open source, the hospital or university library may be able to provide access. Figure 3 shows the results of a search on PubMed again for "prophylactic antibiotics for open wounds". The option for systematic reviews was selected in the

HIGH-QUALITY RESEARCH EVIDENCE

left margin and 21 systematic reviews were found. Again, none of them are directly related to our question, but may provide some valuable information and the reference lists may provide strong single studies to examine.

Figure 3.
PubMed Search Results



Used with permission, C. Carter-Snell, 2024. Screenshot PubMed Database

Health Evidence

This site (<https://www.healthevidence.org/>) is operated by the National Collaborating Centre for Methods and Tools, based in McMaster University in Canada. This site provides access to thousands of systematic reviews in health care. The search for “prophylactic antibiotics for open wound care” had no results, so instead only “prophylactic antibiotics” was searched (Figure 4). Like Trip Medical, the quality of the study is shown, this time using a green wave to the right of varying depth.

HIGH-QUALITY RESEARCH EVIDENCE

The studies shown indicate the title, year, and strength of study. The fifth article has a caution red mark, which indicates the findings are over 10 years old when clicked. You would have to scroll through these to see if any are relevant to your question. Again, there are no systematic reviews, so we have to look at high-quality single studies.

Figure 4.

Health Evidence Search Results

The screenshot shows the Health Evidence website interface. At the top, there is a search bar with the text "Search" and a magnifying glass icon. To the right of the search bar are links for "Subscribe", "Log in", and "EN FR". Below the search bar is a navigation menu with links for "Home", "Search", "Tools & Resources", "About Us", and "My Account". Below the navigation menu is a link for "ADVANCED SEARCH | SEARCH HISTORY".

The main content area displays the search results for "prophylactic antibiotics". It indicates that 9 results were returned. The results are listed in a table with columns for "Article", "Authors", "Date", and "Rating".

Article	Authors	Date	Rating
1 <input type="checkbox"/> The efficacy and safety of hydroxychloroquine for COVID-19 prophylaxis: A systematic review and meta-analysis of randomized trials	Lewis K, et al.	2021	4 stars
2 <input type="checkbox"/> Non-antibiotic interventions for prevention of urinary tract infections in children: A systematic review and meta-analysis of randomized controlled trials	Meena J, et al.	2021	4 stars
3 <input type="checkbox"/> Routine antibiotic prophylaxis after normal vaginal birth for reducing maternal infectious morbidity	Bonet M, et al.	2017	4 stars
4 <input type="checkbox"/> Antenatal and intrapartum interventions for preventing cerebral palsy: An overview of Cochrane systematic reviews	Shepherd E, et al.	2017	4 stars
5 <input type="checkbox"/> Antibiotics for preventing meningococcal infections	Zalmanovici, T.A., et al.	2013	4 stars
6 <input type="checkbox"/> A meta-analysis of the efficacy of ocular prophylactic agents used for the prevention of Gonococcal and	Darling, E.K., et al.	2010	4 stars

Related Material:

- Search Tips
- Glossary of Terms
- Tutorials

Results Options

- Export References
- Save articles
- Save this search
- Print

Hoping for more results?

- Contact us

Used with permission, C. Carter-Snell, 2024. Screenshot HealthEvidence

There are many other sources which describe other reviews of the research evidence. The Cochrane Collaboration (www.cochrane.org) is a source specifically for systematic reviews. Researchers register their study and must follow the Cochrane methods to conduct the review. Teams of specialists have formed Cochrane groups to study specific issues (e.g. cardiology, respiratory), but individual researchers can also register their reviews. Their database can be searched for relevant systematic reviews in progress or completed and the abstracts are available. The full article will be available through a professional or academic library. It will be lengthy, as it must follow extensive publishing guidelines for systematic reviews such as PRISMA (Heinrich & O'Connell, 2024), including a listing of all articles included and their characteristics. As an example, perhaps you want to know about the effectiveness of prophylactic antibiotics for open wound care after an assault. If you go to the Cochrane Database evidence library and use a search term such as "oral antibiotics for wound care", at the time of this writing there are 27 results. They cite the year of the systematic review and the title, providing an abstract of each. Most of them are specific to other illnesses or surgeries. There are no articles for blunt open injuries. The closest article is one titled "Comparing different types of antibiotics given routinely to women at caesarian section to reduce infections". This is a surgical incision done under relatively sterile

HIGH-QUALITY RESEARCH EVIDENCE

conditions. Do you anticipate similar risks and outcomes? It is likely that the assault injury is more contaminated and may have greater risks and greater numbers of pathogens involved, which changes the type of prophylactic considered. It would still be worthwhile to get the whole article and see if any were emergency caesarians or what pathogens were examined in the review, but you may need to look for single studies if there are no systematic reviews available.

Two examples of nursing-specific resources include Joanna Briggs Institute and Evidence-based Nursing. Joanna Briggs Institute (<https://jbi.global/jbi-ebp-database>) has a database of evidence-based resources and guidelines. There are also helpful resources for conducting scoping and systematic reviews. Evidence-Based Nursing (<https://ebn.bmj.com/>) is a journal which publishes articles that critically appraise research. This is considered the “synopsis” level of evidence in the pyramid. Professional and academic library staff are extremely knowledgeable about databases and sources of evidence that are relatively quick to use and helpful. It is well worth meeting with them to find out what is available in their library and how to search easily.

Factors Affecting the Quality or Credibility

Once you have found studies relevant to your question, you must look at the credibility of the studies in addition to the level of evidence. The factors affecting the trustworthiness of the studies, including research methods and results/significance, are discussed in detail in a previous article (Carter-Snell & Singh, 2024). The focus of this section is at a higher level – the credibility of the source of the research. Factors to consider include the following: publisher/publication bias, author, and year.

Publication bias exists when only studies with significant positive results are published (Nair, 2019). This may be due to authors not submitting the studies, or to the publisher or funding agent not wanting to show negative or non-significant results. A study that is funded by the manufacturer should be examined to see if there is a range of positive and negative studies or only positive studies. Ethics boards of universities and hospitals also look for this before approving studies to ensure the funder cannot influence the study or outcome, but after the study is complete, the funder may choose not to post the negative findings. Non-significant findings are needed to get the full picture of the effects and researchers are increasingly encouraged to publish these. A strong study with non-significant results may mean that other treatment choices can be made that are more efficient or cheaper. Similarly, a study with negative results suggests that further information is needed before using the treatment. Funding from university grants is less likely to result in bias, as they are typically funds to help get new researchers started rather than to show effectiveness of a product. Large national grants are also less likely to result in bias; they put out calls for proposals on various topics and the researcher submits their proposal and methods. The strongest team and study are chosen for the funding by a peer-review process. They then post the results of the study when available, regardless of the outcome.

The authorship may also affect the credibility of the study. The author’s information is generally posted along with the article. Does their team have research preparation? Do they have expertise in the area of study? A bachelor’s degree requires an introductory research course, aimed at preparing nurses to assess and use research in practice. A graduate degree includes preparation to conduct research either as a member of a team (e.g. master’s), or independently

HIGH-QUALITY RESEARCH EVIDENCE

(e.g. PhD). The credentials after the authors' names will give an indication of these qualifications. If their degrees are not stated, you may see their affiliations listed. If they are faculty at a university, they typically require a minimum of a master's degree, thus have some additional research preparation. Their expertise may be indicated by additional certifications (e.g. SANE-A) or by their place of work (e.g. a domestic violence unit, corrections). It may also be seen in the reference list; see if any of the authors are cited in the references in this area.

The journal itself is another source of credibility. Is it peer-reviewed and scholarly, or a journal aimed at the public (e.g. Times)? A peer-reviewed article is considered more scholarly and credible as other researchers have been asked by the journal to review the article for quality of research methods, trustworthiness of findings, and presence of scholarly writing. The journal can be searched online and will indicate on its website if part or all of the journal is peer-reviewed.

The *Journal of the Academy of Forensic Nursing* (JAFN) requires peer review of both the research articles and the practice perspectives. It is a blind review, meaning that the reviewers do not know the names of the authors and the authors are not told who is reviewing the article. Other sections of JAFN, such as this Research Corner and the Journal Research Reviews are not peer-reviewed. Another aspect to consider is the publisher of the journal. Is the journal published by a reputable, well-known publisher (e.g. Elsevier, Oxford, Lippincott)? In that case it is considered more credible. Some journals are considered "predatory" – they may have names similar to well-known journals, but they have limited peer reviews, if any, and are only seeking the authors' fee for publications. Their editorial board is often non-existent, and the mix of articles published may not even relate to the title of the journal. Many journals have now become "open access", meaning that anyone can see and download the article without paying. This is a strategy to reduce the typical 5–10-year gap between research completion and clinical uptake. Instead, if an article is accepted, the journal may choose to charge a fee to the authors instead of the readers. This fee ranges from \$500 to as high as \$5,000. Predatory journals take advantage of this and are only seeking the author's fee (Lourenço Correa, 2022). There are open-access journals, like JAFN, that can publish without charging the authors a fee. The Directory of Open Access Journals (DOAJ) provides a list of journals that have met strong ethical standards and are not predatory. Journals apply to this organization and, if they meet the standards, their name and publishing fees, if any, are posted on the website (<https://doaj.org/>).

Reference lists also are an indicator of credibility (Coughlan et al., 2007; Ryan et al., 2007). Are the references relevant and mostly current (e.g. within five years)? They may have older references that are "gold-standard" because primary sources are preferred. For instance, if the article is about stress, the authors may rightly reference the original book by Selye on fight or flight and general adaptation published in 1974. Also see if most of the references are from credible journals or from public non-scholarly sources such as newspapers, websites, or popular magazines.

The format and writing would be another area to examine. A well-known writing style and format in nursing is APA style (American Psychiatric Association-APA, 2019). The publication manual sets guidelines for scholarly writing, referencing, levels of headings, and even types of

HIGH-QUALITY RESEARCH EVIDENCE

headings. The standard format most styles use is an introduction, which typically states the problem, the literature, and then the gaps in the literature to support the need for the study. Subsequent headings include “Methods” (research design, sample, location, data collection, and planned analyses), “Results” (data and statistical or analytic results), “Discussion” of the results and possible explanations, perhaps supported by additional literature, and a “Conclusion” or brief overview of the study results and impact such as the impact on education, research, or clinical. Journals use variations of this format but are quite similar. Do the authors follow a similar scholarly format? Is the article written in a scholarly fashion or very informal?

Conclusion

Evidence-informed practice is based on using the best level of evidence available to answer your clinical question combined with patient preference and clinical expertise. When seeking to answer a question, look first for the highest level of research evidence that is relevant and recent. Evaluate its credibility and trustworthiness before using the findings in practice. Knowledge of research quality is also important for forensic nurses in court. Findings cited in court as an expert should be supported by strong scientific evidence. In the case study provided above, there are related or peripheral studies but no repeated single RCTs or any systematic reviews that address the question. It would be likely that you would hold off on the change until more information is available.

Significant volumes of good-quality research are being produced daily and clinicians should be identifying the highest level of evidence available to support their practice. Very seldom do we make changes based on a single study, but we might change based on a relevant systematic review or series of single studies. Knowing where to quickly find high-level research supports and potentially improves our clinical practice.

References

- American Psychiatric Association-APA. (2019). *Publication manual of the American Psychological Association* (7th ed.). American Psychological Association.
- Berkman, N. D., Lohr, K. N., Ansari, M. T., Balk, E. M., Kane, R., McDonagh, M., Morton, S. C., Viswanathan, M., Bass, E. B., Butler, M., Gartlehner, G., Hartling, L., McPheeters, M., Morgan, L. C., Reston, J., Sista, P., Whitlock, E., & Chang, S. (2015). Grading the strength of a body of evidence when assessing health care interventions: an EPC update. *Journal of clinical epidemiology*, 68(11), 1312-1324.
<https://doi.org/10.1016/j.jclinepi.2014.11.023>
- Brunt, B. A., & Morris, M. M. (2023). Nursing professional development Evidence-based practice. *StatPearls*. <https://www.ncbi.nlm.nih.gov/books/NBK589676/>
- Burns, P. B., Rohrich, R. J., & Chung, K. C. (2011). The levels of evidence and their role in evidence-based medicine. *Plastic and reconstructive surgery* (1963), 128(1), 305-310.
<https://doi.org/10.1097/PRS.0b013e318219c171>

HIGH-QUALITY RESEARCH EVIDENCE

- Carter-Snell, C. J., & Singh, S. (2024). Trustworthiness of research results: Significant or Not? *Journal of the Academy of Forensic Nursing-JAFN*, 1(2), 48–63. <https://doi.org/https://doi.org/10.29173/jafn731> (December 2023)
- Coughlan, M., Cronin, P., & Ryan, F. (2007). Step-by-step guide to critiquing research. Part 1: quantitative research. *British journal of nursing (Mark Allen Publishing)*, 16(11), 658-663. <https://doi.org/10.12968/bjon.2007.16.11.23681>
- DiCenso, A., Bayley, L., & Haynes, R. B. (2009). Accessing pre-appraised evidence: Fine tuning the 5S model into a 6S model. *Evidence-Based Nursing*, 12(4), 99-101. <https://doi.org/10.1136/ebn.12.4.99-b>
- Ebell, M. H., Siwek, J., Weiss, B. D., Woolf, S. H., Susman, J., Ewigman, B., & Bowman, M. (2004). Strength of Recommendation Taxonomy (SORT): A Patient-Centered Approach to Grading Evidence in the Medical Literature. *American Journal of Medical Genetics (Neuropsychiatric Genetics)*, 69(3), 548-556. <https://doi.org/10.3122/jabfm.17.1.59>
- Heinrich, D. S., & O'Connell, K. A. (2024). The Effects of Mindfulness Meditation on Nursing Students' Stress and Anxiety Levels [Article]. *Nursing Education Perspectives (Wolters Kluwer Health)*, 45(1), 31-36. <https://doi.org/10.1097/01.NEP.0000000000001159>
- Lourenço Correa, C. (2022). How to survive in the academic jungle? Protection strategies against predatory journals. *Fisioterapia em Movimento*, 35, 1-2. <https://doi.org/10.1590/fm.2022.35001>
- Melnyk, B. M., & Fineout-Overholt, E. (2015). *Evidence-based practice in nursing and healthcare: A guide to best practice*. Wolters Kluwer.
- Nair, A. S. (2019). Publication bias-importance of studies with negative results! [Letter to editor]. *Indian Journal of Anaesthesia*, 63(6), 505-507. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6573059/pdf/IJA-63-505.pdf>
- Ryan, F., Coughlan, M., & Cronin, P. (2007). Step-by-step guide to critiquing research. Part 2: Qualitative research. *British journal of nursing (Mark Allen Publishing)*, 16(12), 738-744. <https://doi.org/10.12968/bjon.2007.16.12.23726>
- Woo, K. (2019). *Polit & Beck Canadian Essentials of Nursing Research*. Wolters Kluwer.



Research Reviews

AFN Journal Club Research Reviews

Christine Foote-Lucero, MSN, RN, CEN, SANE-A, SANE-P, AFN-C, DF-AFN

© Foote-Lucero, C, 2024. © This is an Open Access article distributed under the terms of the Creative Commons-Attribution-Non-commercial-Share Alike License 4.0 International (<http://creativecommons.org/licenses/by-nc-sa/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly attributed, not used for commercial purposes, and, if transformed, the resulting work is redistributed under the same or similar license to this one.

Corresponding author: Name: Christine Foote-Lucero (Chair- AFN Journal Club)

Email: Cfootelucero@afnmail.org

AFN Journal Club Research Reviews

The AFN Journal Club meets regularly to review the quality of the evidence available to support our clinical practice. This is a core requirement of professional practice.

AFN Journal Review Criteria

- Evidence tables are for the review of studies that may have implications for clinical practice.
- All articles on this table have been reviewed by the AFN Journal Club.
- Abbreviations are listed in the legend following the reviews.

Melnyk Levels of Evidence (Melnyk & Fineout-Overholt, 2015)

Level 1 - Systematic review & meta-analysis of randomized controlled trials; clinical guidelines based on systematic reviews or meta-analyses

Level 2 - One or more randomized controlled trials

Level 3 - Controlled trial (no randomization)

Level 4 - Case-control or cohort study; correlation design; examines relationships

Level 5 - Systematic review of descriptive & qualitative studies

Level 6 - Single descriptive or qualitative study; does not examine relationships

Level 7 - Expert opinion

Legend

SA=Sexual Assault; EC=Emergency Contraception; FN=Forensic Nurse; SANE=Sexual Assault Nurse Examiner; MFE=Medical Forensic Exam; LNG=Levonorgestrel/Plan B; UPA=Ulipristal acetate/Ella; AGI=Anogenital Injury; CSI=Consensual Sexual Intercourse; RR=Risk Ratio; TB=Toluidine Blue; ACEP=American College of Emergency Physicians; DV=Domestic Violence; NCCCJ=National Commission on COVID-19 and Criminal Justice; ED=Emergency Department; HT=Human Trafficking

Completed Reviews

Downing NR, Avshman E, Valentine JL, Johnson LM, Chapa H. Forensic Nurses' Understanding of Emergency Contraception Mechanisms: Implications for Access to Emergency Contraception. *J Forensic Nurs.* 2023 Jul-Sep 01;19(3):150-159. doi: 10.1097/JFN.0000000000000430. Epub 2023 Mar 12. PMID: 37590937.

Study Description: Estimated 25,000 pregnancies result from SA in the United States annually. As many as 95% of SA related pregnancies could be prevented by timely administration of EC. Numerous professional healthcare organizations endorse offering EC as an integrated aspect of post SA care. However, lack of knowledge surrounding EC's mechanism of action, including misinterpreting ECs as abortifacients, might restrict patient access to this important healthcare option; this study sought to evaluate FNs' understanding.

Literature Review: 39 references; 15 were older than 10 years but all pertained to subject matter

Design/Methods/Fidelity: Cross-sectional descriptive survey design; the survey consisted of 12 questions administered via Qualtrics (questions from survey can be found in Table 1 of article). Participation was voluntary after reading informed consent. Survey questions included demographic questions, (SANE certification, geographic area of practice, years of clinical practice, age range, gender, and MFE volume), and questions about EC (whether they prescribed EC and the most common brand of EC administered). Participants were also asked to report their level of agreement or disagreement that LNG or UPA had the ability to disrupt an established pregnancy and whether their prescribing of EC would increase, decrease, or not change after the Supreme Court ruling overturning *Roe v. Wade*. At the end of the survey, participants had the option to describe questions or concerns about providing EC.

RESEARCH REVIEWS

Sample/Setting: Participants were recruited; total of 173 survey respondents. All but two were from U.S. (other two from Canada, whereby *Roe v. Wade* wouldn't have applied). 103 of the survey respondents were recruited from a FN conference in Texas, so it is unclear if that majority of responses were affected by location of that conference. Would have been helpful to ask which state/region the respondent was from as different states have different laws that could affect practice and understanding of EC. Also, the reviewers would have liked to see a question pertaining to if respondent works at a religious/faith-based institution to see if there was any correlation/causation to certain types of responses.

Analysis: Descriptive statistics were calculated for demographic variables. Differences in beliefs about the ability of EC to disrupt an established pregnancy by type of EC were analyzed using chi-square tests, combining “agree” and “strongly agree” and combining “disagree” and “strongly disagree”. Chi-square was used to examine whether demographic variables were associated with type of EC prescribed, beliefs about EC disrupting an established pregnancy, and if providing EC would change after the overturn of *Roe v. Wade*.

Results/Limitations: 96.53% reported they prescribed/dispensed EC at the time of MFE with LNG prescribed more frequently than UPA (57.8% vs. 38.2%, respectively). More participants disagreed/strongly disagreed with the statement that LNG had the ability to disrupt an established pregnancy compared with UPA (83.2% vs. 78.6%). Almost four-fifths of participants stated their dispensing of EC would not change after the overturning of *Roe v. Wade*, but almost 13% were unsure how the ruling would impact their administration of EC; participant age seemed to have an association with belief that EC disrupted an established pregnancy (no participants 21–29 years old, 13% 30–34 years, and 11.5% over 35 years agreed/strongly agreed that LNG disrupts an established pregnancy). Limitations include low sample size/survey response limited to one professional organization; survey questions could have been written in such a way to influence responses; and only two responses from outside U.S., so not generalizable to non-U.S. FNs.

Clinical Significance/Practice Implications: It is crucial for FNs to understand EC and provide accurate information to their patients; clearly a gap in understanding mechanism of EC in FNs and likely all healthcare providers, so FNs have an obligation to provide knowledge and education to their healthcare colleagues. This article may be a catalyst for further studies on larger FN sample sizes and even general nurses outside of FN scope.

Evidence Level: Level 6

Naumann, DN, Morris, L, Bowley, DM, Appleyard, T-L, Cumming, J & Wardle, D (2023). Anogenital injury following sexual assault and consensual sexual intercourse: a systematic review and meta-analysis. *EClinicalMedicine*, vol. 65, 102266. <https://doi.org/10.1016/j.eclinm.2023.102266>

Study Description: The aim of this systematic review was to compare rates of identification of AGI in women following SA and CSI using the same examination techniques. Reviewed existing literature over past 30 years including pre- and post-pubertal ages.

Literature Review: 46 references; half were more than 5 years old. 12 included in the introduction of article; remainder of references were cited later in the study but not used as part of the final 10 used in the systematic review. Many that are older are classic works and cited regularly. All are applicable to subject matter.

Design/Methods/Fidelity: Systematic review and meta-analysis; relevant studies (in any language, with no age or sex criteria) published between February 25, 1993 and February 25, 2023 that directly compared AGI between individuals after either SA or CSI. Abstracts, conference proceedings, and case reports were excluded, as well as studies that didn't compare findings with both SA and CSI (i.e. included control). Data were extracted by two authors and discrepancies re-examined and resolved by consensus.

Sample: 10 studies, accounting for 3,165 study participants. Of ages reported, the range was 10-85 years, although 2 of the articles didn't include age ranges. The 10 were published from 1997 to 2022 in the U.S., UK, Australia, Denmark, and Thailand. All participants were female and the majority were reported as White in 7 of the studies. All studies reported naked eye examinations of the external genitalia, 8 used magnification, and 6 used TB. 8 studies included examination of the internal genitalia; 6 used colposcopy to augment the examination. 4 studies included anal examination; 2 included anoscopy. All studies reported that the examiners were experienced in conducting forensic examinations following SA.

Analysis: Mantel-Haenszel method used for meta-analysis using random effects modelling to determine the RR of AGI between SA and CSI. Newcastle–Ottawa scale tool used to assess risk of bias. I^2 statistic used to determine heterogeneity among studies. An $I^2 > 75\%$ was considered high heterogeneity. Funnel plots used to assess the risk of publication bias, by determining any visually apparent asymmetry. Concluded that 3 of the articles were good, 1 was fair, and 6 were poor. The studies at greatest risk of bias tended to score poorly on comparability, largely because of lack of controlling for differences between SA and CSI groups.

Results/Limitations: AGI was detected in 901 (48%) of 1,874 participants following SA and 394 (31%) of 1,291 participants following CSI. Meta-analysis of all included studies demonstrated that the presence of AGI was significantly more likely for participants following SA than CSI (RR 1.59 [95% CI 1.21, 2.09]; $p < 0.001$). There was a significant heterogeneity among studies. Although AGI was significantly more likely to be detected after SA than CSI, more than half of survivors of SA have no detectable injuries. Of the three studies deemed good, reported outcomes of 1,149 participants were 531 were survivors of SA; 40% of SA survivors had AGI and 26% of participants having CSI had AGI. There was no significant difference in the risk of AGI in these groups for this subgroup analysis (RR 1.10 [95% CI 0.94, 1.30]; $p = 0.25$). Heterogeneity was very low in this analysis ($I^2 = 0\%$). Limitations include majority being White and all being female. Not generalizable to males, non-Whites, and non-binary people.

Clinical Significance/Practice Implications: AGI may occur during CSI and/or SA. Neither presence nor absence of AGI proves that SA has or has not occurred. Clinicians and other professionals involved in the care and support of SA survivors must be explicit

RESEARCH REVIEWS

in their reassurance to the patient that lack of evidence of AGI in no way reduces the credibility of their account of SA. Appreciate that myths were addressed in the discussion.

Evidence Level. Level 5

Whiteman PJ, Macias-Konstantopoulos WL, Relan P, Knopov A, Ranney ML, Riviello RJ. *Violence and Abuse: A Pandemic Within a Pandemic. Western Journal of Emergency Medicine.* 2023 Jul 17;24(4):743-750. doi: 10.5811/westjem.58405. PMID: 37527378; PMCID: PMC10393453.

Study Description: Expert commentary reviewed the literature on the effect the pandemic had on domestic violence, child and elder abuse and neglect, human trafficking, and gun violence. Stay-at-home or shelter-in-place order had been implemented to help stop the spread of the virus, and although well-intentioned, one unintended adverse consequence was an increase in violence, abuse, and neglect. This became, and remains, a public-health crisis within a crisis. In early 2021, ACEP Public Health and Injury Committee was tasked with reviewing the impact the pandemic had on violence and abuse as the result of a resolution passed at the 2020 ACEP Council meeting.

Literature Review: 50 references; 1 from 2003, and remaining in past 5 years

Design/Methods/Fidelity: Literature review; experts in the topics of DV, child abuse and neglect, human trafficking, elder abuse and neglect, and gun violence came together to summarize the literature available regarding the COVID-19 pandemic and its impact on these topics. Part of a resolution from ACEP.

Sample/Setting: 50 references used in the literature review

Analysis: Not Applicable

Results/Limitations: Anecdotal reports:

DV—In February 2021, the NCCCJ reported that DV incidents in the U.S. increased by 8.1% after lockdown orders were issued, hotline calls increased 9–10%, ED visits decreased overall; homicides related to DV increased; in 2020 more than 2,000 people were killed in the U.S. in DV-related shootings, an increase of 4% from 2019, with disproportionate increases in Texas (69%), Maryland (93%), Missouri (67%), and Utah (160%).

Child Abuse/Neglect—A report from the U.S. Centers for Disease Control and Prevention found that despite a dramatic decrease in total pediatric ED visits during lockdown, the number of hospitalizations from child abuse and neglect remained stable, representing a dramatic increase in the yearly percentage of ED visits related to child abuse and neglect among all age groups; in 2020 there was a 23% increase in hotline calls.

Elder Abuse/Neglect—Before COVID-19, an estimated 1 in 6 older persons were subject to abuse globally with one in 10 U.S. residents ≥ 60 years subject to abuse; one study post-COVID reported an increase of 1 in 5.

RESEARCH REVIEWS

HT/Exploitation—In May 2020, during the first wave of shutdowns, reports to tipline numbered almost 1.7 million, as compared to $\approx 745,000$ reports in May 2019; reports involving at-risk children from across the country increased by 28%.

Gun Violence—The pandemic has been associated with increased firearms purchasing both by experienced owners and first-time buyers. With the start of the pandemic, a surge in U.S. gun sales was tied to stay-at-home orders and the first wave of pandemic-related unemployment. Women and Blacks showed the greatest increases in firearm purchasing; firearm assault in the U.S. increased by 8.1%. Limitation included that authors doing lit search were not blinded; available quantitative data is limited so relied on anecdotal evidence.

Clinical Significance/Practice Implications: It is evident that measures meant to help control the spread of the COVID-19 pandemic had many unintended consequences and placed people at risk for violence. The pandemic left abuse and violence victims feeling isolated with fewer options for help and decreased opportunities for recognition. Frontline clinicians need to screen appropriately and have substantive training in abuse/neglect red flags; know mandatory reporting obligations, maintain connections with community resources/partners to mitigate disruptions in advocacy, and crisis follow up. Preserving or expanding access to services, strengthening social service agency partnerships; utilizing FNs in ED and community settings.

Evidence Level: 7

Reference


Melnyk, B. M., & Fineout-Overholt, E. (2015). *Evidence-based practice in nursing and healthcare: A guide to best practice*. Wolters Kluwer.



Community Updates

Stirring the Forensic Nursing Pot in South Africa

Celia Filmalter, PhD RN

© Filmalter, C. 2024.  This is an Open Access article distributed under the terms of the Creative Commons-Attribution-Noncommercial-Share Alike License 4.0 International (<http://creativecommons.org/licenses/by-nc-sa/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly attributed, not used for commercial purposes, and, if transformed, the resulting work is redistributed under the same or similar license to this one.

Corresponding author: Dr. Celia Filmalter
School of Health Care Sciences, University of Pretoria, South Africa
Email: celia.filmalter@up.ac.za

Abstract

This is a brief summary of forensic nursing in South Africa and the development of a forensic nursing specialization.

Keywords: forensic nursing, nursing practice, specialization

Stirring the Forensic Nursing Pot in South Africa

Violence and crime in the South African society is alive and well. The country has one of the highest femicide rates with approximately seven women killed by their intimate partners on daily basis (Abrahams 2022). The crime statistics for the fourth quarter of 2023 indicate that 190,973 people reported contact crime (South African Police Statistics 2023). The real number of people affected and injured by violence and crime however remains elusive. Many of the victims of violence and crime seek healthcare but the healthcare professionals are not well equipped to care for the forensic patient population. The need for the training and education of forensic nurses in South Africa has been affirmed as a high priority by the National Department of Health.

Forensic nursing was announced as a nursing speciality by the South African Nursing Council in 2014 followed by the publication of Forensic Nursing Competencies. Nursing education institutions have been slow in the development and uptake of forensic nursing as a speciality. Brave forensic nursing pioneers have laid foundations for forensic nursing in the South African context but face many challenges within the existing educational and legislative frameworks. Forensic nursing has many faces and frontiers in the international community and the roles and

responsibilities of forensic nurses in the context of South Africa are developing. In 2023 my journey with the Academy of Forensic Nursing and the Forensic Nursing Certification Board started with benchmarking the competencies as set out by the South African Nursing Council. The guidance and support from the Forensic Nursing Certification Board has been instrumental in navigating practice and curriculum aspects. A workgroup made up of academics from different universities was set up for national collaboration with the intention of learning from the wisdom and experience of representatives from the Forensic Nursing Certification Board. Developing a new qualification (licensure) is not an easy or fast process but we are making progress. The most precious lesson I have learned is that trauma-informed care is not limited to patients but must be incorporated into all engagements among the multi-disciplinary multi-sectoral teams responsible for providing care and services to medical forensic patients.

References

- Abrahams, N., Mhlongo, S., Chirwa, E., Dekel, B., Ketelo, A., Lombard, C., ... & Jewkes, R. (2024). Femicide, intimate partner femicide, and non-intimate partner femicide in South Africa: An analysis of 3 national surveys, 1999–2017. *Plos Medicine*, 21(1), e1004330.
- South African Police. (2023). Crime Statistics: Integrity, Third Quarter Crime Statistics 2023/2024. (Online) <https://www.saps.gov.za/services/crimestats.php> (Accessed 6 March 2024).



Community Updates

Forensic Nursing Certification Board (FNCB)



Patricia M. Speck, DNSc, CRNP, FNP-BC, AFN-C, DF-IAFN, FAAFS, DF-AFN, FAAN
Stacey A. Mitchell, DNP, MBA, RN, SANE-A, SANE-P, AFN-C, DF-AFN, FAAN
Michelle Patch, PHD, MSN, RN, APRN-CNS, ACNS-BC, AFN-C, DF-AFN, FAAN
Debbie St. Germain, DNP, RN, SANE-A, AFN-C
Brook McIlrot, Community Board Member

MICRO-Certification-IVSE-C™

The FNCB successfully launched the Interpersonal Violence Strangulation Evaluation Certification (IVSE-C™) for generalists and advanced forensic nurses alike. The beta test for the certification occurred throughout April 2024. For nurses seeking FNCB Certification, there is an AFN member discount. There also are significant discounts if you are an AFN member *and* an FNCB Generalist or Advanced Certified Forensic Nurse! So, register today to take the IVSE-C™ in April, July, or October!

Update

The application for accreditation of the GFN-C™ and AFN-C™ through the American Board of Nursing Certification is nearing completion. While complex, the FNCB Board of Directors is working diligently to complete the details necessary for accreditation. Dr. Kelly Berishaj (Chair) with the help of Laurie Charles is leading the completion of the application process. All FNCB Board members had a role in the completion of their portions of the application process. Stay tuned for the celebration!

2023 Pass Rates

The 2023 pass rate for the GFN-C™ is 85.71% and AFN-C™ was 78.57%! Define Excellence & Expertise in Forensic Nursing – Join the Growing Number of FNCB Certified Forensic Nurses!

“FNCB is the certifying body for Forensic Nurses Globally”



Community Updates

International Updates

Catherine J. Carter-Snell

Below is information submitted from members either via email or who have attended the AFN International Special Interest Group (SIG). This group is held every month on the second Tuesday of the month. Information on the group is on the AFN website, or contact ccartersnell@afnmail.org.

United Kingdom (UK)

M. Peel reported that there is a UK Association of Forensic Nurses and Paramedics - www.ukafnp.org. Ms. Jennie Smith is the President. The UK Association of Forensic Nurses and Paramedics is hosting its annual conference this year on Friday, September 20, 2024, in Solihull, near Birmingham, England. The seminar titled “Empowering Wellbeing: Overcoming Inequalities in Health and Justice” is intended for nurses, midwives, and paramedics across the UK working in sexual assault referral centres and police custody suites. Tickets are available now. This pivotal event brings together leading voices in healthcare and justice to address our communities’ critical issues. We are honoured to host Paula McGowan OBE, advocate for mandatory training on learning disabilities and autism, who was inspired by her son Oliver McGowan. Satveer Nijjar will enlighten us on the sensitive use of language around self-harm, while Colin Foley from the ADHD Foundation will share his insights on neurodiversity training. Karen Stepanova of the Pathological Demand Avoidance Society will discuss avoidance behaviours. Together, we will explore transformative approaches to enhancing forensic healthcare, ensuring a more equitable future for all.

Switzerland

V. Kaegi, President of the Swiss Forensic Nurses’ Association, reported that Switzerland hosted its third annual forensic nursing conference. It was successful and Deb Holbrook (AFN president), Jennifer Johnson (AFN past president), and executives from IAFN were able to attend. There were about 65 attendees with presentations on the role of forensic nurses in death identification—a fairly new role with European conflicts—as well as child and elder abuse, rescue services as first responder, wound morphology, and courtroom testimony. The next one will be held in Bern, Switzerland, May 9–10, 2025.

France

M. Guyomard reported that France is holding its first congress for French-speaking forensic nurses in fall.

Brazil

L. Cardoso from Brazil reported that they experienced catastrophic flooding in the south, affecting over 300 cities. There was a significant impact on nursing and insufficient humanitarian assistance. The Brazilian Forensic Nursing Society are having their third annual congress in November. <https://www.even3.com.br/iii-congresso-internacional-de-enfermagem-forense-445686/>

Canada

C. Rock-Altenhof from Nova Scotia- reported that their team is expanding to include a domestic violence response in addition to sexual assault. Their five programs adding it in gradually. Jacqueline Campbell is coming to their province to educate them on the Danger Assessment tool, individualizing for their area. They will also be introducing DV screening throughout their healthcare system.

C. Carter-Snell reported that Alberta is spreading their rural sexual assault program province-wide to key rural areas and to post-secondary nursing programs. It is a healthcare-specific extension of the free four-hour course on Enhanced Emergency Sexual Assault Services (EESAS) (www.forensiceducation.ca/courses/eesas) and is offered through Northwest Polytechnic.

Germany

S. Benthaus reported that there is an organization called the European Training Center of Active Forensic Sciences Disaster Victim Identification (ETAf), which focuses on body identification in disaster. They have specialists in 30 different European countries and have a multidisciplinary approach. <https://www.etaf-dvi.org/>



Final Notes

Updates on Journal

Catherine J. Carter-Snell

Thank you for reading our latest issue of the Journal of the Academy of Forensic Nursing (JAFN). This is our first issue for 2024 and third since we started last summer. We had hoped to have 3 issues this year but will only have two. Understandably, as a new journal, there have been some minor challenges such as streamlining our peer review process, increasing the number of peer reviewers, and making authors aware of this new journal for submissions.

We are excited to let you know that we have had a strong response to our request for peer reviewers as well as for submissions. This allows us to plan our next issue for late fall 2024 (e.g. Oct/Nov), and to resume our plans for three issues again in 2025- spring, summer and fall.

If you are interested in becoming a peer reviewer, we have [posted a link](#) on our JAFN website that shows you how to set up your JAFN account to indicate that role. You need to expand your profile to indicate your areas of specialty and include a bio that lets the editorial team know your areas of specialty. We encourage content experts, research experts, and any clinician or academic interested to volunteer. The editorial team are willing to mentor new reviewers and we are currently preparing some simple guidelines for new reviewers.

Articles are encouraged from clinicians and academics. We have two peer-reviewed sections: original research and practice perspectives. In addition, we encourage updates from communities such as international forensic organizations or individuals, and ideas or submissions for the research corner (intended to introduce newer researchers or clinicians to aspects of evidence informed practice). We also have a regular submission from the Journal Club, which reviews current research articles and evaluates the quality of the articles for our readers.

On behalf of the editorial team, thank you to all who have supported our new journal. We welcome suggestions, submissions and comments. Above all, thank you to all of you for your work as forensic professionals.