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Diagnosing depressive response symptoms in children with diabetes. A Single-Case Study Using the Thematic Apperception Test, (TAT).

ABSTRACT

Childhood depression, particularly among children with chronic illnesses, constitutes a psychological problem requiring early detection. This study aimed to examine the usefulness of the Thematic Apperception Test (TAT), complemented by clinical interviews, in identifying depressive response symptoms in a girl with type 1 diabetes mellitus. The single-case clinical method was employed, and the case of a nine-year-old girl was intentionally selected for analysis. Information was obtained through semi-structured clinical interviews with the child, administration of the TAT with standardized observation, and interviews with her mother and teacher. The findings revealed physical symptoms, including sleep disturbances, loss of appetite, and headaches, abdominal pain, and chest pain; psychological and emotional symptoms, including anxiety, sadness, crying, irritability, guilt, and fear; social and behavioral symptoms, including withdrawal, social isolation, and some aggressiveness; and cognitive symptoms, including concentration and memory difficulties, low aspirations, and hopelessness. The TAT protocol showed a predominance of inhibition and defensive avoidance strategies, expressed through brief narratives with limited imagination and restricted engagement with the thematic conflicts. This pattern was consistent with the information obtained from the interviews and contributed to corroborating the depressive response. It was concluded that children with type 1 diabetes require timely psychological assessment and coordinated attention from families and schools to promote emotional well-being, school adjustment, comprehensive treatment adherence, and quality of life.

Keywords: diagnosis; depressive response; diabetes mellitus; Thematic Apperception Test; childhood depression.

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Diagnóstico de síntomas de respuesta depresiva en niños con diabetes: estudio de caso único mediante el Test de Apercepción Temática (TAT).

RESUMEN

La depresión infantil, especialmente en niños con enfermedades crónicas, constituye una problemática psicológica que requiere detección temprana. Este estudio tuvo como objetivo

examinar la utilidad del Test de Apercepción Temática (TAT), complementado con entrevistas clínicas, para identificar síntomas de respuesta depresiva en una niña con diabetes mellitus tipo 1. Se empleó el método clínico de caso único y se analizó intencionalmente el caso de una niña de nueve años. La información se obtuvo mediante entrevistas clínicas semiestructuradas con la niña, aplicación del TAT con observación estandarizada y entrevistas dirigidas a su madre y maestra. Los hallazgos evidenciaron síntomas físicos, como alteraciones del sueño, pérdida de apetito y dolores de cabeza, abdominales y torácicos; síntomas psicológicos y emocionales, como ansiedad, tristeza, llanto, irritabilidad, culpa y miedo; síntomas sociales y conductuales, como retraimiento, aislamiento y cierta agresividad; y síntomas cognitivos, como dificultades de concentración y memoria, baja aspiración y desesperanza. El protocolo del TAT mostró predominio de estrategias de inhibición y evitación defensiva, expresadas en relatos breves, con escasa imaginación y limitado abordaje de los conflictos temáticos. Este patrón fue coherente con la información obtenida en las entrevistas y contribuyó a corroborar la respuesta depresiva. Se concluyó que los niños con diabetes tipo 1 requieren evaluación psicológica oportuna y atención coordinada entre familias y escuelas para favorecer su bienestar emocional, adaptación escolar y adherencia integral al tratamiento médico y calidad de vida.

Palabras clave: diagnóstico; respuesta depresiva; diabetes mellitus; Test de Apercepción Temática; depresión infantil.

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Diagnóstico de sintomas de resposta depressiva em crianças com diabetes: um estudo de caso único com recurso ao Teste de Aperceção Temática (TAT).

RESUMO

A depressão na infância, especialmente em crianças com doenças crónicas, é um problema psicológico que requer uma deteção precoce. Este estudo teve como objectivo examinar a utilidade do Teste de Aperceção Temática (TAT), complementado por entrevistas clínicas, para identificar sintomas de resposta depressiva numa menina com diabetes mellitus tipo 1. Foi utilizado o método clínico de caso único, analisando intencionalmente o caso de uma menina de nove anos. A informação foi obtida através de entrevistas clínicas semiestructuradas com a menina, aplicação do TAT com observação padronizada e entrevistas com a sua mãe e professora. Os achados revelaram sintomas físicos, como distúrbios do sono, perda de apetite, cefaleias, dor abdominal e dor torácica; sintomas psicológicos e emocionais, como ansiedade, tristeza, choro, irritabilidade, culpa e medo; e sintomas sociais e comportamentais, como retraimento, isolamento e alguma agressividade; e sintomas cognitivos, como dificuldades de concentração e de memória, baixa aspiração e desesperança. O protocolo TAT demonstrou uma predominância de estratégias de inibição e evitamento defensivo, expressas em narrativas breves com pouca imaginação e um envolvimento limitado com conflitos temáticos. Este padrão foi consistente com a informação obtida nas entrevistas e corroborou a resposta depressiva. Concluiu-se que as crianças com diabetes tipo 1 necessitam de uma avaliação psicológica atempada e de cuidados coordenados entre famílias e escolas para promover o seu bem-estar emocional, adaptação escolar, adesão integral ao tratamento médico e qualidade de vida.

Palavras-chave: diagnóstico; resposta depressiva; diabetes mellitus; Teste de Aperceção Temática; depressão infantil.

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INTRODUCTION

Diabetes mellitus is one of the more widespread psychosomatic conditions, one whose prevalence has grown alongside the complexities of contemporary life (International Diabetes

Federation, 2021), to the point that some now number it among the so-called "diseases of the age." Psychosomatic symptoms speak directly to the close bond between mind and body, offering clear evidence of the psychological and physical unity of the human being. Diabetes runs through entire families and can surface at any point between childhood and old age, which raises a pointed question: what happens when this illness coincides with one of the more delicate stages of a child's life, childhood itself? A child needs play, a sense of safety, autonomy, and a sense of freedom, within the kind of facilitating environment in which healthy development can unfold (Winnicott, 1965), and the satisfaction of these psychological needs is foundational to a child's mental health (Al-Sharnoubi, 2002; Rifaat, 2000); the constraints illness imposes can deny a child the play, movement, and freedom they need, leaving them unable to feel independent so long as their life remains tethered to an insulin needle, and unable to feel safe so long as they remain at risk, at any moment, of their blood sugar dropping or spiking, with the physical and psychological instability that follows.

Childhood has long been described as the happiest stretch of life, and earlier generations of researchers accordingly ruled out the possibility of depression before adolescence, reasoning that a child's sense of self and of the future was not yet mature enough to sustain genuine depressive symptoms (Cantwell, 1982). Most children, on this view, are protected by their parents and spared the responsibilities of adulthood. But that earlier assumption does not hold up: a substantial body of research now shows depression's age range widening, with rates of the disorder increasingly appearing at younger ages (Angold, 1988), and recent years have seen a growing body of clinical and scholarly attention paid to what is now termed "childhood depression."

Several classical theoretical accounts inform how this growing recognition of childhood depression is understood clinically. Freud's (1917/1957) foundational distinction between mourning and melancholia locates depressive affect in an unresolved, internalized loss, a mechanism later theorists extended beyond bereavement to other forms of diminishment. Bowlby's (1980) attachment-based account further links depressive affect in childhood to disruptions in the security of a child's early relationships, including prolonged anxious overprotection as well as outright loss. Beck's (1967) cognitive model, for its part, characterizes depression as organized around a negative triad, a pervasively negative view of the self, the world, and the future, that shapes affect and behavior even before the condition is named as depression in so many words. Together, these frameworks anticipate several of the interpretive threads taken up later in this case's discussion.

This is what drew our attention to the psychological experience of the child living with diabetes. Where the illness's psychological toll on adults is relatively well documented, curiosity about its toll on the psychological life of the child, together with the familiar clinical adage that "every patient is, in some sense, depressed," led us to ask whether a child with diabetes genuinely shows depressive symptoms, or whether, as many still assume, the child simply has not yet matured enough to view their situation with the same seriousness and realism an adult would bring to it. This resolves into the study's central question: to what extent does the Thematic Apperception Test (TAT) contribute to detecting depressive symptoms in children with diabetes?

That question sits within a wider, well-established body of research linking pediatric type 1 diabetes to elevated psychological risk. Delamater's (2009) review of psychological care for children and adolescents with diabetes found that the period following diagnosis carries a heightened risk of adjustment problems, a risk that, left unaddressed, tends to persist rather than resolve on its own. Grey et al. (2002) similarly documented a distinct natural history of depressive symptoms among children with type 1 diabetes, and a later systematic review by Johnson et al. (2013) confirmed that depression is meaningfully more prevalent among young people with type 1 diabetes than among their healthy peers, a pattern this case study's own findings sit closely alongside.

Accordingly, the study aims to diagnose the symptoms of depressive response in a child with insulin-dependent diabetes by identifying how the illness registers across the child's physical, psychological, emotional, behavioral, and cognitive experience. Its significance follows from several considerations: understanding the psychological state a child with diabetes lives with as a consequence of the illness; the value of early diagnosis of psychological symptoms a child may be developing, so that they can be addressed before they worsen; the case such understanding makes for greater institutional attention to children with diabetes, including the provision of psychological and social specialists to support them, particularly within schools; the case it makes for alerting teachers to a diabetic child's condition and to how the illness can affect concentration, attention, and memory, and so academic performance; and the case it makes for encouraging parents to treat a child with diabetes within the family as they would any other child, since overtly differential treatment risks reinforcing the child's sense of being, first and foremost, a patient.

For the purposes of this study, depression is understood as a persistent feeling of sadness, hopelessness, and lowered morale that can visit a person periodically as a result of life events, everyday burdens, or sudden family or social circumstances, consistent with standard diagnostic criteria for depressive disorders (American Psychiatric Association, 2013). Depressive response, more specifically, is understood here in its secondary form, depression accompanying another condition that has triggered the feeling, and accompanied in turn by physical, cognitive, emotional, and behavioral symptoms; operationally, and specifically as assessed through the TAT (Murray, 1943), a depressive response is indicated by the dominance of inhibition and defensive-avoidance strategies within the protocol, short stories lacking in imaginative elaboration, and a failure to engage the thematic conflict proper to each card, assessed here specifically through Cards 1, 3BM, 13B, and 16. Diabetes mellitus, for its purposes here, refers to a blood sugar level elevated beyond the normal range, caused by the pancreas's inability to produce the insulin that regulates blood sugar (Akrouf, 1995; Khiati, 1993; Rouiha, 1988); this form of the disease affects children specifically and requires them to self-administer daily insulin injections, and is generally accompanied by secondary physical and psychological symptoms.

The relevance of this question extends beyond the individual case examined here. Insulin-dependent diabetes imposes a distinctive daily discipline on a child that few other chronic conditions require at such a young age: repeated self-injection, constant vigilance over food intake, and an ever-present risk of sudden physical crisis should blood sugar swing too far in either direction. Where a great deal of pediatric psychology research treats chronic illness as a single broad category, this study's focus on diabetes specifically reflects a working assumption that the particular demands insulin dependence places on a child, bodily self-management, dietary restriction, and the loss of spontaneity that both entail, may shape the child's psychological experience in ways that differ from chronic illnesses with a less demanding daily regimen. Testing that assumption directly was beyond this single case's scope, but it motivates the emphasis placed here on documenting the child's experience across as many domains, physical, relational, cognitive, and social, as the available instruments allowed.

Methodology

This study used the clinical method, appropriate to the study of an individual case for diagnostic and therapeutic purposes. The clinical case-study method allows for an in-depth, multi-source examination of a single individual's psychological experience, drawing on interview, projective testing, and collateral informant reports, an approach well suited to a research question concerned with how a specific illness registers across a child's physical, psychological, emotional, and cognitive experience rather than with establishing population-level prevalence.

The study sample consisted of a single case, a child with diabetes undergoing insulin treatment under the Type 1 (insulin-dependent, DID) regimen. The case was selected

purposively, on the condition that the illness itself be the primary source of psychological impact, without the confounding involvement of other major stressors.

Four data-collection instruments were used. A semi-structured interview was conducted directly with the child, a primary-school pupil with diabetes, covering her physical, psychological, social, and academic experience of the illness. The Thematic Apperception Test (TAT) was administered to the child, with four cards analyzed in depth for this study, Card 1, Card 3BM, Card 13B, and Card 16, selected as the cards most directly relevant to assessing depressive response. Standardized observation was carried out throughout the test administration, recording the child's behavior, response latency, and manner of engagement with each card. Finally, directed interviews were conducted with the child's mother and with her class teacher, aimed at surfacing behaviors observed in the classroom and schoolyard that carry diagnostic significance for the child's psychological state.

Data from the semi-structured child interview, the TAT protocol, and the mother and teacher interviews were analyzed qualitatively, following standard clinical-projective interpretive procedure for the TAT (assessing each card's legibility, defensive strategies deployed, and degree of engagement with the card's thematic conflict) and thematic content analysis for the interview material, organized around physical, psychological-emotional, social-behavioral, and cognitive symptom domains. Findings across all four sources were then compared for convergence, a standard triangulation procedure in single-case clinical research, intended to establish whether the picture drawn from the child's own interview, her TAT protocol, and the collateral reports from her mother and teacher told a consistent clinical story.

The choice of the TAT specifically, rather than a self-report depression inventory such as the Children's Depression Inventory (Kovacs, 1992), reflects a methodological judgment relevant to this age group and this population: self-report scales depend on a child's willingness and capacity to name and rate their own emotional states directly, something a nine-year-old managing a stigmatized chronic illness may be reluctant or unable to do with the directness such instruments require, as this case's own refusal to answer certain interview questions illustrates. The TAT's projective format, by contrast, invites the child to construct narratives around ambiguous pictorial material, allowing depressive themes, avoidance, and constricted affect to surface indirectly, through story content and defensive style, rather than requiring the child to label her own distress explicitly. The four cards selected for detailed analysis here, Cards 1, 3BM, 13B, and 16, were chosen specifically because each is designed within the TAT's standard interpretive framework to elicit a particular thematic pull, functional inadequacy, general breakdown and grief, functional maturity and the capacity to imagine an absent figure, and unstructured self-generated narrative respectively, making them jointly well suited to assessing whether a respondent engages or avoids depressive and conflict-laden material across a range of prompts rather than in response to any single image.

For each card, three pieces of information were recorded and analyzed: the child's response latency, timed from card presentation to the start of her story; the content and length of the story itself, transcribed verbatim; and a clinical judgment of legibility, whether the story reflected an open, elaborated engagement with the card's imagery (positive legibility) or a foreclosed, defensively constrained one (negative legibility), together with an assessment of which defensive strategy, inhibition, control, or another recognized TAT defensive style, appeared to dominate the response. This card-by-card procedure, applied consistently across all four cards, allowed the overall protocol-level pattern reported in the results, the dominance of inhibitory, conflict-avoidant strategies, to be built up from individually documented judgments rather than a single global impression of the test as a whole.

RESULTS

This section presents the case, in turn, through the interview conducted directly with the child, the interviews conducted with her mother and teacher, and the TAT protocol analysis,

before summarizing the convergent symptom picture that emerged across all four sources. To protect the child's identity, she is referred to throughout by a pseudonym, Elham.

Case Presentation

Elham is a pupil in the third year of primary school, living with her family, her father, mother, three brothers, and two sisters, in which she is the third-born child. She was diagnosed with diabetes at age five. Her academic standing is average.

Behavior During the Interview

The interviews were conducted in a classroom at the primary school Elham attends. She entered the room with slow steps, appeared well-groomed and neat for her age, and sat quietly in her chair. She was calm and largely still throughout, with dark circles visible around her eyes. She answered questions precisely and briefly, but took time to think before responding, and declined to answer some questions altogether; her answers overall conveyed a marked rejection of her illness.

Findings from the Child Interview

Analysis of the interviews conducted with Elham points to physical distress, including appetite disturbance ("sometimes I just don't want food, and my mom makes me eat"), recurrent headaches ("my head hurts a lot in the evening"), abdominal pain, and chest pain (she points to her chest and says, "here, I feel a tightness").

She reported psychological and emotional symptoms including heightened irritability ("if anyone says one word to me, even the teacher, if he yells at me I just start crying"), crying and sadness, a sense of bitterness, anxiety, tension, poor self-regard ("sometimes I hate school; now that I'm sick with diabetes I ask myself why I even bother studying"), guilt, sorrow and anger, some aggressive behavior directed at herself and at others ("sometimes I fight with my siblings, and I hate myself because I'm sick and every day I have to give myself the injection"), and chest tightness.

Analysis of her answers further points to social and behavioral symptoms, a sense of loneliness, self-centeredness, withdrawal from social relationships, and introversion ("sometimes I don't want to stay with my siblings or play with them, I'd rather be alone; when my sugar drops I get embarrassed, so it's better I just stay alone"), and difficulty forming relationships ("I don't have friends at school because they run around and play, and I'm afraid of getting sick and my sugar dropping").

She also reported cognitive symptoms including hopelessness, loss of hope, a sense of helplessness, low aspiration, and frustration ("sometimes I ask myself why I even study, what's the point when I'm sick; even schoolwork, sometimes I don't understand it, and when I memorize something I forget it right away").

Findings from the Mother Interview

The interview with Elham's mother indicated that the child suffers from severe insomnia, difficulty sleeping, disturbing dreams, and nightmares, particularly after conflicts with other children in the street or with her siblings, whose lack of understanding of her condition was noted directly by the mother ("when I tell her siblings to play with her, they tell me she doesn't know how to play properly, that she gets tired, and when she feels dizzy she yells at us"). The mother reported difficulty getting the child to eat, describing it as something that concerns her more than it concerns the child herself ("she doesn't want to eat, I have to coax her into it, and when she does eat it's very little, and I worry she'll get sick"). She also reported headaches and unexplained abdominal pain, sadness and low mood, a preference for solitude over sitting with her siblings, occasional resistance and refusal to take her insulin on the grounds that she has not been cured of the illness ("now I'm stopping the injection").

The mother further reported that she sometimes shares her daughter's sense of hopelessness ("sometimes I think she's right when she asks why she's sick, why she has to take her injection, why she studies, why she plays, she's afraid she'll collapse; sometimes it crosses my mind too, who would even marry a girl who's sick with diabetes?"), that the child lacks ambition and often feels frustrated, resists schoolwork and homework, and attends school only reluctantly ("I told the teacher she's sick, not to punish her over homework if she doesn't finish it"). The child reportedly experiences unexplained fear, as though afraid of something unnamed ("she's very afraid, and when I ask her what she's afraid of, she goes quiet and doesn't answer me"), and is described as quiet and withdrawn at home ("when she's home I barely notice her, it's as if she's not even there"). The mother described treating the child with particular protectiveness since her diagnosis, a pattern shared by the father ("her father and I worry about her constantly; since she got sick we don't let her out of our sight except when she's at school, and we tell her siblings not to upset her because she's sick"), a pattern of differential treatment and overprotection that may itself be contributing to the intensification of the child's sense of hopelessness.

Findings from the Teacher Interview

The interview with Elham's teacher indicated that the child shows marked shyness, poor attention, distractibility and daydreaming, difficulty with memorization, and a quiet, subdued manner in class; she does not participate in class the way her classmates do, and shows low aspiration. Her academic results are average, and she frequently fails to complete homework, prompting repeated calls to her mother, who explains that the illness affects her and that she sometimes refuses her insulin injection on the grounds that it will not cure her. In the schoolyard, she does not play with her classmates as the other children do, remaining instead withdrawn in a corner, speaking to no one; her fear of dizziness or of a drop in blood sugar, which could cause fainting, together with a persistent sense of fatigue, keeps her further apart from mixing and playing with others.

TAT Protocol Analysis

Card 1 (response time 1 min 10 sec): "...I see a child looking at... I don't know what this is" (pointing to the violin) "...that's it." Legibility was negative, reflecting the dominance of inhibition followed by control; the story was short and lacking in imaginative elaboration. On the thematic conflict, the card is designed to elicit the theme of functional inadequacy, but the case did not engage it, registering only some manifest content ("a child") without registering the remainder, consistent with the dominance of inhibitory strategies and producing a non-conflictual story.

Card 3BM (response time 1 min 30 sec): "...she stood up and sat down... a sad woman, crying... that's all." Legibility was again negative, with inhibitory strategies dominant and other defensive strategies essentially absent, producing a short story lacking fantasy resonance and expressing no conflict. On the thematic conflict, the case was able to register the card's latent content, a woman crying, that is, general breakdown, but moved directly to a subjective, feeling-level statement without articulating any underlying conflict, again consistent with dominant inhibitory strategies.

Card 13B (response time 45 sec): "...I see a child in the street in front of his house, and he's sad, that's it." Legibility followed the same pattern as the preceding cards, reflecting dominant inhibition and the absence of other strategies. On the thematic conflict, the card is designed to elicit functional maturity and the capacity to imagine an absent object; the case was unable to activate this capacity, again due to dominant inhibitory strategies, and settled for expressing the conflict by reference to personal sources without justifying it, registering some elements of the card (the child, the house) while failing to register others (light and darkness).

Card 16 (blank card, response time 1 min 10 sec): "...what can I say... I'm looking at a blank card, there's nothing on it, that's it." Legibility was again negative, reflecting dominant

inhibition and producing a brief, non-conflictual story. On the thematic conflict, this card is designed to reflect how the respondent organizes their preferred themes in the absence of any pictorial content; the case was unable to let the blank card activate any expressive drive without external pictorial support, again reflecting dominant inhibitory strategies.

Summary of TAT Findings

Elham's TAT protocol was dominated, first and foremost, by inhibitory strategies, with other defensive strategies appearing only rarely, producing short stories lacking in imagination and expressing no discernible emotional content in brief. The case relied on fear-avoidant defensive strategies that left the thematic conflict in each card largely unaddressed, frequently focusing on a card's manifest content while failing to register apparent themes, or registering them inaccurately, in each instance apparently as a means of avoiding conflict. Taken together, the protocol is consistent with a depressive response.

DISCUSSION

Read together, the four sources examined here, the child's own interview, her mother's account, her teacher's account, and her TAT protocol, converge on a consistent clinical picture: a child managing insulin-dependent diabetes who shows a depressive response spanning physical, psychological-emotional, cognitive, and social-behavioral registers. That convergence across independently obtained sources, a child rarely offers her own crying spells and guilt in quite the same terms a mother or teacher would report them, is itself part of what gives the diagnostic picture its weight; where a single interview might raise the possibility of situational sadness or ordinary illness-related distress, the consistency of symptoms such as withdrawal, sleep disturbance, poor self-regard, and loss of hope across all three interview sources, together with a TAT protocol independently and blindly dominated by inhibitory, conflict-avoidant defenses, points toward something more structured and pervasive than transient distress.

The TAT findings deserve particular attention here, since projective material of this kind is less directly shaped by a child's awareness of what an interviewer might want to hear than direct interview responses can be. The marked dominance of inhibition, short stories, avoidance of each card's designed thematic conflict, failure to register latent content beyond the manifest, and the striking pattern of ending nearly every response with a phrase equivalent to "that's it" or "that's all," reads as a consistent defensive style rather than as scattered, card-specific difficulty. This style is consistent with a depressive organization in which affect and conflict are kept at arm's length rather than engaged and worked through, which corroborates, from an independent methodological angle, the picture already suggested by the interview material.

The family dynamics reported by the mother, differential, protective treatment since diagnosis, siblings who resent having to accommodate the child's condition during play, and a household in which the child goes largely unnoticed even at home, suggest that the depressive response documented here is not purely a direct physiological consequence of diabetes, but is shaped as well by how the illness has been managed within the family system, consistent with longstanding evidence that a child's psychological adjustment to a parent's or a family's response to illness is closely bound up with the child's own adjustment to it (Rutter, 1966). The mother's own remark that she sometimes shares her daughter's hopelessness, going so far as to voice the same fatalistic questions the child herself raises, points to a family environment in which the child's pessimism about her illness, her studies, her future, and even her marriageability may be being reinforced rather than counterbalanced by the adults around her, even as those adults act from evident concern and protective intent.

This reading of the family's role sits comfortably alongside Bowlby's (1980) account of loss and depression, which describes how a child's depressive affect can take root not only from a direct loss but from an ongoing atmosphere of anxious overprotection and restricted

exploration, dynamics closely echoed in this mother's description of a household reorganized entirely around the child's illness since diagnosis. The case's own pattern of inhibited, foreclosed engagement with sadness, evident across both the interview material and the TAT protocol, is likewise consistent with Beck's (1967) cognitive account of depression, in which a pervasive negative view of the self, the world, and the future organizes a person's affect and behavior well before it is named as depression in so many words; the child's recurring "why do I even bother" framing of her studies, her illness, and her prospects maps closely onto Beck's negative cognitive triad. Freud's (1917/1957) classical distinction between mourning and melancholia offers a further useful lens here, since the case's grief appears directed not at a discrete loss but at an ongoing, unresolved diminishment of the healthy, unrestricted self she might otherwise have been, a form of loss that, per Freud's account, is harder for a child to name and mourn cleanly precisely because it has no single, dateable endpoint.

The aggressive behavior the child directed at herself and at others during the interview also fits a well-documented pattern in which depression and aggression frequently co-occur in childhood, aggression standing in, on this reading, as an outward-facing correlate of the same underlying depressive affect (Fayed, 2001).

These findings sit within, and extend, the broader shift in the literature away from the older assumption that children are psychologically too immature to experience genuine depression. Where that assumption rested partly on the idea that a child's sense of self and future is not yet developed enough to sustain depressive affect, the present case shows a nine-year-old articulating remarkably specific, future-oriented despair, about her studies, her prospects, and even whether she will ever marry, that is difficult to reconcile with a picture of undeveloped self-awareness. If anything, the chronic illness appears to have accelerated a kind of premature confrontation with mortality, stigma, and foreclosed possibility that most children her age are not yet made to face.

It is worth being cautious, however, about how far a single case can be read as evidence for children with diabetes as a group. What this case does show clearly is that depressive response is a live clinical possibility in this population, one that a purely somatic focus on glycemic management could easily miss, particularly given how much of the symptom picture here, withdrawal, quietness, academic disengagement, was described by the mother and teacher as easy to overlook or to read simply as the child being naturally shy or tired. The practical implication is that clinicians, teachers, and families working with children managing chronic illness would do well to screen explicitly for depressive symptoms rather than assuming, as earlier generations of researchers once did, that a child's age alone rules the possibility out.

There is also a methodological point worth drawing out from how consistently the TAT protocol and the interview material lined up here. Because the two methods differ so much in format, one asking the child to talk directly about her own experience, the other asking her to construct stories about ambiguous pictures with no explicit reference to herself, their convergence is harder to explain away as a single method artifact, such as the child simply telling the interviewer what she thought was expected. That the same avoidance, the same foreclosed engagement with sadness and conflict, showed up in a task where the child had no obvious script to follow strengthens the case that what was documented here reflects something durable about how this particular child was managing her illness psychologically, rather than an artifact of the interview setting alone.

Finally, the discussion should register a note of interpretive humility appropriate to clinical case material of this kind. The reading offered here, that family overprotection and sibling friction compound an illness-driven depressive response, is a plausible synthesis of what the mother, teacher, and child each reported, but it remains an interpretation built from converging qualitative sources rather than a causally tested claim; a different clinician working from the same transcripts might weight the illness's direct physiological and psychological

burden more heavily relative to the family-dynamics contribution, or vice versa. The value of presenting the case in this much descriptive detail, quoting the child, mother, and teacher directly rather than only summarizing their reports, is precisely to let readers weigh that interpretive judgment against the primary material themselves.

CONCLUSIONS

Following analysis of all the interviews conducted with Elham, her mother, and her teacher, and analysis of her TAT protocols, comparison of these findings supports the conclusion that the case presents a depressive response comprising a cluster of physical, psychological, cognitive, and social symptoms. Physical symptoms included sleep disturbance such as insomnia, nightmares, and fragmented sleep, along with appetite loss, fatigue, dizziness, abdominal pain, and chest pain and tightness. Psychological symptoms included anxiety, sadness, crying spells, tension, shyness, aggression, fear, and guilt. Cognitive symptoms included poor concentration and attention, difficulty with self-expression, difficulty with memorization, and frequent forgetting. Social symptoms included introversion, withdrawal from social relationships, and a marked preference for solitude.

The TAT results showed a clear dominance of inhibitory strategies across the protocol, producing short stories that consistently ended in phrases equivalent to "that's it" or "that's all," alongside fear-avoidant defensive strategies used to sidestep conflict. This pattern echoes what emerged from the interviews, in which the case's answers were similarly brief, precise but curtailed, and in which she declined to answer certain questions altogether, among them what she hoped to do in the future. Taken together, the TAT results confirm the depressive response symptoms the case presents and corroborate what the clinical interviews independently indicated.

The study's main contribution lies in demonstrating, through a triangulated single-case design combining direct child interview, collateral mother and teacher reports, and projective TAT testing, that a young child with insulin-dependent diabetes can present a coherent, multi-domain depressive response detectable well before adolescence, directly challenging the outdated assumption that genuine depression requires a psychological maturity children have not yet reached. Practically, the case underscores the value of early psychological screening for children managing chronic illness, the importance of preparing teachers to recognize the academic and behavioral signs such a response can take, concentration difficulty, withdrawal, disengagement, and the importance of helping families understand that overtly differential or overprotective treatment, however well intentioned, may compound rather than ease a child's psychological burden.

More broadly, the case argues against treating diabetes management in children as a purely medical, glycemic-control problem. The child at the center of this study was, by all accounts, medically stable on her insulin regimen, yet carried a substantial and largely unaddressed psychological burden alongside that physical stability. Integrating routine psychological screening into pediatric diabetes care, rather than treating it as a separate concern to be addressed only if a crisis emerges, follows directly from what this case shows about how easily a depressive response of this kind can go unnoticed even by attentive, concerned parents and teachers.

LIMITATIONS OF THE STUDY

This study is subject to several limitations inherent to its single-case clinical design. First, findings are based on one case and cannot be generalized to children with diabetes as a population; a single case can establish that a depressive response of this kind is clinically possible in this population, but cannot establish how common it is. Second, the study relies on qualitative clinical interpretation of interview and projective material rather than on standardized, quantitatively scored depression measures normed for children with chronic illness, which introduces an element of interpretive judgment into how symptoms and TAT

responses were classified. Third, the design is cross-sectional rather than longitudinal, capturing the case's presentation at a single point in time rather than tracking how her depressive response has developed since diagnosis or might evolve going forward. Finally, the study did not include a comparison case or group, either a child with diabetes without depressive symptoms or a child with a comparable chronic illness, which would help clarify how much of the symptom picture is specific to diabetes as opposed to chronic childhood illness more broadly.

DIRECTIONS FOR FUTURE RESEARCH

Building on these limitations, several directions for future research stand out. Larger, multi-case or sample-based studies, ideally incorporating standardized depression scales validated for children with chronic illness alongside projective and clinical-interview methods, would help establish how common depressive response is among children with insulin-dependent diabetes and support more confident generalization than a single case allows. Comparative studies contrasting children with diabetes against children with other chronic illnesses, and against healthy children, would help clarify which of the symptoms documented here are specific to diabetes and its particular demands, insulin dependence, hypoglycemia risk, dietary restriction, and which reflect chronic childhood illness more generally. Longitudinal designs following children from diagnosis onward would help establish how depressive response develops over time and whether it responds to psychological intervention, family psychoeducation, or changes in how the illness is managed at home and at school. Finally, given this case's suggestion that family dynamics, overprotection and sibling misunderstanding in particular, may compound the child's depressive response, future research might usefully test structured family-based interventions aimed specifically at these dynamics, to establish whether addressing them measurably eases the depressive symptoms documented here.

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CONFLICT OF INTEREST

The authors declare no conflict of interest related to the conduct, analysis, interpretation, or publication of this study.

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