

## Undergraduate Research Symposium May 18, 2018 Mary Gates Hall

### Online Proceedings

---

#### POSTER SESSION 1

Commons West, Easel 12

11:00 AM to 1:00 PM

##### **Developing an Instrument to Assess Clinical Stability and Predictability within Nurse Delegation**

*Jordan Daniel Hardman, Fifth Year, Nursing*

*Howard Hughes Scholar, Mary Gates Scholar, UW*

*Honors Program*

*Mentor: Barbara Cochrane, Family and Child Nursing*

Under Washington State law, nurse delegation is a process in which a registered nurse, known as a nurse delegator, provides training and management for delegated care tasks to be performed by long-term care workers (LTCWs) within in-home or community-based care settings. State law requires that clients who receive care through nurse delegation must be in a stable and predictable condition (SPC). In our previous study, we determined that nurse delegators need more specific criteria than the definition in Washington State law to assess SPC. The purpose of this project is to provide additional clarification to the determination of SPC by developing an instrument for nurse delegators to use for comprehensive assessment of SPC and describing the instrument's utility and applicability. Methods to reach those goals included: 1) reviewing published literature and policy reviews of federal and state-by-state laws on potential alternative definitions for SPC; 2) consultation with nurse delegation content experts (two Washington State Nurse Delegation Program Managers and a nurse researcher, whose work helped establish state regulations for nurse delegation in Washington State) regarding the clinical applicability of a SPC assessment instrument; 3) development of the instrument based on relevant clinical evaluation guidelines and instruments content expert feedback; and 4) collection and analysis (via phone interviews and qualitative content analysis, respectively) of feedback from nurse delegators on the utility and applicability of the developed instrument. We hypothesize that nurse delegators will view the instrument as a useful clinical resource for determining SPC within the nurse delegation process. The results of this study can be used to implement the instrument independently or in conjunction with other evaluation methods, as standardized practice to assess SPC and effectively meet this state requirement for clients to receive care under nurse delegation.

#### POSTER SESSION 1

Commons West, Easel 11

11:00 AM to 1:00 PM

##### **Evaluating Competency in Insulin Administration Under Nurse Delegation**

*Nona Joyce Lynn Hunter, Senior, Nursing*

*UW Honors Program*

*Mentor: Barbara Cochrane, Family and Child Nursing*

Insulin is a medication that requires training, safety, and care in administration due to potential serious outcomes if administered incorrectly. Under Washington State Law, long-term care workers (LTCW) are permitted to administer insulin in community-based and in-home care settings with the oversight of a nurse delegator, a registered nurse who is responsible for the nursing care of a client and supervises an unlicensed person to perform selected tasks for that client. The current model of training for LTCWs lacks a standardized method to assess their competency in administering insulin. The purpose of this research study is to explore methods of assessment to inform the development of a standardized, comprehensive tool for evaluating competency in insulin administration. The aims of this study are to determine the utility and feasibility of this tool. I developed the "Insulin Delegation: Competency Evaluation Tool" by researching methods of training and evaluation and through student-mentor collaboration. The tool incorporates entrustment scores, reflection, and competency-based education. Prior to testing, the tool was reviewed by content experts, including Washington State Nurse Delegation Program Managers and a nurse researcher who helped develop and evaluate nurse delegation regulations in Washington State. The tool was tested in the field by nurse delegators contracted with the Department of Social and Health Services to assess delegated LTCW competency of insulin administration. After that testing period, feedback on the utility and feasibility of the tool was obtained by an online survey with Likert-type scale and free-text items. I expect to find that the tool is effective in assessing competency in insulin administration and applicable to the workflow of nurse delegators. This tool has potential use as a standard resource for nurse delegation training and an ongoing safety and quality measure in community-based and in-home care practice.

---

## SESSION 1C

---

### BLURRED REALITIES, ETHICAL QUESTIONS AND MEDIA CRITIQUES

*Session Moderator: Barbara Miller, Art History, Western  
Washington University*

**MGH 171**

*12:30 PM to 2:15 PM*

\* Note: Titles in order of presentation.

#### **Light Artists: A Potential Solution to *The Ecstasy of Communication***

*Gabrielle (Gabby) Cagley, Senior, Art History, Western  
Washington University*

*Mentor: Barbara Miller, Art History, Western Washington  
University, Western Washington University*

In *The Ecstasy of Communication*, Jean Baudrillard states that the invention of television and internet radically changed the perception of reality. As Baudrillard puts it, we no longer exist in three-dimensional space with clear boundaries separating one another. Reality is now a two dimensional plane, a flat reflective surface, within which boundaries have collapsed and the most intimate parts of our lives are exposed. This is what Baudrillard categorizes as obscene, an oversaturation of information and the all too visible. Many artists address similar concerns in their artistic practices. For example, through his unnerving puppet works and the series, *Eyes*, Tony Oursler explores surveillance. Blatantly exposing the increasing lack of privacy in current society, he highlights the realities of Baudrillard's claims. I contrast artists James Turrell and Olafur Eliasson to Oursler in their use of technology, showing the illuminating nature of electronic communication. Eliasson's *Din blinde passager* and Turrell's *Ganzfeld*, enhance the physical realm through light and color. Reinforcing a three-dimensional awareness, Eliasson and Turrell offer a solution to Baudrillard's obscenity. In comparing these artists, I show technology's ability to critique our society of increased surveillance through self-awareness, as well as demonstrate the potential positive relationships that technology can foster between individuals.

---

## SESSION 1C

---

### BLURRED REALITIES, ETHICAL QUESTIONS AND MEDIA CRITIQUES

*Session Moderator: Barbara Miller, Art History, Western  
Washington University*

**MGH 171**

*12:30 PM to 2:15 PM*

\* Note: Titles in order of presentation.

#### **Mishka Henner & Google Street View: Modern Surveillance Through New Media Art**

*Joshua (Josh) Hughes, Junior, Art History, English, Western  
Washington University*

*Mentor: Barbara Miller, Art History, Western Washington  
University, Western Washington University*

Google Street View operates as a global surveillance system. While it periodically gets updated, GSV constantly remains a tool available for any and all individuals with access to the internet. This means that even though photo quality increases, the scope of the database widens, and its various applications multiply. Over the last decade, various new media artists have explored the possibilities that come with GSV's all-encompassing database of images. Artist Mishka Henner has "appropriated" stills from GSV. Turning temporary on-line data into physical art, Henner subverts the notion that surveillance systems only serve as momentary fragments of information. In his series "No Man's Land", Henner documents roadside prostitutes captured by the GSV camera in rural Italy. His cropped images engage with the notion that as a public surveillance system, GSV captures bits of everyday life and turns them into data. In framing stills from GSV as aesthetic works of photography, Henner toys with concepts of privacy, detachment, and most importantly, modern surveillance. In this project, I explore the ways in which Henner uses Google Street View as a tool to make a commentary on the database system. Focusing on the globalization of public surveillance, Henner addresses worldwide issues of privacy in the internet age. His photography makes us think about the permanence of online data in an ever expanding information system. He suggests that through GSV we become data coded in 0s and 1s, forever part of the database.

---

## SESSION 2G

---

### ART HISTORY THROUGH THE AGES

*Session Moderator: Julia Sapin, Art History, Western  
Washington University*

**MGH 248**

*3:30 PM to 5:15 PM*

\* Note: Titles in order of presentation.

#### **Psychedelic Art: From Mucha to the 1960s to Now**

*Jacob Knight, Senior, Art History, Western Washington  
University*

*Mentor: Barbara Miller, Art History, Western Washington  
University, Western Washington University*

Throughout the 20th century, Alphonse Mucha's *Job Cigarette Poster* (1896) remained a touchstone for artists across disciplines. His highly influential poster, with its trademark sinuous lines, densely patterned surface and suggestive gestures, unsurprisingly became an inspiration for mid-

century graphic artists — specifically the psychedelic and comic art of the 1960s. Within the LSD and hippie drug culture, numerous artists revisited Mucha's depiction and expanded on his sensuous representation. For this project, I look at the psychedelic comic and poster art of notables such as Victor Moscoso, Stanley Mouse, Wes Wilson, Martin Sharp, and Robert Crumb. I identify the degree to which Mucha's work remains palpably present. For example, Mouse's hauntingly visceral lines, Moscoso's highly patterned surfaces, and Crumb's flippant poses reinterpret Mucha's Job Cigarette Poster. Over the subsequent decades, Art Nouveau inspired psychedelic art has only intensified. Recently resurfaced in psychedelic realism, Alex Grey, Cameron Gray, and Tokio Aoyama use influences of psychedelic art to create works of spiritual actualization. In this paper, I look at a century in which a distinct style of representation shifts. From the marketing of cigarettes (no less), to the characterization of counterculture and drug paraphernalia, to the representation of sensuous and spiritual interpretation.

## POSTER SESSION 3

Commons West, Easel 20

2:30 PM to 4:00 PM

### **Testing a Protein Degradation System for Use during *Drosophila melanogaster* Spermiogenesis**

*Adriana Perez Solorio, Senior, Biology (Physiology)*

*Mary Gates Scholar*

*Mentor: Barbara Wakimoto, Biology*

The acrosome is a sperm-specific organelle required for the fertilization of the ovum in most animals. However, the molecules required for its formation during development are largely unknown. Toward identifying the function of candidate proteins, we are testing a system known as deGradFP in *Drosophila melanogaster* which targets fluorescently-tagged fusion proteins for degradation. This system depends on the ubiquitin-tagged proteasomal degradation pathway. Currently, we are testing whether this system works at different stages of spermatogenesis by targeting Yellow Fluorescent Protein (YFP) tagged *Rabs*, a small GTPase required for vesicular trafficking. Our preliminary results suggest successful targeting of the YFP-tagged *Rab6*. We are currently testing additional YFP-tagged *Rabs*, as well as sperm-specific proteins. The results should reveal whether the proteasomal pathway is working in all stages of spermatogenesis and aid in the understanding of proteins required in the acrosome biosynthesis pathway. Overall, our findings will expand our knowledge of sperm formation and function.