

Pinocchio Syndrome in Psychiatry: A Comprehensive Review

Justin Raj^{1*}, Anand Prasad²

ABSTRACT

Pinocchio Syndrome, a metaphor derived from Collodi's classic tale, represents a compelling framework for understanding pathological lying (pseudologia fantastica) in psychiatry. Although not a formal diagnosis, it captures a distinctive behavioral constellation characterized by compulsive, elaborate, and internally motivated lying, often devoid of tangible gain. Historical roots trace to Delbrück's 1891 description of pseudologia fantastica, while modern conceptualizations (Novellino, 2000; Dike et al., 2005) link it to narcissistic, antisocial, and histrionic traits. Empirical studies (Yang et al., 2005) reveal neurobiological correlates, particularly increased prefrontal white matter and reduced gray matter, suggesting heightened connectivity that facilitates deception coupled with diminished moral inhibition. Physiological findings, such as the "Pinocchio effect" (nose temperature rise during lying), further highlight the body's involuntary response to deception. Clinically, pathological lying rarely occurs in isolation; it frequently coexists with antisocial, narcissistic, borderline, or factitious disorders. The syndrome profoundly disrupts interpersonal trust, leading to significant relational and occupational impairments. Therapeutically, it poses challenges in establishing honesty and alliance within psychotherapy. Evidence-based management emphasizes insight-oriented and cognitive-behavioral interventions, focusing on identifying triggers, restructuring maladaptive beliefs, and fostering accountability. Pharmacological approaches are limited to addressing comorbid mood or impulse-control issues. Conceptually, the Pinocchio metaphor underscores an arrested moral development wherein fantasy supplants reality; yet, it also embodies the possibility of transformation through empathy, conscience, and self-awareness. Integrating historical, neurobiological, and therapeutic perspectives, Pinocchio Syndrome in Psychiatry underscores the need to recognize pathological lying as a complex, multidimensional behavioral pathology rather than a mere moral failing.

Keywords: *Pinocchio Syndrome, Pathological lying, Pseudologia fantastica, Personality disorders, Neuropsychiatry*

Pinocchio Syndrome is an informal term used in psychiatry and psychology to describe a pattern of compulsive, habitual lying reminiscent of the character Pinocchio, whose nose grew whenever he told a lie. In clinical literature, this concept aligns with

¹M. Phil (PSW), MSW; Junior Research Scientist, Department of Psychiatry, Central Institute of Psychiatry, Kanke, Ranchi, Jharkhand ORCID: 0000-0001-6885-8212

²M.Phil (PSW), MSW; PhD Scholar, Department of Psychiatric Social Work, Ranchi Institute of Neuro-Psychiatry and Allied Sciences (RINPAS), Kanke, Ranchi, Jharkhand

*Corresponding Author

Received: October 04, 2025; Revision Received: October 28, 2025; Accepted: November 03, 2025

pathological lying, also known as pseudologia fantastica or mythomania (Dike et al., 2005). Pathological lying refers to chronic falsehoods including elaborate, often fantastical stories, told with no obvious benefit or external motive (Dike et al., 2005). The Pinocchio metaphor highlights the persistent dishonesty and deceptive behavior of these individuals, drawing a parallel to Collodi's 1883 fairy tale in which a puppet's nose visibly betrays his lies. Psychiatrists have invoked the Pinocchio archetype both in popular media and professional contexts to illustrate this phenomenon. For example, the term "*Pinocchio Syndrome*" has been used to label a maladaptive personality pattern characterized by immaturity, impulsivity, and chronic lying (Novellino, 2000). Michele Novellino (2000) described such a "*Pinocchio Syndrome*" personality type as displaying traits of both narcissistic and antisocial personality disorders (Novellino, 2000). This review will explore the concept of Pinocchio Syndrome from multiple angles, including its definition and characteristics, historical and cultural origins, associated psychiatric conditions, neurobiological findings, and implications for relationships, therapy, and treatment.

Definition and Key Characteristics

In psychiatric terms, Pinocchio Syndrome essentially denotes pathological lying, a persistent, compulsive tendency to lie that is disproportionate to any discernible purpose. Classic definitions (e.g. by Healy and Healy) describe pathological lying as "*falsification entirely disproportionate to any discernible end in view...manifesting over a period of years or even a lifetime*" (Dike et al., 2005). In other words, these individuals lie repeatedly and excessively, often for no clear reason and over many years, such that lying becomes a lifestyle (Dike et al., 2005). Key characteristics of Pinocchio-like pathological lying include:

- **Frequency and Compulsivity:** The lying is habitual and compulsive, with individuals feeling an inner drive to lie even when telling the truth would be easier (Dike et al., 2005). In one study, self-identified pathological liars reported telling numerous lies every day "*for no apparent reason*" (Dike et al., 2005). The behavior often seems out of the liar's conscious control, early psychiatric observers noted the lies may be impulsive and unplanned, "seizing" the liar suddenly (Dike et al., 2005).
- **Grandiosity and Elaborateness:** The falsehoods often involve **elaborate, fantastic narratives** rather than simple "*white lies*." Pathological liars may weave kernels of truth into complex fabrications that can span years (Dike et al., 2005). Their stories can be dramatic or grandiose, portraying themselves in heroic, accomplished, or victimized roles to gain sympathy or admiration. Indeed, classic reports note that pseudologia fantastica often entails "*decorating*" one's own persona, painting oneself as brave, important, or tragically suffering through the content of lies (a form of internal wish fulfillment) (Dike et al., 2005).
- **Lack of Clear External Motive:** Unlike ordinary lies told to avoid punishment or gain a reward, pathological lies are not primarily driven by external incentives. There is often no clear benefit or necessity for the lies; rather, "*the lying is an end in itself*" (Dike et al., 2005). An internal psychological motive drives the behavior (Dike et al., 2005). For example, the lies may serve to bolster the person's self-esteem, assuage feelings of inadequacy, or attract attention and sympathy in ways the truth cannot (Dike et al., 2005). The liar may derive intrinsic gratification from the act of deceiving, some researchers have likened pathological lying to a form of "*fantasy addiction*" or a "*daydream communicated as reality*", done for the liar's own pleasure rather than material gain (Dike et al., 2005).
- **Pervasiveness and Disproportion:** The dishonesty is persistent and pervasive. Pathological liars will lie about anything and everything, trivial matters as well as important ones. Their falsehoods are grossly disproportionate to any situation at hand

(Dike et al., 2005). They might lie even when telling the truth would be easier or more advantageous, simply out of habit or an impulsive urge. Over time, this results in a profound erosion of the individual's credibility. Friends, family, and colleagues come to realize that almost nothing the person says can be taken at face value.

- **Partial Belief and “Wish Psychosis”:** A striking aspect of pseudologia fantastica is that the liar may come to believe in their own fabrications to some degree. Early psychiatric theorists observed that in the “*final evolution*” of a pathological lie, it can attain “*the worth of a real experience*” to the liar (Dike et al., 2005). This phenomenon led to the notion of pathological lying as a kind of “*wish psychosis*”, wherein the individual's imagined reality the life they wish were true, temporarily feels real to them (Dike et al., 2005). The new fictional “identity” may at times overwhelm the normal identity. However, this is *not* a true delusion (as discussed later): if strongly confronted with facts, most pathological liars can acknowledge, at least momentarily, that their stories are untrue (Dike et al., 2005). In general, they do not lose complete contact with reality; rather, they often oscillate between knowing the truth and indulging in their false narrative. They might rationalize their lies or momentarily convince themselves of the falsehood's veracity because it is intensely desired (Dike et al., 2005). Importantly, unlike psychotic individuals, pathological liars typically *do* recognize the lie as a lie when pressed, the deception is at least initially a conscious one, even if it becomes habitual or less guilt-inducing over time (Dike et al., 2005).

In summary, Pinocchio Syndrome refers to a chronic, compulsive pattern of lying characterized by elaborate falsehoods, internal motivations, and an often-attenuated sense of reality. The lying is persistent (lasting months or years) and causes significant life problems. Modern researchers Curtis and Hart propose defining pathological lying as a “*persistent, pervasive, and often compulsive pattern of excessive lying behavior that leads to clinically significant impairment of functioning in social, occupational, or other areas; causes marked distress; [and] occurs for longer than 6 months*” (Dike et al., 2005). Crucially, the lying is not better explained by delusion or some immediate external gain, it is a maladaptive behavior pattern in its own right. Individuals with this profile may at times exhibit remorse or embarrassment when caught, but often they show a puzzling lack of inhibition or guilt while lying, as if compelled by forces beyond straightforward voluntary control (Dike et al., 2005). This combination of compulsivity, grandiosity, internal motivation, and impaired self-regulation is what distinguishes “*Pinocchio Syndrome*” from the everyday lies that most people occasionally tell.

Historical and Cultural Origins

Pathological lying has been recognized in medical literature for over a century. The first clinical description is usually credited to German physician Anton Delbrück, who in 1891 examined several chronic liars and coined the term pseudologia fantastica for their abnormal, disproportionate lies (Dike et al., 2005). Around the same time, other psychologists (such as G. Stanley Hall in 1890) were noting excessive lying in children, but Delbrück's work formally identified pathological lying as a distinct phenomenon beyond the innocent “*tall tales*” of childhood. In 1926, Healy and Healy published a landmark text compiling early research (including Delbrück's) on pathological lying (Dike et al., 2005). They and other early writers debated whether pathological lying was a standalone disorder or a symptom of other conditions. Some, like Healy, emphasized that the lying occurred “*in the absence of definite insanity or mental deficiency*”, suggesting it was not simply due to psychosis or low intellect (Dike et al., 2005). Others (e.g. William and Olga Selling in 1942)

Pinocchio Syndrome in Psychiatry: A Comprehensive Review

argued that obvious mental illness or personality disorder (what we might now call antisocial personality) was usually behind *pseudologia fantastica* (Dike et al., 2005). This tension, between viewing pathological lying as its own entity versus a byproduct of other disorders has persisted throughout its history (Dike et al., 2005).

The Pinocchio metaphor entered psychiatric discourse later, drawing from Carlo Collodi's famous 1883 children's story "*The Adventures of Pinocchio*". In the story, Pinocchio is a misbehaving wooden puppet-child whose nose magically grows whenever he tells a lie, a physical manifestation of his dishonesty. Psychologically, Pinocchio's tale is one of moral development: he starts as a selfish, impulsive, "*eternal child*" who lies and defies authority, but through a series of hard lessons (and the guidance of his conscience, Jiminy Cricket), he learns empathy and honesty, eventually becoming a "*real boy*." Psychiatrists and therapists found this narrative to be a rich analogy for certain clients. The founder of Transactional Analysis, Eric Berne, often used fairy tales and myths to understand life scripts in therapy (Novellino, 2000). Later, Michele Novellino (2000) explicitly coined "*The Pinocchio Syndrome*" to describe a particular dysfunctional personality script (Novellino, 2000). According to Novellino, this Pinocchio Syndrome personality exhibits "*infantilism and lying*" as core features, reflecting an individual who has never matured past a childlike egocentrism (Novellino, 2000). Such persons are charming and imaginative yet deceitful, impulsive, and irresponsible, essentially paralleling Pinocchio's initial character. Novellino noted that this syndrome overlaps with features of narcissistic and antisocial personality disorders, as these individuals have an inflated self-image, a tendency to flout rules, difficulty forming stable relationships, and a habit of fabricating stories about themselves (Novellino, 2000). Often there is a background of early life instability or abandonment that contributes to their stunted emotional development and trust issues (Novellino, 2000). The Pinocchio metaphor in therapy thus serves to highlight both the childlike immaturity (an "*infantile personality*" that hasn't integrated adult norms of honesty) and the habitual deceit that define these cases.

Culturally, Pinocchio has become an enduring symbol of lying. The image of a long, growing nose is universally recognized as a sign that someone is not telling the truth. In fact, modern fact-checking outlets humorously rate politicians' false statements by awarding them "*Pinochios*" (with more Pinochios meaning a bigger lie). During the 1990s Lewinsky scandal, editorial cartoons famously depicted U.S. President Bill Clinton with an exaggerated Pinocchio nose to insinuate his dishonesty (Novellino, 2000). This broad cultural awareness of Pinocchio as "*the liar who must reform*" makes the term "*Pinocchio Syndrome*" resonate easily with both professionals and the public. It evokes an archetype: the likable but incorrigible liar who, despite repeated transgressions, might yet be redeemable through moral growth. In psychology, Pinocchio's journey is often interpreted as the struggle between impulse and conscience (Novellino, 2000), as well as the importance of guidance and accountability. The story underscores that chronic liars can change, Pinocchio eventually feels genuine remorse, saves others, and proves himself worthy of trust, thereby earning his transformation into a real human boy. By referencing Pinocchio, clinicians subtly imply that with the right interventions (and sometimes harsh consequences), even a habitual liar can learn to be truthful and develop a more authentic self. In essence, the Pinocchio mythos offers a narrative of hope: it suggests that pathological lying, while deeply entrenched, is not an irredeemable condition.

Associated Mental Health Conditions

Pinocchio Syndrome, or pathological lying is rarely a standalone diagnosis. In modern classification systems (DSM-5 and ICD-10), pathological lying is not listed as an independent disorder (Curtis & Hart, 2020). Instead, it is recognized as a potential symptom or feature of other disorders. Chronic deceitfulness is most classically associated with certain personality disorders, as well as with factitious disorders. Here are the key conditions commonly linked with pathological lying:

- **Antisocial Personality Disorder (ASPD):** Habitual lying is one of the diagnostic criteria for ASPD. The DSM-5 notes “*deceitfulness, as indicated by repeated lying, use of aliases, or conning others for personal profit or pleasure,*” as a hallmark of antisocial personality (Curtis & Hart, 2020). Many pathological liars meet the broader profile of ASPD (sometimes labeled “*sociopathy*” or “*psychopathy*”), which includes chronic rule-breaking, impulsivity, and lack of remorse. In such cases, lying often serves instrumental goals, e.g. swindling others, escaping consequences, but can also become **pathological** in the sense that it is frequent and impulsive. Psychopathy assessments like the Hare Psychopathy Checklist-Revised (PCL-R) specifically include “*pathological lying*” as one of their 20 items (Curtis & Hart, 2020). Psychopathic individuals are noted for lying glib and effortlessly, sometimes even when there is nothing to gain, simply because deceiving others gives them a sense of power or thrill. They often lack empathy or guilt, so their lies can be brazened. As one researcher put it, the egocentricity in ASPD/psychopathy may be a key driver, the person lies because only their own needs and narratives matter (Curtis & Hart, 2020). (It should be noted, however, that not all pathological liars are classically antisocial; many do not have a full antisocial personality disorder (Curtis & Hart, 2020).)
- **Narcissistic Personality Disorder (NPD):** Individuals with narcissistic traits may engage in chronic lying, though usually of a particular flavor. Narcissistic lies tend to be self-aggrandizing, exaggerating one’s achievements, importance, or talents to gain admiration (Dike et al., 2005). These lies are often aimed at constructing a “*grandiose*” image in the eyes of others. While the lies might initially be calculated for self-image, over time narcissists can start to believe their own fabrications about how exceptional they are. In pathological lying terms, a narcissistic liar might spin elaborate stories casting themselves as the hero or genius, far beyond the truth. The motivation is an inner need for validation rather than tangible gain.
- **Histrionic Personality Disorder (HPD):** Histrionic individuals are known for attention-seeking behavior and dramatic expression. They may lie frequently as a way to attract attention or sympathy. In severe cases, the sheer frequency and fanciful nature of their lies can amount to pseudologia fantastica (Dike et al., 2005). For example, someone with HPD might fabricate stories of personal illness or extreme experiences to remain at the center of concern. The lies can be impulsive and are driven by an intense need to be noticed or pitied.
- **Borderline Personality Disorder (BPD):** While not as classically associated with lying as the above, borderline personality can involve dishonesty, especially if lying has been a learned coping mechanism. BPD is marked by unstable self-image, emotions, and relationships. These patients may sometimes distort reality or lie as part of chaotic interpersonal situations. Dike et al. note that BPD’s core features (identity disturbance, impulsivity, transient stress-induced paranoia or dissociation) create “*fertile grounds for pathological lying*” (Dike et al., 2005). For instance, out of fear of abandonment or in the context of shifting idealization/devaluation of others, a person with BPD might tell dramatic lies or falsely accuse others, then later

Pinocchio Syndrome in Psychiatry: A Comprehensive Review

retract them. The lying in BPD is often not pre-planned manipulation but occurs in the heat of emotional turmoil, which differentiates it somewhat from the cold, calculated lying in ASPD.

- **Factitious Disorders (e.g. Munchausen Syndrome):** Pathological lying is a **core** component of factitious disorders, where individuals feign illness or trauma for psychological reasons (usually to adopt the “*sick role*”). In Munchausen syndrome, patients compulsively lie about having medical symptoms, often going to great lengths (even self-harm) to support their false claims. This is essentially pseudologia fantastica focused on health and personal misfortune. Ever since Munchausen syndrome was first described by Asher in 1951, pseudologia fantastica has been recognized as a hallmark of the condition (Dike et al., 2005). The lies here are typically aimed at gaining care or sympathy (a form of internal emotional reward) rather than material benefit. For example, a person might falsely claim to have cancer or to have survived a dramatic tragedy. These lies can be extraordinarily detailed and maintained over long periods, involving the creation of fake documents or persons (e.g. nonexistent family members). While factitious disorder is a distinct diagnosis, its overlap with Pinocchio Syndrome is clear: the person is compelled to lie in order to fulfill an emotional need. It’s worth noting that in factitious disorder the liar knows they are lying (they are not delusional about being ill), the deception is intentional, even if the drive to do it is psychological.

Beyond these, pathological lying has been observed in other contexts. Some cases of neurodevelopmental or neurocognitive issues may include excessive lying (for instance, children with certain attachment disturbances or adults with frontal lobe damage might display impaired truth-telling). Additionally, trauma histories are sometimes reported among pathological liars, unstable or abusive childhood environments could contribute to lying as a survival strategy (e.g. a child who learned to lie to avoid abuse, and then this behavior generalizes pathologically). However, the evidence on upbringing is mostly anecdotal; one analysis of case studies did find many pathological liars had “*disturbed family backgrounds or upbringing*”, but systematic research is limited (Dike et al., 2005).

Importantly, clinicians must differentiate pathological lying from psychotic delusions or false memories. In pathological lying (Pinocchio Syndrome), the individual on some level knows they are lying and can recall the actual truth, even if they sometimes half-believe the lie. By contrast, a delusional person firmly believes in the falsehood and cannot be convinced otherwise; their falsehood is not a lie but a fixed belief arising from mental illness. Dike et al. (2005) emphasize this distinction: when confronted with incontrovertible evidence, a pathological liar will usually concede (at least partially) that the story was false or will abruptly change their story (Dike et al., 2005). A person with a true delusion will persist in the false belief despite all evidence. That said, the line can blur if pathological lying is extreme, historical observers described some pathological liars as living in a “*fantasy world*” that could resemble a delusional state (Dike et al., 2005). The lies in pseudologia fantastica are often more elaborate and far-reaching than ordinary lies, “*leaving the grounds of reality*” readily (Dike et al., 2005). In some cases, pathological lying was termed an “*intermediary phase between psychic health and neurosis,*” or a “*double consciousness*” where two versions of reality (the actual and the desired) run in parallel (Dike et al., 2005). The bottom line in practice is that pathological liars do not typically lose complete reality testing, they can acknowledge the truth when pressed, whereas those with psychotic delusions cannot. This distinction has legal and therapeutic significance in assessing responsibility and treatment approach.

In summary, Pinocchio Syndrome is most often entwined with other disorders. Clinicians encountering a pathological liar will usually assess for underlying antisocial, narcissistic, histrionic, or borderline pathology, or for factitious disorder or other conditions. In many cases, the lying is considered secondary to one of these diagnoses. There is ongoing debate about whether “primary” pathological lying (lying in the absence of any other diagnosable disorder) truly exists or is common (Dike et al., 2005). Some experts, dating back to Healy, argued that true pathological lying should be defined as lying that cannot be explained by another major diagnosis (Dike et al., 2005). While such cases might exist (for example, otherwise “*successful*” individuals who lie compulsively without meeting criteria for a personality disorder (Dike et al., 2005)), they are relatively rare. More often, the pathological liar will fit into a broader diagnostic category. Recognizing those contexts is crucial for treatment, since therapy will often target the underlying condition (e.g. psychotherapeutic or pharmacologic treatment of a personality disorder or trauma), alongside interventions aimed at reducing the lying behavior itself.

Neurobiological and Physiological Aspects

Although lying is a behavior, researchers have found neurobiological correlates that may underlie habitual dishonesty. A landmark study by Yang and colleagues (2005) provided the first evidence of brain structure differences in pathological liars (Yang et al., 2005). Using MRI scans, they compared a group of individuals with a history of compulsive lying to both normal controls and antisocial (but non-lying) controls. The results were striking: pathological liars had a significant increase in prefrontal white matter volume, on the order of 22–26% more white matter in orbitofrontal and other prefrontal areas and a corresponding reduction in the gray/white matter ratio, compared to both control groups (Yang et al., 2005). In practical terms, these liars had extra “*wiring*” in the brain’s frontal lobes (white matter consists of neural connections), but slightly less gray matter (neuronal cell bodies) in the same region than normal individuals (Yang et al., 2005). The prefrontal cortex is critical for executive functions like impulse control, moral reasoning, and behavior regulation. Researchers have interpreted this finding to mean that pathological liars might have a neural advantage in formulating lies (more connectivity could facilitate quick fabrication of stories and adeptness at deception) but potentially less of the normal “*braking*” mechanism that would inhibit dishonesty (Yang et al., 2005). Adrian Raine, a co-author of the study, commented that “*liars have more tools to lie, and they don’t have the disinhibition that the rest of us have... Having more white matter gives them an upper hand, and having 14% less gray matter means they are less likely to care about moral issues or to be able to process them*” (Yang et al., 2005). In essence, the neuroanatomy could reflect a brain that is well-networked for complex storytelling but relatively underpowered in circuits of guilt, empathy, and self-restraint.

Functional brain studies complement this picture. Under ordinary circumstances, telling a lie is cognitively demanding, truth must be suppressed and a false response generated. Functional MRI experiments on honest individuals have shown increased bilateral activation in the prefrontal cortex when people lie compared to when they tell the truth (Yang et al., 2005). This activation likely represents the brain working harder to inhibit truthful responses and fabricate information. One might expect that pathological liars, who lie frequently, would show a different pattern, perhaps needing *less* effort (and thus less activation) to lie, since deception for them may be more automatic. Indeed, some theorists suggest that habitual liars experience lying as more fluent and with less emotional arousal than normal individuals (Yang et al., 2005). The structural findings support this: with excess white matter connectivity, lying could become more “*efficient*,” requiring less deliberate executive

processing. Additionally, if these individuals truly feel less remorse or anxiety about lying (as many pathological liars report), the usual emotional signals that accompany lying (and activate frontal circuits) might be blunted. It has been proposed that deficits in certain regions like the anterior cingulate cortex involved in error detection and empathy could diminish the inner conflict or guilt that honest people experience when lying (Yang et al., 2005). This aligns with the observation that pathological liars often lie with a “cool” demeanor, showing little stress even when fabricating outrageous stories (Yang et al., 2005). Beyond brain structure and function, even autonomic physiology offers intriguing clues, in a whimsical nod to the Pinocchio legend. A study at the University of Granada used thermal imaging (infrared thermography) to examine facial temperature changes during deception. They found that when subjects told a lie, there was a measurable increase in the temperature around the nose and the inner corners of the eyes, a phenomenon the researchers dubbed the “*Pinocchio effect*.” (University of Granada, 2012) In this experiment, lying consistently produced a slight warming of the nose region (while certain other mental efforts caused cooling of the face). The “*Pinocchio effect*” is thought to be related to activation of the insula, a brain region involved in emotion and body regulation (University of Granada, 2012). The insula’s activity can trigger changes in blood flow and temperature. Interestingly, the researchers noted an inverse correlation: the more active the insula (which corresponds to experiencing true feelings), the *less* the temperature changed, suggesting that when a person is not genuinely feeling an emotion (as in lying about their feelings), the nose warms up (University of Granada, 2012). While the “*thermal nose*” is not used in any clinical setting, it humorously echoes Pinocchio’s tale and highlights that even involuntary bodily responses (like micro-temperature changes) accompany the act of lying. This is in line with other known physiological markers of deception, such as increased heart rate, blood pressure, and skin conductance, the basis of polygraph tests. The key point is that lying is a psychophysiological event: it engages the brain and body in detectable ways, some of which may differ in pathological liars versus ordinary people.

In rare and fascinating cases, the link between lying and the brain can take extremely unusual forms. French neurologists Sellal, Chevalier, and Collard (1993) reported what they called “*Pinocchio syndrome*” as a peculiar reflex epilepsy: a patient who would have epileptic seizures triggered specifically by the act of lying (Okudan & Özkara, 2018). In this single-case report, each time the patient attempted to tell a lie (even a trivial one), he experienced an aura of epigastric sensation and anxiety followed by a seizure (Okudan & Özkara, 2018). In effect, his brain would “*short-circuit*” when he lied, as if rejecting the deception. This reflex epilepsy is extraordinarily rare (lying as a seizure trigger had not been documented before), but it poetically reinforces how intimately lying behavior is tied to brain function. The authors nicknamed it “*Pinocchio syndrome*” for obvious reasons, the patient couldn’t lie without a dramatic physiological consequence, reminiscent of Pinocchio’s immediate nose growth.

Overall, emerging research suggests that pathological lying is not merely a moral or psychological issue; it also has biological underpinnings. Structural MRI studies show distinct differences in brains of habitual liars (Curtis & Hart, 2020), and functional observations indicate that their brains may process deception differently than those of average individuals. Autonomic measures add another layer, implying that even subtle bodily changes (like nose temperature) correlate with lying. These findings are still early and not fully understood, for instance, more research is needed to confirm if increased white matter is a cause or effect of lying, or how exactly brain networks differ during spontaneous lying in liars. Nevertheless, such studies validate Pinocchio Syndrome as a real neuro-

behavioral phenomenon. They also hint at future possibilities: perhaps brain imaging or physiological monitoring could one day assist in identifying compulsive liars or tailoring interventions (though ethical and practical hurdles are significant). For now, the science underscores that chronic lying involves a combination of psychological, neurological, and physiological factors, making it a complex human behavior at the crossroads of mind and body.

Impact on Relationships and Therapy

One of the most devastating aspects of Pinocchio Syndrome is its toll on relationships. Trust is the foundation of healthy relationships, and pathological lying systematically erodes trust. Family members, romantic partners, friends, and coworkers of a pathological liar often experience confusion, betrayal, and hurt once the lying becomes apparent. Because pathological liars will lie about matters large and small, those around them come to realize that they can never be sure what is true. Over time, this leads to frequent conflict and breakups in relationships. Loved ones may vacillate between compassion (recognizing that the lying seems impulsive or driven by psychological issues) and anger (feeling manipulated or made fools of). The social and occupational impairments caused by pathological lying can be severe: reputations are ruined, jobs may be lost due to dishonesty, and friendships dissolve (Curtis & Hart, 2020). Chronic liars often end up isolated because people withdraw from them, no one likes being lied to relentlessly. Even if the liar has many positive qualities, the constant deception becomes a barrier to intimacy and teamwork. For example, a spouse who repeatedly lies about finances, infidelities, or personal history will undermine the marital bond. In work settings, a person who lies on their resume or about work tasks may face termination and difficulty finding new employment once the truth surfaces. It is not uncommon that by the time pathological liars enter therapy or get help, they are facing crisis, such as a partner threatening to leave, or legal consequences from a big lie, that finally confronts them with the magnitude of the problem.

Within the context of psychotherapy or counseling, pathological lying presents unique challenges often referred to colloquially as the “*Pinocchio syndrome*” in therapy (Miller, 1992). Therapy relies on honest communication; a counselor can only be effective if the client is truthful about their feelings and actions. When a client habitually lies, it undermines the therapeutic alliance and the accuracy of the assessment. Mark J. Miller (1992) noted that surprisingly little had been written in counseling journals about dealing with lying clients, despite the fact that “*some clients consciously choose to be dishonest or withhold important information from their counselors*” (Miller, 1992). In his paper “*The Pinocchio Syndrome: Lying and Its Impact on the Counseling Process*,” Miller discusses how clients may lie out of shame, fear of judgment, or simply due to the compulsive habit, and he offers suggestions for therapists on managing this dynamic (Miller, 1992). One major issue is that therapists might not immediately detect the lies, skilled pathological liars can be very convincing, especially if they mix truth and falsehood. The therapist might operate for several sessions on false premises, rendering interventions ineffective or misguided. When the deception eventually becomes evident (for instance, factual inconsistencies emerge or a family member contradicts the client’s story), the therapist may feel betrayed or frustrated, and the client may feel embarrassed or attacked if confronted. This can spiral into a cycle of mistrust. The client, already prone to lying, might double-down or become defensive, while the therapist struggles with how directly to call out the dishonesty without alienating the client. Therapy may stall or even prematurely terminate if this issue isn’t navigated carefully.

Pinocchio Syndrome in Psychiatry: A Comprehensive Review

Best practices in dealing with lying clients suggest a balance of empathy and accountability. Therapists are encouraged to create a safe, nonjudgmental space so that the client *feels less need to lie*. Often, habitual liars are deeply insecure; they lie to make themselves look better or to avoid painful truths. By gently exploring the *motives* for the lying behavior (e.g. “*What were you hoping I’d think or feel when you said that?*”), a therapist can address the underlying needs, such as low self-esteem, fear of rejection, or desire for control. At the same time, the therapist must set clear boundaries, making it known that honesty is crucial for progress. Some therapists use a collaborative approach: rather than harshly accusing the client of lying (which can provoke shame and shutdown), they might express curiosity about discrepancies (“*I notice your report this week is different from last week’s, help me understand what changed.*”). In cases of compulsive lying, it can even be therapeutic to directly label the behavior in a compassionate way (e.g. “*This pattern of not being truthful seems almost like an addiction for you; I understand it’s not easy to change, but let’s work on it together*”). Group therapy can also provide real-time feedback, peers in a therapy group often quickly call out lies, which can help the pathological liar see the impact of their behavior through others’ eyes (though group settings can be risky if the individual feels attacked).

From a diagnostic standpoint, clinicians approach Pinocchio Syndrome by assessing whether the lying is primary or secondary. If pathological lying appears in the context of a broader disorder (as discussed earlier, like ASPD or factitious disorder), the treatment plan will center on that disorder. For example, if a patient’s pathological lying is one facet of a narcissistic personality, therapy might focus on building a more stable self-esteem and teaching the patient to get needs met without falsehoods. If the lying is part of a factitious disorder, the therapist will address underlying issues such as needs for attention and educate the patient on healthier ways to receive support. In some cases, once the root issue is addressed (be it trauma, depression, etc.), the lying behavior diminishes as the person no longer “*needs*” the lies as a crutch. On the other hand, if the lying seems to stand on its own (no other diagnosis fully accounts for it), some clinicians might diagnose an “*Other specified personality disorder*” or simply focus on the lying as the primary problem to change. Techniques from cognitive-behavioral therapy (CBT) can be employed: for instance, having the client journal each urge to lie and the context, in order to identify triggers; or practicing telling the truth in graduated steps, to learn that feared negative outcomes (embarrassment, rejection) often do not materialize as intensely as expected when one is honest.

Building insight is a key therapeutic goal. Many pathological liars initially lack insight into their behavior, they may minimize the consequences or externalize blame (“*No one got hurt by my lies*” or “*Everyone lies, I’m just better at it*”). Part of therapy is holding up a mirror to show the person the real damage their lying has caused, both to others and to themselves (e.g. ruined relationships, constant anxiety of being caught, a fragmented sense of identity from living a lie). Therapists often use a motivational approach: helping the client see the advantages of honesty and the costs of dishonesty. For instance, together they might review the series of events that resulted from a particular lie (such as losing a job) to reinforce why change is desirable. Some clinicians refer to the “*Pinocchio story*” itself as an allegory, Pinocchio had to face increasingly dire consequences of lying before he learned to change, and similarly the client may need to confront and emotionally process the consequences of their own lies.

Pinocchio Syndrome in Psychiatry: A Comprehensive Review

There is no medication that “cures” pathological lying, but if co-occurring psychiatric issues are present, pharmacotherapy can be useful. Often pathological liars have comorbid problems like depression, anxiety, or impulsivity (e.g. ADHD). Treating those with appropriate medication (such as SSRIs or mood stabilizers) can indirectly reduce the pressure to lie. For example, if someone lies out of anxiety or low self-worth, an antidepressant or anxiolytic that improves their mood might lessen the compulsion to fabricate stories. In some instances, clinicians have reported using SSRIs to manage impulsive behaviors including lying (Kainth & Gunturu, 2024). However, this is an off-label, supportive strategy, there is no “*anti-lying pill*.” The cornerstone of treatment remains psychotherapy, particularly forms of CBT and sometimes long-term insight-oriented therapy for entrenched personality patterns. Cognitive-behavioral interventions can help the individual recognize distorted thoughts that trigger lies (like “*If I tell the truth, I’ll be judged*” or “*I have to lie or I’m worthless*”) and work to challenge and change those beliefs. Behavioral techniques might involve gradually practicing truth-telling in low-stakes situations to build tolerance for honesty. Some therapists also use motivational interviewing, exploring with the client what they value about lying vs. what it’s costing them, to enhance their motivation to change.

Rebuilding **trust** with those harmed by the lying is an important but slow process. Couples or family therapy can be beneficial once the pathological liar has made some progress individually. Loved ones often need support to vent their feelings of betrayal and to learn how not to unintentionally enable the lying (for example, by always giving second chances without accountability). It must be acknowledged that not every case has a happy ending, if the lying behavior is rooted in severe antisocial traits or if the person has no genuine desire to change, prognosis is poor. However, if the individual is committed to honesty and to understanding themselves, improvements are possible. As in Pinocchio’s tale, it may require significant consequences and a genuine internal shift (developing empathy and regret) for the person to change their ways. Therapists emphasize patience and consistency: pathological habits formed over years will not vanish overnight. Relapses (telling a new lie under stress) may occur, and they can be used as learning opportunities rather than occasions for harsh punishment.

Ultimately, the journey of a pathological liar in therapy is akin to Pinocchio’s journey to becoming a real boy, it involves confronting the truth, taking responsibility, and working through the fears that underlie the lies. With skilled support, some individuals do manage to greatly reduce their lying and live more authentically. They often report a sense of relief in no longer keeping track of lies and a newfound ability to form authentic relationships based on trust, which can be profoundly healing after years of deceit.

CONCLUSION

The concept of Pinocchio Syndrome in psychiatry provides a vivid framework for understanding the psychopathology of chronic lying. While not an official diagnosis, it encapsulates a constellation of behaviors and personality features, compulsive dishonesty, elaborate storytelling, impulsivity, and emotional immaturity, that pose significant challenges in clinical practice. This review has examined Pinocchio Syndrome from historical, clinical, and neurobiological perspectives. We saw that pathological lying (*pseudologia fantastica*) has been discussed in the literature for over a hundred years (Dike et al., 2005), yet it remains somewhat elusive and controversial as a diagnosis. It often overlaps with other disorders, especially cluster B personality disorders and factitious disorder, rather than standing alone (Dike et al., 2005). Nevertheless, recent research by

Pinocchio Syndrome in Psychiatry: A Comprehensive Review

Curtis and Hart and others argues that pathological lying does merit recognition as a distinct phenomenon, given its characteristic presentation and the impairment it causes (Curtis & Hart, 2020).

The Pinocchio metaphor, drawn from a 19th-century children's story, has proven to be both clinically useful and culturally resonant. It reminds us that behind the chronic liar's deceptive facade often lies a stunted psychological development, a child-like psyche fixated at a stage where fantasy and reality are blurred (Dike et al., 2005). Pinocchio Syndrome highlights this arrest of maturity: the liar, like Pinocchio, must learn humility, empathy, and honesty to “*grow up*” in a psychological sense. The journey to overcome pathological lying is typically long and fraught with setbacks, but the Pinocchio story offers a narrative of redemption. It suggests that with proper guidance (the equivalent of Jiminy Cricket or the Blue Fairy in the tale, i.e. therapy, supportive figures) and often through facing the consequences of lies, an individual can develop a conscience and a commitment to truth.

From a clinical standpoint, addressing Pinocchio Syndrome requires a multi-faceted approach. First, thorough assessment is needed to identify any underlying disorders or contributing factors (be they personality disorders, past traumas, or neurocognitive issues). Treatment plans are then tailored to those findings: for instance, different strategies might be taken for a pathological liar with antisocial traits versus one whose lying stems from low self-worth and trauma. Psychotherapeutic intervention is central, building the patient's insight into their behavior, teaching coping skills that don't rely on lying, and gradually rehabilitating the capacity for honesty. In some cases, involving family or significant others in therapy can help repair trust and establish a support network for the patient's change process. Additionally, as noted, any co-morbid conditions like depression or anxiety should be treated (sometimes with medications) to reduce the emotional drivers that may fuel the lying (Kainth & Gunturu, 2025). There is also an educational component: many pathological liars initially do not realize that their behavior pattern is recognizable and has been documented in psychiatric literature. Learning that pathological lying is a known issue (and hearing about others who have struggled with it) can reduce shame and help the individual separate their identity from the symptom (“*I am not just a 'bad person'; I have a treatable problem that I can work on*”).

In conclusion, Pinocchio Syndrome underscores the complex interplay of myth and mind in psychiatry. A beloved fairy tale has lent its imagery to elucidate a real clinical phenomenon, one that involves elements of deception, imagination, and morality. By reviewing its definition, related conditions, neurobiology, and treatment, we gain a comprehensive understanding of how pathological lying operates and affects those involved. We also see that approaching it purely as a moral failing is insufficient; it must be viewed as a psychological and behavioral issue, often rooted in deeper psychopathology. Continued research is needed, for instance, to further clarify the neurological profile of liars, or to develop specialized therapy modules targeting compulsive lying. Such research may eventually inform better diagnostic criteria (perhaps inclusion in future DSM editions) and better interventions. In the meantime, mental health professionals will continue to rely on the lessons from both science and story: like Geppetto with Pinocchio, we must combine firmness and compassion, holding the chronic liar accountable while still believing in their capacity to change. With time and effort, even a nose that has grown long with lies can *figuratively* shrink back to normal, allowing an individual to live a more honest and genuinely connected life.

REFERENCES

- Curtis, D. A., & Hart, C. L. (2020). Pathological Lying: Theoretical and Empirical Support for a Diagnostic Entity. *Psychiatric Research & Clinical Practice*, 2(2), 62–69. <https://doi.org/10.1176/appi.prcp.20190046>
- Dike, C. C., Baranoski, M., & Griffith, E. E. H. (2005). Pathological lying revisited. *Journal of the American Academy of Psychiatry and the Law*, 33(3), 342–349. <https://pubmed.ncbi.nlm.nih.gov/16186198/>
- Kainth, T., & Gunturu, S. (2024). *Pseudologia Fantastica*. In StatPearls [Internet]. Treasure Island, FL: StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK606104/>
- Miller, M. J. (1992). The Pinocchio syndrome: Lying and its impact on the counseling process. *Counseling and Values*, 37(1), 25–31. <https://doi.org/10.1002/j.2161-007X.1992.tb00822.x>
- Novellino, M. (2000). The Pinocchio Syndrome. *Transactional Analysis Journal*, 30(4), 292–299. <https://doi.org/10.1177/036215370003000404>
- Okudan, Z. V., & Özkara, C. (2018). Reflex epilepsy: Triggers and management strategies. *Neuropsychiatric Disease and Treatment*, 14, 327–337. <https://doi.org/10.2147/NDT.S107669>
- Sellal, F., Chevalier, Y., & Collard, M. (1993). “Pinocchio syndrome”: a peculiar form of reflex epilepsy? *Journal of Neurology, Neurosurgery, and Psychiatry*, 56(8), 936. <https://doi.org/10.1136/jnnp.56.8.936>
- University of Granada. (2012, December 3). “Pinocchio effect” confirmed: When you lie, your nose temperature rises. *ScienceDaily*. <https://www.sciencedaily.com/releases/2012/12/121203081834.htm>
- Yang, Y., Raine, A., Lencz, T., Bihrl, S., Lacasse, L., & Colletti, P. (2005). Prefrontal white matter in pathological liars. *British Journal of Psychiatry*, 187(4), 320–325. <https://doi.org/doi:10.1192/bjp.187.4.320>

Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Justin, R. & Anand, P. (2025). Pinocchio Syndrome in Psychiatry: A Comprehensive Review. *International Journal of Indian Psychology*, 13(4), 518-530. DIP:18.01.048.20251304, DOI:10.25215/1304.048