

# Using Patient Photographs to Improve Handoff Communication and Patient-Centered Care

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## Using Patient Photographs to Improve Handoff Communication and Patient-Centered Care

**BACKGROUND:** Safe and effective handoffs have become a national safety priority. We hypothesized that patient photos could serve as a novel tool to improve handoff communication and patient-centered care.

**AIM:** To explore whether patient photos used during simulated handoffs with pediatric residents improves information retention, medical decision-making, and patient engagement, compared to simulated handoffs without patient photos.

**METHODS:** We conducted a prospective mixed-methods study using audio-recorded simulated handoff sessions with pediatric residents at Johns Hopkins (2017-18). One investigator simulated two verbal handoff sessions consisting of 8 fictional cases (16 total) with each participant who were randomized to receive stock patient photos during either the first or second session. Primary outcomes included recall of medical details, and efficiency of medical decision-making (measured by time to response). These outcomes were compared between sessions with and without patient photos. After both handoffs sessions, participants were interviewed to assess how the photos impacted handoff communication and patient engagement. Interviews were transcribed, analyzed using grounded theory in ATLAS.ti, and coded by two investigators. Discrepancies were resolved by consensus.

**RESULTS:** Forty pediatric residents participated (20 received patient photos in the first session, 20 received photos in the second session). After randomization, demographic characteristics were well balanced between groups. There were no statistically significant differences in the number of correct responses and time to response when comparing sessions *with* and without photos. All participants (100%) identified benefits to using patient photos, while 75% identified challenges. Benefits included 1) assisting memory, 2) enhancing humanism, 3) visualizing patient physical traits, and 4) improving patient safety. Challenges included 1) visually distracting, 2) bias/discrimination, 3) photos not being accurate/up to date. Real-life experiences related to incorporating patient photos into charts were described by 98% of participants.

**CONCLUSION:** In this simulated pilot handoff study, patient photos did not result in improved immediate information retention or efficiency of medical decision-making. Pediatric residents identified benefits and challenges with incorporating patient photos in handoffs. Future studies to refine handoff communication strategies that incorporate patient photos may result in improved patient outcomes.