Analisi delle competenze comunicativo-linguistiche nei bambini (0-36 mesi) con patologie onco-ematologiche.

Giusy Melcarne, G. Marangon, R.M. Incardona, B. Rossi, L. Sainati, M. Tremolada, A.Biffi.

Azienda Ospedale Università degli studi di Padova



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ASSOCIAZIONE ITALIANA EMATOLOGIA ONCOLOGIA PEDIATRICA

CONGRESSO INFERMIERISTICO AIEOP

LECCE, 13-14 ottobre 2026
HILTON GARDEN INN

Disclosures of Giusy Melcarne

Company name	Research support	Employee	Consultant	Stockholder	Speakers bureau	Advisory board	Other
None							

Tumori cerebrali e leucemie infantili, insieme ai loro trattamenti, possono avere conseguenze a lungo termine sullo sviluppo cerebrale.

Le conseguenze possono riguardare soprattutto:

- linguaggio e comunicazione
- comunicazione cognitiva e sociale
- sviluppo scolastico e sociale



I bambini più piccoli sono particolarmente vulnerabili perché molte delle loro abilità linguistiche devono ancora svilupparsi.

Hodges, R., Campbell, L., Chami, S., Knijnik, S. R., & Docking, K. (2021). Communication and swallowing outcomes of children diagnosed with childhood brain tumor or leukemia: A systematic review. *Pediatric Blood & Cancer*, *68*(2), e28809.

Pereira, M.; Befi-Lopes, D.; Soares, A.; Sassi, F.; Andrade, C.(2021). Linguistic-cognitive outcomes in children with acute lymphoid leukemia: An exploratory study. J. Multidiscip. Healthc. 14, 1285–1295.

Perché 0-36 mesi è una finestra critica

- Periodo di massima plasticità cerebrale
- Sviluppo rapido e sequenziale delle tappe comunicativo-linguistiche
- Le terapie oncologiche e l'ospedalizzazione intervengono proprio nel momento di massima "costruzione" del linguaggio



Ismail, F. Y., Fatemi, A., & Johnston, M. V. (2017). Cerebral plasticity: Windows of opportunity in the developing brain. *European Journal of Paediatric Neurology*, *21*(1), 23–48. https://doi.org/10.1016/j.ejpn.2016.07.007

Fattori di rischio specifici in Oncoematologia

- Ospedalizzazioni prolungate → riduzione stimolazione ambientale
- Isolamento → riduzione interazioni sociali
- Tossicità dei trattamenti su SNC in via di sviluppo
- Distress dei caregiver → possibile riduzione qualità dell'interazione
- Procedure invasive/dolorose → possibile impatto su motivazione

Brushe, M. E., Mittinty, M. N., Gregory, T., Haag, D., Lynch, J. W., Reilly, S., Melhuish, E., & Brinkman, S. A. (2025). The Causal Effect of Parent–Child Interactions on Child Language Development at 3 and 4 Years. *International Journal of Language & Communication Disorders*, *60*(3), e70045. https://doi.org/10.1111/1460-6984.70045

Humphreys, K.L.; Machlin, L.S.; Guyon-Harris, K.L.; Nelson, C.A.; Fox, N.A.; Zeanah, C.H. (2020). Psychosocial deprivation and receptive language ability: A two-sample study. J. Neurodev. Disord. 12, 36.

Il ruolo del logopedista nell'équipe

- Valutazione precoce
- Parent training e coinvolgimento dei caregiver
- Monitoraggio longitudinale



Knollhoff, S. M., Krueger, B. I., & Imgrund, C. M. (2023). Speech-Language Pathology Services in Pediatric Cancer: Survey and Interview Data on Caregiver Experiences. *Seminars in Speech and Language*, *44*(01), 004–014. https://doi.org/10.1055/s-0042-1756682

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CLINICAL PRACTICE GUIDELINE OPEN ACCESS

Clinical Practice Guideline for the Management of Communication and Swallowing in Children Diagnosed With Childhood Brain Tumor or Leukemia

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Evidence-based recommendation 1: Communication

Communication assessment and intervention should be offered to children diagnosed with childhood brain tumor or leukemia

Strong recommendation[a]

Key practice points

Assessment and intervention

When to assess

Communication assessment should occur at or as soon as possible after cancer diagnosis

Communication assessment should occur during the cancer treatment phase and oncology follow-up phase. Multiple assessments during these phases may be required if concerns are indicated by the oncology care team and/or family

Regular monitoring of the child's communication development should continue throughout the survivorship phase until the end of adolescence

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Strong recommendation[a]

What to assess

A comprehensive assessment of speech and language should be conducted. Assessment needs to be tailored to the age and developmental level of the child. Where appropriate, language assessment should include high-level language, discourse-level skills, and literacy

Assessment should include a range of individualized assessment procedures such as norm-referenced assessments, criterion-referenced tools, caregiver report, and clinical observations across environments

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Strong recommendation[a]

When to intervene

Children diagnosed with CBTL should be provided with early individualized intervention during the cancer treatment phase for identified communication difficulties

Children diagnosed with CBTL should be provided with timely individualized intervention for communication difficulties identified during the oncology follow-up and survivorship phases through until the end of adolescence

Care team

Speech pathologists should be involved as integral members of the oncology care team from the point of cancer diagnosis and throughout the cancer treatment and follow-up phases

All members of the oncology care team should be informed about communication difficulties and involved in management throughout the cancer treatment and follow-up phases

Speech pathologists should work in partnership with oncologists, family members, and education professionals to monitor communication development throughout the survivorship phase until the end of adolescence

Education

Education about communication development and difficulties in CBTL should be provided to families at cancer diagnosis or as early as possible

Education about communication development and difficulties in CBTL should continue to be provided to families throughout the cancer treatment and follow-up phases

Education about potential long-term communication difficulties in CBTL should be provided to families and education professionals throughout the oncology follow-up and survivorship phases

Based on GRADE EtD framework.

2024 - oggi

Clinica di Oncoematologia Pediatrica di Padova

AIL Padova
ASSOCIAZIONE ITALIANA CONTRO LEUCEMIE LINFOMI E MIELOMA

MINISTERO del LAVORO e delle POLITICHE SOCIALI

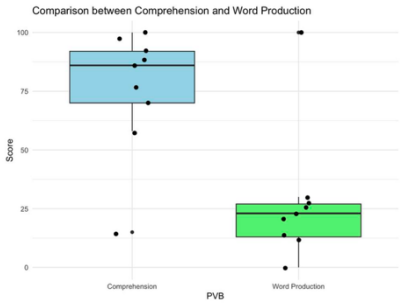
STAI BENE PLUS 3.0!
Progetto di AIL Padova con la Clinica di Oncoematologia Pediatrica di Padova

STAI BENE 4.0
Misuriamo l'impatto!
Assistenza globale e innovativa ai bambini con malattie oncoematologiche

UNIVERSITÀ DI PADOVA
Dipartimento di Salute della Donna e del Bambino - SDB

children

MDPI



Article

Development of Communication and Language Skills in Children with Hematological–Oncological Disorders: Challenges and Perspectives

Giusy Melcarne [1,2,3,*], Giulia Marangon [3,4,5], Roberta Maria Incardona [2,3,5], Anna Agostinelli [1], Silvia Montino [1], Silvia Sorbara [3], Alessandra Biffi [3] and Marta Tremolada [3,5]

- Griffiths communication subscale scores mainly below average (55.6%)
- the ability to understand significantly higher than the production of words.

- Conclusion: Understanding and addressing children's communication needs is crucial to improve the quality of life of these young patients and foster optimal communicative and linguistic development despite the obstacles they face in order to implement interventions designed specifically for this type of population and their respective families, if necessary.

diseases

MDPI

Article

Early Language Development in Infants and Toddlers with Hemato-Oncological Diseases: Preliminary Outcomes of a Shared Reading Intervention

Giusy Melcarne [1,2,*], Roberta Maria Incardona [1,2,3], Giulia Marangon [2,4], Silvia Sorbara [2], Alessandra Biffi [2] and Marta Tremolada [2,3]

Indagare le **abilità linguistiche** nei bambini di età **inferiore ai 36 mesi** ricoverati presso la Clinica di Oncoematologia Pediatrica dell'Azienda Ospedale Università di Padova.



MATERIALI E METODI

febbraio 2024 – giugno 2026
Clinica di Oncoematologia Pediatrica
Azienda Ospedale – Università Padova
età ≦ 36 mesi

Test standardizzati

PinG (Bello et al., 2010)

PCGO (Bertelli et al., 2021)

Griffiths (Green et al., 2016)

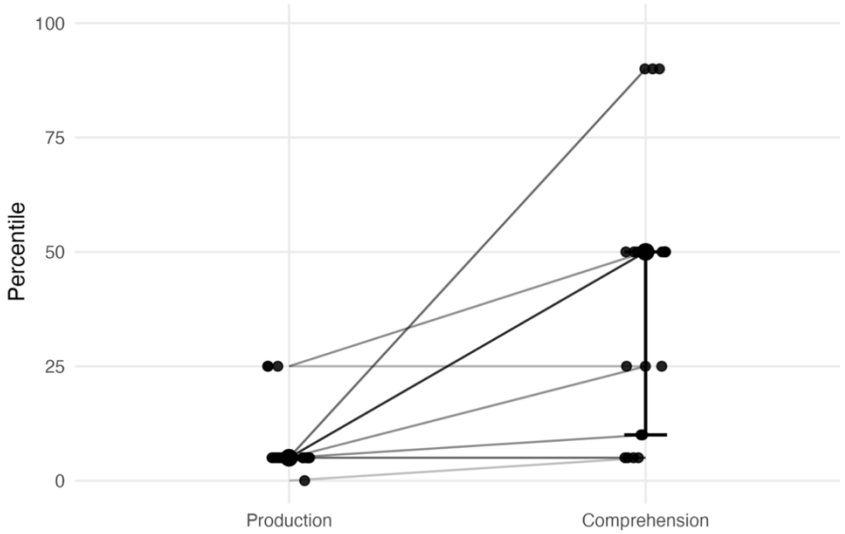
Scale

BAMF (Barton et al., 2017)

GALS (Chilosi et al., 1993)

RISULTATI

n:29



Paired comparison of baseline PinG lexical production and comprehension percentiles. Each line represents an individual participant and connects production and comprehension scores; black markers indicate the group median with interquartile range (IQR).

GENDER

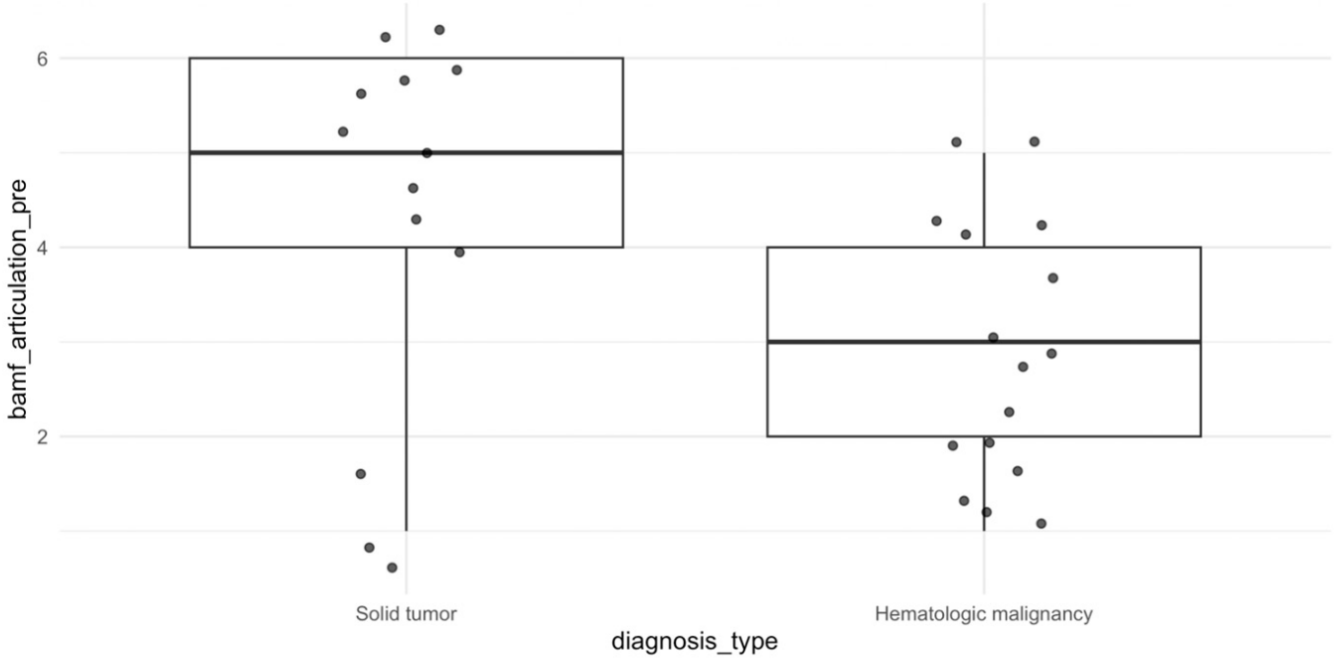
	Female	Male	N	U	p	r
BAMF—Articulation	4 [2, 5] (*n* = 16)	4 [2, 4] (*n* = 13)	29	93	0.62	0.09
PinG—Comprehension	50 [37.5, 50] (*n* = 11)	10 [5, 50] (*n* = 9)	20	24.5	0.05	0.44
PinG—Production	5 [5, 15] (*n* = 11)	5 [5, 5] (*n* = 9)	20	32	0.06	0.43
PCGO—Comprehension	25 [25, 50] (*n* = 11)	25 [8.75, 31.25] (*n* = 8)	19	31.5	0.27	0.25
GALS—Production	1.5 [0.75, 3] (*n* = 16)	1 [1, 2] (*n* = 13)	29	97.5	0.77	0.05
Griffiths—Communication Language	61 [18.5, 78] (*n* = 11)	15 [9, 40.5] (*n* = 10)	21	28	0.06	0.42

Comparison of language and communication measures between female and male participants at baseline. Values are reported as median [IQR] with group-specific sample sizes. Effect sizes are reported as r. N varies across measures due to missing data.

DIAGNOSIS

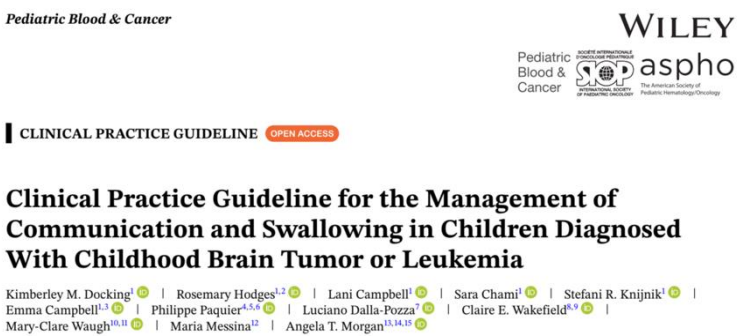
	Solid	Hematologic	N	U	p	r
BAMF—Articulation	5 [4, 6] (*n* = 13)	3 [2, 4] (*n* = 16)	29	157	0.02	0.44
PinG—Comprehension	25 [15, 50] (*n* = 7)	50 [10, 50] (*n* = 13)	20	39	0.59	0.12
PinG—Production	5 [5, 15] (*n* = 7)	5 [5, 5] (*n* = 13)	20	57.5	0.17	0.31
PCGO—Comprehension	25 [17.5, 70] (*n* = 7)	25 [25, 31.25] (*n* = 12)	19	49.5	0.50	0.15
GALS—Production	2 [1, 4] (*n* = 13)	1 [0, 2] (*n* = 16)	29	145	0.07	0.34
Griffiths—Communication Language	61 [16, 86] (*n* = 9)	18.5 [11.75, 52.25] (*n* = 12)	21	72.5	0.19	0.29

Comparison of baseline language and communication measures by diagnosis type (solid tumors vs. hematologic malignancies). Values are reported as median [IQR] with group-specific sample sizes. Effect sizes are reported as r. N varies across measures due to missing data.



Distribution of BAMF—articulation scores by diagnosis type (solid tumor vs. hematologic malignancy).

Take home message



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È importante **valutare e monitorare regolarmente il linguaggio** dei bambini con patologie emato-oncologiche, perché alcune difficoltà possono comparire anche tardivamente, dopo un periodo iniziale di apparente stabilità.

Il coinvolgimento **precoce e mirato del logopedista,** attraverso attività sia di valutazione sia di intervento, può essere fondamentale per:

- individuare tempestivamente le difficoltà comunicative emergenti;
- sostenere lo sviluppo del linguaggio;
- promuovere la qualità di vita;
- favorire la partecipazione alla comunicazione durante e dopo il percorso di cura.

Prospettive future

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Grazie per l'attenzione!

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