

The Effect of Infection Prevention and Control (IPC) Education on Patient and Family Knowledge

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BACKGROUND

- Healthcare associated infections (HAI) are a significant cause of morbidity and mortality in Canada¹
- Hand hygiene (HH) is effective & cost efficient in preventing the spread of HAI²
- HH compliance is low among healthcare workers, patients and visitors³
- Education improves HH compliance in healthcare workers (HCW)⁴, however little research has been done about educating patients and visitors
- Volunteers for Infection Prevention (VIP) program at the Alberta Children's Hospital (ACH) aims to educate patients and visitors about IPC and HH

OBJECTIVES

- Assess the baseline knowledge of patients and their family members about IPC and HH
- Investigate if an education session is effective in improving patient and family knowledge of IPC and HH in a pediatric setting
- Evaluate the effectiveness of the VIP program at the ACH

METHODOLOGY

- IPC questionnaire and HH assessment tool developed in consultation with the IPC team and Patient and Family Centred Care Network at the ACH
- Ethics approval received from the Conjoint Health Research Ethics Board of the University of Calgary
- Inclusion Criteria:
 - Patients age 9 to 17 years admitted to inpatient wards (units 1-4) at the ACH
 - Family members of patients <9 years old
- Exclusion Criteria:
 - Patients admitted to critical care or mental health units
 - Patients and family members who did not speak English

Figure 1: Data Collection Procedure

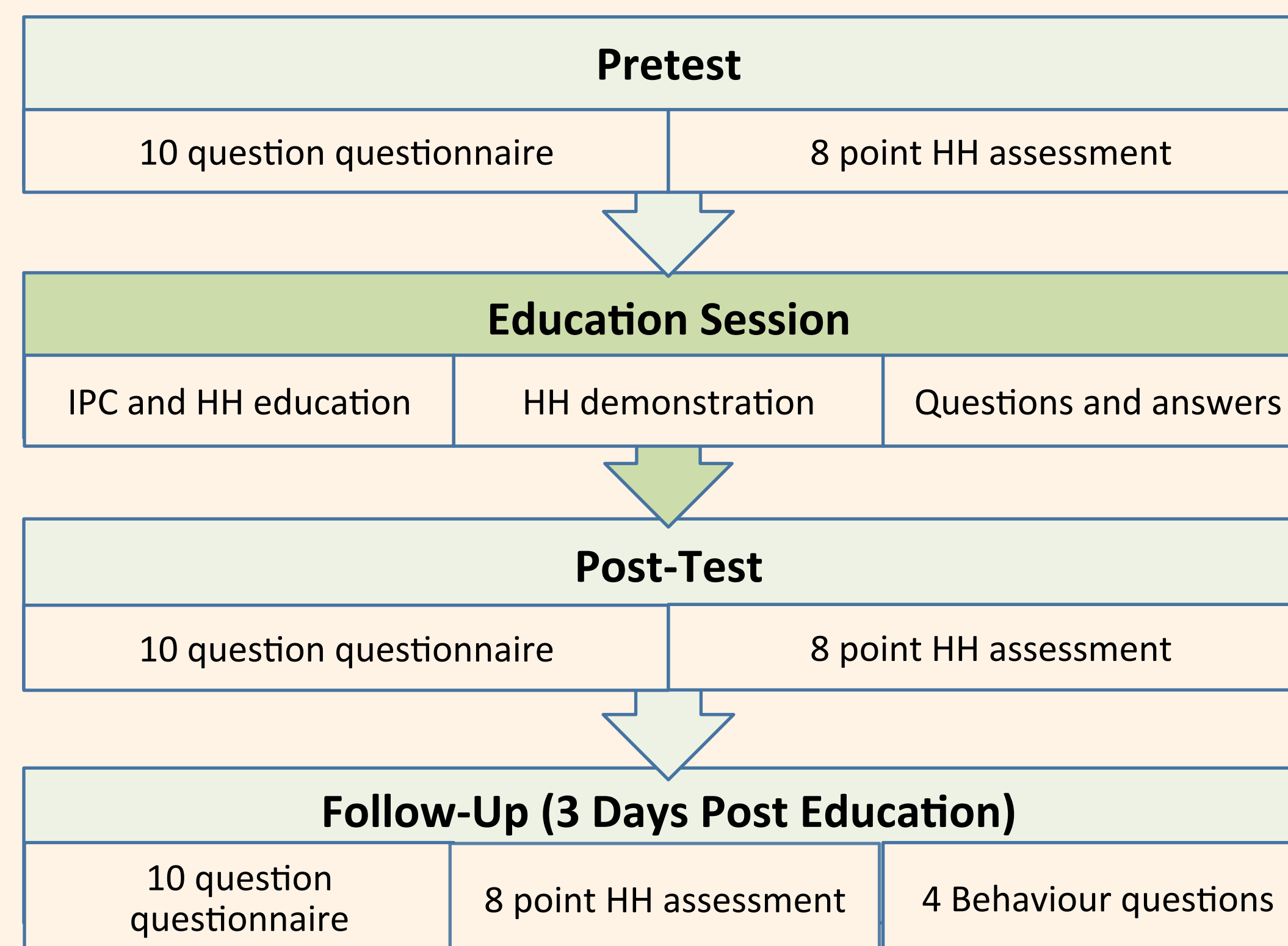
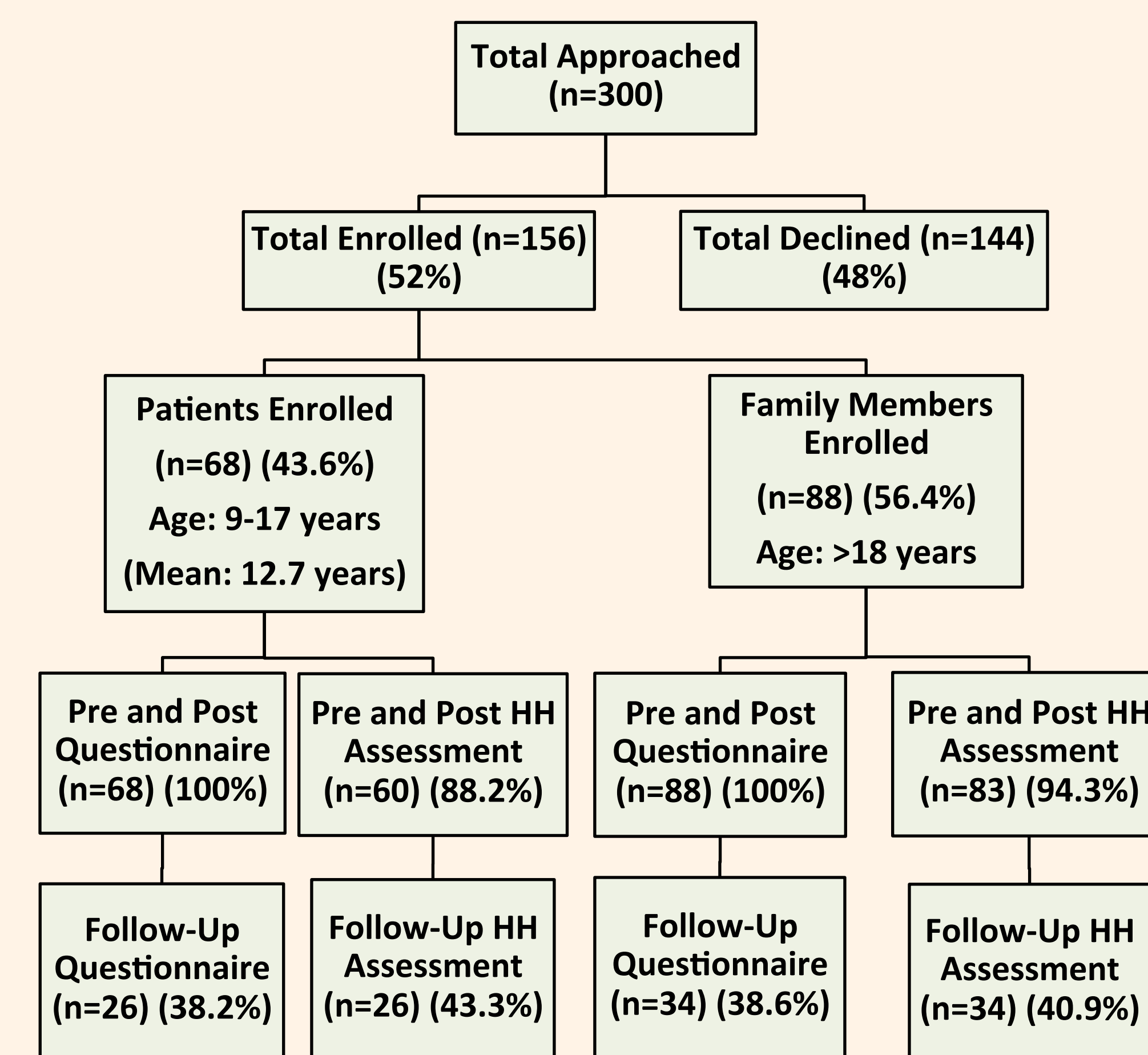


Figure 2: Enrolment Summary from June 29-July 31, 2015



RESULTS

Table 1: Baseline IPC Questionnaire Results

Question	Correct Response
Use of alcohol based hand rub (ABHR) in young children	20.5%
Best method to kill germs (Soap/Water vs ABHR)	37.2%
Contact time for using ABHR	38.5%
Need for HH before putting on gloves	53.9%
Need for ABHR after soap/water	74.4%
Can Cousin Visit: Headache, muscle aches, sprained ankle	75.0%
Can Aunt Visit: Vomiting, diarrhea, feels better today	84.0%
Can Friend Visit: cough, fever, rash	85.9%
Reminding HCW about HH	91.0%
Can Grandpa Visit: Cough, fever, runny nose	94.2%

Table 2: Baseline HH Assessment Results

Proper Technique	Correct Responses
Fingertips and Underneath the Nails	10.5%
Wrists	17.5%
Thumbs	21.7%
Adequate Time Applying ABHR	42.7%
Interdigital Spaces	83.2%
Appropriate Volume of ABHR	88.8%
Backs of Hands	93.0%
Palms	100%

Figure 3: Change in IPC Knowledge

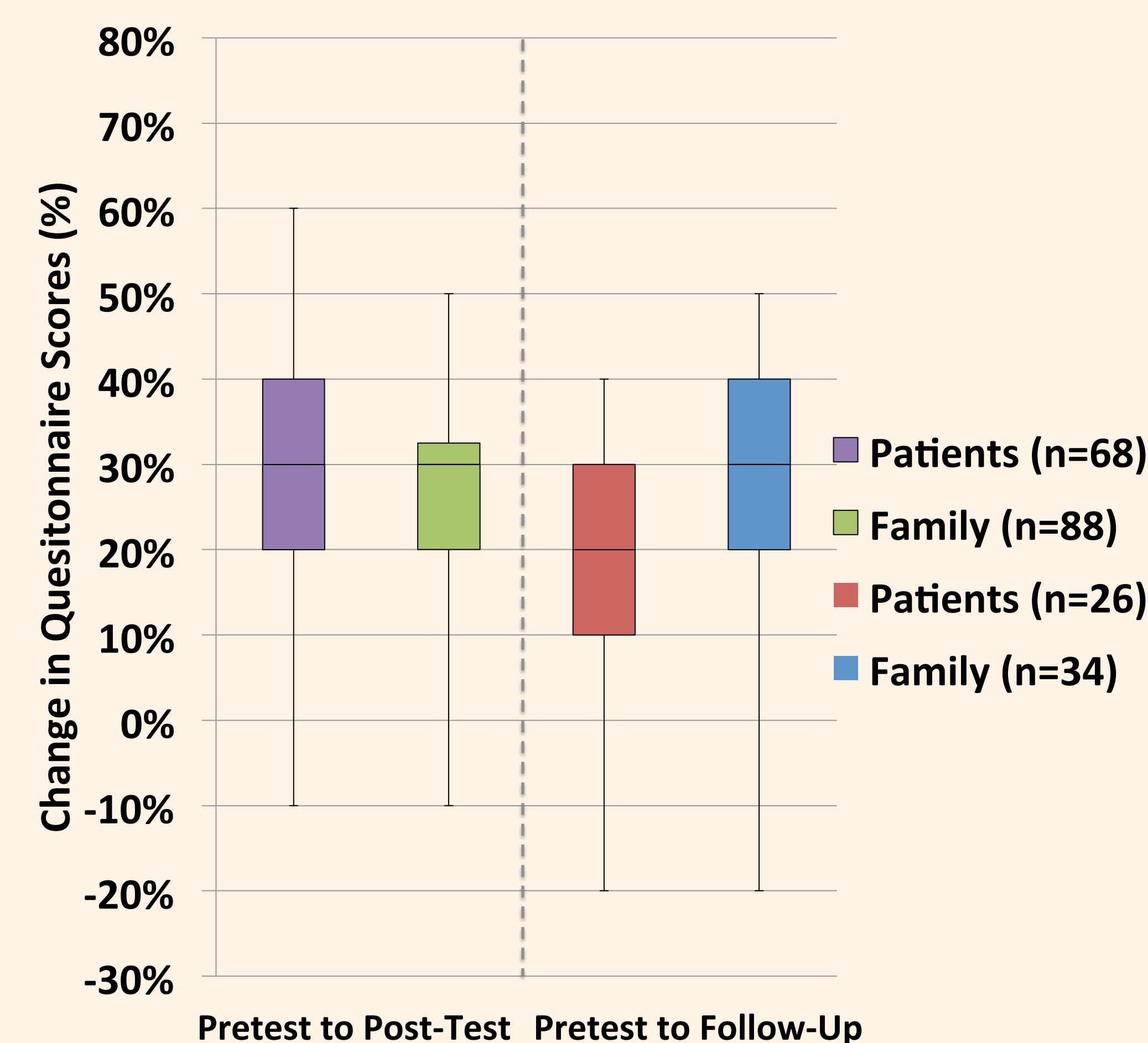


Figure 4: Change in HH Performance

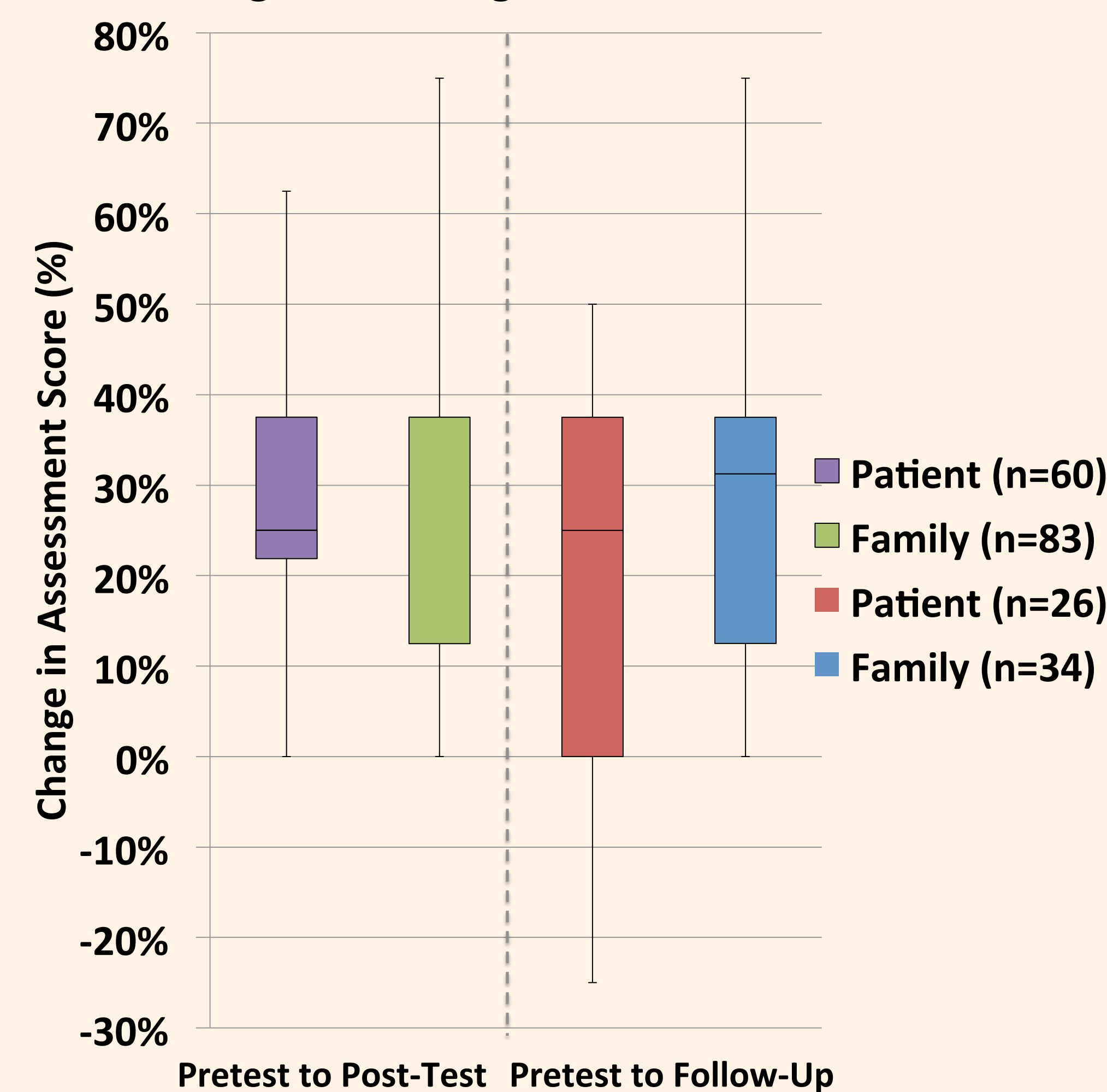
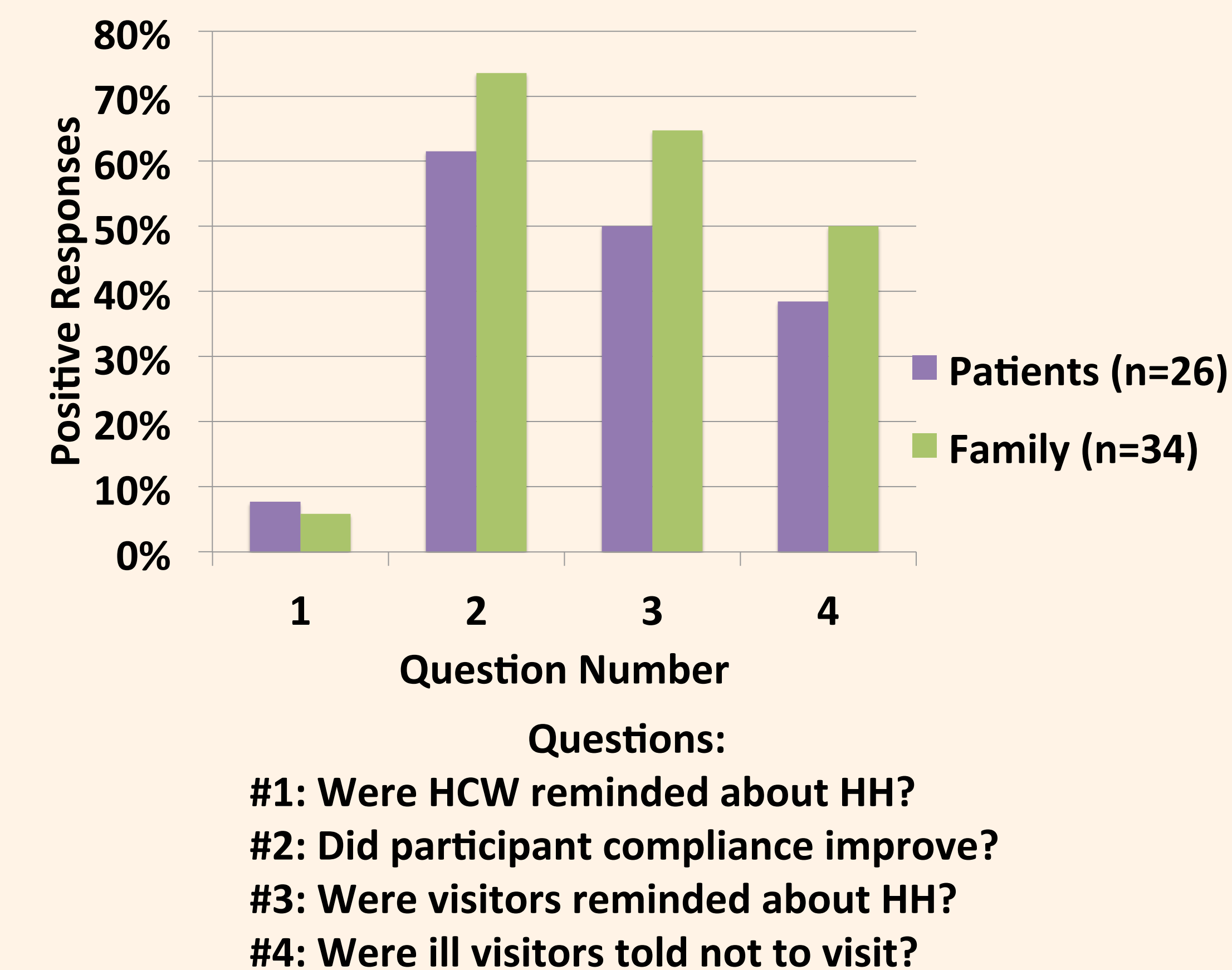


Figure 5: Responses to Follow-Up Behaviour Questions



LIMITATIONS

- Short follow-up period
- Study participation and results may have been affected by stress or increased attentiveness because of awareness of post-test
- Small sample size

CONCLUSION

- Education sessions and HH demonstrations provided by a volunteer were effective in improving short-term IPC knowledge and HH performance for patients and family members at the ACH

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