

Psychological Temporality in an Elderly Patient with Type 2 Diabetes: An Integrative Clinical Study Using Projective Techniques and the Zimbardo Time Perspective Inventory (ZTPI)

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Abstract

This study examines psychological temporality in an older adult living with a chronic illness—type 2 diabetes—through an integrative clinical case-study design. Projective techniques (the Rorschach and Thematic Apperception Test [TAT]), the Zimbardo Time Perspective Inventory (ZTPI), and a semi-structured interview were administered to a 68-year-old participant diagnosed with type 2 diabetes. The study investigates how conscious time perspective and unconscious psychological temporality are organized and how temporal conflicts emerge across the past, present, and future. The findings indicate profound temporal fragmentation marked by acute temporal freezing in a fatalistic present. Repetitive responses, compulsive rumination, impoverished associative production, and difficulty investing in future representations appeared in the projective material. The bodily trauma associated with chronic illness, loss anxiety, relational disruption, and narcissistic inhibition constrained the flow of psychological time. ZTPI findings supported this interpretation: the Fatalistic Present dimension received the highest score, followed by Positive Past, whereas Future received the lowest score. At the conscious level, the participant expressed acceptance of illness and satisfaction with fate, yet also idealized a past associated with youth and freedom from illness. The integration of objective and projective methods revealed a relative split between conscious adaptation and persistent unconscious trauma. The findings support routine psychological assessment of older adults with diabetes and demonstrate the value of combining psychometric and projective approaches in clinical research.

Keywords: psychological temporality; older adult; chronic illness; type 2 diabetes; Rorschach; Thematic Apperception Test; Zimbardo Time Perspective Inventory; projective techniques

Introduction

Old age is the final developmental period in the human life cycle and often requires specialized care because of its distinctive biological, psychological, and social demands. Medicine, psychology, law, religion, and sociology have all examined ageing in order to support greater flexibility, adaptation, and quality of life among older adults.

Global population ageing is accelerating. The number of people aged 60 years or older was projected to rise in developing countries from 652 million in 2017 to 1.7 billion in 2050, while the corresponding population in more developed countries was expected to increase from 310 million to 427 million. Algeria is also experiencing demographic ageing; the median age has been projected to rise from 16.2 years in 1975 to 38.2 years by 2050 (Merah et al., 2024).

Ageing is shaped by heredity, environment, occupational history, medication, and disease. Chronic illness is particularly significant because it threatens both physical and psychological well-being. Epidemiological data show a positive association between age and chronic disease, with hypertension, diabetes, cardiovascular disease, cancer, and chronic respiratory illness among the most common conditions in older Algerian adults (Kacemi & Belkhir, 2019; Tehami & Boukhelkhal, 2022). Globally, most people with diabetes have type 2 diabetes, whose principal risk factors include age, obesity, and physical inactivity.

Ageing should not be reduced to hormonal or biochemical changes considered apart from parallel psychological processes (Verdon, 2022). Psychoanalytic theory offers a dynamic model that links organic changes with psychic causality. Within this framework, time becomes central to how an older person experiences ageing and chronic illness.

A diagnosis of type 2 diabetes may require mourning previous investments and losing part of an established way of life. Medication, dietary restrictions, monitoring, fear of complications, and awareness of bodily vulnerability can oblige the person to restructure daily existence. Psychological temporality refers here to the subjective representation of objective time and includes sequence, duration, and time perspective—experiences and representations of the past, present, and future (Block, n.d.).

Freud's proposition that the unconscious is timeless remains fundamental to psychoanalytic accounts of temporality. Conscious and unconscious time are not necessarily linear or homogeneous; memory, forgetting, repetition, repression, and denial can produce fragmentation, discontinuity, and multiple temporalities (Bokanowski, 2001; Marty, 2005). Contemporary projective psychology therefore examines how temporal organization appears in language, associative continuity, responses to change in stimuli, and the subject's capacity to construct narratives.

Chronic illness and mental health are bidirectionally related among older adults. Depression can complicate diabetes, while anxiety and personality difficulties may reduce adherence to self-care. The American Diabetes Association recommends integrated medical and psychological evaluation, with particular attention to depression, generalized anxiety, panic symptoms, cognitive impairment, isolation, retirement, loss, reduced autonomy, and fear of death (American Diabetes Association, n.d.; Beverly et al., 2017; Dey et al., 2022).

Research Problem, Questions, and Hypotheses

Existing projective studies of psychological temporality have focused mainly on adolescence, psychotic functioning, borderline personality organization, and adulthood. Research on older adults facing narcissistic threat, loss anxiety, and chronic bodily illness remains limited. A methodological gap also persists between projective approaches that investigate unconscious temporal structures and psychometric approaches that assess conscious time perspective.

The present study addresses that gap by combining the Rorschach, the TAT, the ZTPI, and a semi-structured clinical interview. It examines how an older person with type 2 diabetes organizes conflict among the lived present of illness, memories of the past, and representations of the future.

Research questions

- What characteristics define the participant's conscious perspectives on the past, present, and future as measured by the ZTPI?
- How does unconscious psychological temporality appear through projective indicators in the Rorschach and TAT protocols?
- How do conscious time perspective and unconscious psychological temporality interact in the participant's overall psychological functioning?

Hypotheses

- General hypothesis: A discrepancy exists between consciously reported temporal registers and unconscious psychological temporality.
- Hypothesis 1: Conscious time perspective will favor Positive Past and Fatalistic Present at the expense of Future.
- Hypothesis 2: Projective techniques will reveal a fracture in psychological temporality governed by narcissistic inhibition and loss anxiety following bodily trauma.
- Hypothesis 3: The participant will report conscious acceptance of illness while displaying unconscious temporal freezing.

Study Objectives and Significance

- Identify the characteristics of conscious time perspective across past, present, and future using quantitative ZTPI results.
- Investigate unconscious psychological temporality through clinical and projective indicators in the Rorschach and TAT.
- Clarify how conscious and unconscious temporal organization interact and shape adaptation to chronic illness in later life.

To the author's knowledge, this is among the first studies to examine psychological temporality in an older adult with chronic illness through an integrative combination of projective and objective tools. It contributes to scarce Algerian and Arab research on psychological temporality, psychoanalytic clinical psychology, projective assessment, ageing, and chronic disease.

Conceptual Definitions

Psychological temporality

Psychological temporality refers to the subject's coexistence with multiple forms of personal time and to the metapsychological organization of psychic times, object relations, and conflict. Operationally, it is inferred from temporal indicators in the Rorschach and TAT, ZTPI scores, and the semi-structured interview (Jabbar, 2016).

Older adult

The World Health Organization and European institutions commonly use age 60 as a threshold for later life, while increased life expectancy is continually reshaping age categories. In this study, the participant is a 68-year-old adult (HCFEA, 2025).

Chronic illness and type 2 diabetes

A chronic illness develops over several months or longer, requires prolonged or lifelong care, and may reduce quality of life. Type 2 diabetes occurs when the body has difficulty using insulin effectively, resulting in elevated blood glucose and increased risk of cardiovascular disease, kidney disease, vision loss, and neuropathic pain (American Diabetes Association, n.d.; Breton et al., 2020).

Projective techniques

Projective techniques are clinical personality-assessment methods used to explore psychological processes. This study uses the Rorschach and TAT to identify indicators of psychological temporality (Finkelstein-Rossi & Fernandez, 2011).

Zimbardo Time Perspective Inventory

The ZTPI is a 56-item multidimensional instrument measuring beliefs, preferences, values, motivations, emotions, and cognitions associated with five temporal orientations: Negative Past, Positive Past, Fatalistic Present, Hedonistic Present, and Future (Apostolidis & Fieulaine, 2004).

Review of Previous Studies

Psychoanalytic and projective studies of temporality

Azoulay (2006) linked self-representation and psychological time in a 19-year-old experiencing a psychotic episode. Projective indicators included associative continuity as a sign of libidinal investment in time and differentiation among cards as a sign of accepting stimulus change. Azoulay and Emmanuelli (2014) compared 15 adolescents with borderline functioning and 15 controls and found meaningful differences in access to psychological temporality in both Rorschach and TAT protocols.

Jabbar (2016) studied subjective time in seven adults with depressive functioning. Findings suggested a persistent past that did not pass, rejection of the present, fear of the future, impaired thematic linking, difficulty integrating sensory color elements in the Rorschach, and disrupted narrative and temporal articulation in the TAT.

Time perspective studies

Aström et al. (2018) studied 402 adults aged 60–90 and found that Fatalistic Present and Negative Past were strongly associated with depressive symptoms beyond personality and adverse life events. These temporal orientations may function as risk indicators for depression in later life.

Al-Souissi (2022) compared time perspective among Arab and European youth and reported a disrupted pattern among Arab youth characterized by future aspiration alongside disconnection from the past and

absence from the present. Saltania and Lagoun (2023) found that university students who had recovered from COVID-19 primarily endorsed Positive Past, followed by Future, and identified significant relationships between time perspective and coping strategies.

Ageing, chronic illness, and diabetes

Kacemi and Belkhiri (2019) reported that chronic disease prevalence in Algeria rises with age, reaching approximately 51% among people aged 60 and older, with higher reported prevalence among women. Mitina et al. (2020) linked older subjective age with poorer psychological well-being, depression, chronic illness, and reduced life satisfaction.

Khouloufi (2021) used semi-structured interviews and the Rorschach with two adults with type 2 diabetes and reported low productivity, predominance of detail responses, strong formal control, reduced sensory-color responses, and depressive mental functioning. Deif Allah (2023) found substantial negative mental-health effects of diabetes and hypertension in a purposive sample of 30 older adults.

Sun et al. (2025) found that diabetes-related psychological distress was closely associated with self-management among 264 older adults with type 2 diabetes and chronic complications. Hutomo (2025), in a systematic review of six studies involving approximately 14,500 older adults with chronic illness, reported psychosomatic-problem prevalence ranging from 30% to 70%, with depression and anxiety prominent.

Method

Design

The study used a clinical case-study method. This approach was selected because psychological temporality is embedded in deep unconscious structures, defenses, personal history, relational conflict, and the singular experience of illness. The combination of projective techniques, psychometric assessment, and clinical listening allows the researcher to compare conscious statements with unconscious projections.

Setting and period

Fieldwork was conducted in the psychologist's office at a multiservice medical clinic in a city in M'Sila Province, Algeria, between April and May 2026.

Participant

The participant, "Ahmed," was 68 years old, had lived with type 2 diabetes for 12 years, and had retired from nursing eight years earlier. He experienced divorce after a 20-year marriage and has three adult children who live with their mother. He remarried seven years before the study.

Clinical history

Ahmed recognized the first symptoms of diabetes—dry and cracked feet, excessive sweating and urination, and weight loss—through his nursing experience. He reported no family history of diabetes. He adhered to medication and medical monitoring, walked daily, followed dietary guidance, and maintained hydration.

Family relationships were complex. His first marriage involved persistent conflict and ended in separation. He described his second marriage as ordinary. Contact with his sons continued, but his relationship with his daughter remained tense, producing ongoing loss and psychological pain. He wished for greater family warmth and stability.

Instruments

Semi-structured clinical interview

The interview covered demographic and clinical information, the place of chronic illness in the participant's life, relational life, and psychological temporality before and after diagnosis. The interview was conducted flexibly to encourage detailed objective and subjective information (Pin, 2023).

Zimbardo Time Perspective Inventory

The Arabic version adapted to the Algerian context by Gar Allah and Charfi (2009) was used. Responses range from 1 (strongly disagree) to 5 (strongly agree), with reverse scoring for designated items. Mean scores are calculated separately for Negative Past, Positive Past, Fatalistic Present, Hedonistic Present, and Future.

Projective techniques

The Rorschach explores cognitive functioning, perception, affect, and overall personality dynamics. The TAT explores basic conflicts, relationships, wishes, refusals, and narrative organization. Both permit linguistic and temporal analysis of associative continuity, narrative sequencing, hesitation, repetition, and change across stimuli (Azoulay, 2013).

Scoring and analysis

The Rorschach protocol was scored using the Algerian form-scoring manual by Ben Khalifa and Si Moussi (2021). The TAT was analyzed with the Brelet-Foulard and Chabert framework, in an Arabic translation by Bouchicha (2016). Quantitative scores, clinical interview themes, linguistic temporal markers, and projective indicators were interpreted together.

Results

Conscious temporality: Interview and ZTPI

Ahmed expressed conscious satisfaction with his current life through religious acceptance of destiny, while acknowledging that diabetes had changed his way of living. He selected the present as his preferred time because it was the unavoidable reality, but he also idealized the past as a period of youth, health, travel, and freedom from medication. Future wishes were limited mainly to performing the pilgrimage and seeing his children marry.

His health knowledge and disciplined self-care supported conscious adaptation. He stated that “everything is written” and that he should be patient. Yet he also described diagnosis as a turning point that made him feel time had been lost. Increased religious and charitable activity appeared as sublimation—a mature defense against narcissistic pain. His preference for the present coexisted with longing for a healthier past and a narrowed future.

Table 1. ZTPI dimension scores

Dimension	Score	Clinical meaning
Negative Past	2.50	Some painful memories and regret

Positive Past	4.40	Strong support from youth, health, travel, and professional identity
Fatalistic Present	5.00	Highest score; submission to illness, age, and perceived inevitability
Hedonistic Present	2.40	Limited enjoyment within health constraints
Future	1.69	Lowest score; restricted practical and material goals

Note. Higher scores indicate stronger endorsement of the corresponding time perspective. Decimal commas in the source were converted to decimal points.

Clinical Interpretation of Conscious Temporality

The ZTPI pattern was dominated by Fatalistic Present, followed by Positive Past. The participant perceived ageing and diabetes as biological and health-related inevitabilities beyond his control. Positive memories—especially his former role as a nurse who cared for others—supported self-esteem and provided refuge from present constraints. Future investment was markedly limited and centered on spiritual and family wishes rather than varied practical projects.

The interview and ZTPI therefore suggest a conscious temporal organization structured by fatalistic present orientation, defensive investment in a positive past, and contraction of the future horizon. Objective measures alone, however, cannot fully explain unconscious temporality; projective analysis was necessary.

Unconscious Temporality: Projective Findings

Rorschach protocol

The Rorschach protocol was markedly inhibited and low in productivity. Ahmed produced 10 responses, one refusal, and a total administration time of approximately 18 minutes. Latency was recorded meaningfully on only three cards and remained brief. Frequent laughter, questions to the examiner, card turning, and requests for reassurance served as defenses against anxiety and ambiguity.

Responses were often global and formally controlled, giving an initial impression of adaptation. Nevertheless, content was repetitive and devitalized: bats, skeletons, skin, drawings, body parts, and objects. Anatomical responses and references to bodily fragility became more visible during inquiry. Color was poorly integrated, particularly on Cards VIII–X, and Card II produced explicit refusal and imagery of something divided or dissected.

Table 2. Selected Rorschach indicators

Indicator	Result	Interpretation
Total responses (R)	10	Very low productivity and strong inhibition
Global responses (G)	70%	Broad formal control; defensive coherence
Detail responses (D)	30%	Restricted elaboration
Form percentage (F)	50%	Reliance on formal control
Expanded form	90%	Strong perceptual containment
Expanded F+	78%	Adequate formal adaptation despite low vitality
Animal content	45%	Conventional and repetitive content
Human content, expanded	9%	Limited relational investment
Popular responses	3	Some conventional reality anchoring
Anxiety index	9%	Anxiety expressed indirectly
Total time	≈18 min	Rapid and defensive engagement

Rorschach Response Themes

- Cards I and V: repeated “bat” responses, suggesting stereotyped repetition.
- Cards III, IV, and X: skeletal, skin, or bodily-system content, reflecting bodily fragility and somatic threat.
- Cards VII, IX, and X: “just a drawing” or “the same thing,” indicating refusal of elaboration and perseveration.
- Card II: explicit uncertainty and refusal, with later imagery of something split or dissected.
- Cards VIII–X: limited integration of color; color was treated superficially or denied.

The low response count, brief latencies, restricted affect, repetitive bodily content, and suppression of color supported a depressive-borderline mode of functioning with cortical or manic defenses against depressive sensitivity.

TAT Findings

The TAT narratives were brief, uncertain, and dominated by questions, alternatives, present-tense verbs, and conflict avoidance. Ahmed frequently used formulations such as “or,” “perhaps,” and “I do not know,” which allowed him to avoid committing to a narrative future. Characters were rarely placed in clear, emotionally invested relationships. Scenes involving absence of people generated anxiety, while relational scenes were emotionally flattened.

The blank Card 16 elicited the longest and most personally invested story. Ahmed recalled a televised account of a child with a disability whose teacher had rejected him, after which the child succeeded and the teacher later became disabled. He explained that the story affected him because some people fail to use opportunities to do good. This narrative projected bodily vulnerability, disability, moral reversal, and reparative or sublimatory concerns.

Table 3. Distribution of TAT defensive processes

Process family	Frequency	Percentage
A — Control processes	36	27%
B — Flexibility processes	21	15%
C — Conflict-avoidance processes	69	51%
E — Primary processes	8	6%
Total	133	100%

Conflict avoidance was the dominant process. It appeared through inhibition, silence, examiner-directed questions, cautious approach to relational themes, weak expression of affect, and limited resolution of primitive and oedipal anxieties.

Temporal and Linguistic Analysis

Objective time

In the Rorschach, responses were rapid and minimally elaborated; the spontaneous phase lasted approximately five minutes. Immediate answers functioned as defensive avoidance of perceptual-imaginative time. In the TAT, latency alternated between direct entry and moderate hesitation, but response time often clustered around 50 seconds. Temporal specifications were nearly absent, suggesting difficulty transforming objective duration into psychologically invested narrative time.

Present-tense fixation

Rorschach language repeatedly remained in the immediate present: “I see,” “it appears to me,” and “these look like.” TAT stories likewise relied predominantly on present-tense verbs: thinking, looking, trying, speaking, treating, wiping tears, and crying. A single meaningful return to past tense occurred in a scene associated with guilt and primitive fantasy. This linguistic pattern indicated restricted movement among temporal registers and fixation in the present.

Impaired thematic and grammatical linking

Rorschach answers largely lacked adjectives, action, and affective qualification. In the TAT, standard Arabic and colloquial speech alternated without a stable narrative mode. Stories contained weak thematic links, minimal causality, and limited endings. This reduced the participant's capacity to historicize experience and imagine temporal transformation.

Compulsive repetition and rumination

Repetition appeared verbally, behaviorally, and thematically. "Bat," "skeleton," "skin," and "drawing" recurred across cards. Continuous laughter and repetitive uncertainty accompanied the protocol. TAT stories repeatedly offered multiple alternatives rather than development: sleeping or sewing, angry or leaving, mother or wife or sister, helping or removing, asleep or dead. Such repetition can function as resistance—repeating in order not to remember—and as an attempt to "kill" or freeze time (Bokanowski, 2001).

Color integration and bodily threat

The participant struggled to integrate black, white, gray, red, and pastel colors. Color was initially canceled, then acknowledged defensively during inquiry. The denial of vivid affect and the dominance of devitalized forms suggested withdrawal of object investment and negative narcissism. Skin responses on Cards IV and VI may represent attempts to reinforce fragile boundaries rather than dynamically integrate change.

Integrated Clinical Formulation

The projective material revealed strong inhibition, depressive sensitivity, restricted relational investment, fragile identification, and difficulty resolving primitive anxieties. The presence of another person was ambivalent: Ahmed needed relational objects but isolated affect when they were present and feared their absence when they were missing.

His ageing experience involved multiple forms of mourning: loss of the first marriage and altered relationships with his children (object loss), retirement from a valued nursing role (loss of social identity), and gradual acceptance of bodily decline and chronic disease (mourning of the ego). Positive Past preserved the professional and bodily self that preceded illness, while Fatalistic Present contained the unavoidable demands of disease and age.

Apparent formal cohesion in the Rorschach—high global responding and acceptable form quality—coexisted with devitalized, stereotyped content. This is best understood as defensive adaptation without genuine psychic investment in time. The unconscious was not timeless in the sense of empty; rather, it was organized through a repetitive present that blocked transformation, mourning, and future investment.

Discussion

General hypothesis

The findings support a discrepancy between conscious and unconscious temporality. Consciously, Ahmed described acceptance, religious patience, and disciplined disease management. Unconsciously, the projective protocols showed severe temporal freezing, compulsive repetition, impoverished imagery, somatic threat, and restricted future investment. The clinical pattern was consistent with depressive-borderline functioning defended by superficial flexibility, laughter, formal control, and denial.

Hypothesis 1: Conscious time perspective

Hypothesis 1 was supported. Fatalistic Present was highest (5.00), Positive Past was second (4.40), and Future was lowest (1.69). By contrast, younger samples recovering from acute illness have shown stronger Positive Past and Future orientations (Saltania & Lagoun, 2023). The difference suggests that the crucial factor may not be illness alone, but its intersection with ageing, permanence, bodily restriction, retirement, and relational loss.

Hypothesis 2: Unconscious temporal fracture

Hypothesis 2 was also supported. Explicit refusal of Card II, implicit cancellation of stimuli on Cards IX and X, negative bodily content, poor integration of color, limited temporal markers, and the disability narrative on Card 16 indicated a deep unconscious fracture. The body shifted symbolically from a source of professional competence and care to a source of illness, dependence, and threat.

Hypothesis 3: Conscious acceptance and unconscious freezing

Hypothesis 3 was supported. The interview and ZTPI recorded conscious adaptation and a degree of flexibility, whereas the Rorschach and TAT revealed continuing trauma, depressive sensitivity, loss anxiety, and inability to invest in the future. This distinction illustrates the clinical importance of integrating objective and projective tools rather than relying only on direct self-report.

The Fatalistic Present pattern is consistent with evidence linking this time perspective to depressive symptoms among older adults (Aström et al., 2018). The findings also align with studies emphasizing psychological distress in diabetes and the reciprocal relationship between mental and physical deterioration (Beverly et al., 2017; Dey et al., 2022; Hutomo, 2025; Sun et al., 2025).

Conclusion

The 68-year-old participant with type 2 diabetes displayed profound temporal fragmentation and anxiety concerning incapacity. Chronic illness, bodily vulnerability, relational loss, and ageing contributed to an acute fixation in a repetitive present. Compulsive rumination, repeated content, low productivity, weak narrative continuity, poor color integration, and restricted future representation indicated unconscious temporal freezing.

Objective tools offered the participant a conscious space for temporal choice. He selected the present cautiously and invested strongly in a positive past associated with youth, health, mobility, travel, and professional value. His future horizon was contracted to spiritual and family aspirations. Projective ambiguity, however, made visible an unconscious temporality unable to move freely toward the future.

The combined findings suggest that diabetes management in later life cannot be limited to medication, diet, and physical monitoring. Psychological assessment should examine depression, anxiety, grief, relational loss, reduced autonomy, identity after retirement, and the person's capacity to imagine a future. Integrating psychometric and projective methods can reveal the difference between stated acceptance and deeper psychological organization.

Recommendations

- Replicate the study with larger and more diverse groups of older adults with type 2 diabetes.
- Combine projective techniques with objective measures to assess conscious and unconscious functioning.

- Develop and validate additional measures of psychological temporality for older populations.
- Expand psychoanalytic and clinical research on temporality in later life and chronic illness.
- Provide routine psychological screening and assessment for older adults with diabetes, particularly for depression, anxiety, grief, isolation, and loss of autonomy.
- Integrate psychological care with diabetes education and self-management programs.
- Use the present findings as a single-case formulation rather than a population-level generalization.

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