Views of Cancer Patients and Lay Caregivers of Tablet Use

Glendenning, J.[1], Nardi, N.[2], Butler, A.[1], McCurry, T.[2], Perez, J.[1], Gill, A.[2], Miller, J.[1], Shea, R.[2], Murray, M.[1], Frank, K.[2], Yao, Y.[3, 4], Ezenwa, M.O.[3, 4], Wang, Z.W.[5], Molokie, R.E.[5, 6 ,7], Carrasco, J.[4], Shuey, D.[4], Angulo, V.[4], Suarez, M.L.[4], & Wilkie, D.J.[3, 4]

[1]JourneyCare, [2]Rainbow Hospice and Palliative Care, [3]University of Florida College of Nursing, [4]University of Illinois at Chicago College of Nursing, [5]University of Illinois at Chicago College of Pharmacy, [6]University of Illinois at Chicago College of Medicine, [7]Jesse Brown VA Medical Center

Problem

Tablet technologies offer new opportunities to bring the patient's and caregiver's voices into hospice and palliative care, but the acceptability of patients and caregivers using tablets as part of hospice care is not documented, especially for minorities.

Aim

To describe tablet interface acceptability reported by adult hospice cancer patients and their lay caregivers.

Methods

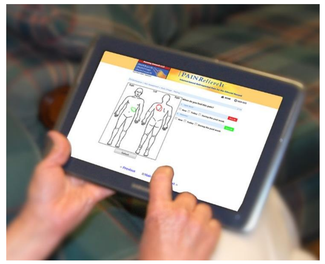
Design/Setting

Randomized clinical trial—baseline data

Homes of patients receiving care from two Chicago-area hospices

Measures

- Internet-enabled Samsung tablet with valid, reliable
- PAIN*Report*It®
  - Pain intensity now, least and worst in the past 24 hours, and average (API, 0-10)



- Symptom Distress Scale (SDS, 0-5)
- Computer Acceptability Scale (CAS, 0-9)

Data

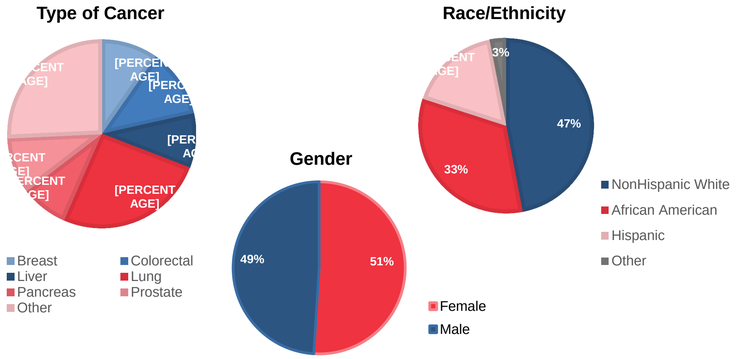
Written to a secure server, extracted from the SQL (structured query language) database, and analyzed with statistical software R.

Methods (cont)

Sample

Between April 2014 and August 2016: **3,516 patients** with cancer were referred, **1,053** were eligible, and for this study, **237 patients** and **235 caregivers** had completed baseline data.

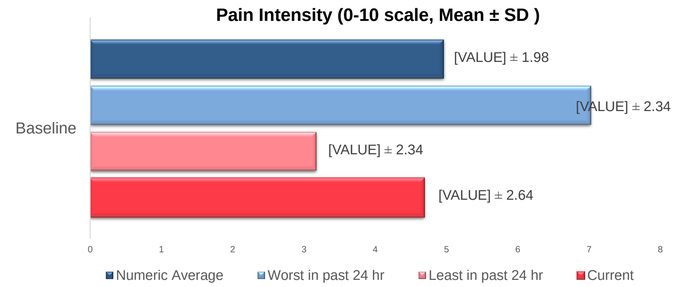
- Patients' mean age: 68.3 ± 14.2 (ranged 20-100 years)



- Caregivers mean age: 53.2 ± 15.0 years

Results

- Missing data were minimal (2.8%)



- Mean SDS score = 2.6 ± 0.6
- Mean CAS scores:
  Patients = 7.8 ± 01.3 Caregivers = 8.4 ± 1

Results (cont)

- Older patients ≥ 65 years (7.6 ± 1.3) reported significantly lower CAS scores than those younger (8.2 ± 1.2, p=.001).
- Similarly, older caregivers ≥ 65 years (8.15 ± 0.99) reported statistically significantly lower CAS scores than younger caregivers (8.52 ± 0.96, p = .016).

Percentage Response to each Item on the Computer Acceptability Scale (N=237)

Item	Response Option	% Selecting	
		Patients	Caregivers
Computer hard to use	No	52	80
	Somewhat	21	15
	Yes	28	4
Lighting	Ok	97	96
	No	3	4
Glare	Ok	91	93
	Too much	9	7
Color	Ok	98	98
	No	2	2
Understand instructions	Yes	95	98
	No	5	2
Touchscreen	Easy	88	91
	Not easy	12	9
Words easy to see	Yes	96	99
	No	4	1
Application should be available to all	Yes	94	96
	No	6	4

Conclusions

- Patients' worst pain and symptom distress were higher than desirable.
- Patients were older than caregivers and had more difficulty using the tablet than caregivers, but both groups reported high acceptability of the tablet-based data collection process.
- Findings point to the opportunity for improving the functionality of the tablet-based application.
- Additional usability research is warranted to improve the Android-based user interface for older adults.
- Overwhelmingly positive results support adoption of tablet technology in hospice care to improve cancer pain and symptom management.

Acknowledgements

Research reported in this poster was funded through a Patient-Centered Outcomes Research Institute (PCORI) Award (IH-1304-6553) and is solely the responsibility of the authors and does not necessarily represent the views of the PCORI, its Board of Governors or Methodology Committee.