

# SCREENS, EARLY CHILDHOOD AND DEVELOPMENT

DATA FROM A CLINICAL SAMPLE RESEARCH STUDY

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## OBJECTIVES

**1 HYPOTHESIS 1**  
Increased exposure of children to screens will be associated with greater delays in psychomotor development, especially language and social development.

**2 HYPOTHESIS 2**  
Greater use of screens by the family will be associated with higher rates of screen use by children.

## METHODS

164 children

68,3%  
31,7%

30,8 months-old\*  
\*average age

5 CDIAPs

**PARENTS:**

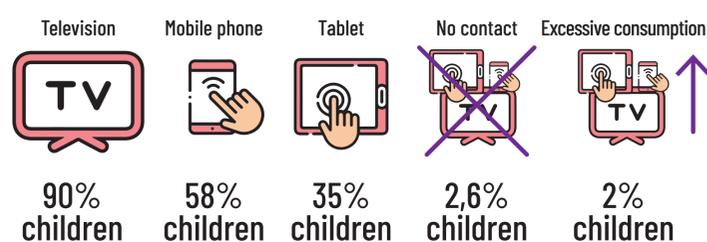
- Child Behaviour Checklist (CBCL) 1/2 - 5 years old (Achenbach & Rescorla, 2000)
- Adhoc survey to collect information on family screen use habits.

**PROFESSIONALS:**

- Inventory Screening Batelle Development Inventory (Newborg et al., 2011)
- Infant's clinical data collection.

## RESULTS

### SCREEN EXPOSURE

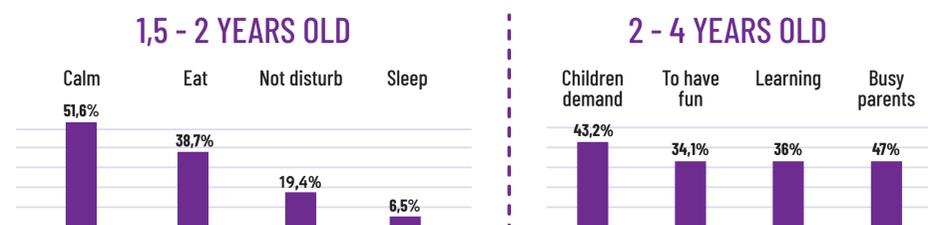


### WEEKLY SCREEN TIME

**5,84 H**

The results suggest a potential cumulative effect, whereby each additional hour of screen use is associated with a heightened risk for developmental outcomes.

### COMMON REASONS FOR CHILDREN'S SCREEN USE



## CONCLUSIONS

**HYPOTHESIS 1** – A significant relationship has been observed between screen time use and difficulties in psychomotor, social, language, cognitive, and overall development. Positive correlations have also been found with higher scores on aggression and emotional scales in the CBCL.

**HYPOTHESIS 2** – It has been confirmed that higher parental screen use is associated with increased screen time by their children.

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## CONTEXT

In recent years, there has been an increase in the number of consultations at Child Development and Early Care Centres (CDIAP) for language delays (↑9,77% since 2015) and relationship difficulties (↑179% since 2015 and 10,43% compared to 2023). At the same time there is an increase in the use of screens in the daily life of children and families despite the recommendations and effects observed from Catalan Society of Pediatrics (2024), the WHO (2019) and research carried out (See bibliography).

The objective is to detect the relationship between development and screen usage in 5 CDIAP's in Catalonia.

## SCREEN USE DURING THE DAY



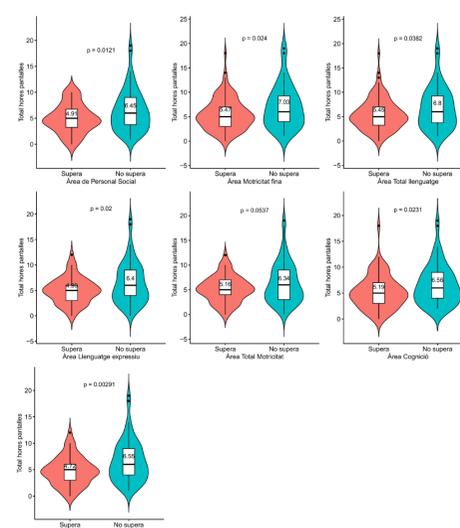
## ASSOCIATION BETWEEN THE USE OF SCREENS AND A HIGHER RISK IN CBCL SCALES:



## SCREEN TIME BASED ON CLINICAL-NON CLINICAL GROUP

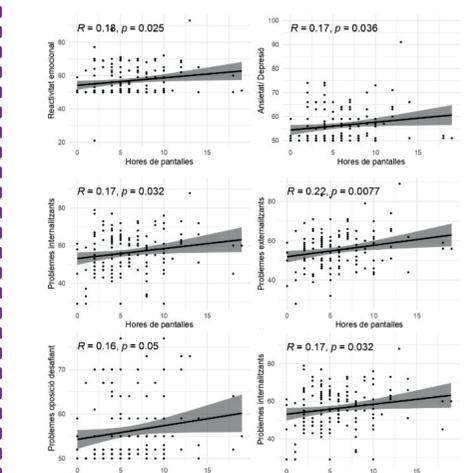
### Screening Batelle Development Inventory (BDI)

The clinical group exhibits higher average screen time and less areas scores: Social, fine motor skills, expressive language, cognitive and total



### Child Behaviour Check List (CBCL)

The infants in the clinical group show a higher average screen time in externalizing problems (R=0,22 P=0,0077), internalizing problems (R=0,17, P=0,032), oppositional disorders (R=0,10, P=0,05), anxiety/depression (R=0,17, P=0,036) and emotional problems (R=0,8 P=0,025).



### PARENTS EDUCATIONAL LEVEL

- It is associated with better scores in both tests.
- Significant relation with BDI total score.

### PARENTS SCREEN TIME USE

- Predicts a greater television use in children.
- Associated with elevated BDI clinical scores.

### ENGAGING IN SYMBOLIC PLAY

- Participation in role play is significantly lower in children who do not exceed the BDI cutoff (26%) compared to those who do (42.9%).

### FREE PLAY

- Lower scores in anxiety/depression (r=0,169 p=0,031).

### QUIET PLAY

- Lower emotional reactivity (r=0,164 p=0,037).
- Greater development of expressive language (r=0,198 p=0,015) and motor skills in general (r=0,184 p=0,023)

### SYMBOLIC PLAY

- Lower emotional reactivity (r=0,172 p=0,028).
- Greater development in the personal-social area (r=0,212 p=0,009), receptive language (r=0,249 p=0,002) and greater scores in the motor skills area (r=0,202 p=0,013) and the total test score (r=0,174 p=0,032) significantly.

## THE MORE SCREEN TIME, MORE ATTENTION DIFFICULTIES

## PRACTICAL IMPLICATIONS

### PROFESSIONALS

- Incorporate into the clinical evaluation the documentation of screen usage habits for both the family and the child.

### FAMILIES

- Encourage role play, free play, and attention activities which promote emotional and social interaction.

- Reduce adults' screen use when they are with the child.
- Promote family activities that involve language use.
- Avoid using screens as a calming resource—a "digital babysitter."
- Avoid deliberate screen use without adult supervision and without a clear purpose.
- Demonstrate good screen use models by adults.
- Prioritize face-to-face interactions during early childhood.

