

Multi-state Study of Health Professionals' Use of the Personal Digital Assistant (PDA)

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Objective

The objective is to investigate PDA information seeking behavior, usage patterns and deterrents in clinical settings.

Methods

Setting and participants

Study included 131 participants at five teaching hospitals in five states: Tennessee, Florida, Alabama, Kentucky, Pennsylvania.

Data gathered from convenience sample

61 (46%) attending physicians

48 (37%) physicians in training

5 (4%) pharmacists

8 (6%) librarians

9 (7%) RNs

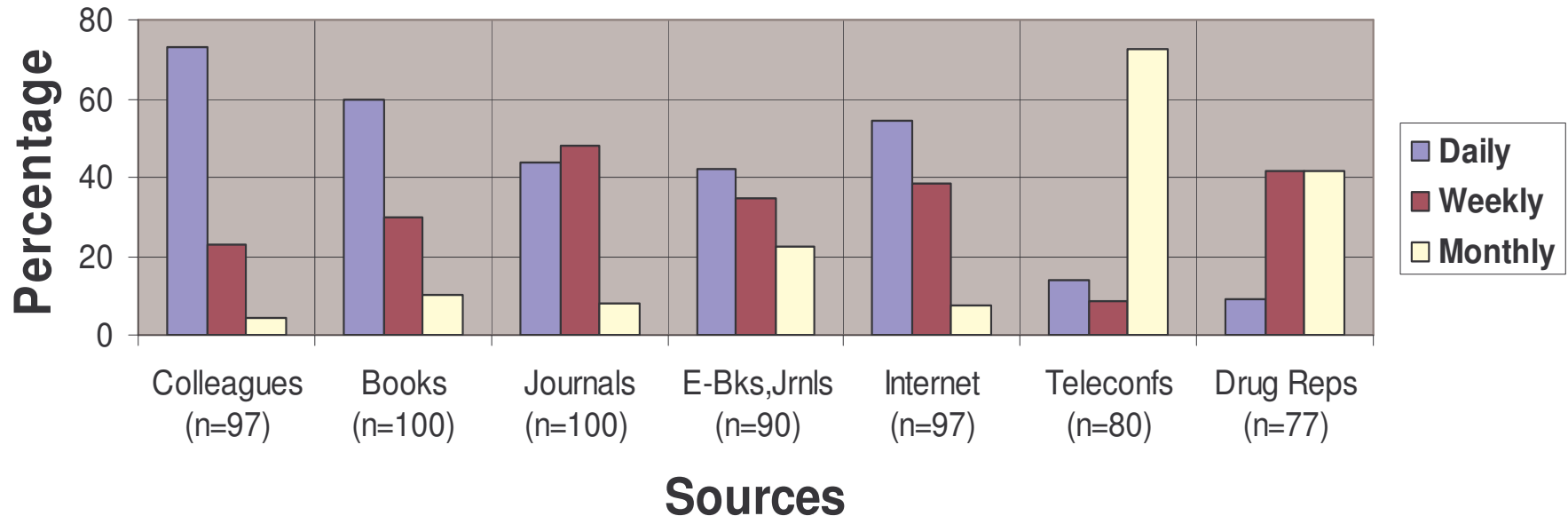
Methods

Instruments

Surveys

- Winter 2002 (n=131)
 - Summer 2003 (n=117)
 - At medical meetings, by fax or email
 - Questions' sources (Dee, 1993, 2001, 2002, 2003)
- **Interviews**
 - By librarians at the TN, FL sites
 - 2002-2003

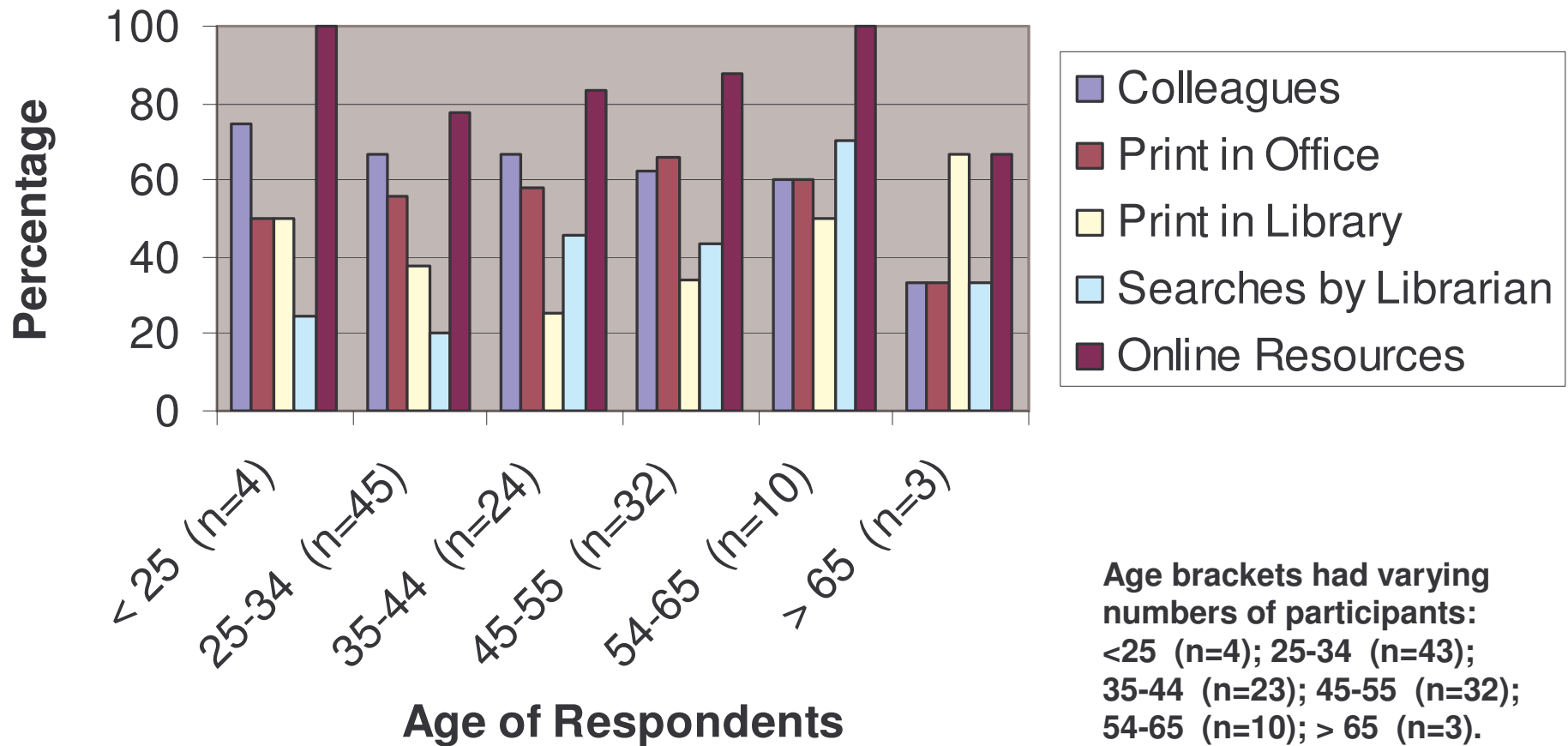
Frequency of Self Reported Use of Non PDA Sources



Frequency of Non PDA Use

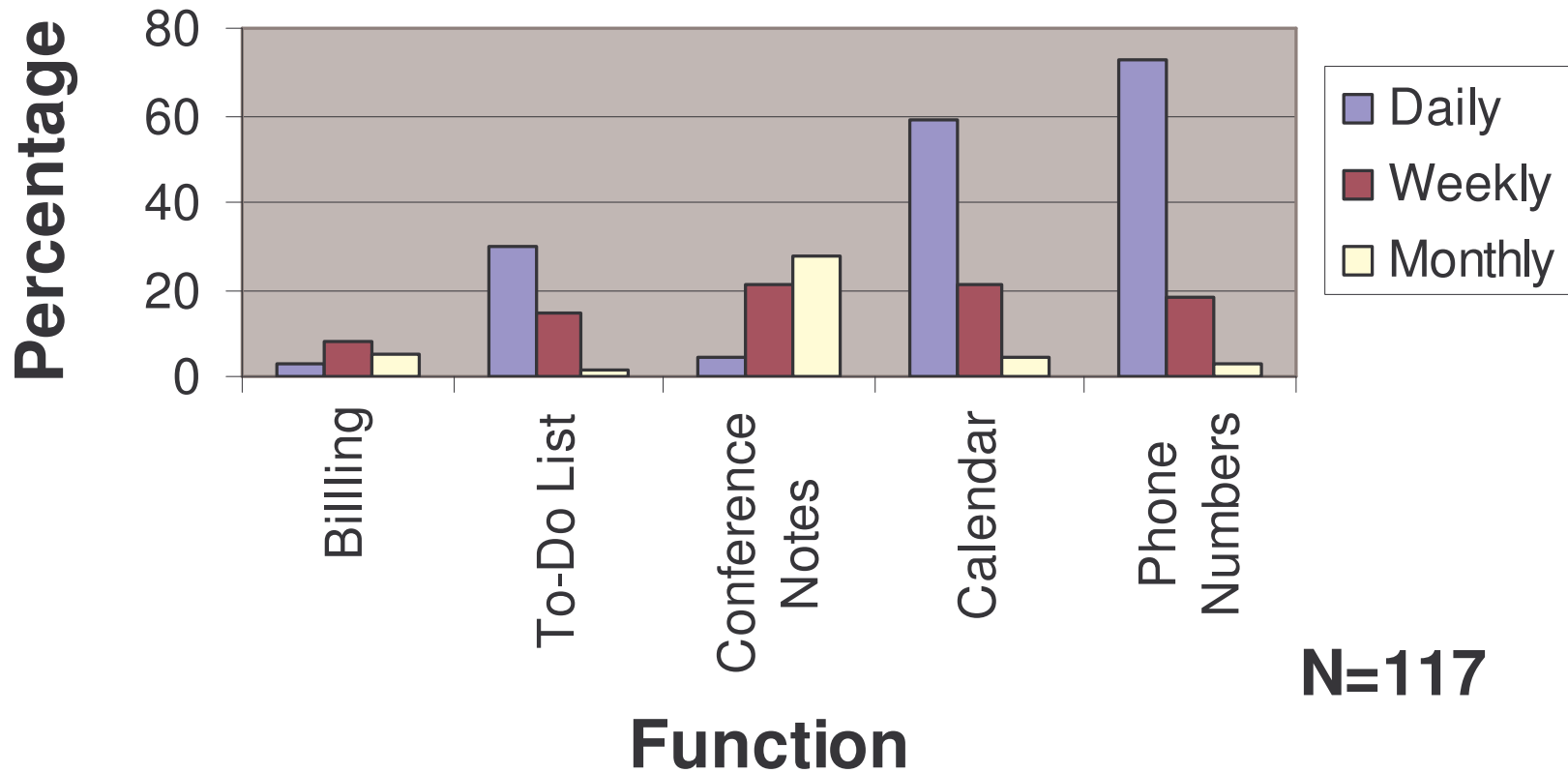
Participants were asked to indicate if they use particular resources on a daily, weekly or monthly basis. The frequency participants consulted non-PDA sources on a daily basis ranged from colleagues (73%), journals (44%), electronic books (42%), and teleconferences (14%) to drug representatives (9%). Books are still a healthy staple in the daily information diet of health and medical information professionals. Of the 100 respondents who addressed books, 60% were cited as using them daily. Surprisingly, only 53 out of 97 respondents (55%) reported daily use of the internet. (Participants could indicate use of more than one source.)

Preferred Information Sources- Other Than PDA's According to Age



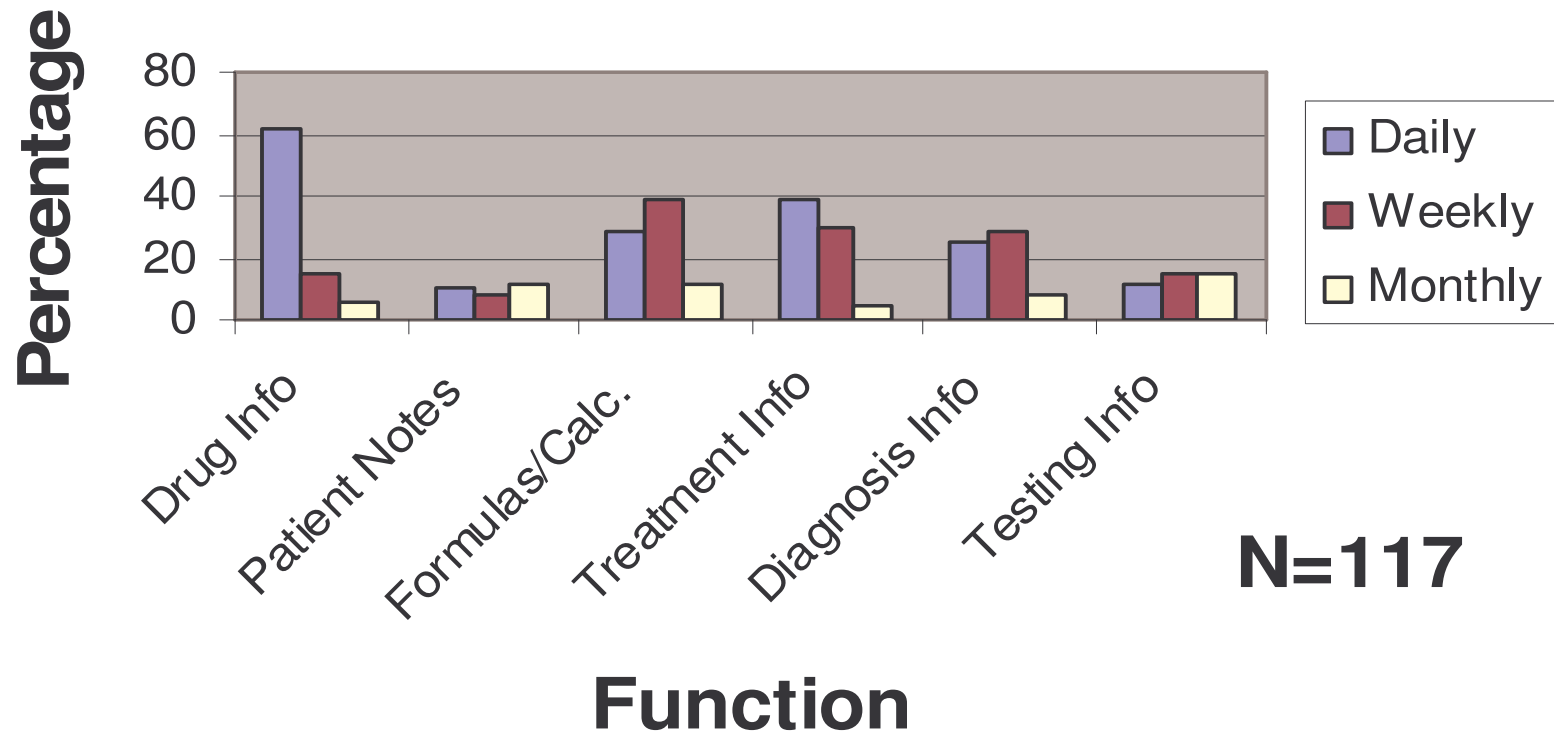
Almost all participants regardless of age chose online resources according to the surveys and interviews. Online resources was listed more frequently than library print materials in every age group except >65 which might substantiate increased library spending for online resources. However, this question did not address frequency of use or rank importance of resources.

Frequency of PDA Use for Non-Clinical Functions



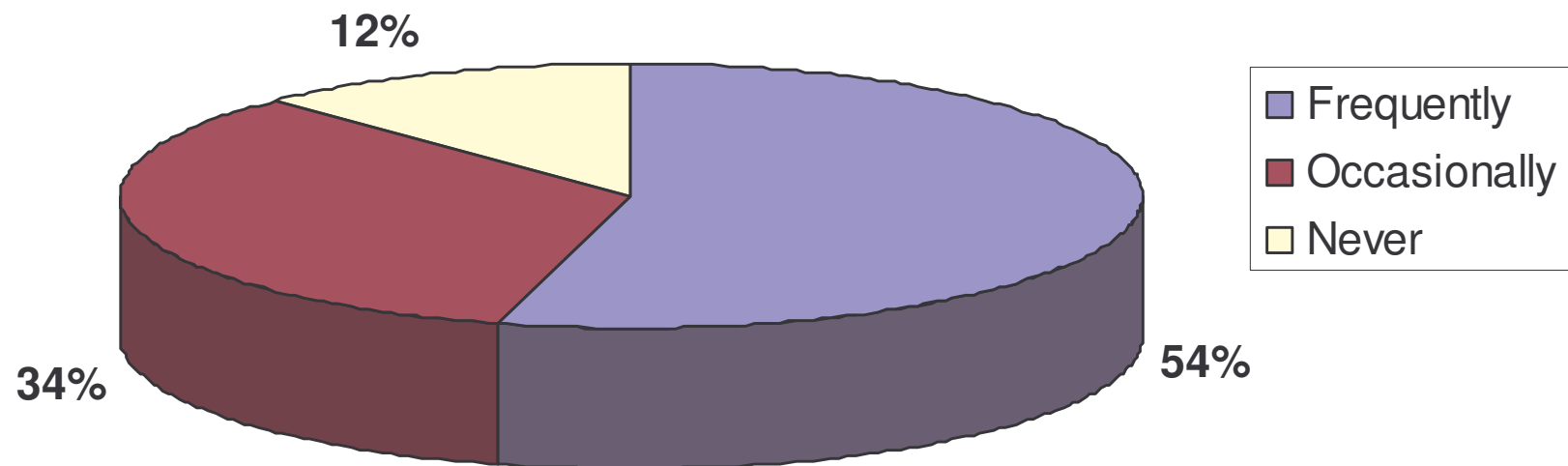
Non-clinical PDA application on a daily basis indicates the most use for calendar (59%), phone numbers (73%) and to-do lists (17%).

Frequency of PDA Use for Clinical Functions



Clinical use of the PDA shows the most daily usage of information on drugs (62%), treatments (38%), formula/calculations (29%), diagnosis (25%) and testing (11%). 68% of health and medical information professionals with PDAs are using them to look up drug or treatment information as well as formulas or diagnostic information on a regular basis. (All answers are expressed as a fraction (no. of answers/117.)

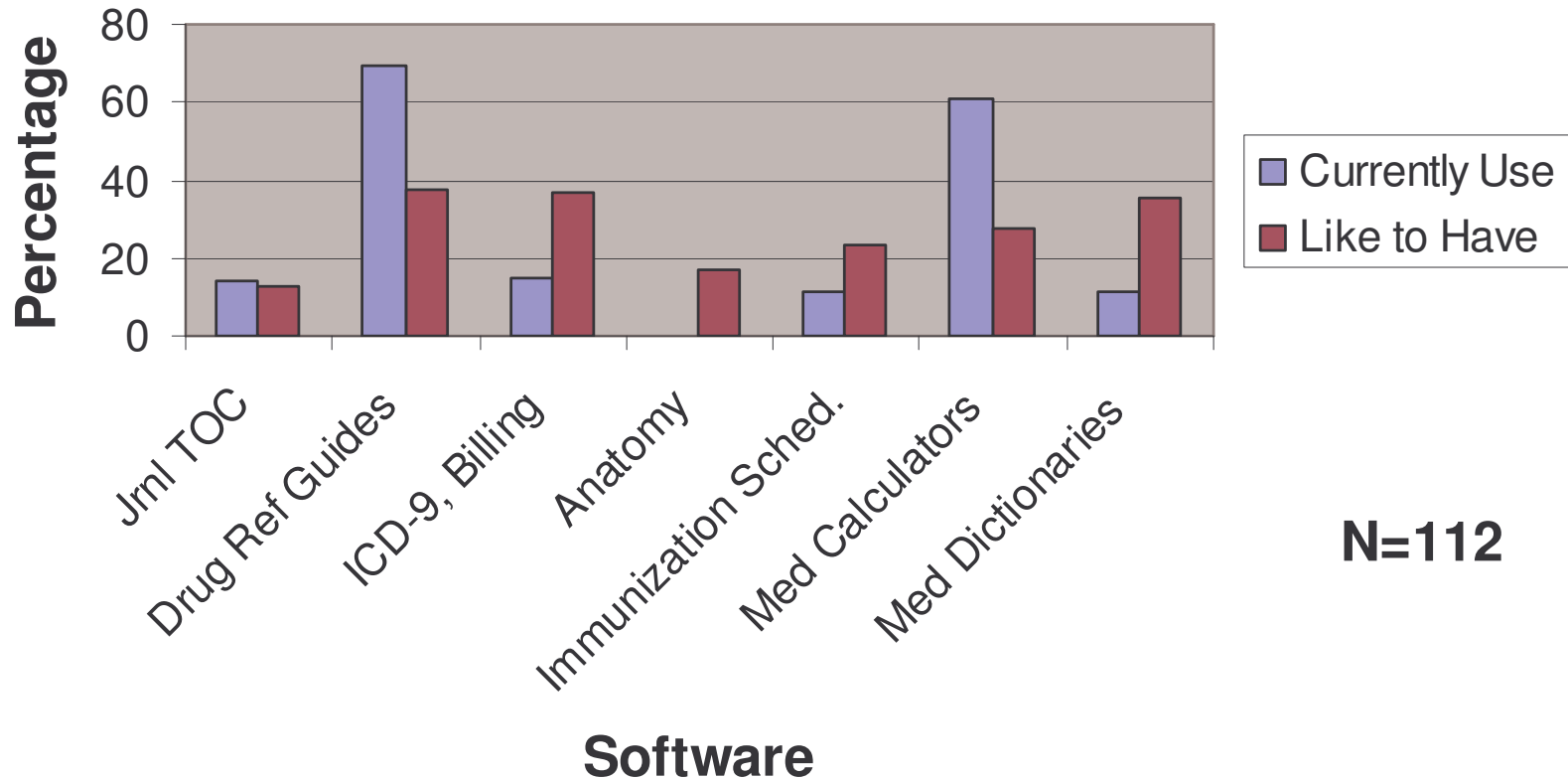
Frequency of Use of PDA's for Patient Encounters



N=122

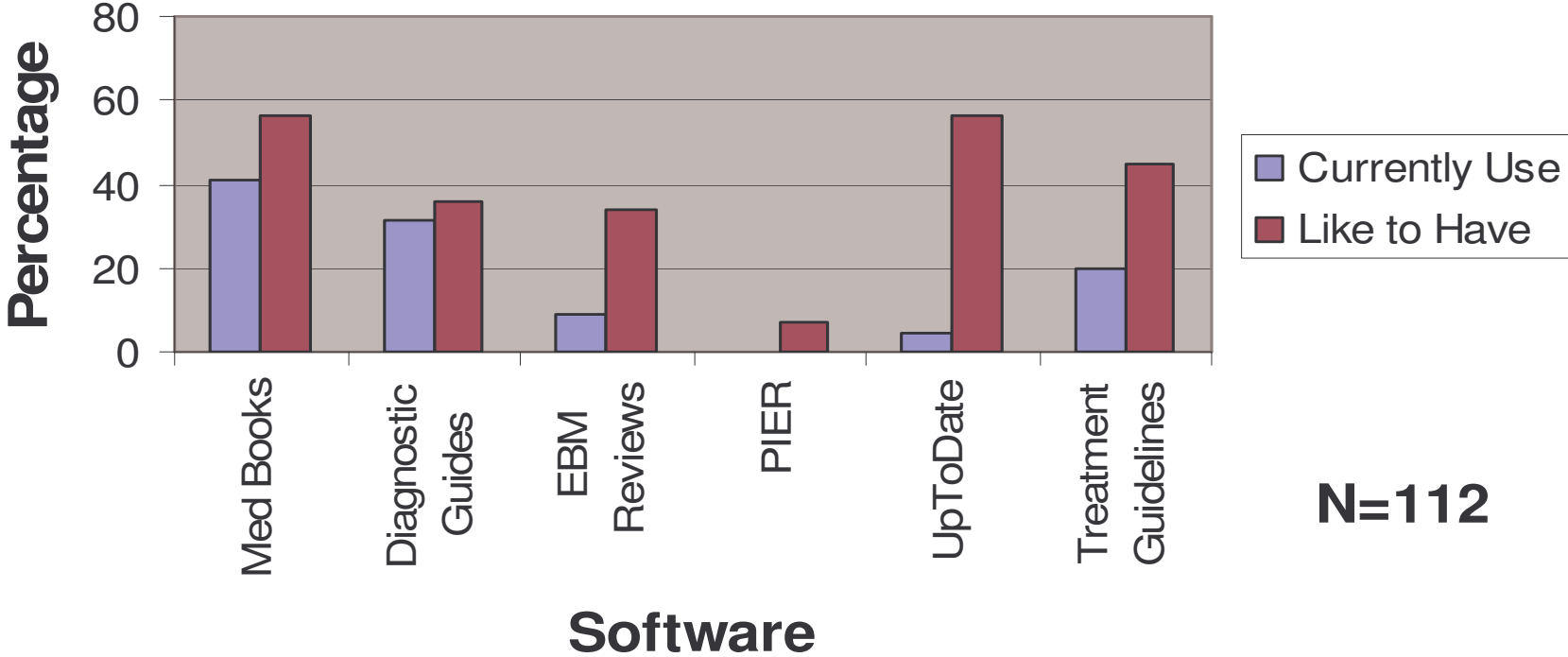
54% of health and medical information professionals (respondents) with PDAs are using PDA's frequently; 34% use PDA's occasionally and 12% never use the PDA.

PDA Software Use and Desired Software by Medical Community



Participants primarily use drug reference guides (70%), medical calculators (61%) and electronic medical books (41%). [More than one could be selected.]

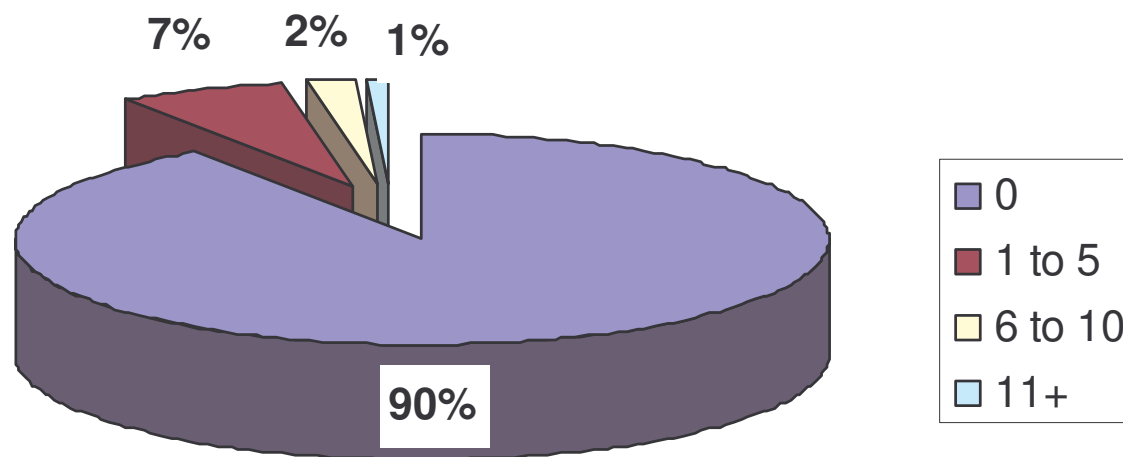
PDA Software Use and Desired Software by Medical Community



N=112

Participants primarily wish to have: electronic medical books (56%), Up-To-Date (56%), and treatment guidelines (45%). Most health care professionals use drug software which provides specific facts about care. They want full-text information. The data demonstrates a preference for materials that are full-text and synthesized such as Up-To-Date, medical books, and treatment guidelines rather than the references with journal table of contents. [More than one kind of software could be selected.] 11

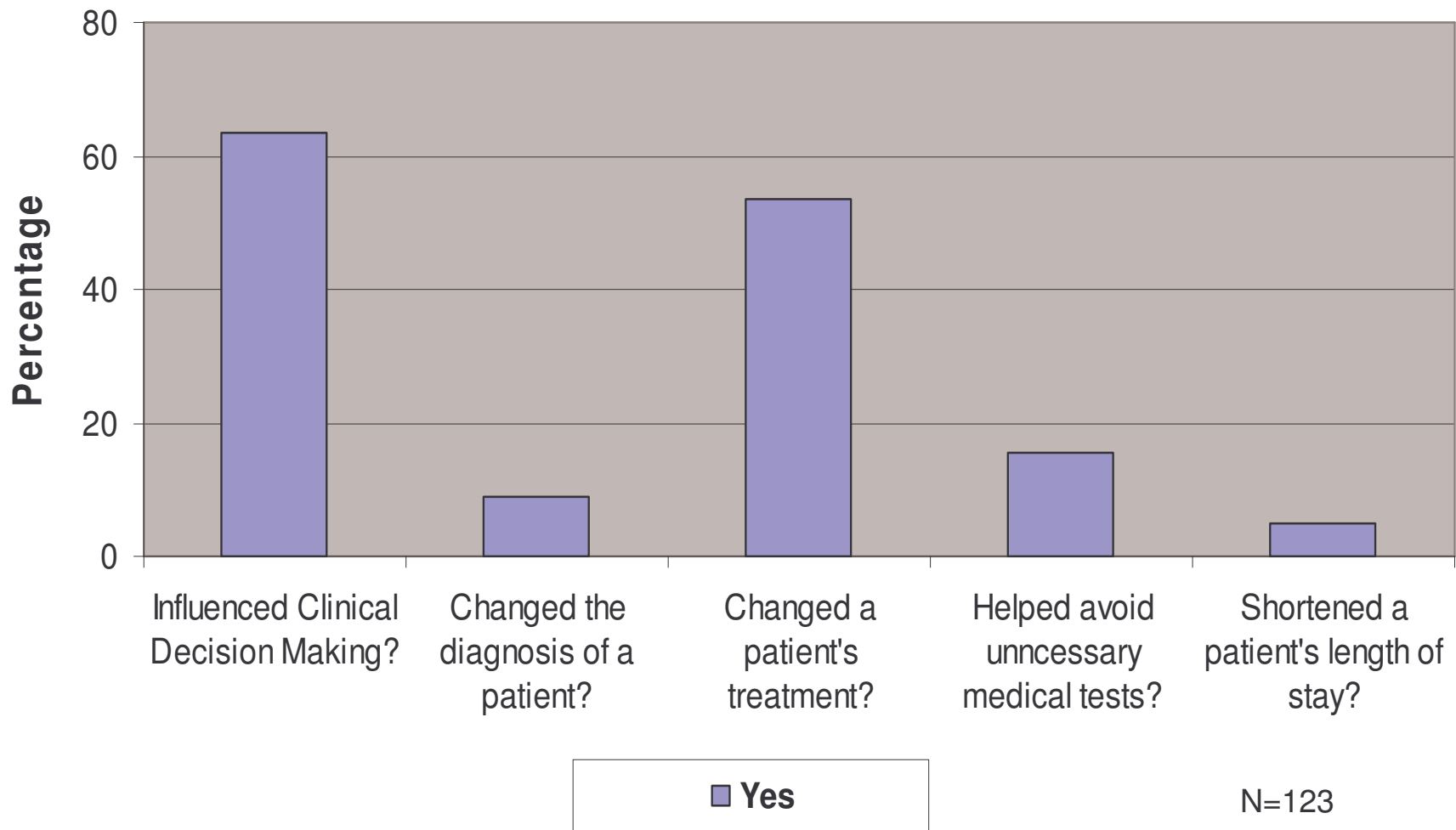
Number of Online Medical Searches Done Per Week on your PDA



90% of respondents report they are not searching. In interviews some said they didn't want to pay for wireless service.

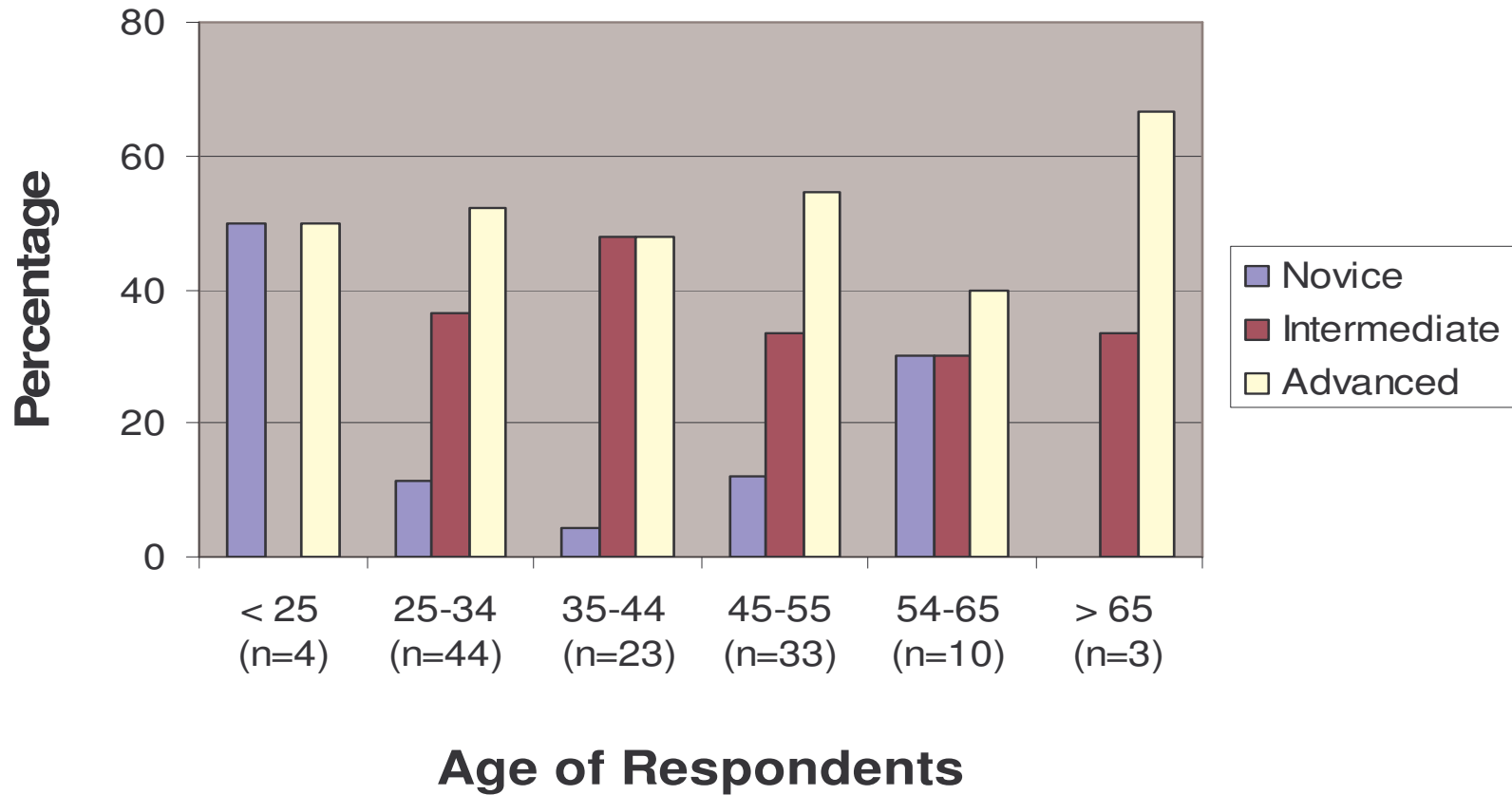
N=107

Influence of PDA's in Decision-Making



We did not include 8 librarians in this chart, all of which answered either n/a or left the question blank, due to their lack of involvement in direct patient care.

Self Perception of PDA Skills by age



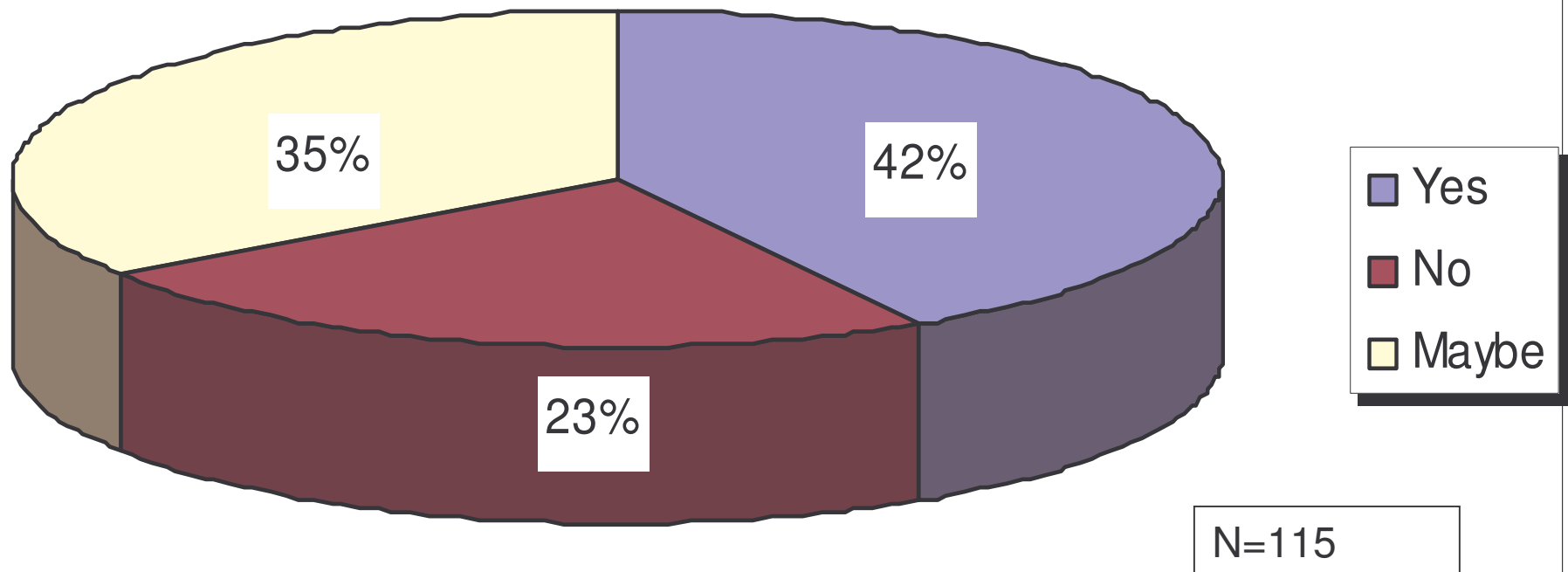
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Self Perception of PDA Skills by age

Participants rated their PDA skills according to the directions in the question,

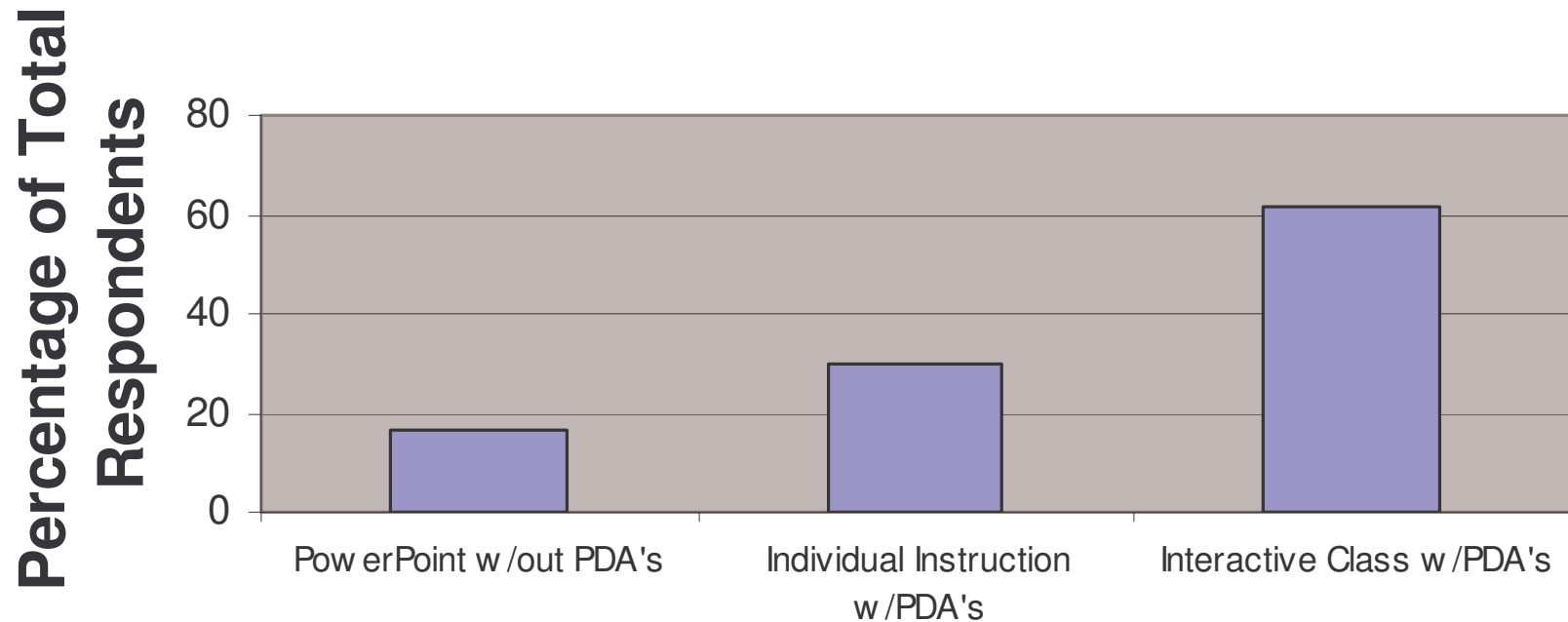
- Novice = use address book, calendar , to do lists;
- Intermediate = can perform the above, hotsync, and download software;
- Advanced = can perform all of the above, "beam data, and other PDA functions."
- This data is important when compared to other data , like PDA Software Use and Desired Software because there are many free programs available for download on the internet in their wish lists. If the majority know how to download software, why don't they already have these programs? Librarians may have a role in showing PDA users how and where to look for these resources

Willingness to attend a PDA Training session



Training sessions are or might be of interest to 77% which offers an opportunity for librarians to conduct classes.

PDA Training Format Preferred

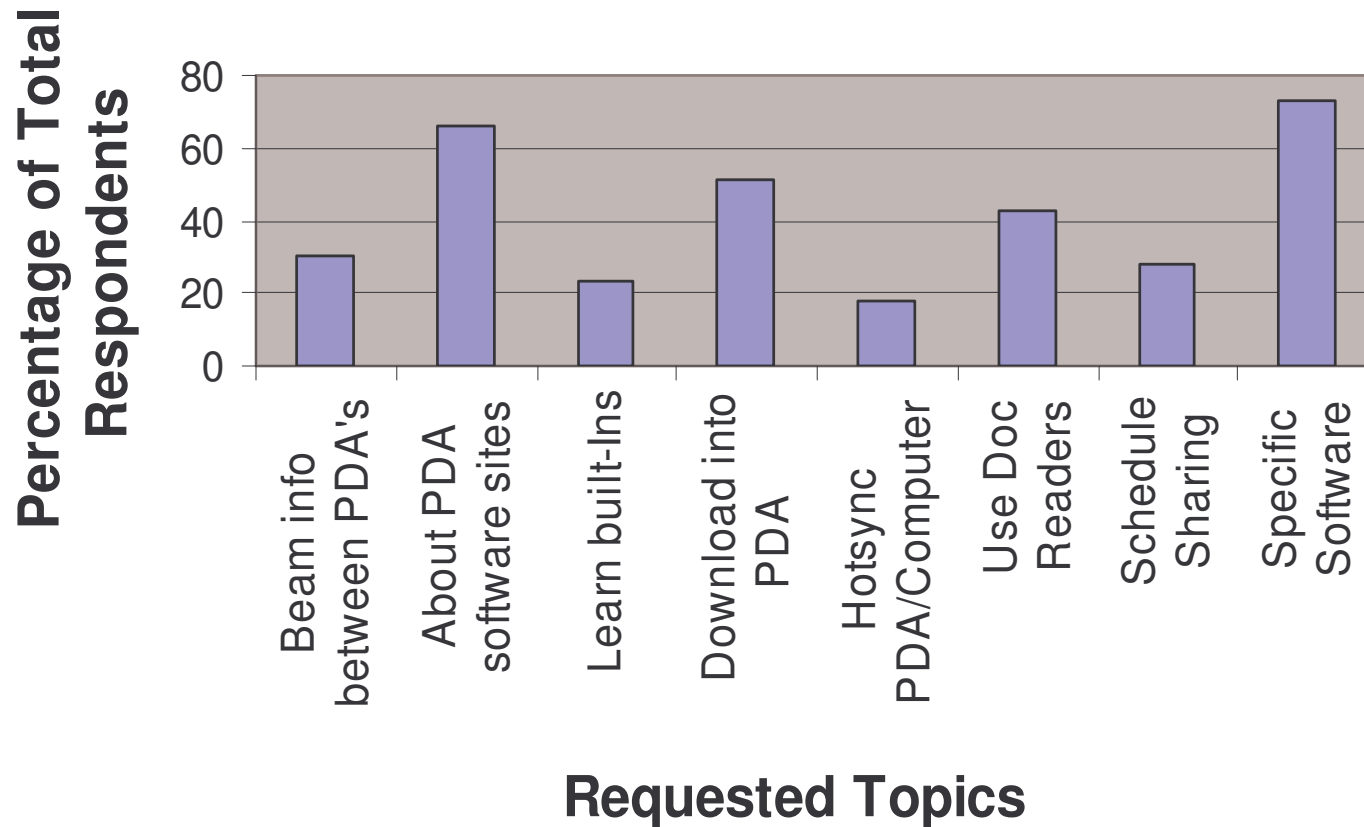


Preferred Format

N=97

- Many participants prefer an interactive class on PDA's (62%) with other health professionals that would have their PDA's in hand. In the interactive class, participants could, for example "beam" an address to another person in the class.
- Second choice is individual instruction (30%) with PDA in hand
- A power point presentation with no PDA (17%) was the least cited choice.
- Participants could indicate more than one choice.

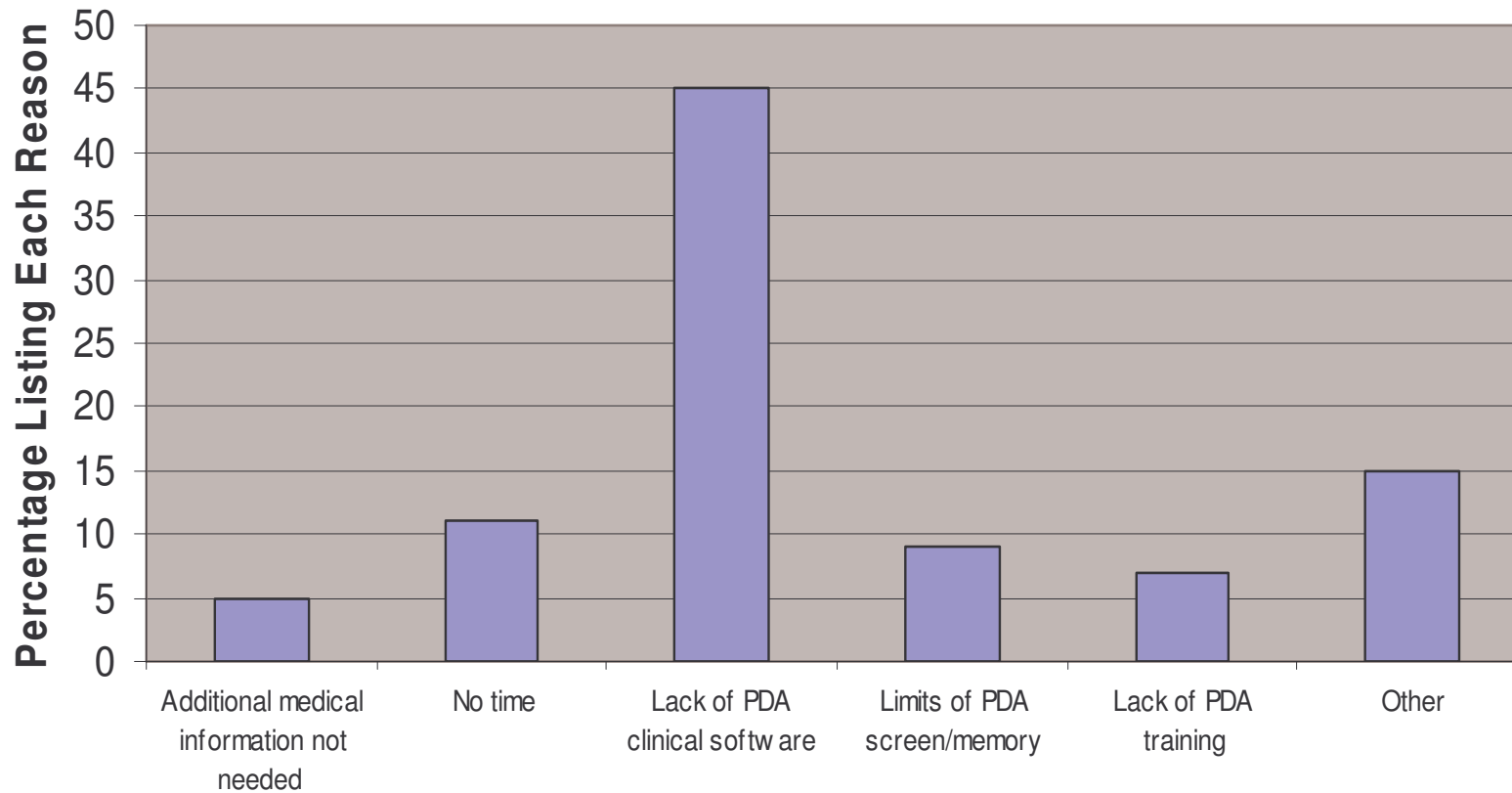
Topics for a PDA Training Session



N=86

The most popular topics for PDA training sessions cited by respondents who answered that question were specific software training, PDA software sites, and how to download information into a PDA. Interactive training with PDA in hand was preferred by respondents over static demonstrations. Librarians should assess their constituency's PDA training needs and preferences and tailor training sessions accordingly.

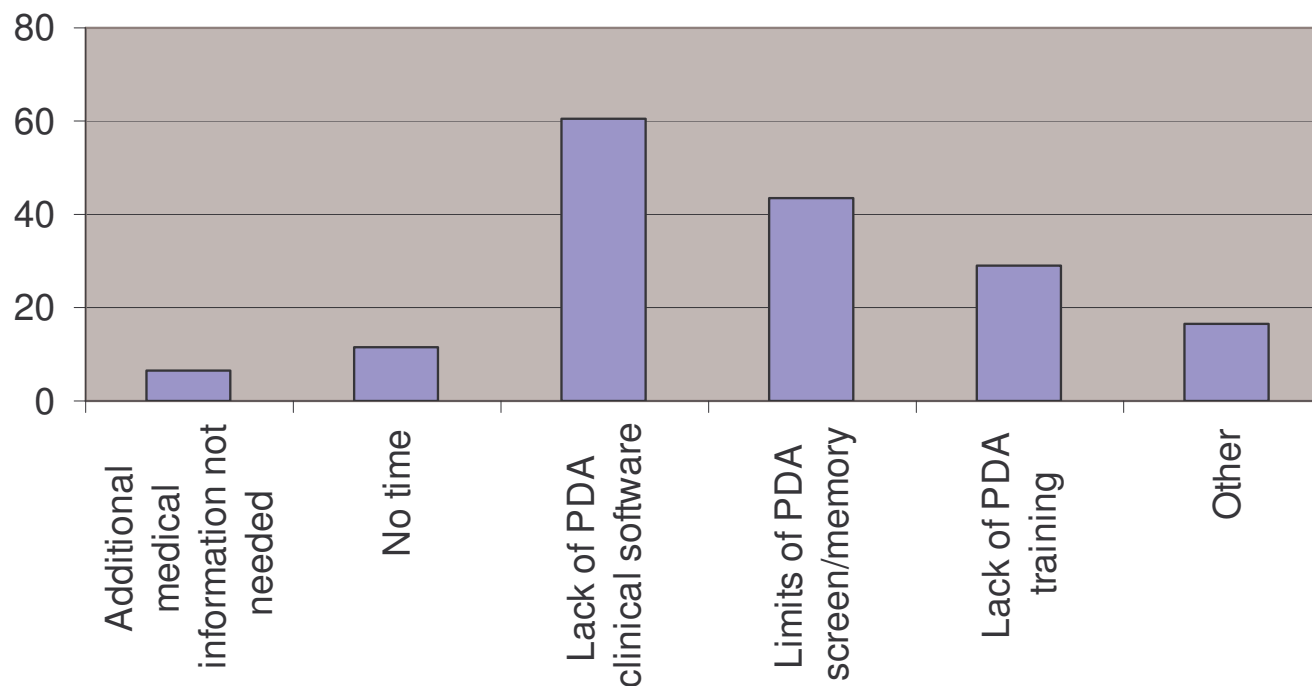
Deterrents to Using PDA's for Patient Care



Lack of software was cited as the most frequent barrier to PDA use.

Deterrents to Using PDA's for Patient Care

Percentage Listing Each Reason



Perceived Deterrents

N=104

Lack of software was cited as the most frequent barrier to PDA use. Limits of PDA Screen/memory was also indicated as a deterrent to PDA use.

Conclusion

- Health care and medical information professionals use a variety of information sources on a daily basis for work related purposes including colleagues, and print and online resources.
- Few physicians with PDAs are performing online searches.
- Although a majority of respondents claim that they can perform functions such as downloading software and hotsyncing, many requested programs that are freely available on the Internet. Librarians may have a role in showing PDA users how and where to look for these resources.
- Although 42% of respondents said they would attend a PDA Training session, an additional 35% said they would consider attending PDA training. The most popular topics for PDA Training sessions cited by respondents who answered that question were specific software training, PDA software sites, and how to download information into a PDA. Interactive training with PDA in hand was preferred by respondents over static demonstrations. Librarians should assess their constituency's PDA training needs and preferences and tailor training sessions accordingly.

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In Appreciation

The following librarians collected data for this study:

Amy Haugh, UPMC St. Margaret Memorial Hospital, Pittsburgh, PA

Nelle T. Williams, University of Alabama, Tuscaloosa, AL

Biddanda P. Ponnappa, East Tennessee State University, Johnson, City,
TN

Cynthia Vaughn, University of Tennessee, Knoxville, TN