Partnering for Success! Occupational Therapy, Industrial Design, & Medicine: Creating Innovative Solutions

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Introduction

The seven overarching principles of *universal design* guide creation of the product to be as inclusive of the human experience as possible [1, 2].

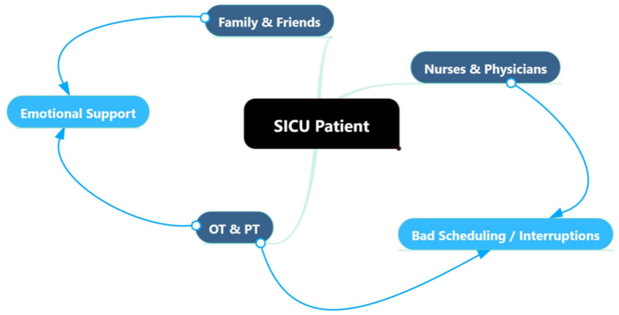
- *Equitable Use*
- *Flexibility in Use*
- *Simple and Intuitive*
- *Perceptible Information*
- *Tolerance for Error*
- *Low Physical Effort*
- *Size and Space [5]*

Occupational Therapy (OT) is **rooted in creativity and design.** Occupational therapists (OTs) are skilled in observation, are specialized in analysis of human client factors, and are focused on client centered holistic care.

These assets, combined with **innovative and creative abilities,** allow OTs to take part in the design process by adapting our client's environment and tasks to meet their occupational needs and promote participation [3].

Interprofessional Design Course Overview

Systems Map: *Thomas Jefferson University Hospital Surgical ICU*



"…If not us, who will understand the full occupational needs of people with disability and help them adapt their technology and their environments to optimize their function and quality of life…" [4]

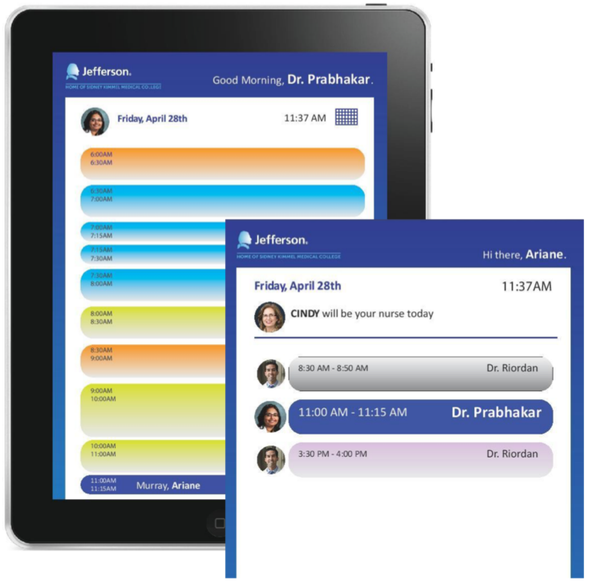
Student Projects

1.

1. The Patient Dashboard aims to increase one's autonomy in the hospital setting by giving the patient control over their environment. It features facial recognition, an information screen, voice activation, and controls for the television, temperature, lighting, and sound.

2.The Worker and Inpatient Scheduler for Hospitals (WISH) aims to improve patient satisfaction, decrease stressors in the hospital setting, and maximize coordination of services to reduce hospital spending and improve care.

2.



3.

3. PXP is a patient transport system designed with user-friendly interface and streamlined design to allow effective communication among all participants and speed patient pick-up and drop-off.

Lessons Learned

Building on the knowledge from their OT curricula, students recognize their **potential for solving larger healthcare problems** outside of the traditional OT realm.

As the healthcare environment shifts towards a **client satisfaction - cost effective model,** it is crucial that OTs develop the tools for working on teams that improve design application within the healthcare environment.

OT programs are encouraged to incorporate design thinking and interprofessional collaboration with professions outside of the traditional medical model to better prepare students for future practice.

Student Reflection and Future Implications

We recognize the opportunity to practice our emerging skills of teamwork, leadership, and facilitation within the design group, and to come up with effective solutions to difficult challenges.

In a world driven by technology, OTs can influence the way in which technology is created to be better accessible for our clients.

OT has a significant role in design in the hospital setting, in the community, and in the home to promote adaptations that take into consideration the person as a whole.

References and Credits

Ainsworth & De Jonge (2014) [1]; Amiri, Wagenfeld, & Reynolds (2017) [2]; Liu (2014) [3]; Smith (2017, p.7) [4]; Story (2001) [5]. *Please see handout for full citation.*

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