

# Integrated Healthcare for Neurodevelopmental Concerns: A Multidisciplinary Approach using a Modified ISBAR Framework

Rosie Schultz, Angela Miles & Dr Yee Pei Chan

## Background

- The Children's Assessment Team (CAT) in the Southern Adelaide Local Health Network is a multidisciplinary, tertiary level service which provides specialist expertise in the assessment and diagnosis of children with complex neurodevelopmental disorders.
- Holistic assessment of the child's developmental domains can occur over multiple sessions with multiple different clinicians. Collection and synthesis of clear and critical diagnostic information over this process is often challenging due to these factors.
- ISBAR (Introduction, Situation, Background, Assessment, Recommendation) is a structured communication tool commonly used in healthcare. Evidence demonstrates its use benefits multidisciplinary teams, patient care, and during clinical transitions<sup>1</sup>.
- While widely adopted in acute nursing and medicine practice, including paediatrics<sup>2</sup>, its use in outpatient paediatrics and allied health is less researched.

## Method

- A Modified ISBAR Framework, modified to include medical, environmental, and neuropsychological constructs/domains, was developed by the authors for trial within the multidisciplinary team. The framework was trialled for use in multidisciplinary case conferences for three months.
- Post initial trial, a staff survey was created to analyse clinician perceptions and satisfaction with the framework. Clinical psychologists, speech pathologists, occupational therapists, consultant paediatricians, and paediatric registrars were surveyed using a 10-point Likert Scale (1-10) with 12 total responses.

## Conclusion

- A three-month trial of the Modified ISBAR Framework within a neurodevelopmental team showed strong uptake, with 82% of clinicians using it more than three times and 91% of those responding to the evaluation survey.
- Most reported that the Modified ISBAR Framework promoted holistic assessment, improved case formulation, enhanced clarity of information, and reduced duplication. It was also seen to streamline decision-making and next steps. While less commonly used during family feedback, some clinicians found it helpful in that context.

## Limitations & Considerations for Further Research

- Limitations include limited sample size, potential response bias due to high engagement and the absence of objective outcome measures (e.g., time saved, impact on service delivery). The trial's short duration may also limit insights into long-term integration.
- Future research could explore the Modified ISBAR's impact on clinical outcomes, parent understanding and satisfaction, and its adaptability for use in family feedback sessions or digital documentation systems.

## References

- <sup>1</sup>Chaica, V., Marques, R., & Pontifice-Sousa, P. (2024). ISBAR: A Handover Nursing Strategy in Emergency Departments, Scoping Review. *Healthcare (Basel)*, 12(3), Article 399. <https://doi.org/10.3390/healthcare12030399>
- <sup>2</sup>O'Sullivan, D., Koshy, R., Mahmood, Q., & Khan, A. (2019). GP99 Improving paediatric team handover: a quality improvement project. *Archives of Disease in Childhood*, 104(Suppl 3), A70. <https://doi.org/10.1136/archdischild-2019-epa.164>

## Results

11 out of 12 respondents had used the framework during the trial.

Usage Frequency	Number of Respondents	Percentage (%)
1-2 times	2	18%
3-4 times	6	55%
5-9 times	2	18%
10 or more times	1	9%

Promotes thorough assessment of the patient's holistic neurodevelopmental profile.

Useful in giving feedback to families.

Sped up process of formulation and further actions required.

Improved documentation of case formulation.

Reduced duplication of case formulation in multidisciplinary case conferences.

Helped structure and improve clarity of relevant information.

