

Patient and provider interest in pediatric Internet interventions

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Family Internet Use

- Parents more likely than non-parents to use the Internet
 - 83% of US families with a child reported Internet use¹
- Parents whose children suffered from a chronic condition were more likely to search the Internet for health info²

1 = Fox, Digital Divisions, Pew Internet, 2005.

2 = Tuffrey et al., Arch Dis Child., 2002.

Pediatric Internet Interventions?

- Using the Internet to disseminate behavioral interventions to pediatric populations appears to make sense.
- Adult Internet intervention literature growing rapidly
- Pediatric Internet intervention lags



Pediatric Trials

- Searched MedLine, PubMed, and PsychInfo
- Searched keyword terms of Internet, Web, Treatment, Intervention, and Computers
- 24 studies were found evaluating an Internet intervention for a pediatric population
 - defined pediatric as individuals 18 years of age and younger

| Target Disorders | |
|-------------------------|------------------------|
| Body Image | Disordered eating |
| Encopresis | Asthma |
| Physical Activity | Smoking |
| Chronic Pain | Anxiety |
| Weight Loss / Nutrition | Traumatic Brain Injury |

Current Study

- Data from 2 needs assessment projects
 1. Pediatric encopresis
 - Family perspective on Internet TX for fecal incontinence
 2. Infant sleep
 - Provider perspective on Internet program to prevent infant sleep problems
 - Parent perspective on Internet program

Pediatric Encopresis



Encopresis Needs Assessment Method

- Created website that briefly describes U-CAN-POOP-TOO
- Placed URL links at the three primary encopresis websites
 - www.aboutencopresis.com
 - www.soilingsolutions.com
 - UVA tutorial site
- Asked individuals to submit online form to indicate their interest in obtaining access to the program

INTERESTED IN UCANPOOPTOO?

Does your child have bowel accidents? An estimated 2 million children in the US do.

Encopresis is the medical term for bowel control problems that result in stains or accidents in the underwear. It is a frustrating and emotionally painful issue for children and their families, and it can be difficult to treat.

Researchers at the University of Virginia, funded by the National Institutes of Health, have developed an effective treatment for encopresis that you can access from your computer at home. It is a specialized Internet program designed for parents and children to do together.

You and your child can learn the following information in a fun but private format : 1) How the bowels work, 2) how encopresis develops, and 3) how to manage it with medicines and special training exercises. The program even has fast-paced games for your child to play.



The program has undergone successful pilot testing, and a national trial has been conducted.

Additional trials are in the early planning stage. If you would be interested in being part of a future trial (or in having access once the program is available to the public), please [click here](#).

To learn more about the program, visit www.ucanpooptoo.com and click on the "LEARN MORE" button.

INTERESTED IN UCANPOOPTOO?

UCANPOOPTOO Interest Form

Thank you for your interest in future U-CAN-POOP-TOO studies.
The data you provide will not be used for anything other than to contact you about possible new studies.
It will be kept strictly confidential and maintained on our secured server.

Last Name:

First Name:

Email Address:

Child's Birth Date:

How long has encopresis been a problem (in months)?

How many accidents has your child had in the last 2 weeks?

Have you sought medical help for encopresis in the past?

- Yes
 No

Would you prefer to seek help for encopresis over the Internet or face-to-face with a physician?

- Internet
 Face-to-Face

If we were to charge for this program, how much would you be willing to pay for this type of online program (in dollars)?

Other Comments:

Submit

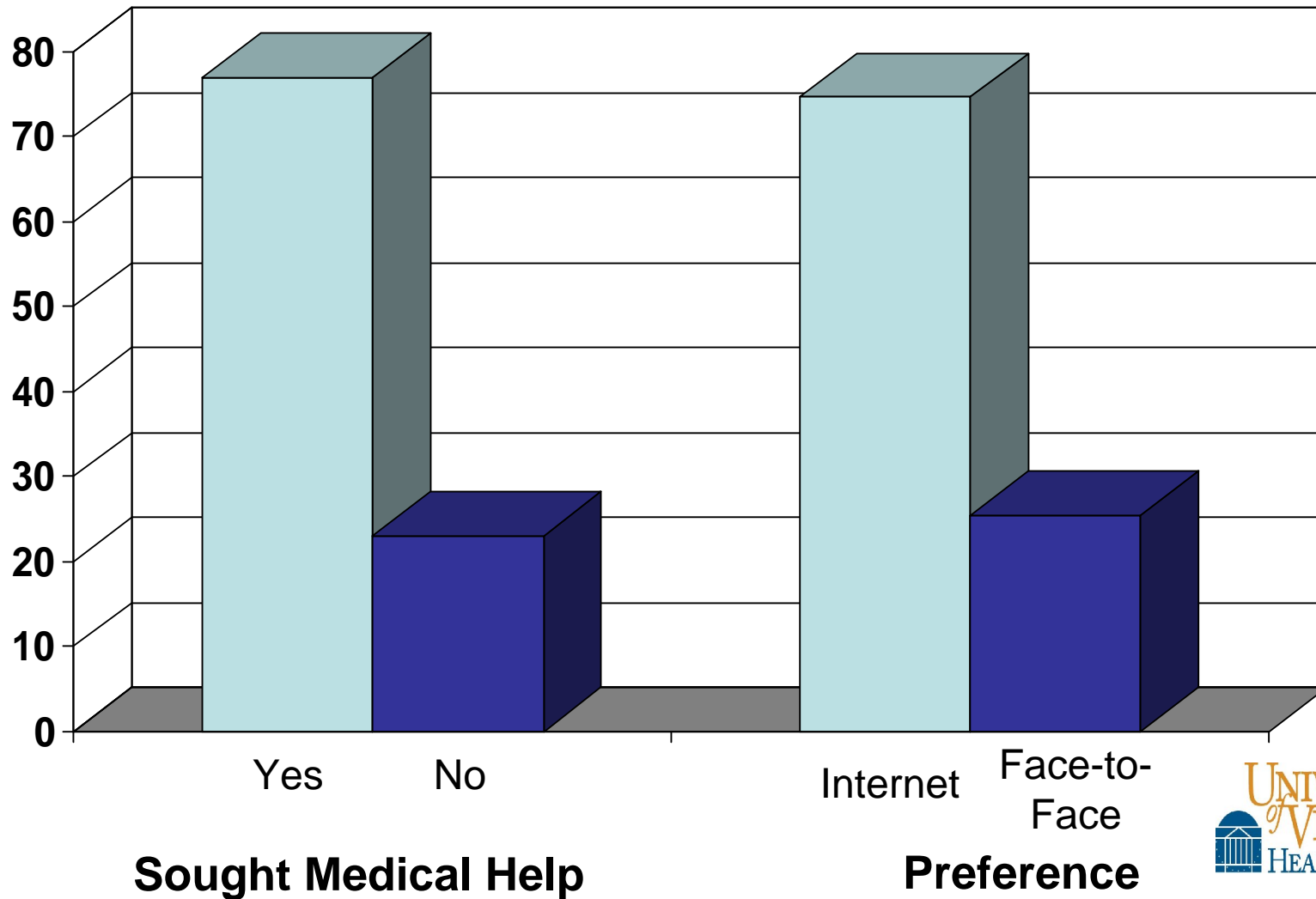
Encopresis Sample

- 483 completed forms
- 460 unique families
 - 20 families completed form more than once
- Sample size = 460

Sample Characteristics

| | Mean (SD) | Median | Range |
|-------------------------------|---------------|--------|--------|
| Age (in years) | 7.16 (2.71) | 7.00 | 2 – 23 |
| Time Since Diagnosis (mos) | 32.33 (24.75) | 24.00 | 1 – 99 |
| Accidents Per 2 Weeks | 14.96 (13.90) | 10.00 | 0 – 99 |

Treatment Descriptives



Amount Willing to Spend

| | Mean | SD | Median | Range |
|-------------|---------|----------|--------|------------|
| Program Fee | \$62.79 | \$101.71 | \$35 | \$0 - 1000 |

Note. Amount listed is in US dollars.

Pediatric Sleep



Infant Sleep Needs Assessment

- Online Provider Survey
 - 60 local providers of infants or expectant parents completed needs assessment surveys
- Waiting Room Parent Survey
 - 321 expectant parents or parents with a child three years or younger completed needs assessment surveys

PROVIDER SURVEY

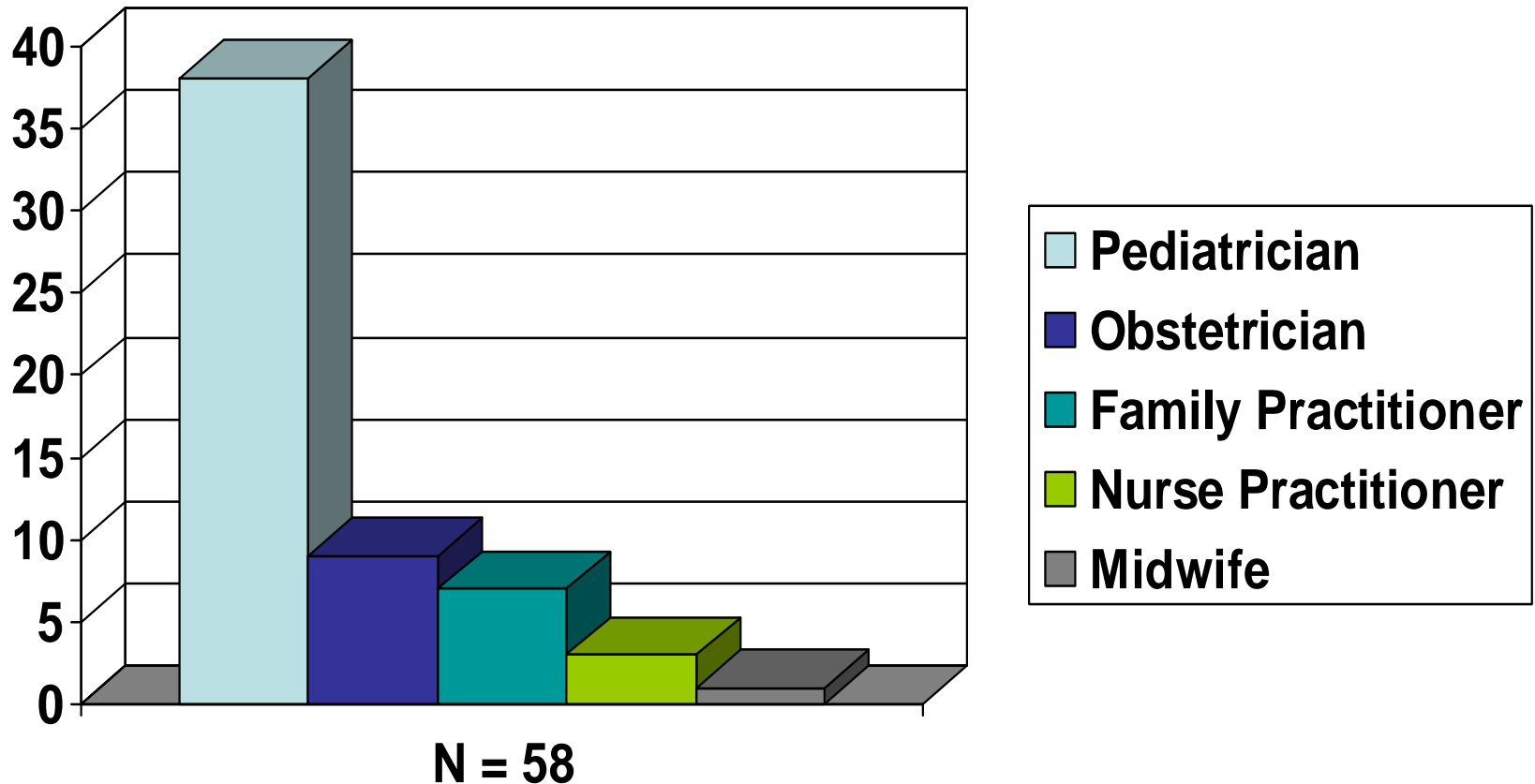
Provider Method

- Email solicitation to complete 14-item online survey
- Targeted:
 - physicians, nurse practitioners, and residents
 - treating infants, young children, or expectant parents in central Virginia
- Follow-up email reminder approximately one week after the initial email

Provider Sample

- Sixty of 79 (76%) providers completed an online needs assessment survey.
- Two surveys were subsequently dropped
 - Gave no information other than provider type
 - Indicated s/he had little experience with either expectant parents or pediatric sleep problems
- N = 58

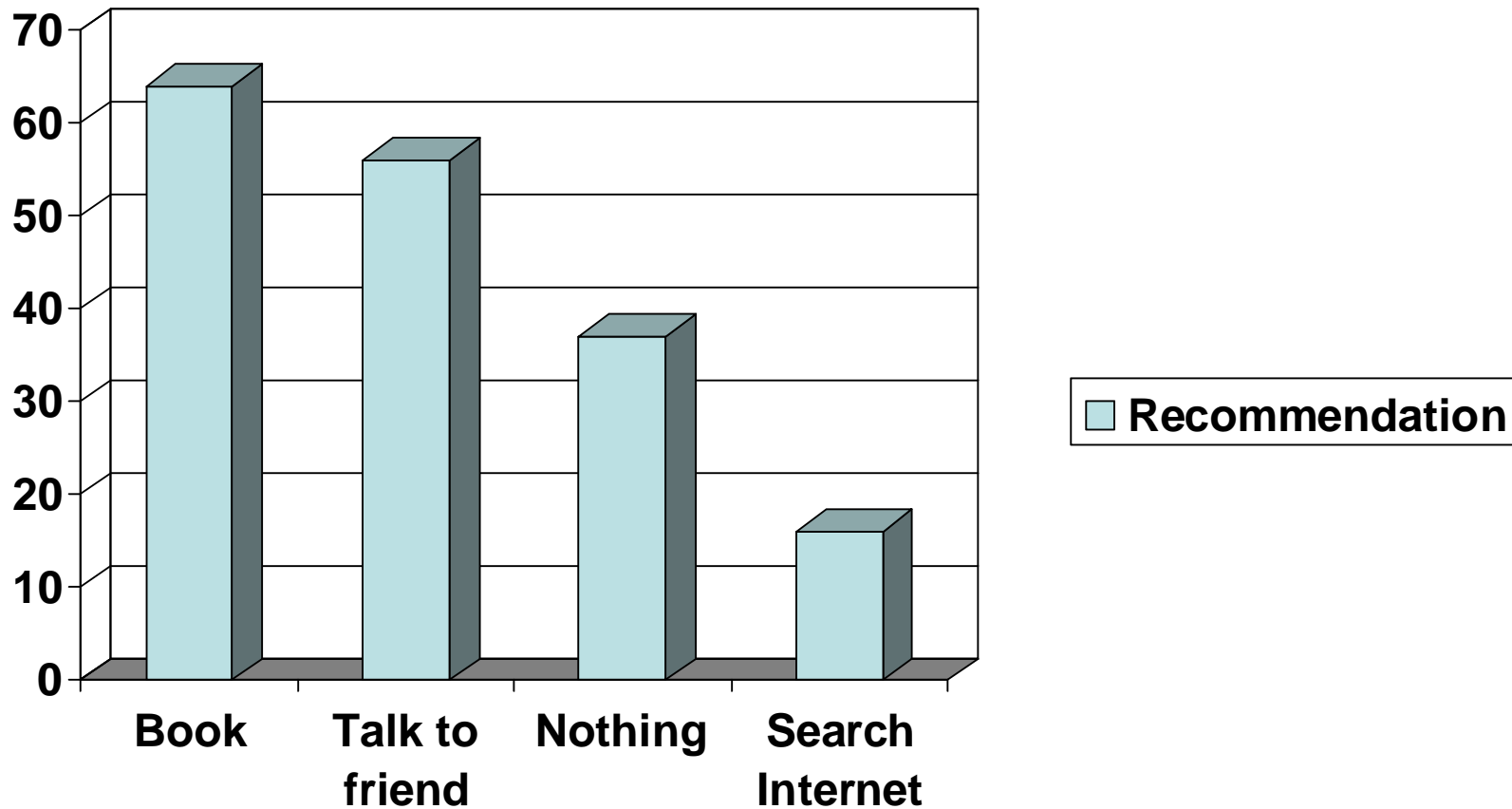
Provider Types



Note: 62.5 % response rate

79% stated that they see infants in their medical practice.

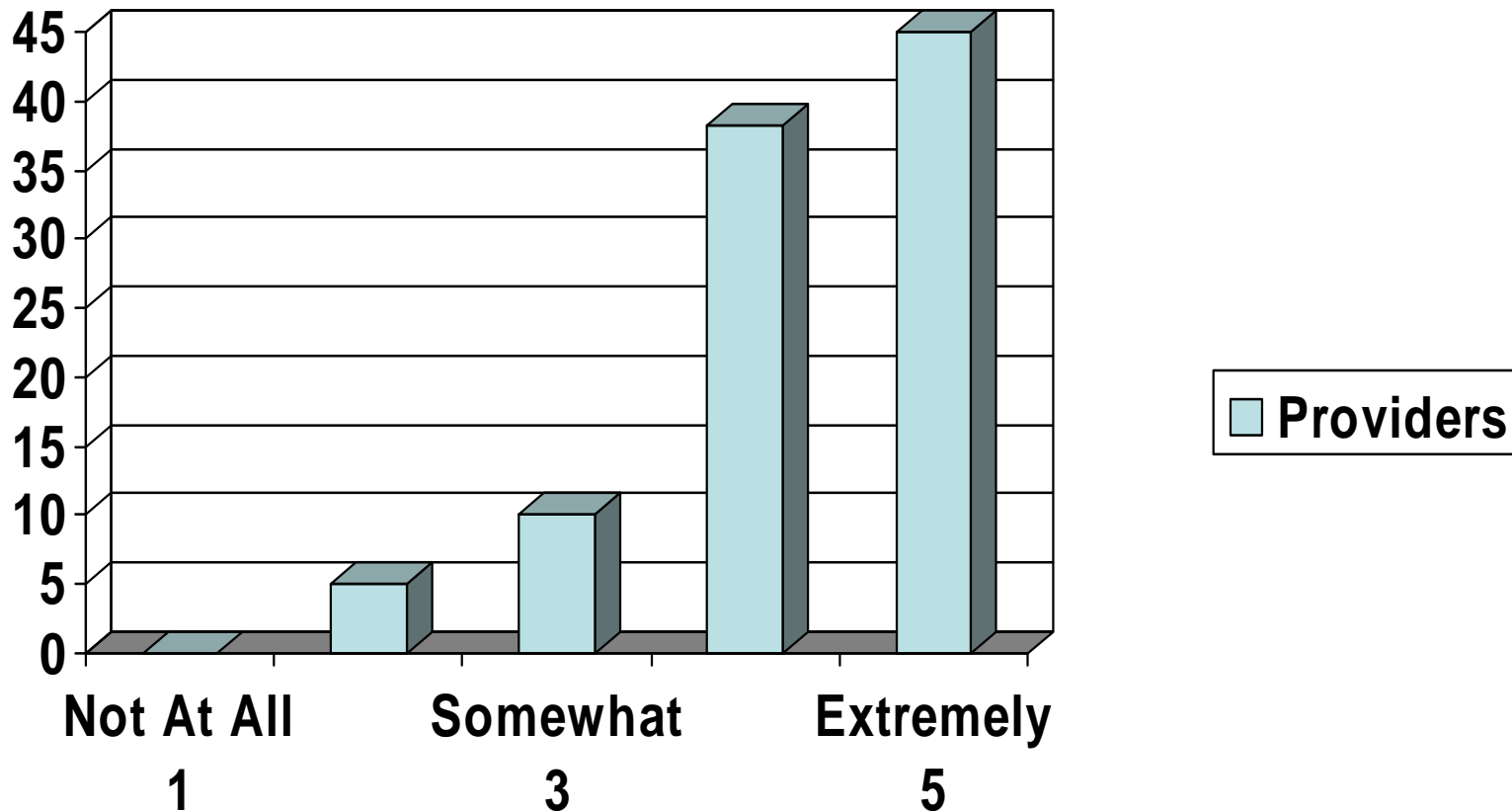
Additional Recommendations for Sleep



Proposed Internet Program

- offer parents personalized advice to help:
 - improve infant sleep
 - prevent sleep problems from developing
- similar to having a self-help book on the web with
 - graphics
 - animation
 - audio/video
 - personalization of content

A GOOD idea to offer this program?



$M = 4.26$ ($SD = .85$) on 5-point Likert scale.

98% indicated they would recommend an Internet program.

PARENT SURVEY

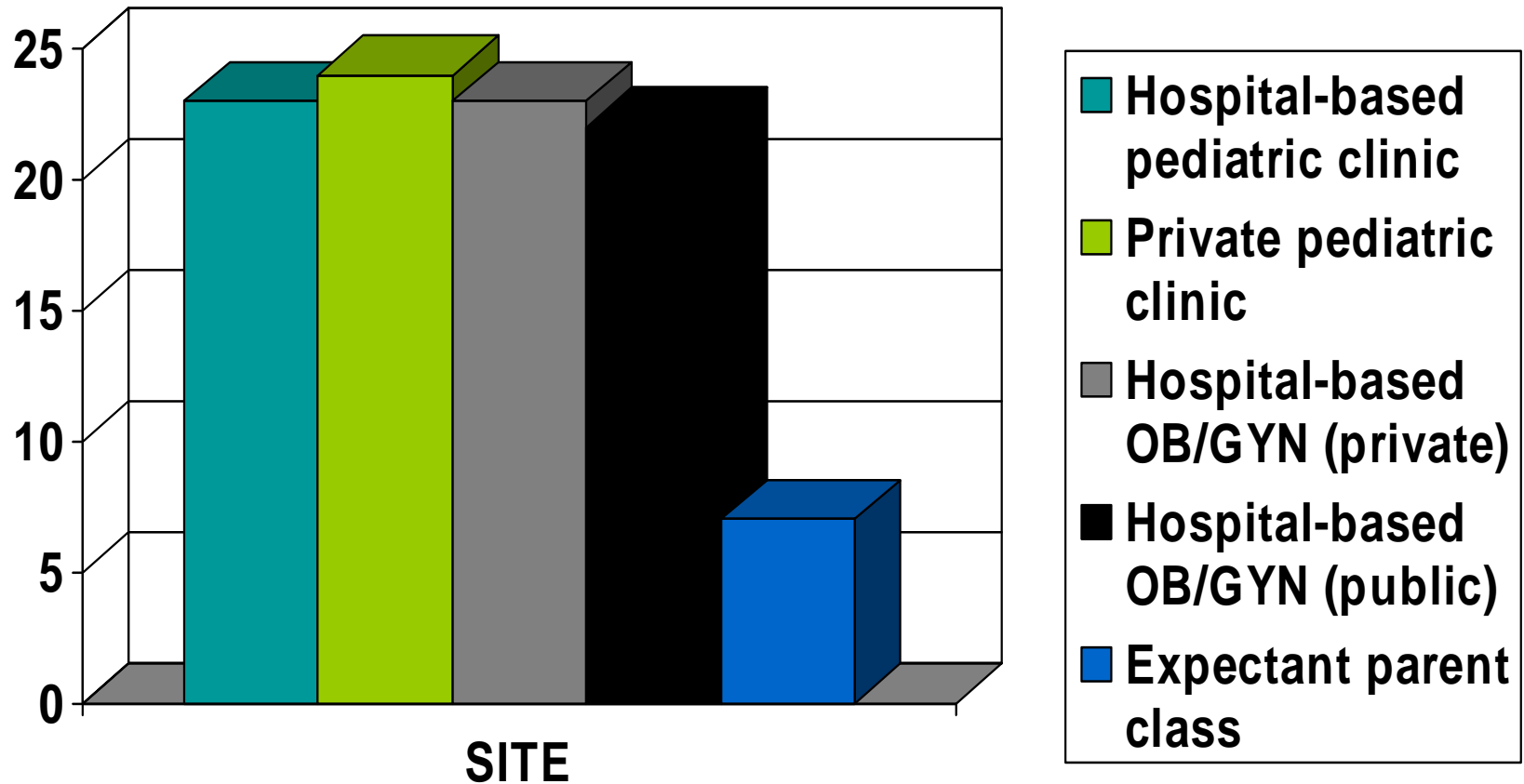
Parent Method

- While waiting for either a physician's appointment (pediatric or OB/GYN) or an expectant parent class, all patients (535 parents) were approached and asked to complete an anonymous 16-item paper survey.

Parent Sample

- Approached 535 parents
 - 31 ineligible (not expectant nor current parent)
 - 29 declined due to language barriers
 - 16 declined due to interest
 - 1 failed to return survey
- 458 completed survey (91% of eligible)
 - 321 completed by expectant parent or parent of child 3 or younger

Clinic / Population Type



Parent Characteristics

Gender

Female 91%

Race

Caucasian 70%

Af. American 16%

Hispanic 6%

Asian 5%

Pacific-Is. .6%

Other .9%

Age

Mean (years) 30.3

Parent Status

Expectant 22%

Current 55%

Both 23%

Children (250)

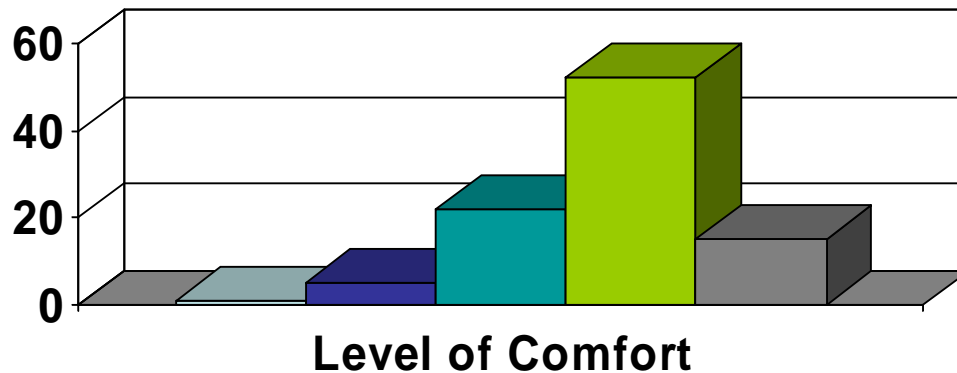
0-12 months 31%

13-36 months 53%

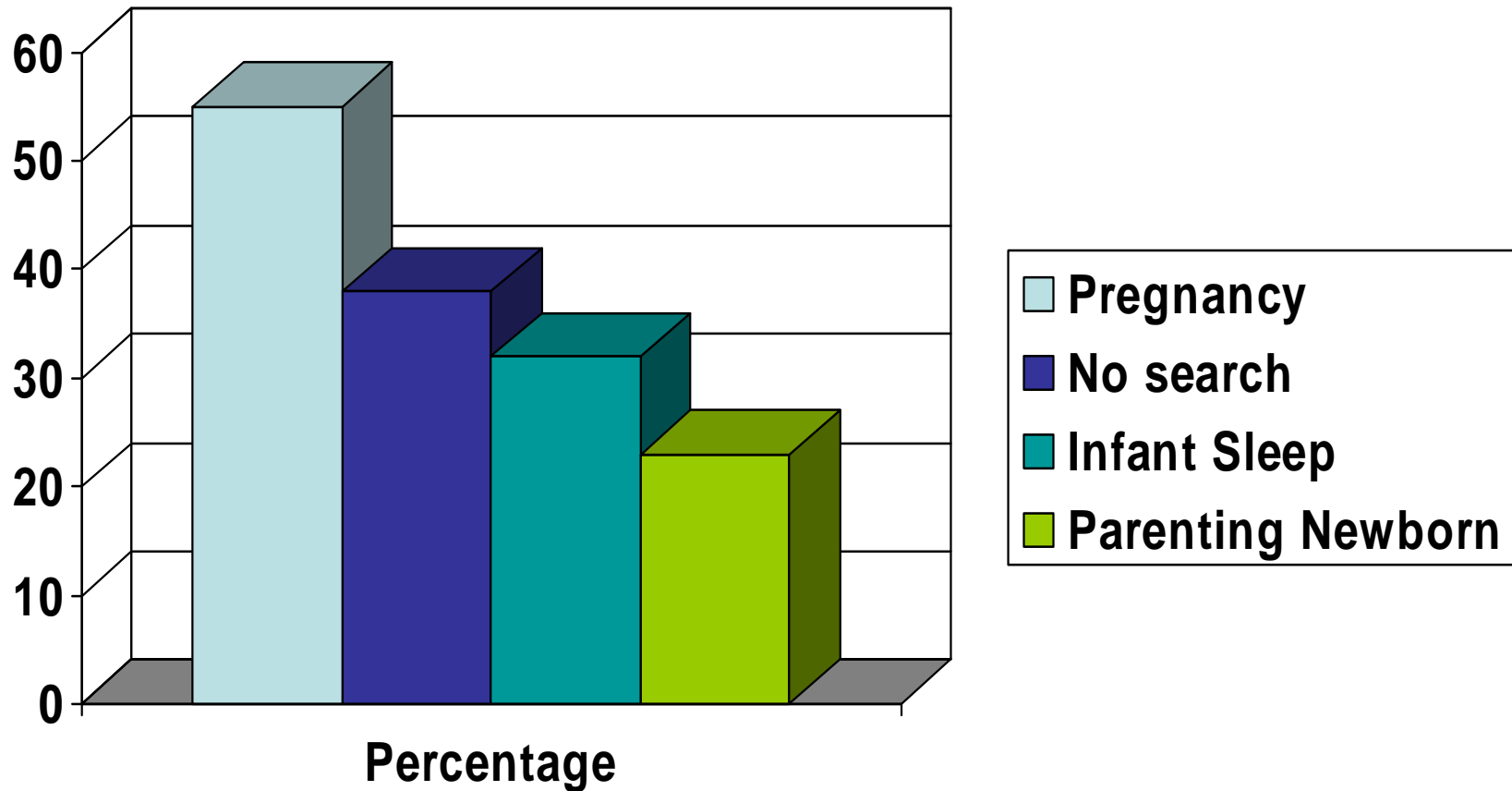
36 months or older 39%

Internet Usage

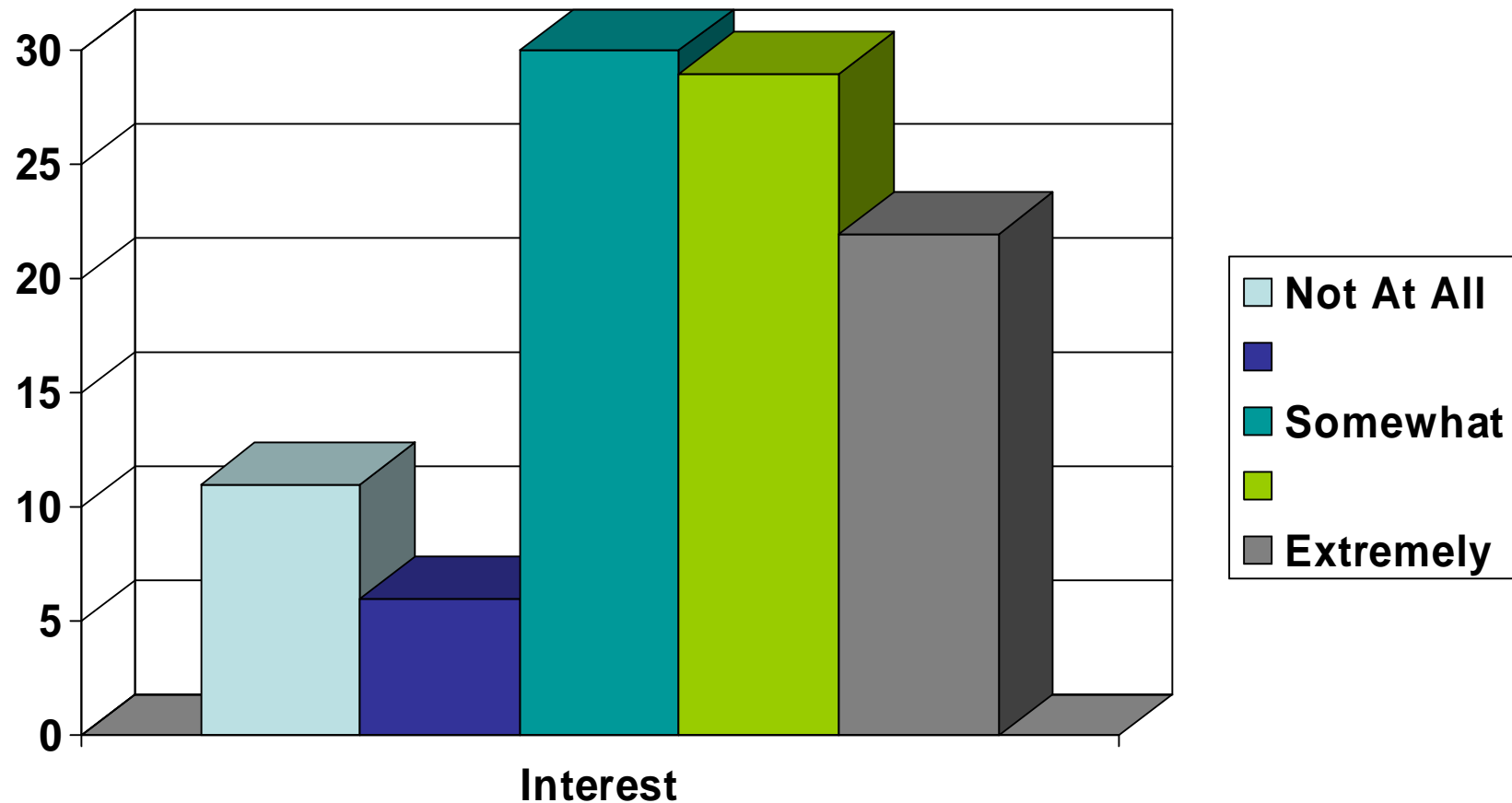
| | |
|-------------------------|-----|
| Regular Internet Access | 84% |
| Use Internet Daily | 54% |
| Check Email Daily | 51% |



Used Internet to Learn about:



Interest in Intervention

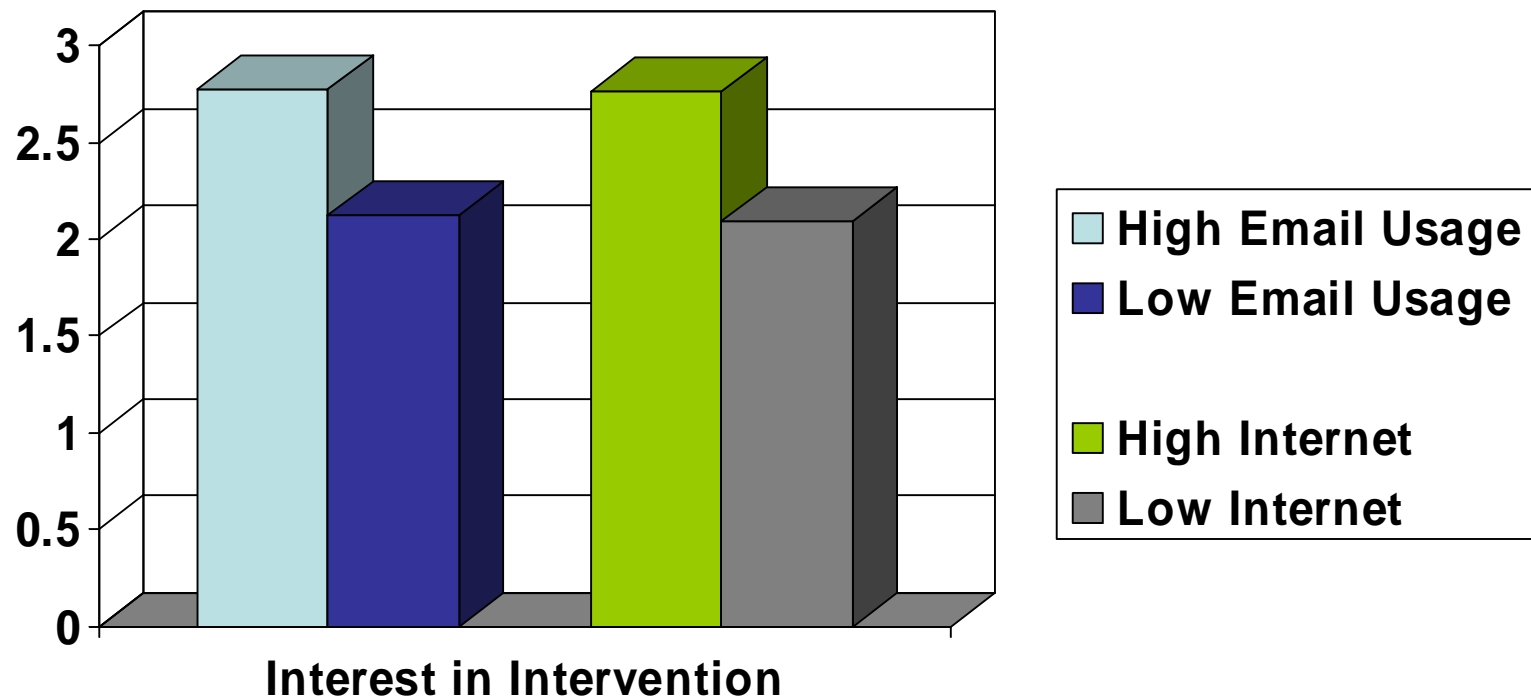


Mean interest level = 3.5 (SD = 1.2) on 5-point Likert scale where 1 = not at all and 5 = extremely.

Comfort with Internet | Interest in Intervention

Interest in an Internet intervention was correlated with comfort with the Internet, $r = .24$, $p < .001$.

Interest in Internet Intervention by Internet Usage



Individuals who checked email daily [$F = 24.10$] or used the Internet daily [$F = 25.99$] were more interested in the Internet intervention, $p < .001$.

Limitations

- Parents were not randomly selected in UCP2
- Providers were not randomly selected in Infant Sleep Survey
- Limited information from brief surveys

Discussion

- Current findings confirm that Internet access is widespread in families
 - 84% of parents report regular Internet access
 - More than half report using the Internet at least daily
 - More than half report checking email daily
 - Most report feeling “very comfortable” with the Internet.
- Findings also confirm that parents use Internet for health or parenting information
 - 3/4 of parents report using the Internet to seek parenting information

Discussion cont'd

- The majority of parents were least somewhat interested in an Internet program
- Roughly one-quarter were extremely interested in it
- Nearly all providers (98%) said they would recommend an Internet program

Discussion cont'd

- Comfort with the Internet was correlated with interest in such an intervention
 - Populations who are less comfortable with the Internet may show less interest in such an intervention

Thank you