

# Why Should I Take My Medicine?

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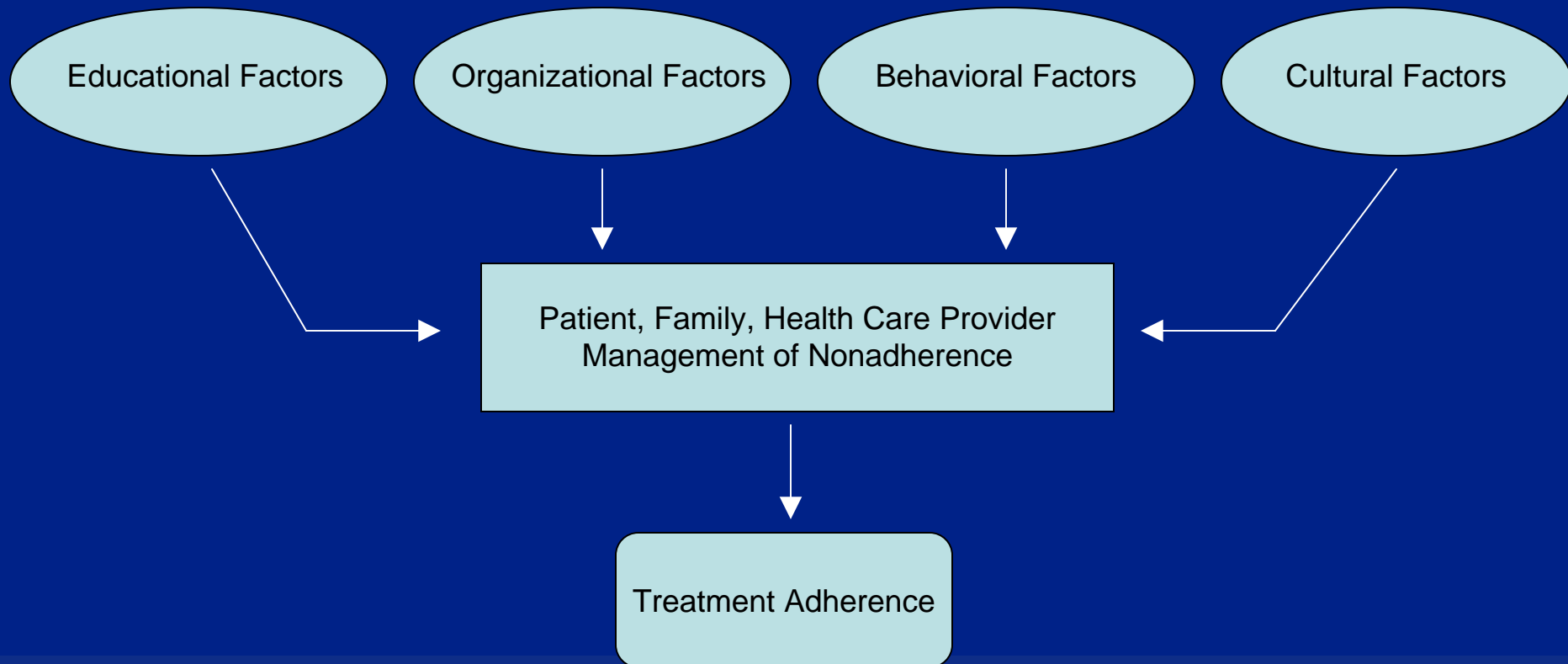
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# Treatment Adherence

- Definition: “The extent to which a person’s behavior (in terms of taking medications, following diets, or executing lifestyle changes) coincides with medical or health advice” (Haynes, 1979, pp. 1-2).
  - “Compliance” is often used interchangeably with “Adherence”

# Adherence Factors



# Educational Factors

- IBD knowledge (e.g., cause, course of illness, available treatments, etc.)
- Prescription knowledge (e.g., dosing instructions, tapering of meds, etc.)
- Purpose of treatment (e.g., medication, dietary, behavioral, lifestyle changes)
- Medication action and side effects

# Organizational Factors

- Organization of medications
- Accessibility and location of medications in home
- Obtaining prescriptions and refills
- Planning for medication taking

# Behavioral Factors

- Patient
  - Forgetting
  - Beliefs about medication
  - Oppositional behavior
  - Mood dysfunction (e.g., depression, anxiety, coping difficulties, etc.)
- Family
  - Family communication style
  - Stress/Discord between parents and children regarding medication
  - Parent mood dysfunction
  - Responsibility for medication taking

# Cultural factors

- Race
- Ethnicity
- Religion
- Socioeconomic status

# How Much of a Problem is This?

- Nonadherence prevalence across populations:
  - 50% of children
  - 65% to 75% of adolescents
- Problems associated with nonadherence:
  - Decreased effect of treatment (e.g., medication)
  - Poorer health outcomes (e.g., organ rejection, prolonged symptoms, pain, etc.)
  - Poorer cost effectiveness of health care
    - Estimated annual cost in United States: \$100 - \$300 billion (DiMatteo 2004; Berg et al., 1993)
  - Poorer quality of life

# Adherence in IBD

- Adherence Issues
  - Medication (e.g., 6-MP/azathioprine, 5-ASA, corticosteroids, infusions, etc.)
  - Dietary adherence (e.g., NG tube feeding, dietary restrictions, etc.)
  - Postoperative care
  - Clinic appointments

# Adherence in Adults with IBD

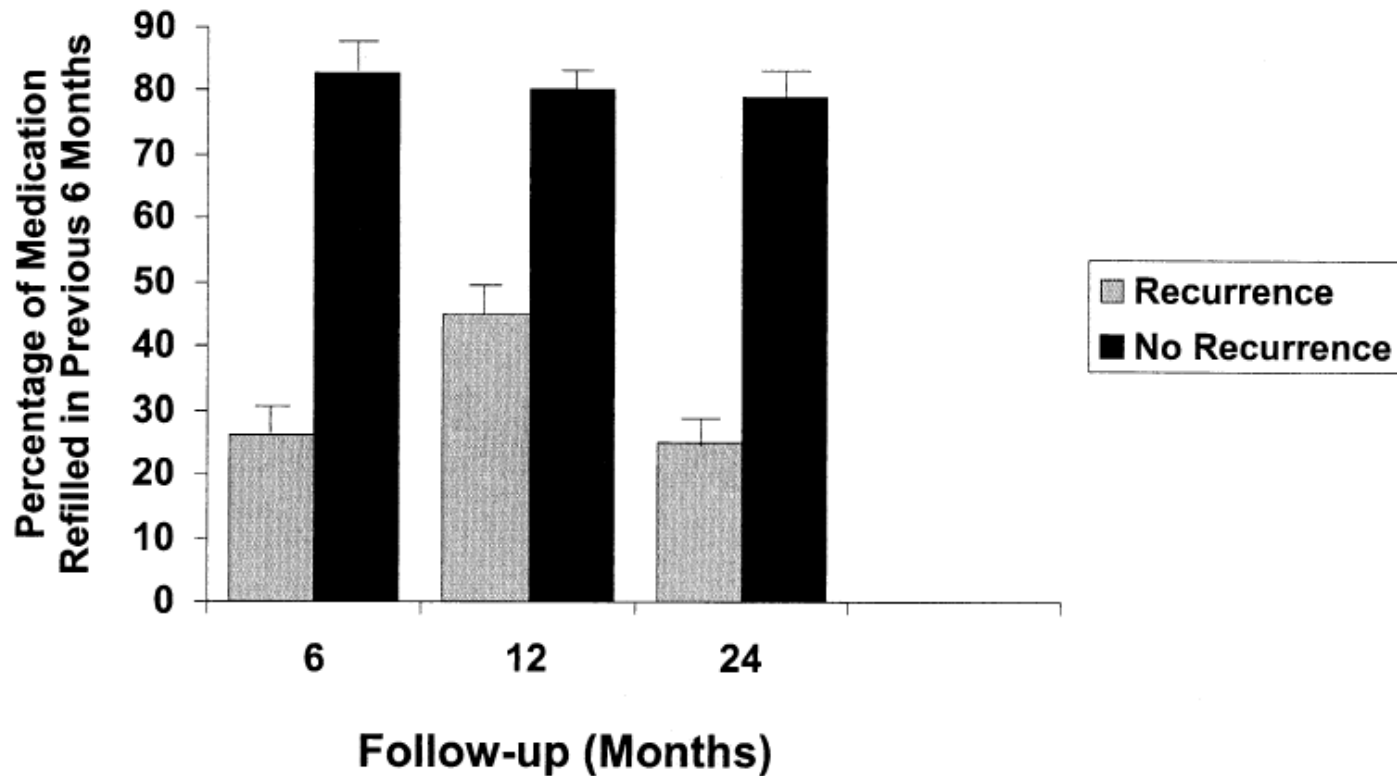


Figure 1. Medication consumption rates by disease activity.

# Adherence in Adults with IBD

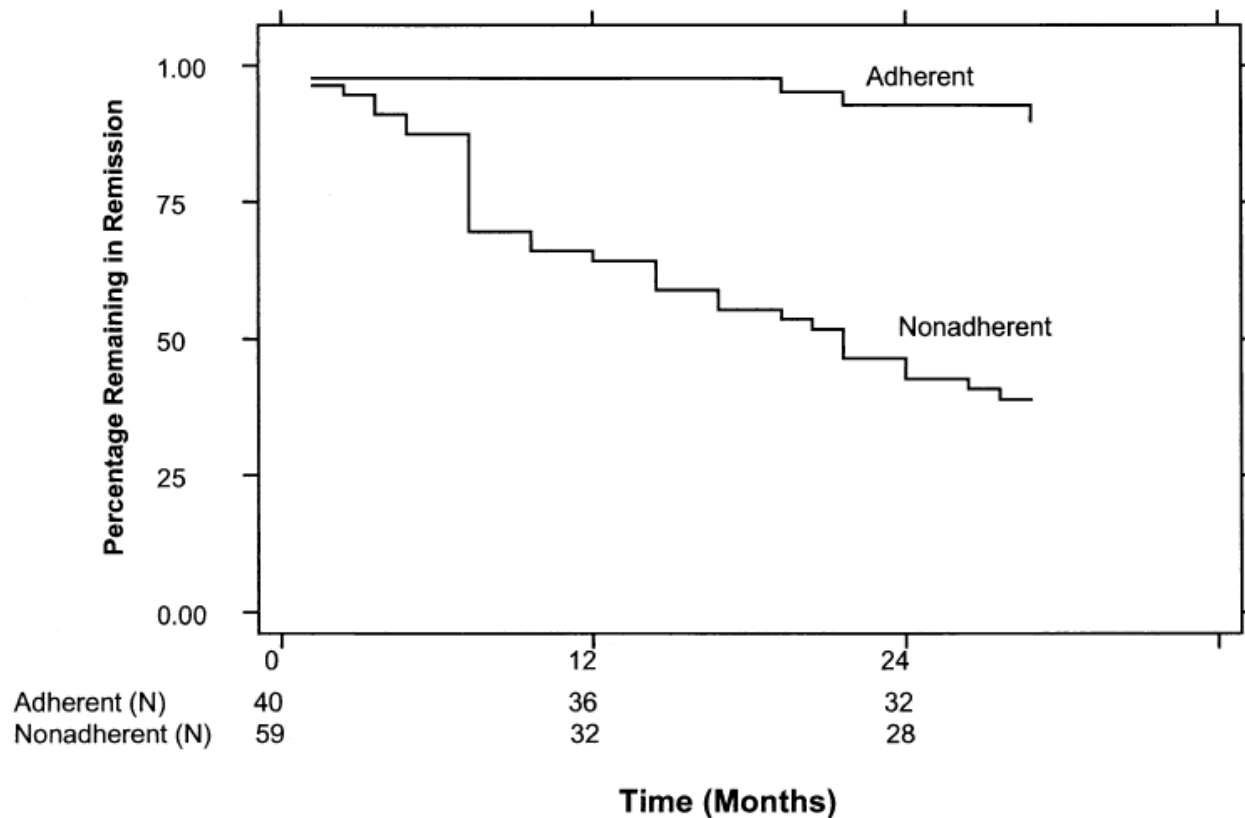


Figure 2. Nonadherence rates and clinical recurrence at 24 months.

# Adherence in Teens with IBD

# Medication Adherence in IBD Teens

- Study Design:
  - Longitudinal study (baseline and 6-month follow up)
  - 42 patients
  - Age 13-17 years
  - Multimethod adherence assessment
    - Pill counts
    - Self-report
    - Bioassay

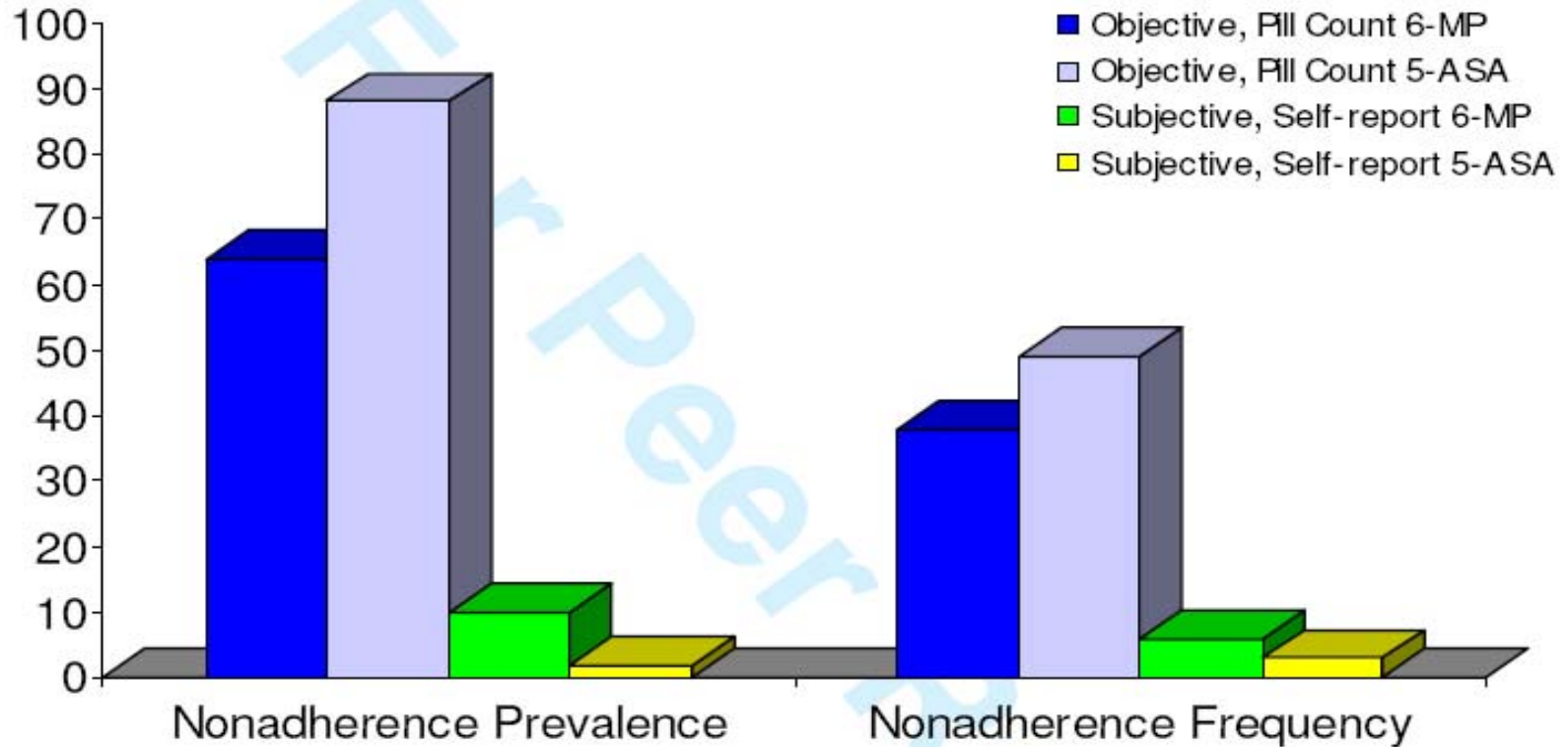
# Results

- Nonadherence Prevalence (i.e., < 80% of prescribed doses consumed):
  - Pill Count:
    - 64% for 6-MP/Azathioprine
    - 88% for 5-ASA
  - 6-TGN/6-MMPN assays:
    - Only 14% were in therapeutic range (93% demonstrated quantifiable 6-TGN levels)

# Results

- Nonadherence Frequency (i.e., % of missed doses per patient):
  - Pill Count:
    - 38% for 6-MP/Azathioprine
    - 49% for 5-ASA
  - 6-TGN/6-MMPN assays:
    - Not applicable – cannot measure frequency of dosing

# Results



Hommel et al. Objective versus subjective assessment of oral medication adherence in pediatric inflammatory bowel disease. *Inflammatory Bowel Diseases* (in press).

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# Intervention to Promote Treatment Adherence in IBD



Promoting Adherence to Crohn's and Colitis Treatment

# PACCT Study

- Promoting Adherence to Crohn's and Colitis Treatment (PACCT)
  - Pilot test of a family-based group behavioral treatment
  - N=20 treatment, 20 usual care control
  - Baseline, 4 treatment sessions (treatment only), Post-treatment session, 3-, 6-, and 12-month follow-up
  - Outcomes: adherence (multimethod), QOL, disease severity, pt./family functioning

# PACCT Intervention

- Session 1: Education/Organizational factors
- Session 2: Behavioral contracting, goal setting
- Session 3: Behavioral contingency management, parent- and self-monitoring, problem-solving
- Session 4: Family communication and conflict resolution

# PACCT Study Contact Information:

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