

Comparing the efficacy of print versus media based patient education materials in peripheral nerve catheter education for caregivers

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Introduction:

- Orthopedic procedures are increasingly being performed in the outpatient setting, for which peripheral nerve catheters are often used to provide postoperative analgesia
- Outpatient procedures can place time constraints on clinicians to provide adequate education, leading to a rise in post-operative complications, return to hospital visits, recovery time, patient/caregiver anxiety, and **decreased patient satisfaction**
- A proposed solution is patient education materials (PEMs)

Aims, Hypotheses, and Significance:

- Primary Aim – assess the **efficacy** of print versus media based PEMs in providing patient/caregiver education for ambulatory peripheral nerve catheters
- Secondary Aims – determine which PEM mode elicits greater **preference, comfort, and satisfaction** among caregivers for home care of a peripheral nerve catheter
- Hypotheses – we hypothesize that the media PEM will lead to improvements in caregiver education, preference, comfort, and satisfaction compared to the print PEM
- Significance – the results of this **pilot study** will be used to power a more comprehensive study that will **standardize patient/caregiver education delivery** at Children's Hospital Colorado (CHCO)

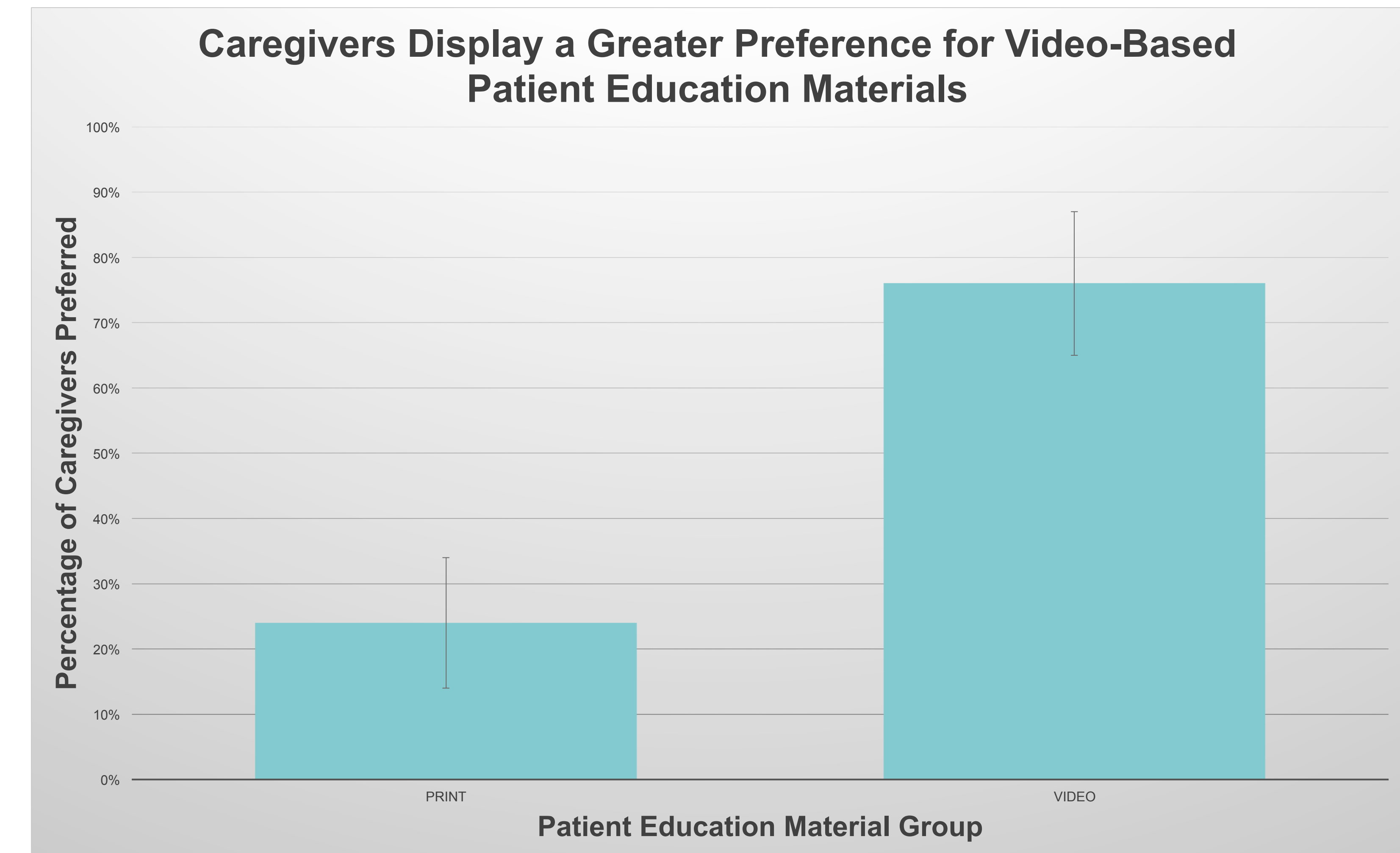
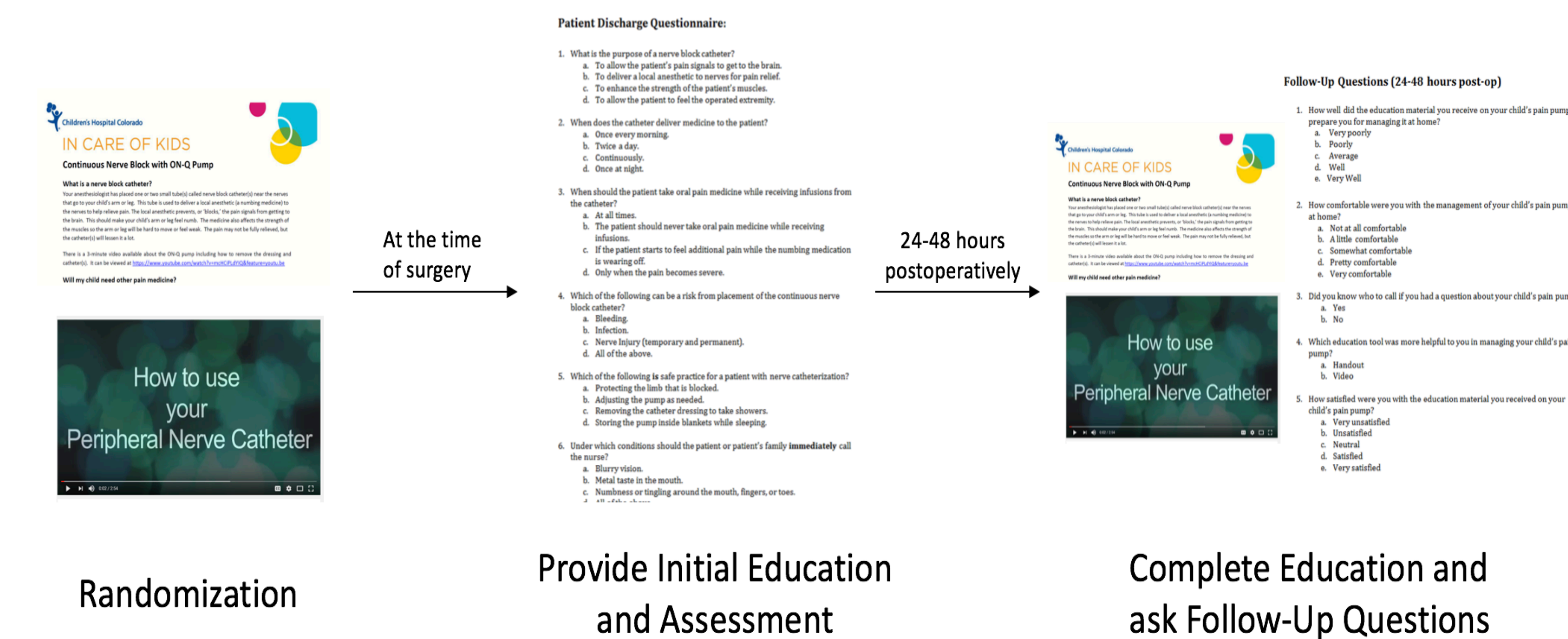


Figure 2. Preliminary results (n=29) regarding caregiver PEM preference. Caregivers were surveyed to record preference.

Methods:



- **Population:** This prospective randomized study includes **caregivers of pediatric patients** undergoing anterior cruciate ligament (ACL) reconstruction surgery performed by a single sports medicine orthopedics surgeon at CHCO
- **Procedure:** Caregivers were assigned to review a print-based or media-based PEM, both of which contained the same information regarding outpatient peripheral nerve catheter management and removal
- PEM efficacy was analyzed using a **standardized assessment** given to caregivers
- Caregiver PEM preference, comfort, and satisfaction was assessed through a **survey** given 24-48 hours postoperatively
- **Data Storage:** All data was recorded using the REDCap Database

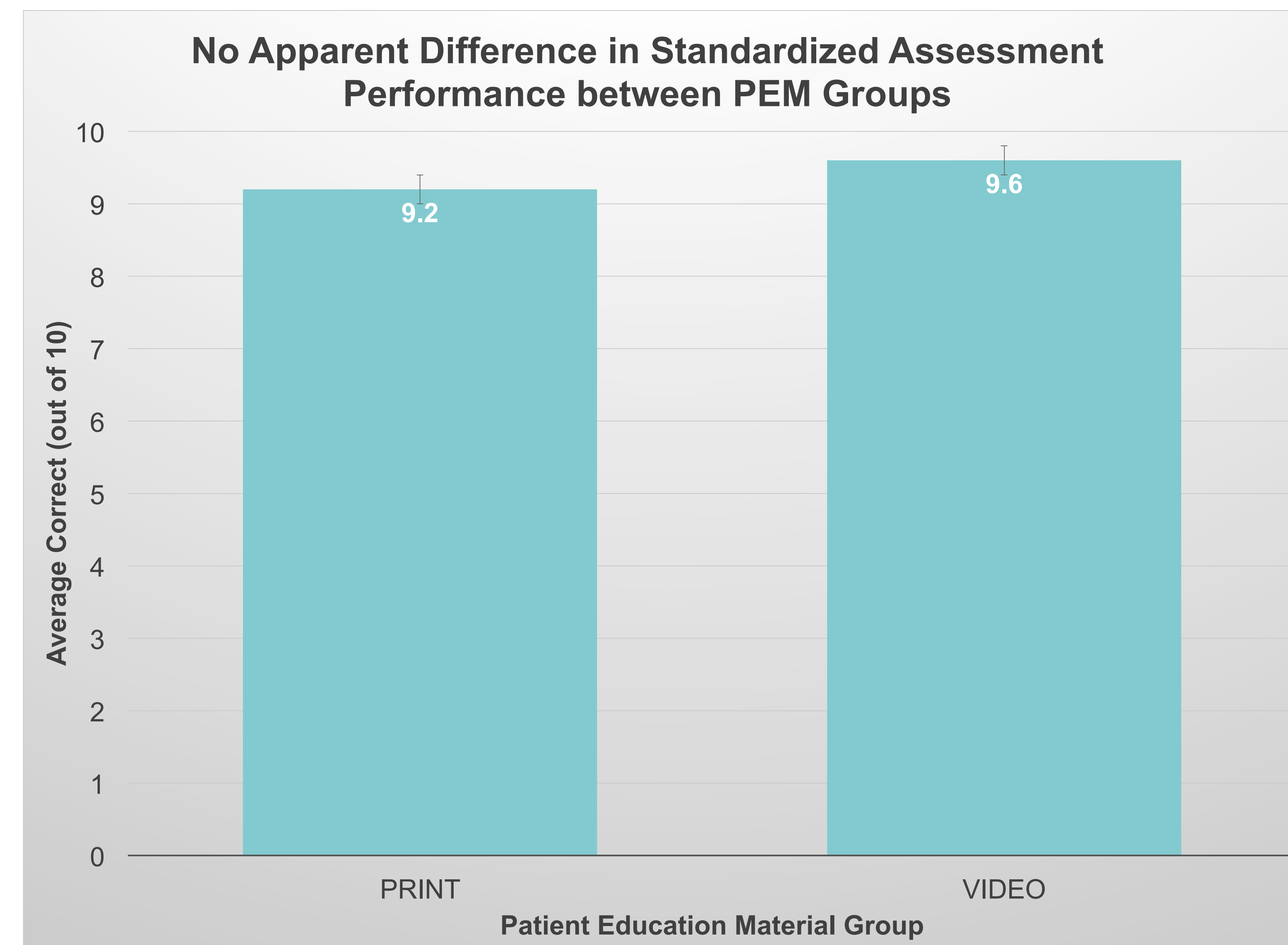


Figure 1. Preliminary results (n=29) of the standardized assessment given to caregivers following initial education. Caregivers were randomly assigned to a print-based (n=14) or media-based (n=15) PEM. The mean number of questions correct (out of 10) was calculated for each group.

Conclusions and Implications:

- **Pilot study data suggest PEM mode does not affect** caregiver performance on standardized assessment
- Caregivers exhibit a **strong preference for the media-based PEM**
- The effect of PEM mode on caregiver comfort and satisfaction needs further investigation
- The findings of this study might be generalizable to other types of caregiver education, but would require further study

Future Directions:

- Complete the collection of pilot data (n=30)
- Use pilot data to power a larger, randomized study
- **Implement changes to standardize current patient/caregiver education practices at Children's Hospital Colorado!**

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