

# DARWeb: DEVELOPING AN ONLINE INTERVENTION FOR CHILDREN WITH RAP AND THEIR PARENTS

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## INTRODUCTION

Recurrent abdominal pain (RAP) is one of the most frequent pain problems in children (e.g. Huguet et al., 2008). RAP has a negative impact on child and the adolescent (e.g. Forgeon et al, 2010) and their families (e.g. Lewandoski et al, 2010), and it's related to other health problems in the later life (e.g. Gieteling et al, 2008). Psychosocial interventions, generally based on the cognitive-behavioural model (CBT), have demonstrated their efficacy in children with chronic and recurrent pain (e.g. Palermo et al., 2010) and available results support the efficacy of ICT for treatment delivery (e.g. Velleman et al., 2010).

## AIM 1- EXPLORING THE ACCEPTANCE OF AN ONLINE PSYCHOSOCIAL INTERVENTION

### METHODS

131 paediatricians, from the Catalan and Balearic paediatric societies, completed an online survey developed to gather information in the following 6 areas: 1) sociodemographic and basic professional data; 2) perception of the standard treatments offered to children with RAP; 3) perception of face-to-face psychosocial interventions for treating RAP; 4) perception of an on-line psychosocial intervention for RAP; 5) paediatricians' knowledge of and uses of ICT; 6) elements that should be included in an online psychosocial intervention for children with RAP.

### RESULTS

1. Psychosocial face-to-face interventions were considered the most effective for pain intensity, disability and prevention. Online psychosocial interventions were considered better than the standard medical care.

2. Psychosocial face-to-face and online treatment were recommended equally for children with mild disability. For children with moderate or severe disability, face-to-face was recommended more highly.

3. An online psychosocial intervention should have an attractive design, be easy to use and have clear and coherent content.

	Psychosocial intervention (I2)		Online psychosocial intervention (I3)		Standard Medical (I1)	Pairs Comparisons (CI 95% of dif)
Pain intensity	6.70 (1.72)	>	5.94 (1.96)	>	5.04 (2.08)	I1 < I2** (-2.12 ÷ -1.19) I2 > I3** (0.35 ÷ 1.17) I1 < I3** (-1.46 ÷ -0.33)
Disability	6.96 (1.63)	>	5.99 (1.87)	>	5.21 (2.89)	I1 < I2** (-2.26 ÷ -1.23) I2 > I3** (0.58 ÷ 1.35) I1 < I3* (-1.37 ÷ -0.19)
Prevention	7.06 (1.76)	>	5.93 (1.93)	>	4.20 (2.47)	I1 < I2** (-3.43 ÷ -2.84) I2 > I3** (0.72 ÷ 1.54) I1 < I3** (-2.37 ÷ -1.09)

Mean (SD); Pairs Comparisons results; \*significance degree p<0.05; \*\*significance degree p<0.001; CI (95%) of the difference; N =114

	Psychosocial intervention (I1)		Online psychosocial intervention (I2)		Pairs Comparisons (CI 95% of dif of I)
Mild (D1)	6.62 (2.12)		6.28 (2.09)		I1= I2 (-0.29 ÷ 0.71)
Moderate (D2)	6.88 (1.52)		6.13 (1.92)		I1> I2** (0.43 ÷ 1.06)
Severe (D3)	6.35 (2.43)		5.46 (2.17)		I1> I2** (0.53 ÷ 1.24)
Pairs Comparisons (CI 95% of dif of D)	D1=D2 (-0.66 ÷ 0.16) D2>D3** (0.13 ÷ 0.93) D1>D3 (-0.43 ÷ 0.97)		D1=D2 (-0.14 ÷ 0.44) D2>D3** (0.32 ÷ 1.01) D1>D3* (0.29 ÷ 1.34)		

Mean (SD); Pairs Comparisons results; \*significance degree p<0.05; \*\*significance degree p<0.001; CI (95%) of the difference; N =114

WEB	
Easy and attractive design	35.00%
Clear and coherent content	10.30%
Accessible, affordable, compatible	08.00%
Accredited, trustworthy and specific	05.30%
Interactive	04.90%
Possibility of face-to-face contact	04.90%
Personalized	04.20%
Other (each <4%)	27.40%

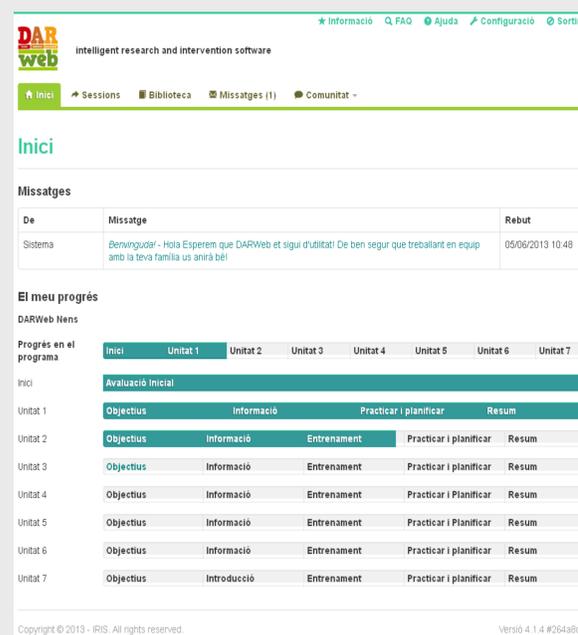
## AIM 2- CREATING DARWeb: An online psychosocial intervention for children with recurrent abdominal pain and their parents.

### DARWeb's ESSENTIALS:

1. Based on literature and family experiences.
2. Complimentary to standard medical care.
3. Attractive and ease to use.
4. Available online, and using multimedia resources (such as Alex' comic)



5. Implemented using IRIS®: Intelligent Research and Intervention Software (Developed by Dr. McGrath at the IWK Health Center)



### DARWEB'S UNITS

#### CHILDREN

1. Psychoeducation: what is pain?
2. Triggers and pain.
3. SMART aims.
4. Relaxation training.
5. Communication skills.
6. Though management.
7. Pain distraction training.

#### PARENTS

1. Psychoeducation: what is pain?
2. Triggers and pain.
3. SMART aims.
4. Parent's responses.
5. Communication skills.
6. Imitation.
7. Though management.

## CONCLUSIONS

- Paediatricians have a positive attitude towards using online psychosocial interventions for their patients with RAP and are considered to be most effective than the standard medical treatment. Also, face-to-face interventions are preferred to those online.
- DARWeb consists of a 7 units' CBT intervention with a specific curriculum for parents and for children. It is run on IRIS® platform.

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