

Violence Risk Assessment of Older Adults

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The forensic psychiatric and psychological arena has long been tasked to understand the correlates of aggression and provide opinions about an individual's risk to commit a violent act. Violence can be physical, sexual, psychological, or any combination. It is an act that is intended to harm another. Our understanding of the factors that contribute to violence has certainly evolved over the past two to three decades. And, with this, the introduction of risk assessment methods has served to improve our ability to make predictions about someone's risk to act out violently. Most tools currently available to assist in the prediction of violence, however, are largely intended for youth and working-aged adults who have justice involvement. At the current time, there are no tools available that assess the risk of violence posed by older adults.

A primary risk factor identified in most, if not all, violence risk assessment instruments is age or age at first violent event. It is well recognized that adolescents and young adults are more likely to demonstrate violence than any other age group (Harris et al., 2015). The reasons given for this include the complex relationship between external factors, such as adverse childhood experiences, inconsistent or harsh parenting, exposure to violence at a young age, negative peer associations, and individual factors, such as poor emotion regulation, impulsivity, poor coping skills, and poor problem-solving skills (Hoge & Andrews, 2010).

The risk field has also determined that as we mature and enter mid-adulthood, many of these issues dampen and the risk of violence reduces. For certain types of violence (sexual violence in particular), it has been determined that one's risk of recidivism progressively lowers as the individual ages and enters their 60s (Helmus et al., 2011). If this is the case, how then do we reconcile the physical and sexual violence demonstrated by older adults in their 70s and 80s? With the aging population in many parts of the world, we argue that

the risk assessment field must turn its mind, and research direction, to this unique age group.

While violence has typically been associated with younger individuals, research being conducted with older adults suggests that this is not exclusively a young person's concern. Research conducted within long-term care settings highlights the need for improved methods of assessing and managing risk with older adults (Rosen et al., 2019). In a recent study conducted by Brophy et al. (2019), 90% of staff working in 57 long-term care facilities reported being regularly exposed to abuse and harassment. According to Brophy et al., (2019), health-care staff, who were primarily women, reported experiencing physical, sexual, and verbal abuse on such a regular basis that the violence had become "normalized" in their work environments.

In addition to the violence directed at health-care staff, resident-on-resident aggression has also been a significant concern within long-term care settings. According to the Ontario Health Coalition (OHC) reports, 27 individuals were murdered by a co-resident between 2012 and 2016. The OHC report also highlighted that the homicide rate within long-term care facilities, 7 per 100,000, outpaced the homicide rate in the largest metropolitan cities in Canada, namely, Toronto, Ontario, with 1.55 per 100,000 (Ontario Health Coalition, 2019).

Interpersonal violence demonstrated by older adults is not restricted to long-term care settings but has also been a documented concern within intimate relationships (Gerino et al., 2018; Rosen et al., 2019). It could be argued that the perpetration of intimate partner violence (IPV) is likely a life course issue, namely, those who engaged in IPV as working-aged adults will continue to aggress toward their intimate partners as they age. However, there is very limited research into the trajectory of this behaviour. There is even less research on interpersonal violence committed by older adults who do not have a clear history of aggression (Gerino et al.,

2018; Policastro & Finn, 2017; Roberto et al., 2013; Rosay & Mulford, 2017).

The factors that impact interpersonal aggression for older adults are not well understood. Much like the interplay of internal and external risk factors that contribute to aggression in adolescence and in working-age adults, the same is likely the case for older adults. However, the specific factors contributing to aggression in older adults are likely much different (Liu et al., 2013). The impact of the aging brain has to be considered, as do the unique psychosocial stressors experienced by older adults, such as loss of independence, loss of significant others, and reductions in physical mobility (Cassie, 2012; Lachs et al., 2013; Thériault & Grant, 2020). The behaviour demonstrated throughout the life-span needs to also be considered; that is, do individuals who have always aggressed continue to aggress as they age?

One key documented risk factor is the cognitive impact of the aging brain (Margari et al., 2012; Trzepacz et al., 2013). As we age, and particularly as we enter our senior years, almost 40% of us will experience some difficulties with memory, and for some, speed of processing, working memory, and executive control will weaken (Murman, 2015). These normal changes are significantly heightened for those who develop a dementia. It has been argued that deficits in executive functioning is a key risk factor in the commission of aggression in older adults (Keszycycki et al., 2019; Pozueta et al., 2019). However, it is not clearly known whether the demyelination associated with aging and dementia is linked to aggression or whether it is disinhibition caused by damage or atrophy of different parts of the brain. Specifically, is it possible that the behaviour is akin to the disinhibition we find with frontal damage in acute or chronic brain injury?

Other causes of aggression for older adults include struggles with environmental factors (e.g., being overstimulated, time of day), social disengagement, fear, communication (difficulty with receptive and expressive language), and physical discomfort (Cassie, 2012; Enmarker et al., 2011; Thériault & Grant, 2020; Tible et al., 2017). While these factors have been identified by those working in the field, it does not appear that a systematic approach has been undertaken to understand risk escalating factors or even protective factors for this group.

At this point, a consistent profile of who aggresses as they age has not been well articulated (Liu et al., 2013). Is it possible that different typologies will emerge as we examine this area, namely with those who demonstrate lifelong aggression,

those who aggress as older adults and do not demonstrate significant cognitive decline, and those who demonstrate aggression due to dementia or cognitive decline? And, within each of these categories, what role do medical co-morbidities (such as hypertension, diabetes, and substance use) play? If such typologies can be differentiated, what factors escalate risk, what protective factors emerge, and how do we manage the risk demonstrated? In addition, older adults have an increasing number of medical conditions and along with that comes a host of medications. Many of these medications have cognitive side effects, and along with polypharmacy come medication interactions, which can further worsen cognition or even impulse control.

At this time, there are no age-specific risk assessment tools to assist in the evaluation of risk within the older adult population, and there are limited approaches to the management of violence risk. With respect to the latter, while medications tend to be a go-to treatment for difficult behaviours, the literature on medications to reduce violence in older adults is both limited and non-specific (Gustafsson et al., 2013; Thériault & Grant, 2020). In fact, there is some evidence that certain medications can serve to increase aggression (Mancuso et al., 2004; Paton, 2002). For example, benzodiazepines are known to cause paradoxical reactions of aggression and irritability for some people (Saias & Gallarda, 2008), while some antidepressants can cause agitation and aggression (Mishra et al., 2013). While psychosocial and behavioural strategies have demonstrated some success in reducing aggression (Tible et al., 2017; Hong et al., 2021; Yakimicki et al., 2019; Dimitriou et al., 2018), it is argued that having a clearer understanding of risk and its associated factors would serve to ensure that the factors impacting risk are appropriately addressed.

All of this supports the argument that as the population ages, it will become ever more critical for the health-care system and the risk assessment field to turn their attention to this unique population.

Conflict of Interest: none

References

- Brophy, J., Keith, M., & Hurley, M. (2019). Breaking point: Violence against long-term care staff. *New Solutions*, 19(1), 10-35. <https://doi.org/10.1177/1048291118824872>
- Cassie, K. M. (2012). A multilevel analysis of aggressive behaviors among nursing home residents. *Journal of Gerontological Social Work*, 55(8), 708-720. <https://10.1080/01634372.2012.703764>

- Dimitriou, T. D., Verykouki, E., Papatrantaftyllou, J., Konsta, A., Kazis, D., & Tsolaki, M. (2018). Non-pharmacological interventions for agitation/aggressive behaviour in patients with dementia: A randomized controlled crossover trial. *Functional Neurology*, 33(3), 143–147. PMID: 30457967. <https://pubmed.ncbi.nlm.nih.gov/30457967/>
- Enmarker, I., Olsen, R., & Hellzen, O. (2011). Management of person with dementia with aggressive and violent behaviour: A systematic literature review. *International Journal of Older People Nursing*, 6(2): 153–162. <https://doi.org/10.1111/j.1748-3743.2010.00235.x>
- Gerino, E., Calderera, A. M., Curti, L., Brustia, P., & Rollé, L. (2018). Intimate partner violence in the golden age: Systematic review of risk and protective factors. *Frontiers in Psychology*, 9, Article 1595. <https://doi.org/10.3389/fpsyg.2018.01595>
- Gustafsson, M., Sandman, P., Karlsson, S., Gustafson, Y., & Lövheim, H. (2013). Association between behavioral and psychological symptoms and psychotropic drug use among old people with cognitive impairment living in geriatric care settings. *International Psychogeriatrics*, 25(9), 1415–1423. <https://doi.org/10.1017/S1041610213000859>
- Harris, G. T., Rice, M. E., Quinsey, V. L., & Cormier, C. A. (2015). *Violent offenders: Appraising and managing risk* (3rd ed.). <https://www.apa.org/pubs/books/4317363>
- Helmus, L., Thornton, D., Hanson, R. K., & Babchishin, K. M. (2012). Improving the predictive accuracy of Static-99 and Static-2002 with older sex offenders: Revised age weights. *Sexual Abuse*, 24(1), 64–101. <https://doi.org/10.1177/1079063211409951>
- Hoge, R. D., & Andrews, D. A. (2010). *Evaluation for risk of violence in juveniles*. Oxford University Press. <https://doi.org/10.1093/med:psych/9780195370416.001.0001>
- Hong, J. H., Lachman, M. E., Charles, S.T., Chen, Y., Wilson, C. L., Nakamura, J. S., VanderWeele, T. J., & Kim, E. S. (2021). The positive influence of sense of control on physical, behavioural, and psychosocial health in older adults: An outcome-wide approach. *Preventive Medicine*, 149, Article 2021149. <https://doi.org/10.1016/j.ypmed.2021.106612>
- Keszycki, R. M., Fisher, D. W., & Dong, H. (2019). The Hyperactivity-Impulsivity-Irritability-Disinhibition-Aggression-Agitation domain in Alzheimer's disease: Current management and future directions. *Frontiers in Pharmacology*, 10, Article 1109. <https://doi.org/10.3389/fphar.2019.01109>
- Lachs, M. S., Rosen, T., Teresi, J. A., Eimicke, J. P., Ramirez, M., Silver, S., & Pillemer, K. (2013). Verbal and physical aggression directed at nursing home staff by residents. *Journal of General Internal Medicine*, 28(5), 660–667. <https://doi.org/10.1007/s11606-012-2284-1>
- Liu, J., Lewis, G., & Evans, L. (2013). Understanding aggressive behaviour across the lifespan. *Journal of Psychiatric and Mental Health Nursing*, 20(2), 156–168. <https://doi.org/10.1111/j.1365-2850.2012.01902.x>
- Mancuso, C. E., Tanzi, M. G., & Gabay, M. (2004). Paradoxical reactions to benzodiazepines: Literature review and treatment options. *Pharmacotherapy*, 24(9), 1177–1184. <https://doi.org/10.1592/phco.24.13.1177.38089>
- Margari, F., Siculo, M., Spinelli, L., Mastroianni, F., Pastore, A., Craig, F., & Petruzzelli, M. G. (2012). Aggressive behavior, cognitive impairment, and depressive symptoms in elderly subjects. *Neuropsychiatric Disease and Treatment*, 8, 347–353. <https://doi.org/10.2147/NDT.S33745>
- Mishra, S., Swain, T. R., & Mohanty, M. (2013). Adverse drug reaction monitoring of antidepressants in the psychiatry outpatients department of a tertiary care teaching hospital. *Journal of Clinical and Diagnostic Research*, 7(6), 1131–1134. <https://doi.org/10.7860/JCDR/2013/4985.3041>
- Murman, D. L. (2015). The impact of age on cognition. *Seminars in Hearing*, 36(3), 111–121. <https://doi.org/10.1055/s-0035-1555115>
- Ontario Health Coalition. (2019). Situation critical: Planning, access, levels of care and violence in Ontario's long-term care. <https://www.ontariohealthcoalition.ca/index.php/situation-critical-planning-access-levels-of-care-and-violence-in-ontarios-long-term-care/>
- Paton, C. (2002). Benzodiazepines and disinhibition: A review. *Psychiatric Bulletin*, 26(12), 460–264. <https://doi.org/10.1192/pb.26.12.460>
- Policastro, C., & Finn, M. A. (2017). Coercive control and physical violence in older adults: Analysis using data from the National Elder Mistreatment Study. *Journal of Interpersonal Violence*, 32(3), 311–330. <https://doi.org/10.1177/0886260515585545>
- Pozueta, A., Lage, C., García-Martínez, M., Kazimierczak, M., Bravo, M., López-García, S., ... Sánchez-Juan, P. (2019). Cognitive and behavioral profiles of left and right semantic dementia: Differential diagnosis with behavioral variant frontotemporal dementia and Alzheimer's disease. *Journal of Alzheimer's Disease*, 72(4), 1129–1144. <https://doi.org/10.3233/JAD-190877>
- Roberto, K. A., McPherson, M. C., & Brossoie, N. (2013). Intimate partner violence in late life: A review of the empirical literature. *Violence Against Women*, 19(12), 1538–1558. <https://doi.org/10.1177/1077801213517564>
- Rosay, A. B., & Mulford, C. F. (2017). Prevalence estimates and correlates of elder abuse in the United States: The National Intimate Partner and Sexual Violence Survey. *Journal of Elder Abuse and Neglect*, 29(1), 1–14. <https://doi.org/10.1080/08946566.2016.1249817>
- Rosen, T., Makaroun, L. K., Conwell, Y., & Betz, M. (2019). Violence in older adults: Scope, impact, challenges, and strategies for prevention. *Health Affairs*, 38(10), 1630–1637. <https://doi.org/10.1377/hlthaff.2019.00577>

- Saïas T, & Gallarda T. (2008). Réactions d'agressivité sous benzodiazépines : une revue de la littérature [Paradoxical aggressive reactions to benzodiazepine use: A review]. *Encephale*, 34(4), 330–6.
<https://doi.org/10.1016/j.encep.2007.05.005>
- Thériault, É. R., & Grant, A. (2020). Depression and aggressive behaviour in continuing care: How cognitive impairment might not explain the whole story. *Journal of Long-Term Care*, 1–12.
<http://doi.org/10.31389/jltc.15>
- Tible, O. P., Riese, F., Savaskan, E., & von Guten, A. (2017). Best practice in the management of behavioural and psychological symptoms of dementia. *Therapeutic Advances in Neurological Disorders*, 10(8), 297–309.
<https://doi.org/10.1177/1756285617712979>
- Trzepacz, P. T., Yu, P., Bhamidipati, P. K., Willis, B., Forrester, T., Tabas, L., ... Alzheimer's Disease Neuroimaging Initiative (2013). Frontolimbic atrophy is associated with agitation and aggression in mild cognitive impairment and Alzheimer's disease. *Alzheimer's and Dementia*, 9(5 Suppl), S95–S104.e1.
<https://doi.org/10.1016/j.jalz.2012.10.005>
- Yakimicki, M. L., Edwards, N. E., Richards, E., & Beck, A. M. (2019). Animal-assisted intervention and dementia: A systematic review. *Clinical Nursing Research*, 28(1), 9–29.
<https://doi.org/10.1177/1054773818756987>

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