



KK Women's and  
Children's Hospital  

---

SingHealth

# IBD in children and youth

## Impact of stress

Dr Veena Logarajah

Senior Consultant

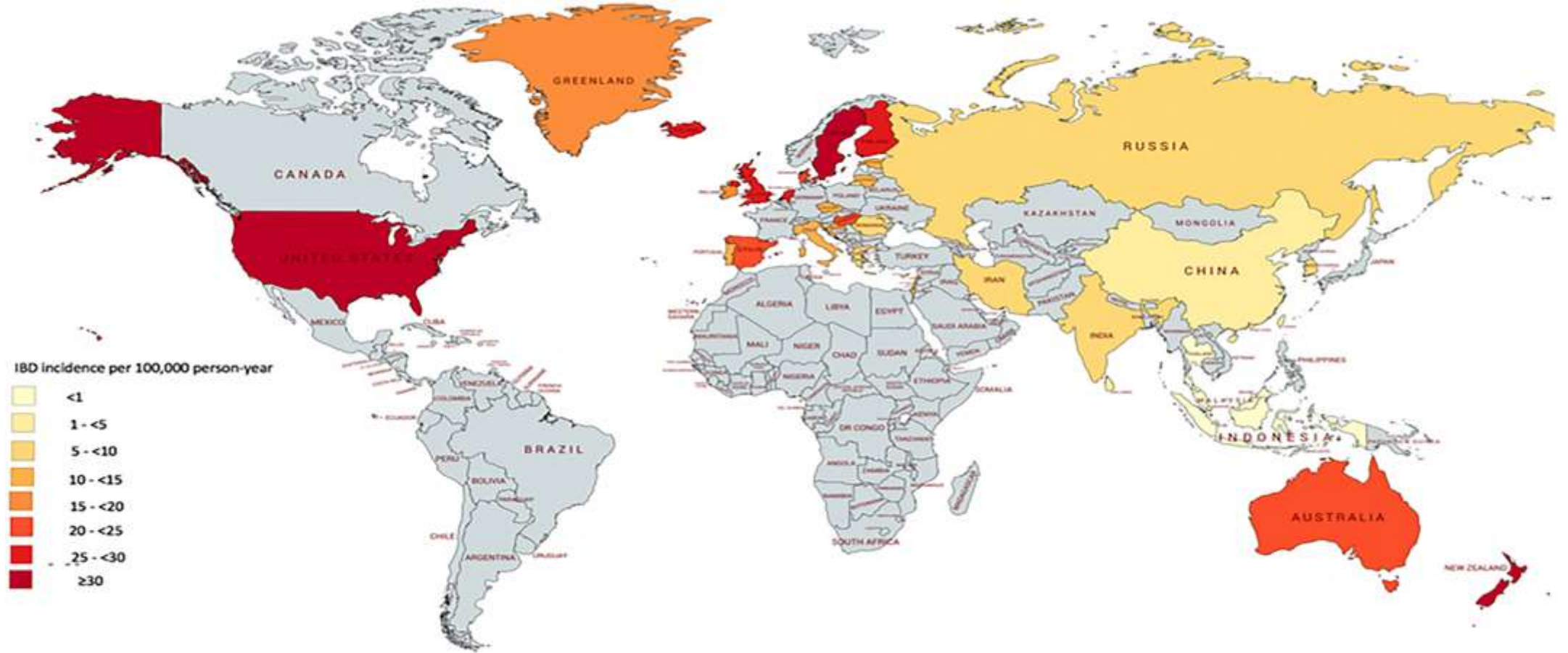
Department of Paediatric Gastroenterology, Hepatology and Nutrition

KK Women's and Children's Hospital

# Outline

- IBD characteristics and incidence
- Goals of therapy
- Stressors
  - patient
  - family
- Impact of stress on IBD
- Targets to reduce stress
- Practical tips

# Incidence of IBD



Ref: Mak et al, *Journal of Gastroenterology and Hepatology* 35 (2020) 380–389

# Incidence rates (per 100,000 person/years) of Asian pediatric IBD

Country	Period	Age range (years)	IBD	CD	UC	IBD-U
Singapore <sup>a,5</sup>	<b>1994–2015</b>	≤18	1.26	0.71	0.35	0.10
	1994–1997		0.05	0.03	0.03	0
	1998–2000		0.18	0.07	0.11	0
	2001–2003		0.54	0.36	0.18	0
	2013–2015		4.29	2.10	1.01	0.47
Korea <sup>12</sup>	2011–2014	10–14	–	1.6 <sup>d</sup>	2.0 <sup>d</sup>	–
		15–19	–	8.2	4.8 <sup>d</sup>	–
Japan <sup>c,13</sup>	2004	0–19	–	4.2	11.0	–
	2013		–	6.7	14.6	–
Saudi Arabia <sup>14</sup>	<b>2003–2012</b>	<14	0.47	0.27	0.20	–
	2003–2007		0.35	0.19	0.16	–
	2008–2012		0.59	0.35	0.24	–
China (Shanghai) <sup>15</sup>	2000–2010	<18	0.55	0.29	0.25	–
Taiwan <sup>b,16</sup>	1990–1999	≤18	–	13.2	–	–
	2000–2009		–	25.4	–	–
Taiwan <sup>17</sup>	2000–2010	0–9	–	0.11	0.05	–
		10–19	–	0.17	0.21	–
Taiwan <sup>b,18</sup>	1979–1995	<18	–	0.85	0.85	–
	1996–2000		–	2.60	0.99	–

# IBD

Disorder causing  
inflammation of  
the gut

Chronic

Relapsing and  
remitting

Can be  
controlled with  
medications

No cure





School

Effect of disease on  
physical functioning

Friends

Emotional challenges-  
feeling different,  
loss of normalcy

Activity

Behavioral changes - sleep disturbance,  
feeling lethargic

Medications/side-effects



Other family members

Uncertainty- disease, future

Dealing with chronic illness

Lifestyle change

Impact on child

Diet

Work

Medications

Travel

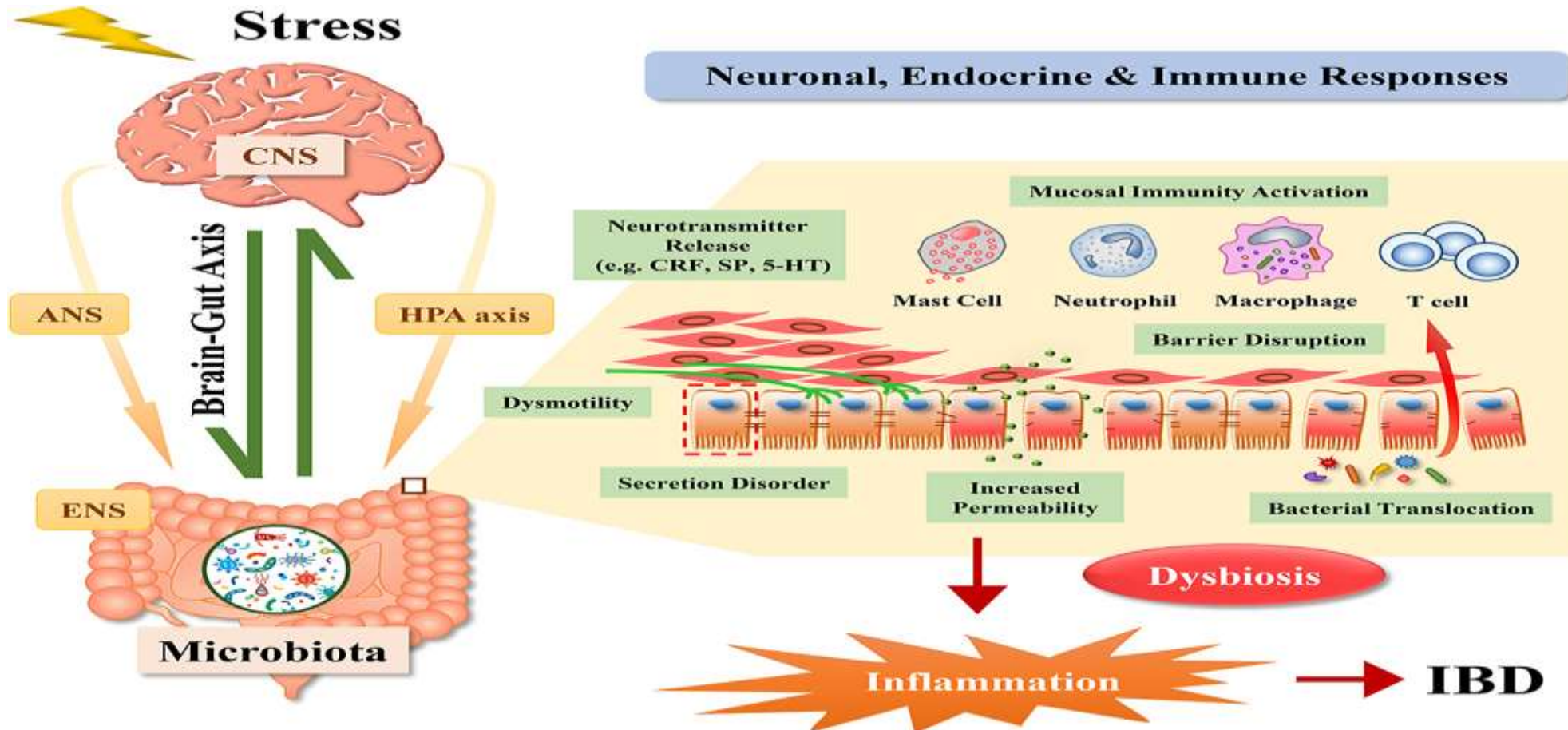


Loss of control/helplessness

Family functioning

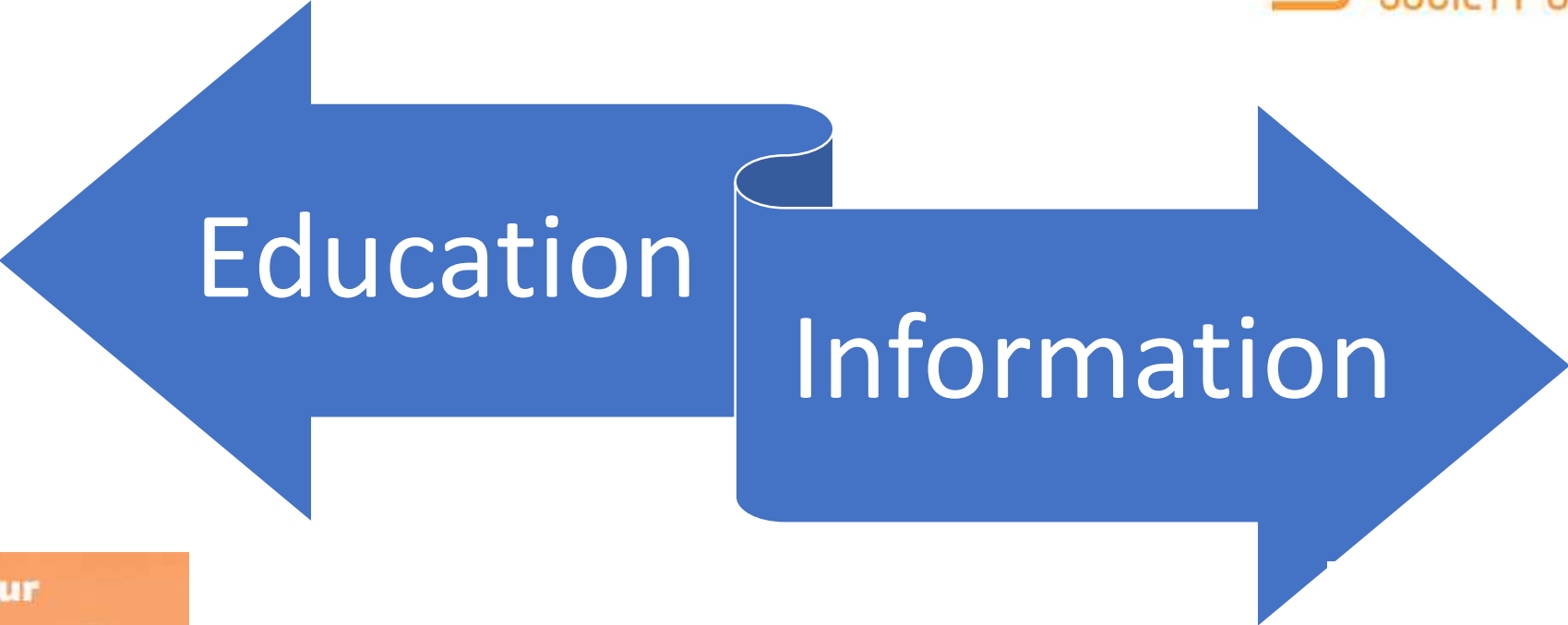


# Impact of stress on the gut

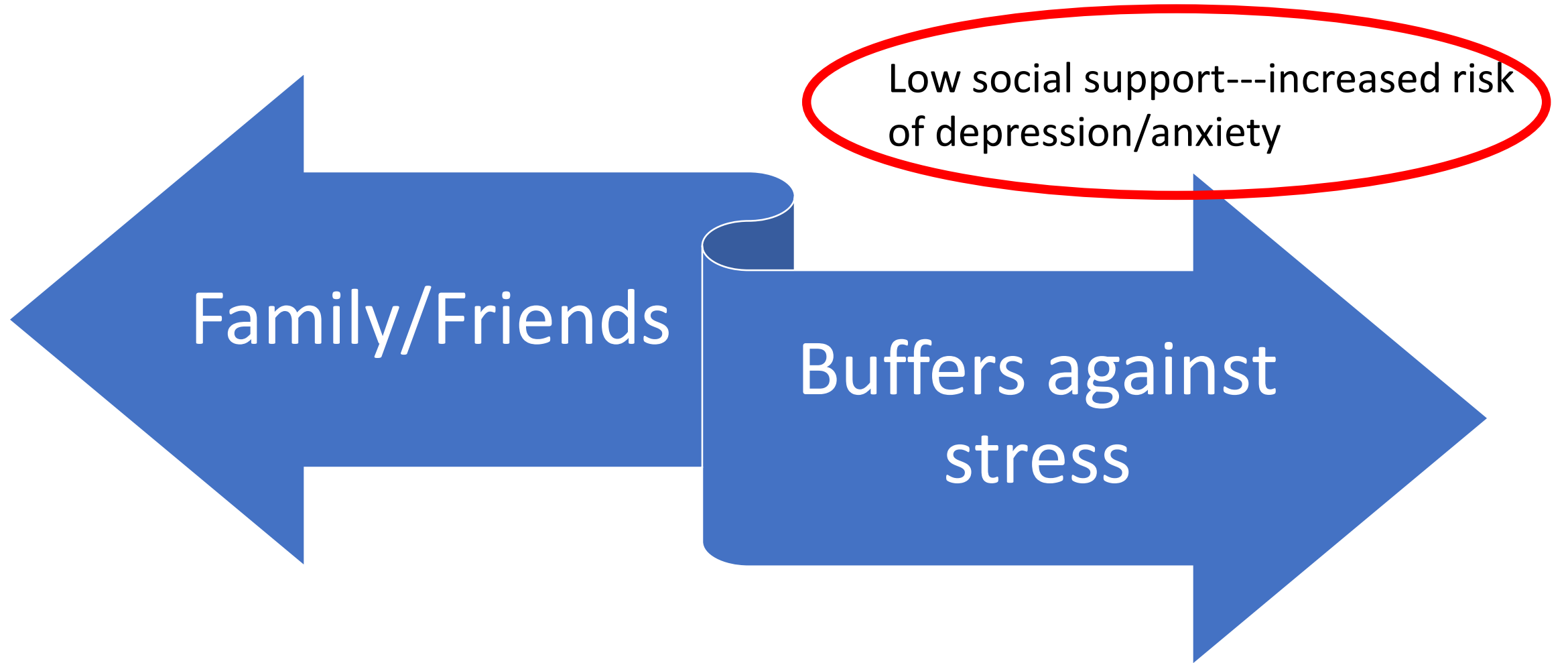




# DISEASE ACCEPTANCE



# ADEQUATE SOCIAL SUPPORT



# RESILIENCE



# The 7 C's of resilience



1. Competence

2. Confidence

3. Connection

4. Character

5. Contribution

6. Coping

7. Control







# Self-regulation

## Executive function



## Behavioural regulation



## Emotional regulation



# Practical approach- coping with illness

Be open

Reassure them

**Focus on the  
positive**

**Help them  
find their  
'flare hobby'**

**Get them  
involved**

Meet other  
families

# Practical approach- routines

- Have positive involvement in activities
- Participate in social groups
- Maintain consistent school attendance as able
- Engage in normal eating habits
- Ensure good sleep hygiene
- Have a predictable daily schedule

# Signs of stress/anxiety

- Becoming withdrawn or isolated.
- Avoiding friends and social situations.
- Having trouble sleeping.
- Acting out at school or at home.



# Practical approach-emotional well-being





# Conclusion

- Living with IBD has many challenges
- Targets to reduce stress
- Strategies for coping
- Support – health care teams, family, friends, support groups
- Aim to live a normal and fulfilling life despite the illness

