PAEDAGOGY : Jurnal Ilmu Pendidikan dan Psikologi
Vol. 6, No. 2, April-Juni 2026
e-ISSN : 2797-3344 | p-ISSN : 2797-3336
Online Journal System : https://jurnalp4i.com/index.php/paedagogy

PSYCHOLOGICAL MANIFESTATIONS IN CHILDREN WITH NEPHROGENIC DIABETES INSIPIDUS AND SEVERE MALNUTRITION: BORDERLINE INTELLECTUAL FUNCTIONING, BULLYING, LOW SELF-ESTEEM, AND DEPRESSIVE SYMPTOMS

Ni Nyoman Tri Pramayanti[1], I Gusti Ayu Indah Ardani[2]
Participant of the Specialist Doctor Education Program 1, Department of Psychiatry, Udayana University[1];
Teaching Staff, Department of Psychiatry, Udayana University[2]
e-mail: tripramayanti@gmail.com

Diterima: *26/02/2026*; Direvisi: *28/03/2026*; Diterbitkan: *24/04/2026*

ABSTRAK

Nephrogenic Diabetes Insipidus (NDI) merupakan gangguan metabolisme langka akibat ketidakmampuan ginjal merespons hormon antidiuretik yang menyebabkan poliuria, polidipsia, dan dehidrasi berulang, serta berdampak pada status gizi dan pertumbuhan anak. Kondisi ini menjadi lebih kompleks karena disertai *Protein Energy Malnutrition* (PEM) tipe marasmus dan stunting yang berpotensi menimbulkan gangguan kognitif dan psikososial. Penelitian ini bertujuan mengkaji keterkaitan antara kondisi medis kronis, malnutrisi, dan gangguan psikologis pada remaja dengan NDI. Metode yang digunakan adalah studi kasus melalui anamnesis, pemeriksaan fisik, evaluasi status gizi, dan asesmen psikometrik. Subjek adalah remaja laki-laki usia 15 tahun dengan riwayat NDI dan malnutrisi berat. Hasil menunjukkan skor IQ 83 yang mengindikasikan *Borderline Intellectual Functioning* (BIF), skor *Olweus Bullying Questionnaire* (OBQ) (≥3) sebagai korban perundungan, skor *Rosenberg Self-Esteem Scale* 24 (harga diri rendah), serta skor *Child Depression Inventory* 26 yang menunjukkan gejala depresi. Pasien juga mengalami gejala emosional seperti mudah marah, cemas, dan menarik diri dari lingkungan sosial. Temuan ini menunjukkan bahwa kombinasi penyakit kronis dan malnutrisi meningkatkan risiko gangguan psikososial melalui faktor internal (disfungsi kognitif) dan eksternal (perundungan dan stigma). Disimpulkan bahwa pendekatan multidisiplin yang meliputi penanganan medis, rehabilitasi nutrisi, dukungan psikologis, serta edukasi keluarga dan sekolah sangat diperlukan untuk meningkatkan kualitas hidup dan mencegah dampak jangka panjang.

Kata Kunci: *Nephrogenic Diabetes Insipidus (NDI), Severe Malnutrition, Borderline Intellectual Functioning (BIF), Masalah Psikososial, Gejala Depresi.*

ABSTRACT

Nephrogenic Diabetes Insipidus (NDI) is a rare metabolic disorder caused by the kidneys' inability to respond to antidiuretic hormone, resulting in polyuria, polydipsia, and recurrent dehydration, which affect nutritional status and child growth. This condition becomes more complex when accompanied by severe protein energy malnutrition (PEM) of the marasmus type and stunting, which may lead to cognitive and psychosocial impairments. This study aims to examine the relationship between chronic medical conditions, malnutrition, and psychological disorders in adolescents with NDI. The method used is a case report through anamnesis, physical examination, nutritional status evaluation, and psychometric assessments. The subject is a 15-year-old male adolescent with a history of NDI and severe malnutrition. The results

https://doi.org/10.51878/paedagogy.v6i2.9670

PAEDAGOGY : Jurnal Ilmu Pendidikan dan Psikologi
Vol. 6, No. 2, April-Juni 2026
e-ISSN : 2797-3344 | p-ISSN : 2797-3336
Online Journal System : https://jurnalp4i.com/index.php/paedagogy

show an IQ score of 83, indicating Borderline Intellectual Functioning (BIF), a high score on the Olweus Bullying Questionnaire (≥3) indicating victimization, a Rosenberg Self-Esteem Scale score of 24 indicating low self-esteem, and a Child Depression Inventory score of 26 indicating depressive symptoms. The patient also experienced emotional symptoms such as irritability, anxiety, and social withdrawal. These findings indicate that the combination of chronic illness and malnutrition increases the risk of psychosocial disorders through internal factors (cognitive dysfunction) and external factors (bullying and stigma). It is concluded that a multidisciplinary approach including medical management, nutritional rehabilitation, psychological support, and family and school education is essential to improve quality of life and prevent long-term consequences.

Keywords: *Nephrogenic Diabetes Insipidus (NDI), Severe Malnutrition, Borderline Intellectual Functioning (BIF), Psychosocial Problems, Depressive Symptoms.*

INTRODUCTION

Nephrogenic Diabetes Insipidus (NDI) is a rare metabolic disorder caused by renal resistance to antidiuretic hormone (vasopressin), resulting in chronic polyuria and polydipsia as well as a risk of recurrent dehydration (Bichet, 2020; Levtchenko et al., 2025). The prevalence is estimated to be 1:100,000–1:250,000 live births, with most cases being congenital due to mutations in the AVPR2 or AQP2 genes. In children, chronic fluid loss can interfere with homeostasis, growth, and brain development. This disruption may lead to long-term physiological instability if not properly managed. Furthermore, early identification and continuous monitoring are essential to prevent complications associated with chronic dehydration.

Several studies report that patients with congenital NDI may exhibit mild mental retardation or below-average intellectual functioning, while Kobayashi et al. (2022) found that neurological complications in NDI may include *borderline intellectual functioning* (BIF). The combination of chronic metabolic disorders and severe malnutrition exacerbates children's neuropsychological vulnerability, especially during the brain's plastic developmental phase. This period is critical because the brain undergoes rapid growth and structural changes that are highly sensitive to environmental and nutritional influences. Consequently, any disruption during this stage may have lasting effects on cognitive and behavioral outcomes.

In addition to biological effects, NDI also has significant psychosocial consequences. Children with physical differences, thin bodies, or cognitive delays are often targets of bullying in school environments (Juvonen & Graham, 2024). Repeated bullying has been shown to lower self-esteem and increase the risk of depressive symptoms, especially in children with chronic illnesses that require long-term medical supervision (Stephens, 2018). Longitudinal studies show that victims *of bullying* have a higher risk of depression, anxiety, and social isolation into adulthood (American Psychological Association [APA], n.d.). These findings highlight the importance of addressing not only the physical condition but also the social environment of affected children. Supportive school and family systems are crucial in mitigating these negative psychosocial impacts.

Low *self-esteem* in children with physical or intellectual limitations can also reinforce a negative psychological cycle of withdrawal, feelings of worthlessness, and decreased motivation to learn (Juvonen & Graham, 2024). In this context, *borderline intellectual functioning* due to malnutrition can be an internal factor that weakens children's resilience to social stress. Severe malnutrition, particularly the marasmus type, exacerbates this condition.

https://doi.org/10.51878/paedagogy.v6i2.9670

PAEDAGOGY : Jurnal Ilmu Pendidikan dan Psikologi
Vol. 6, No. 2, April-Juni 2026
e-ISSN : 2797-3344 | p-ISSN : 2797-3336
Online Journal System : https://jurnalp4i.com/index.php/paedagogy

Protein and energy deficiencies affect myelination, neurotransmitter function, and synaptic connectivity, which impact cognitive and emotional functioning (Cohen Kadosh et al., 2021; Kirolos et al., 2022; Hartjen et al., 2024). As a result, children may experience cumulative disadvantages that affect both academic achievement and emotional regulation. This interplay between biological and psychological factors further complicates the overall developmental trajectory.

Children with severe nutritional deficiencies are at risk of learning disorders and developmental delays (WHO, 2023). The combination of biological factors (NDI and severe malnutrition) and psychosocial factors (*bullying* and stigma) creates a complex psychological burden. Children with these conditions face not only medical challenges, but also barriers to social and emotional integration. These challenges may limit their ability to participate fully in educational and social activities. Early intervention is therefore essential to support optimal development and reduce long-term negative outcomes.

A recent meta-analysis shows that *bullying* victims are two to three times more likely to experience depressive symptoms than other children (Ye et al., 2023). Low *self-esteem* reinforces these negative psychological effects (Orth & Robins, 2022; Agustiningsih et al., 2024). Therefore, it is important to review the biopsychosocial aspects of children with rare chronic diseases such as NDI. A comprehensive understanding of these interconnected factors can inform more effective intervention strategies. This approach also supports the development of integrated care models that address both medical and psychosocial needs.

However, previous studies tend to examine the biological or psychosocial aspects separately, and there is still limited integrative evidence that simultaneously explores the interaction between chronic medical conditions, severe malnutrition, cognitive limitations, and psychosocial problems in a single case context. In addition, several references used in earlier studies are not fully updated within the last five years, indicating a gap in recent evidence-based discussion. Therefore, this study aims to analyze comprehensively the biopsychosocial manifestations in children with Nephrogenic Diabetes Insipidus and severe malnutrition, focusing on borderline intellectual functioning, bullying experiences, low self-esteem, and depressive symptoms (Orío-Aparicio et al., 2025; Thapar et al., 2022; Eccleston et al., 2021). The novelty of this study lies in its holistic and multidisciplinary approach that integrates medical, nutritional, cognitive, and psychosocial dimensions within a single case report to provide a more comprehensive understanding of the child's condition.

RESEARCH METHOD

This study used a case report design to explore the patient's biopsychosocial condition in depth. Data were collected through autoanamnesis and heteroanamnesis, followed by physical and psychiatric examinations. Psychometric assessments were administered using standardized instruments under professional supervision. The instruments included the Child Depression Inventory (CDI) and Patient Health Questionnaire-9 (PHQ-9) to assess depressive symptoms, the Spence Children's Anxiety Scale (SCAS) to evaluate anxiety, the Rosenberg Self-Esteem Scale (RSES) to measure self-esteem, and the Olweus Bullying Questionnaire (OBQ) to identify involvement in bullying. Intelligence testing (IQ) was also conducted to assess cognitive functioning and to rule out intellectual factors influencing the clinical presentation. All findings were documented and integrated to provide a comprehensive understanding of the patient's condition.

https://doi.org/10.51878/paedagogy.v6i2.9670

PAEDAGOGY : Jurnal Ilmu Pendidikan dan Psikologi
Vol. 6, No. 2, April-Juni 2026
e-ISSN : 2797-3344 | p-ISSN : 2797-3336
Online Journal System : https://jurnalp4i.com/index.php/paedagogy

The patient was a 15-year-old male Hindu student in the 9th grade who was referred to the psychiatric clinic due to emotional instability and irritability. He reported feeling frequently blamed by his family, leading to social withdrawal. Additional complaints included sadness, anxiety, low self-confidence, sleep disturbances, and fatigue. Physical examination showed blood pressure of 105/70 mmHg, pulse of 88 beats per minute, respiration rate of 22 breaths per minute, temperature of 36.5°C, weight of 25.7 kg, height of 135.5 cm, and BMI of 13.99 kg/m², indicating severe malnutrition and stunting. Psychiatric evaluation revealed a sad mood, restricted affect, calm psychomotor activity, logical thought processes, no perceptual disturbances, and emotional withdrawal. Psychometric results showed a CDI score of 26 (mild to moderate depression), PHQ-9 score of 10 (moderate depression), SCAS total score of 31 (mild anxiety), RSES score of 24 (low self-esteem), OBQ score ≥3 indicating bullying victimization, and an IQ score of 83 (borderline intellectual functioning).

RESULT AND DISCUSSION

Result

This case presents a comprehensive overview of the patient's clinical and nutritional condition in the context of chronic metabolic disorder and its complications. The patient's physical status reflects the long-term impact of Nephrogenic Diabetes Insipidus combined with severe malnutrition. Objective clinical findings are important to establish the baseline condition and identify the extent of physiological impairment. These findings also provide insight into how chronic illness may affect growth and overall development. The detailed clinical and nutritional characteristics of the patient are summarized in Table 1.

Table 1: Clinical Characteristics and Physical Status of the Patient

Parameter	Result
Age	15 years
Sex	Male
Education	Grade 9
Blood Pressure	105/70 mmHg
Pulse	88 beats/minute
Respiration	22 breaths/minute
Temperature	36.5°C
Body Weight	25.7 kg
Height	135.5 cm
BMI	13.99 kg/m²
Nutritional Status	Severe malnutrition (stunting)

As shown in Table 1, the patient demonstrates clear indicators of severe malnutrition and growth impairment. This is reflected in the significantly low body weight, short stature, and a BMI of 13.99 kg/m², which falls within the category of severe malnutrition with stunting. These physical findings indicate a prolonged nutritional deficiency that may disrupt metabolic processes and organ function. Severe malnutrition exacerbates these effects, as chronic protein-energy deficiency affects myelination and neurotransmitter activity, which in turn impacts

https://doi.org/10.51878/paedagogy.v6i2.9670

PAEDAGOGY : Jurnal Ilmu Pendidikan dan Psikologi
Vol. 6, No. 2, April-Juni 2026
e-ISSN : 2797-3344 | p-ISSN : 2797-3336
Online Journal System : https://jurnalp4i.com/index.php/paedagogy

attention, memory, and learning ability (Kirolos et al., 2022; Hartjen et al., 2024). Children with marasmus are at high risk of mild to moderate intellectual impairment, as demonstrated by the IQ results of this patient. In particular, such conditions are known to affect brain development, potentially leading to cognitive and emotional disturbances. Therefore, further evaluation was conducted to assess the patient's psychological and cognitive status. The results of these psychometric assessments are presented in Table 2.

Table 2: Psychometric Assessment Results

Instrument	Score	Interpretation
CDI (Child Depression Inventory)	26	Mild–moderate depression
PHQ-9	10	Moderate depression
SCAS	31	Mild anxiety
RSES	24	Low self-esteem
OBQ	≥3	Victim of bullying
IQ	83	Borderline Intellectual Functioning

Table 2 illustrates the results of the patient's psychometric assessments, revealing multiple areas of psychological concern. The patient shows signs of mild to moderate depressive symptoms based on the CDI score, which is further supported by a moderate depression level indicated by the PHQ-9 score. In addition, the SCAS score reflects the presence of mild anxiety, suggesting emotional instability. The RSES score indicates low self-esteem, which may be associated with negative self-perception and social withdrawal. Furthermore, the OBQ score identifies the patient as a victim of bullying, highlighting the presence of external psychosocial stressors. The IQ score of 83 indicates borderline intellectual functioning, suggesting cognitive limitations that may influence academic performance and adaptive functioning.

Overall, the combined findings from clinical, nutritional, and psychometric assessments indicate that the patient presents with concurrent physical growth impairment and multidimensional psychological concerns. The results demonstrate a pattern of coexisting chronic medical illness, severe malnutrition, cognitive limitation, and psychosocial stressors. These conditions appear to interact and contribute to the patient's overall clinical presentation. Collectively, they may affect the patient's functional status in daily life.

Discussion

NDI causes chronic fluid loss and electrolyte disturbances that can impair brain function. Recent studies report that recurrent dehydration in children can impair cognitive function and affect nervous system development (Xue et al., 2025). Electrolyte imbalances such as chronic hypernatremia are known to cause neuronal dysfunction and short-term memory impairment. These physiological disturbances may accumulate over time and lead to more persistent neurological deficits if not properly managed. Furthermore, early medical intervention is essential to minimize the impact of electrolyte imbalance on cognitive development.

This is consistent with findings by Lim et al. (2025), who reported that children with primary nephrogenic diabetes insipidus frequently experience long-term neurodevelopmental vulnerability and suboptimal clinical outcomes, particularly when disease control is delayed or inadequate. In the present case, the patient's borderline intellectual functioning (IQ 83) aligns

https://doi.org/10.51878/paedagogy.v6i2.9670

PAEDAGOGY : Jurnal Ilmu Pendidikan dan Psikologi
Vol. 6, No. 2, April-Juni 2026
e-ISSN : 2797-3344 | p-ISSN : 2797-3336
Online Journal System : https://jurnalp4i.com/index.php/paedagogy

with evidence from Fernell and Gillberg (2020) and Orío-Aparicio et al. (2025), which highlight that chronic medical and neurodevelopmental disruptions are associated with impaired cognitive performance and adaptive functioning. The convergence of clinical findings and literature suggests that prolonged metabolic imbalance may contribute significantly to cognitive limitations. Therefore, continuous monitoring of neurological and developmental outcomes is essential in children with NDI.

These biological conditions may also influence the patient's psychosocial experiences. From a psychosocial perspective, bullying represents a significant external stressor that may contribute to the patient's emotional difficulties and social withdrawal. Recent research has found a strong link between *bullying* and depression and anxiety in children (Ye et al., 2023). Children with chronic illnesses or physical differences are more vulnerable to *bullying* because they are perceived as different. Low *self-esteem* in victims *of bullying* acts as a mediator that reinforces the effects of depression (Agustiningsih et al., 2024). In this case, the patient experienced insecurity related to his small body size and short stature. Emotional and behavioral problems in children with chronic illnesses can arise from a combination of biological and psychosocial factors. The burden of long-term illness, inability to participate in social activities, and stigma contribute to the emergence of depressive symptoms (Ye et al., 2023). This is further supported by Arseneault (2018), who emphasized that bullying in childhood has persistent and pervasive effects on mental health, including increased risk of depression, anxiety, and long-term psychosocial maladjustment.

Symptoms such as prolonged sadness, loss of interest, and emotional exhaustion are often unrecognized by family or teachers. This highlights the importance of early psychosocial screening in children with chronic conditions. In addition, increasing awareness among parents and educators can help identify psychological symptoms at an earlier stage. This finding is in line with Thapar et al. (2022), who emphasized that depressive symptoms in young people are often multifactorial, involving an interaction between biological vulnerability and environmental stressors, particularly in medically ill adolescents. Furthermore, Loades et al. (2020) reported that social isolation and reduced peer interaction significantly increase the risk of depressive symptoms and anxiety in children, which parallels the social withdrawal observed in the present case.

A multidisciplinary approach is key in handling cases such as this. Medical aspects need to focus on fluid and electrolyte control and nutritional management through a high- calorie, high-protein diet. From a psychiatric and psychological perspective, Cognitive Behavioral Therapy (CBT) can help improve *self-esteem* and social skills. Social support from family and school is also important in preventing *bullying* and restoring the child's psychosocial functioning. Collaboration among healthcare providers, families, and educators is essential to ensure comprehensive care. Such coordinated efforts can enhance treatment effectiveness and improve long-term developmental outcomes. This integrated approach is strongly supported by Eccleston et al. (2021), who emphasized that children with chronic medical conditions require a biopsychosocial and multidisciplinary framework to optimize both physical recovery and psychological well-being.

Recent studies confirm that integrated psychosocial interventions in children with chronic illnesses can improve quality of life and reduce the risk of long-term depression (Ye et al., 2023; Hartjen et al., 2024). Therefore, the management of such patients cannot be solely medical, but must include comprehensive psychological and social dimensions. This approach emphasizes the need for holistic care models that address both physical and mental health aspects. Future

https://doi.org/10.51878/paedagogy.v6i2.9670

interventions should also consider individualized care plans tailored to the specific needs of each patient. Moreover, Orth dan Robins (2022) highlight that low self-esteem is a central mechanism linking chronic illness, social adversity, and depressive outcomes, reinforcing the importance of targeted psychological interventions in improving long-term mental health trajectories in affected children.

In conclusion, the present case highlights the complex interaction between chronic metabolic disease, severe malnutrition, cognitive limitations, and psychosocial stressors in shaping the patient's overall biopsychosocial condition. These findings underscore that Nephrogenic Diabetes Insipidus accompanied by nutritional deficiency is not only a medical concern but also a significant determinant of neurodevelopmental and psychological outcomes. The integration of biological, psychological, and social perspectives is therefore essential in understanding and managing such cases comprehensively. This reinforces the need for early identification, continuous monitoring, and coordinated multidisciplinary interventions to optimize both developmental trajectories and quality of life in affected children.

CONCLUSION

Adolescents with NDI and severe malnutrition are at high risk of developing borderline intellectual disability, low *self-esteem*, *bullying*, and depressive symptoms. Treatment must be holistic and multidisciplinary in order to restore psychological, social, and medical functioning, as well as prevent long-term impacts on quality of life. These findings emphasize that the interaction between chronic medical conditions, nutritional deficits, and psychosocial stressors forms a complex biopsychosocial pathway that requires integrated assessment and intervention, in line with the study objective to comprehensively analyze these interrelated factors. Furthermore, this study highlights the importance of early detection and multidisciplinary management as a strategic effort to improve long-term developmental outcomes. Future research is expected to expand on this case through larger samples and longitudinal designs to strengthen evidence-based interventions, while practical applications may include the development of integrated clinical guidelines and school-based psychosocial support programs for children with chronic illnesses. Overall, this case underscores the necessity of integrating medical, nutritional, and psychosocial care to optimize both developmental and mental health outcomes in children with chronic conditions.

REFERENCES

Agustiningsih, N., Yusuf, A., & Ahsan, A. (2024). *Relationships among self-esteem, bullying, and cyberbullying in adolescents: A systematic review*. Journal of Psychosocial Nursing and Mental Health Services, 62(5), 11–17. https://doi.org/10.3928/02793695-20231013-01

American Psychological Association. (n.d.). *Bullying: A primer for schools*. Retrieved from https://www.apa.org/ed/schools/primer/bullying

Arseneault, L. (2018). *Annual research review: The persistent and pervasive impact of being bullied in childhood and adolescence: implications for policy and practice*. Journal of Child Psychology and Psychiatry, 59(4), 405–421. https://doi.org/10.1111/jcpp.12841

Bichet, D. G. (2020). *Genetics in endocrinology: Pathophysiology, diagnosis and treatment of familial nephrogenic diabetes insipidus*. European Journal of Endocrinology, 183(2), R29–R40. https://doi.org/10.1530/EJE-20-0114

https://doi.org/10.51878/paedagogy.v6i2.9670

Cohen Kadosh, K., Muhardi, L., Parikh, P., Basso, M., Jan Mohamed, H. J., Prawitasari, T., ... & Geurts, J. M. (2021). Nutritional support of neurodevelopment and cognitive function in infants and young children—an update and novel insights. *Nutrients*, *13*(1), 199. https://doi.org/10.3390/nu13010199

Eccleston, C., Fisher, E., Howard, R. F., Slater, R., Forgeron, P., Palermo, T. M., ... & Wood, C. (2021). Delivering transformative action in paediatric pain: a Lancet Child & Adolescent Health Commission. *The Lancet Child & Adolescent Health*, *5*(1), 47-87. https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(20)30277-7/abstract

Fernell, E., & Gillberg, C. (2020). Borderline intellectual functioning. In *Handbook of clinical neurology* (Vol. 174, pp. 77-81). Elsevier. https://doi.org/10.1016/B978-0-444-64148-9.00006-5

Hartjen, B., Kakon, S., Rahman, N., Greaves, G., Xie, W., Tofail, F., Haque, R., & Nelson, C. A. (2024). *The association between malnutrition and cognitive development in infancy as manifest in EEG functional connectivity and power spectral density*. medRxiv. https://doi.org/10.1101/2024.09.11.24313505

Juvonen, J., & Graham, S. (2024). Consequences of Bullying Behavior. National Academies Press.

Kirolos, A., Goyheneix, M., Kalmus Eliasz, M., Chisala, M., Lissauer, S., Gladstone, M., & Kerac, M. (2022). Neurodevelopmental, cognitive, behavioural and mental health impairments following childhood malnutrition: a systematic review. *BMJ Global Health*, *7*(7), e009330. https://gh.bmj.com/content/7/7/e009330

Kobayashi, S., Mizuno, N., Yokoi, K., Mori, T., Sohara, E., & Uchida, S. (2022). Congenital nephrogenic diabetes insipidus presenting as osmotic demyelination syndrome in infancy: A case report. *Medicine*, *101*(3), e28552. https://doi.org/10.1097/md.0000000000028552

Levtchenko, E., Ariceta, G., Arguedas Flores, O., Bichet, D. G., Bockenhauer, D., Emma, F., ... & Knoers, N. V. (2025). International expert consensus statement on the diagnosis and management of congenital nephrogenic diabetes insipidus (arginine vasopressin resistance). *Nature Reviews Nephrology*, *21*(2), 83-96. https://doi.org/10.1038/s41581-024-00897-z

Lim, S. H., Suh, J. S., Kim, J. H., Lee, S. J., Choi, N., Song, J. Y., ... & Ahn, Y. H. (2025). Clinical outcomes among children with primary nephrogenic diabetes insipidus. *Clinical kidney journal*, *18*(11), sfaf303. https://doi.org/10.1093/ckj/sfaf303

Loades, M. E., Chatburn, E., Higson-Sweeney, N., Reynolds, S., Shafran, R., Brigden, A., Linney, C., McManus, M. N., Borwick, C., & Crawley, E. (2020). *Rapid systematic review: The impact of social isolation and loneliness on the mental health of children and adolescents in the context of COVID-19*. Journal of the American Academy of Child & Adolescent Psychiatry, 59(11), 1218–1239.e3. https://doi.org/10.1016/j.jaac.2020.05.009

Orío-Aparicio, C., López-Escribano, C., & Bel-Fenellós, C. (2025). Borderline intellectual functioning: A scoping review. *Journal of Intellectual Disability Research*, *69*(6), 437-456. https://doi.org/10.1111/jir.13221

Orth, U., & Robins, R. W. (2022). Is high self-esteem beneficial? Revisiting a classic question. *American psychologist*, *77*(1), 5. https://doi.org/10.1037/amp0000922

Stephens, M. M., Cook-Fasano, H. T., & Sibbaluca, K. (2018). Childhood bullying: implications for physicians. *American family physician*, *97*(3), 187-192.

https://doi.org/10.51878/paedagogy.v6i2.9670

https://www.aafp.org/pubs/afp/issues/2018/0201/p187.html

Thapar, A., Eyre, O., Patel, V., & Brent, D. (2022). Depression in young people. *The Lancet, 400*(10352), 617-631. https://doi.org/10.1016/S0140-6736(22)01012-1

World Health Organization, United Nations Children's Fund (UNICEF), & World Bank. (2023). *Levels and trends in child malnutrition: UNICEF/WHO/World Bank Group joint child malnutrition estimates – key findings of the 2023 edition*. World Health Organization. https://iris.who.int/handle/10665/368038

Xue, K., Wu, J., Lyu, J., Sun, X., Liu, Y., & Yuan, C. (2025). *Novel AVPR2 mutations in congenital nephrogenic diabetes insipidus: Clinical characteristics and genetic analysis*. Frontiers in Pediatrics, 13, 1623342. https://doi.org/10.3389/fped.2025.1623342

Ye, Z., Wu, D., He, X., Ma, Q., Peng, J., Mao, G., Feng, L., & Tong, Y. (2023). *Meta-analysis of the relationship between bullying and depressive symptoms in children and adolescents*. BMC Psychiatry, 23, 215. https://doi.org/10.1186/s12888-023-04681-4

https://doi.org/10.51878/paedagogy.v6i2.9670