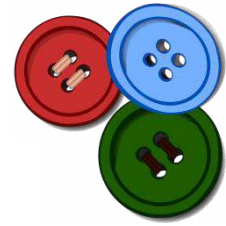


Getting to the Gut of the Matter: Gastrointestinal Tract Symptomatology in Adults with Pica and Autism

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Pica



Issues for Behavioral Treatment

1. Staff training, costs, and availability
2. Treatment averseness
3. Environmental restrictions
4. Generalization and maintenance

Prevalence of Pica

- 3.6% of neurotypical children
- 4.5% of children with developmental disabilities other than autism (ASD)
- 23.2% of children with ASD
- 60% of adults with autism

Gender and Age by Diagnostic Group

	Autism	Aut/Pica	Pica	Control
Male	12	12	10	10
Female	3	5	6	6
Age Mean	38.9	42.2	43.7	44.5
Age SD	9.7	10.8	7.6	7.8
Age Range	24 - 56	24 - 58	30 - 58	31 - 58

Signs and Symptoms

- () Abdominal pain or cramps
- () Abnormal posturing (that puts pressure on the abdomen)
- () Night-awakening
- () Rumination
- () Vomiting
- () 3 or more large BMs per day
- () Excessive belching
- () Excessive gassiness or bloating
- () Abnormal stools (malodorous or poorly formed or shiny or black or containing mucous)
- () GI Tract bleeding
- () Poor appetite or lack of interest in eating
- () Difficulty gaining weight / history of weight loss
- () Constipation
- () Chronic or seasonal diarrhea
- () Alternating diarrhea and constipation
- () Malodorous stool
- () Impaired digestion/maldigestion
- () Inflammation of GI tract
- Altered bowel flora microbial growth
 - () fungal overgrowth / hypersensitivity
 - () bacteria
 - () parasites
 - () viral
- () Malabsorption
- () Food allergies / sensitivities

Diseases

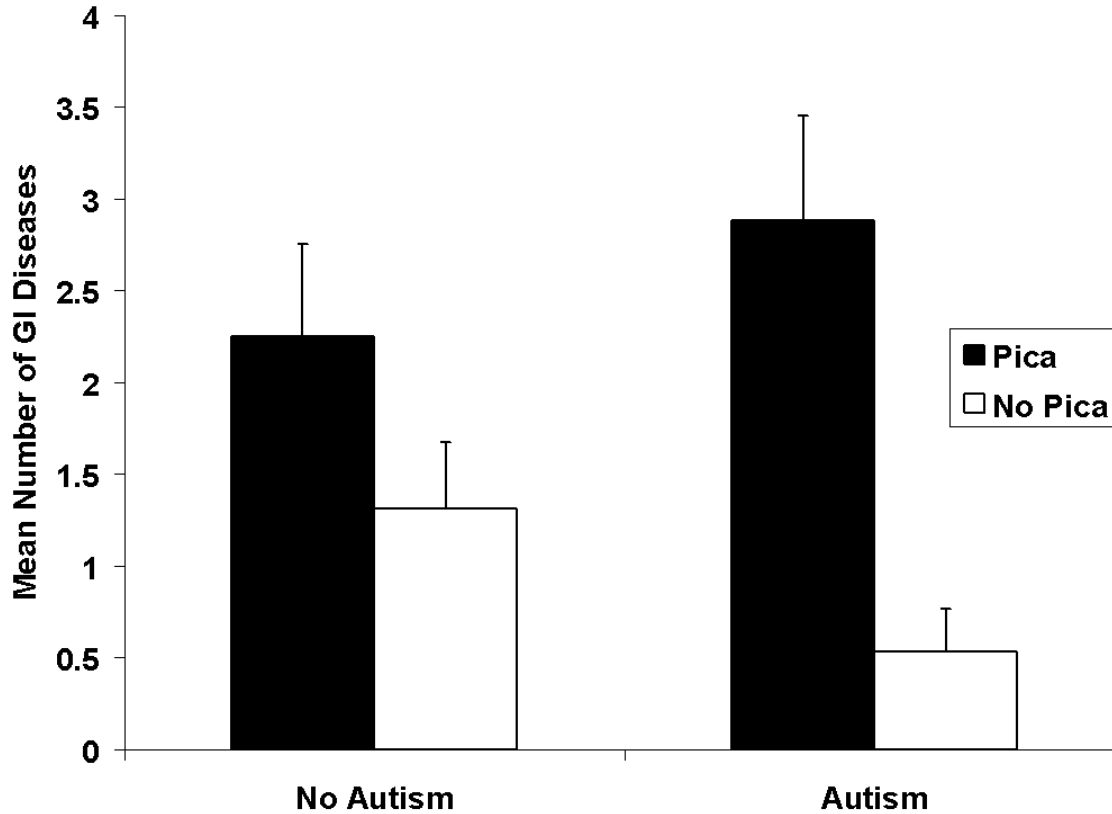
- () GERD (gastroesophagitis reflux disease)
- () Gastritis
- () Esophagitis
- () Duodenitis
- () Colitis or Enterocolitis
- () Visceral hyperplasia or Ileocolonic lymphonodular hyperplasia
- () Leaky Gut Syndrome / increased intestinal permeability
- () Ulcers
- () Crohn's disease
- () Kidney infections or kidney stones
- () Intestinal polyps
- () Irritable Bowel Syndrome
- () Diverticulitis
- () Gall bladder disease
- () Celiac disease (coeliac)
- () H. Pylori (Helicobacter Pylori)
- () Hiatal Hernia
- () Intestinal blockage
- () Aerophagia

Most Frequent GI Diseases (%)

	Pica (n = 33) <u>%</u>	No Pica (n = 31) <u>%</u>
Gastritis	58	26
Esophagitis	39	13
GERD*	30	23
Duodenitis	27	13
Colitis	15	6
Hiatal Hernia	15	6
Ulcer	15	3
Helicobacter Pylori	15	0
Aerophagia	12	0
Intestinal Blockage	9	3

* gastroesophagitis reflux disease

GI Diseases by Diagnostic Group



Nutritional Interventions: Pica

1. Zinc supplementation
2. Iron
3. Polyvisol
4. Standard Vivonex

Nutritional/ Biologic Interventions: Autism

1. Zinc supplementation; antioxidant therapy
2. Folinic acid, betaine, methyl B-12
3. Microbiota Transfer Therapy
4. Homeopathic approaches

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