



Van Gogh Syndrome: Self Amputation in 36-Year-old Schizophrenia Patient

Dika Asrika Asrul¹, Cindy Chias Arthy^{1*}

¹ Department of Psychiatry, Faculty of Medicine, Universitas Sumatera Utara

*Corresponding Author: cchiasa15@gmail.com

Abstract

Background: Psychiatric settings often encounter pathological self-mutilation cases. It has associations with many mental conditions, including psychosis, drug addiction, mood disorders, intellectual impairment, and personality disorder. A well-known case of self-mutilation is Vincent Van Gogh, a widely recognized painter in the 19th century. He severed his left ear during a psychotic episode. In the general population, it has been estimated that self-injurious conduct affects 6% of adults and 16%–18% of adolescents; however, in clinical psychiatric groups, the prevalence may reach 40%–80%. Nonsuicidal self-injury (NSSI) is "the deliberate, self-inflicted damage of body tissue without suicidal intent and for purposes not socially or culturally sanctioned". Most NSSI patients use a variety of self-injury methods.

Case Report: The case follows a 36-year-old man with Schizophrenia and persecutory delusion who had self-mutilated his right ear for the past three months. In addition, during the last two months, the patient had a history of attempting to injure himself in multiple ways. The patient has a history of an abusive father and a family member with Schizophrenia. There is no history of medications or treatment for the patient in the past two months.

Conclusion: Self-harming behaviour is also a significant public health issue. NSSI is an occurrence that can happen repeatedly in Schizophrenia. Given the high likelihood of self-harm in psychiatric patients, comprehensive management is necessary for a better prognosis. This patient might present a unique challenge for nursing staff and psychiatrists, necessitating a customized care plan. Behavioural, pharmaceutical, and psychological interventions are necessary for these patients to receive the medical attention they need.

Keywords: Van Gogh Syndrom. Schizophrenia. persecutory delusion

Introduction

Nonsuicidal self-injury (NSSI) is the deliberate and intentional physical harm done without a suicide plan. Self-burning, self-hitting, and self-cutting are common. These behaviours were once considered a mild form of suicide and self-mutilation. The DSM-5 now recognizes NSSI Disorder as a disorder needing more study due to numerous changes over time.[1]

In psychiatric settings, patients display pathological self-mutilation, defined as the intentional alteration or resection of bodily tissue without clear considerations of suicide. It is linked to various mental conditions, including Schizophrenia, drug addiction, mood disorders, intellectual disabilities, and personality problems. The 19th-century painter Vincent Van Gogh is a well-known example of self-mutilation. He had bipolar disorder, and one of his psychotic episodes led to the amputating of his left ear.[2]

Minor self-mutilation is quite prevalent, rarely results in severe disability, and could belong to identified traditions from culture. In comparison, significant or Major self-mutilation (MSM) is less common, frequently resulting in the permanent loss of an organ or its function. It is not as expected and is only seen in those who suffer from severe mental illness.

In the study, the records of patients with psychosis on the schizophrenia spectrum who had amputated a piece of a limb detached their eye or removed a testicle were included. A psychotic disease was reported in 143 of 189 MSM cases (75.6%), with schizophrenia spectrum psychosis being the diagnosis in 119 of those 143 instances (83.2%). In 101 case reports, schizophrenia spectrum psychosis's treatment status could be established, 54 of which were in the First Episode Psychotic (FEP) (53.5%, 95% confidence interval 43.7%-63.2%).[3]

Psychosis and a loss of functioning are both symptoms of schizophrenia—a complex disorder where millions of individuals are affected all over the globe. The presence of two or more symptoms, at least one of which must be a positive symptom, is necessary to diagnose Schizophrenia. Positive symptoms include delusions, hallucinations, distorted speech, and unusual motions. Negative signs are flattening of affect, withdrawal from society, anhedonia, indifference, and lack of emotion. In compliance with the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) fifth edition, Schizophrenia must be diagnosed by symptoms that have been present for at least six months and have adverse effects on social and occupational functioning.[4],[5]

A frequently encountered psychotic condition, Schizophrenia has a lifetime prevalence of 1%–2% and a yearly incidence rate of 0.2–0.4/1000. 1–3 The state is responsible for 1.1% of the world's total years with a disability-adjusted for life and 2.8% of the length of time with a disability, which has a detrimental influence on the expense of health care.[6]

The case could be assessed as NSSI and schizophrenia based on the DSM-V diagnostic criteria. The table below summarizes the NSSI diagnostic criteria. The length and frequency of NSSI are the subject of Criterion A. To fulfil the requirement, "intentional self-inflicted damage" must have happened at least five times during the previous year. This cutoff was predicated on the notion that the presence of or more incidents of NSSI was indicative of a repeating issue.[4]

Table 1. NSSI Disorder: Summary of Proposed Diagnostic Criteria

NSSI Disorder: Summary of Proposed Diagnostic Criteria
A: Inflicted behaviours such as cutting, burning, or hitting to cause serious physical harm to the body (occurring on five or more days over the past year)

<p>B: self-harming behaviour is conducted with the expectation that at least one of the following outcomes will occur immediately after:</p> <ol style="list-style-type: none"> 1. Relief or freed from negative feelings or thoughts 2. Interpersonal conflict resolution 3. Establishing a positive mood state
<p>C: At least one of the following conditions occurs right before the intentional self-injury act</p> <ol style="list-style-type: none"> 1. Negative thoughts or feelings 2. Preoccupation with the planned self-injurious act that is difficult to control 3. Frequent thoughts of self-injurious behaviour – even if no action is taken.
<p>D: Self-inflicted harm practised in a cultural or religious context and socially sanctioned conduct such as tattoos or body piercing is excluded. Nail biting and picking at lesions are also excluded because they are familiar and mild acts.</p>
<p>E: Nonsuicidal self-injury behaviour leads to clinically significant distress, difficulties with social or occupational functioning, or impairments in other essential aspects of life.</p>
<p>F: Different mental disorders or physiological conditions cannot explain the self-harming behaviour better. It is also required that self-injurious behaviour not occur only during psychotic episodes, intoxication, periods of delirium, or be stereotyped and repetitive.</p>

Schizophrenia based on DSM diagnostic guidelines. The criteria are

- A. Two (or more) of the following, present for at least a month, each for a significant amount of time. First, delusions. Hallucinations, second and unorganized speech.
- B. The level of functioning in one or more major areas, such as work, interpersonal relationships, or self-care, has been significantly below where it was before the disturbance started.
- C. Continuous signs of the disturbance persist for at least six months. This six-month period must include at least one month of symptoms (or less if successfully treated)
- D. Major manic or depressive episodes have not aligned with the active-phase symptoms. Schizoaffective disorder and depressive or bipolar disorder with psychotic features have also been ruled out.
- E. The disturbance cannot be attributed to a medical condition, drug abuse, medication's physiological effects, or another substance.
- F. Suppose there is a history of autism spectrum disorder or a communication disorder that started in childhood. In that case, Schizophrenia is only diagnosed in addition to the other necessary symptoms of Schizophrenia if prominent delusions or hallucinations have been present for at least one month (or less if the condition has been successfully treated).[4]

Case Report

A 36-year-old man was admitted to the emergency room by his older brother after he attempted self-mutilation on his ears. His general appearance looks untidy, with a normal posture. The patient was reluctant to cooperate. He speaks in a relevant, coherent

manner at an average volume but with less productivity. Flat affect and a depressed mood with less responsiveness are found.

Persecutory delusions and visual hallucinations are found where he saw his work colleague following and stalking him and believing that his coworker tried to harm and hurt him. Auditory hallucinations also found (the patient hears male voices that ridicule him) are present. He feels anxious because he cannot do his job to the best of his abilities and thinks his coworker will take over his career. Each of these signs and symptoms has been present for the previous three months.

He received medication from a doctor at the clinic five months ago for a sleeping problem; however, the drug was only used for a few days. Families or patients do not recall the medicine's name, form, or colour.

During the last two months, the patient had a history of attempting to injure himself by crashing his head against a corner of the table at home and another object more than twice, holding a boiling water container and deliberately jumping from a vehicle when riding a motorcycle while sitting in the back seat.

In his family history, his aunts had a prior history of mental illness and were diagnosed with a schizophrenia spectrum disorder. He is unmarried, has a normal premorbid personality, engages in active social interaction with those around him, and no signs of a borderline personality are present. Insight 2/6: Judgment is impaired. Vital signs during physical assessment were within normal ranges and warm extremities, and the nerve exam revealed no anomalies. At arrival, the patient had a decent GCS of 15/15. The patient had a lacerated wound on the outermost portion of his right ear caused by self-cutting and was estimated to be 4-5 cm wide. There was also a laceration on the palm of the left hand with a width of 1 x 6 x 0.5 cm, which was caused by the patient's resistance to the family who tried to keep the patient away from sharp objects that the patient had previously grasped and used to injure his ear. The surgical department was consulted, and the wound was managed with debridement and reconstructive suturing performed in the operating room; the removed portion of the ear could still be repaired, and suturing was also done on the palms of the hand. He also got antibacterial and pain management treatment. The initial diagnosis was Schizophrenia with paranoid delusion and NSSI based on the DSM 5; the patient was risperidone 2 mg 1x1. A



Figure 1. The patient self-mutilated his right ear and had a laceration on the palm of his left hand that was caused by the patient's resistance to the family, who tried to keep the patient away from sharp objects

Discussion

The diagnosis was made based on the classification of mental disorders in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). We present a schizophrenia-related case of self-mutilation because of the typical presentation and presence of primary symptoms, such as visual and auditory hallucinations and persecutory delusions. A provisional diagnosis of paranoid Schizophrenia was made after a thorough evaluation. The patient was interviewed, and

it was found out that there were persecutory delusions, visual and hallucinations in three months. He believes that his coworker tries to harm and hurt him. He feels anxious because he cannot do his job and believes his coworker will take over his career after. The patient got a job promotion three months ago and started having schizophrenia symptoms afterwards.

A prior family history of mental illness was found in his aunts from his mother's side, with a diagnosis leading to the schizophrenia spectrum. The patient's relationship with the family is generally on good terms, but he has a strained relationship with his father; he often got physically abused when he was younger. He also saw his father do the same abuse to other family members. During his school days during junior high school, the patient was often harassed and bullied because of his appearance. During an assessment, a complete mental status check was done. His brother, who brought him to the emergency room, was also interviewed for more details about the patient's condition. In this case, the leading cause of Schizophrenia disorder was multiple factors such as family issues, pressure at work, and history of abuse.

In the general population, it has been estimated that self-injurious conduct affects 6% of adults and 16%–18% of adolescents; however, in clinical psychiatric groups, the prevalence may reach 40%–80%. NSSI is "the intentional, self-inflicted destruction of bodily tissue without intent to commit suicide and for purposes not sanctioned by society or culture." Most people who engage in NSSI use a variety of self-injury methods.[6]

In this case, it was found that the patient mutilated the left ear; the patient did this to avoid anxiety and agitation before doing self-mutilation and feeling relaxed afterwards. On another occasion, the patient had attempted self-injury multiple times. These characteristics meet NSSI criteria.

Despite the lack of a desire to die in NSSI, it has been linked to suicide attempts. Previous suicide attempts and self-harm have been identified as the most common symptoms and risk factors for suicide in patients with Schizophrenia. According to some studies, nearly half of all completed suicides have a history of NSSI. [7]

NSSI is best described as a pathological emotional regulation and coping method that provides instant but brief relief from negative thoughts, feelings, and emotions. NSSI helps symptoms in around 90% of patients, most frequent extreme anxiety ("it's like popping a balloon"), feelings of depression, anxious thoughts, swirling emotions, anger, hallucinations, and flashbacks.[8],[9]

NSSI may cause pleasant feelings and self-stimulation during dissociation, depersonalization, mourning and uncertainty, loneliness, excessive boredom, helplessness, and alienation.^{10,11} NSSI can additionally convey concern to provoke a caring reaction from others or to provide an escape route from distressing situations.[12]

The patient received 2 mg of risperidone daily. Risperidone exhibits atypical antipsychotic qualities, particularly at lower dosages, but can become more "conventional" at high doses since EPS can happen if the amount is too high. As a result, risperidone has preferred applications in Schizophrenia and bipolar mania at moderate dosages. Still, it can also be used for other situations where antipsychotics can be used at lower or middle levels, such as in children and adolescents suffering from psychotic illnesses. Risperidone is approved for medical management of Schizophrenia, bipolar disorder in patients aged 10 to 17, and irritability brought on by autism disorder in children and adolescents aged 5 to 16. These symptoms include aggression toward others, purposeful self-harming behaviour, temper tantrums, and rapid fluctuating emotions. The starting dose of risperidone is 0.5 mg to 1 mg daily, with an initial target dose of 2-3 mg daily. People with psychotic disorders have high rates of non-adherence to their drug regimens. Adherence needs to be handled promptly and tactfully. In this stage of the illness, diligent continuing drug monitoring and a readiness to reduce dosages are required. This will probably function better if a multifaceted psychosocial program is in place to aid in rehabilitation.[13],[14]

Some interventions have considerable promise for lowering NSSI. Nevertheless, several well-controlled research proceeded to investigate the efficacy of NSSI treatment. Six distinct psychotherapy modalities received empirical support: dynamic deconstructive psychotherapy (DDP), manual assisted cognitive therapy (MACT), transference-focused psychotherapy (TFP), dialectical behaviour therapy (DBT), emotion regulation group therapy (ERGT), and voice movement therapy (VMT) [15]

Conclusion

Self-harming behaviour is also a significant public health issue. NSSI is an occurrence that can happen repeatedly in Schizophrenia. Given the high likelihood of self-harm in psychiatric patients, comprehensive management is necessary for a better prognosis. This patient might present a unique challenge for nursing staff and psychiatrists, necessitating a customized care plan. Behavioural, pharmaceutical, and psychological interventions are necessary for these patients to receive the medical attention they need.

References

1. Jill M Hooley, Kathryn R Fox & Chelsea Boccagno. Nonsuicidal Self-Injury: Diagnostic Challenges And Current Perspectives, *Neuropsychiatric Disease and Treatment*, 101-112 (2020) DOI: 10.2147/NDT.S198806
2. Choy Seng Kit, Rathan Kumar. The Voice Told Me to Cut My Hand- A Case report of Recurrent Psychotic Self-Amputation. *Malaysian Journal of Psychiatry* 2(28), 76-79 (2019)
3. Matthew Large, Nick Babidge, Doug Andrewa, et al. Major Self-mutilation in the First Episode of Psychosis, *Schizophrenia Bulletin*, Oxford University Press, Maryland Psychiatric Research Centre 35 (5)1012-1021 (2009) doi:10.1093/schbul/sbn040
4. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* Virginia, United States: American Psychiatric Association. 2013. 701 P.
5. Luvsannyam E, Jain MS, Pormento MKL, Siddiqui H, Balagtas ARA, Emuze BO, Poprawski T. Neurobiology of Schizophrenia: A Comprehensive Review. *Cureus*. 2022 Apr 8;14(4):e23959. doi: 10.7759/cureus.23959. PMID: 35541299; PMCID: PMC9080788.
6. Eva Amanda Lorentzen, Ole Mors & Jesper Norgaard Kjaer. Major Self-mutilation in the First Episode of Psychosis, *Schizophrenia Bulletin*, Oxford University Press, Maryland Psychiatric Research Centre 3(2) 1-15 (2022) <https://doi.org/10.1093/schizbullopen/sgac069>.
7. Erengül Güney, İzgi Alniak, Murat Erkiran, Predicting factors for nonsuicidal self-injury in patients with schizophrenia spectrum disorders and the role of substance use. *Asian Journal of Psychiatry*. (52) , ISSN 1876-2018 (2020) <https://doi.org/10.1016/j.ajp.2020.102068>.
8. Chapman AL, Gratz KL, Brown MZ. Solving the puzzle of deliberate self-harm: the experiential avoidance model. *Behav Res Ther*. 2006;44(3):371-394.
9. Nock MK, Prinstein MJ. Contextual features and behavioral functions of self-mutilation among adolescents. *J Abnorm Psychol*. 2005;114(1):140-146
10. Miller F, Bashkin EA. Depersonalization and self-mutilation. *Psychoanal Q*. 1974;43(4):638-649.
11. Klonsky ED. The functions of deliberate self-injury: a review of the evidence. *Clin Psychol Rev*. 2007;27(2):226-239.
12. Nock MK. Actions speak louder than words: an elaborated theoretical model of the social functions of self-injury and other harmful behaviours. *Appl Prev Psychol*. 2008;12(4): 159-168.
13. Stephen M. Stahl. *Stahl's Essential Psychopharmacology*, New York , United States: Cambridge University Press. 2013. 190-194 P.
14. Cherry Gallety, David Castle, Frances Dark, et al. Royal Australian and New Zealand College of Psychiatrists Clinical Practice Guidelines for Management of Schizophrenia and Related Disorders. *Australian New Zealand Journal of Psychiatry* 50(5), 15-16 (2016)
15. Brianna J Turner, Sara B Austin, Alexander L Chapman. *Journal National Library of Medicine* 59(11), 576-585 (2014)

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

