

## HIV and Contact Tracing: Impact of a Virtual Patient Simulation Activity

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# Today's Objectives



The learner will be able to:

1. Discuss stigma and its negative impact in caring for people with HIV.
2. Explore an innovative strategy to reduce stigma with HIV using a virtual patient simulation scenario.
3. Analyze clinical significance of providing nursing students interaction with virtual patients representing vulnerable groups.

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## Problem:

**People living with HIV face significant stigma in society and in the healthcare system**



### Individual provider behaviors

- Gossip
- Excessive or differential precautions
- Poor support
- Breaches of confidentiality

### System Level processes

- Delay in identifying undiagnosed people
- Poor quality care
- Unnecessary referrals based on patient's sero-status
- Negligence related to care

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## Background



- Over 1 million persons living with HIV in US (CDC, 2021)
- Stigma negatively impacts their experience and efforts to end HIV as a global epidemic-fear of recrimination
- *Who can change this?* Nurses represent largest occupational group of healthcare providers in the world (WHO, 2017)
- Training regarding HIV stigma lowers stigmatizing attitudes (Feyissa, et al., 2019; Stringer, 2016)

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## What is Stigma?



- A devaluation attribute that diminishes one's social status
- Manifests as:
  - Prejudice
  - Discrimination
  - Stereotyping

Wagner, et al., 2014; Wu, et al., 2018

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## Study Aim



- Determine the effect of a virtual patient simulation scenario developed specifically for nursing students on attitudes and beliefs about providing care for a patient living with HIV
- IRB approval granted

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## Virtual Patient Simulation Learning Activity




- 52-year-old Vietnamese-American man being diagnosed with HIV in the clinic setting
- Opportunity to assess and care for a patient they may not encounter during their clinical education
- Served to supplement clinical hours due to limited clinical site availability

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# Instrument



## Health Care Provider HIV/AIDS Stigma Scale (HPASS)

- 30 item assessment using 6-point Likert Scale
  - 3 subscales
    - Prejudice
    - Stereotyping
    - Discrimination
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- All aligned with Earnshaw & Chaudoir's HIV Stigma Framework (2009)
- Psychometric properties: Cronbach's alpha .940

Wagner, et al., 2014

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# Method



- Pretest-posttest non-equivalent groups design
- Alchemer (formerly SurveyGizmo) survey software
- Consent with opt-out choice
- 30 HPASS questions
- One additional demographic question regarding ethnicity to assess participant diversity
- Sample
  - 2 cohorts (treatment group and control group) of junior level nursing students at a state honors college; 62 students

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# Data Collection



- **Treatment Group**
  - Pretest
  - Class lecture “Caring for Patients with HIV/AIDS”
  - Completed virtual patient simulation: *HIV Diagnosis with Contact Tracing*® during following week; posttest attached
- **Control Group**
  - Pretest
  - Class lecture “Caring for Patients with HIV/AIDS”
  - Posttest immediately after class
  - Completed virtual patient simulation: *HIV Diagnosis with Contact Tracing*® 1 week later

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# Analysis



- R statistical Package
- Summary statistics calculated at individual item, subscale, and total score levels
- One-way ANCOVA for total scale and each subscale
- Assumptions of linearity, homogeneity of regression slopes, and normality of residuals

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# Results



- 39 students (63%) completed pretest

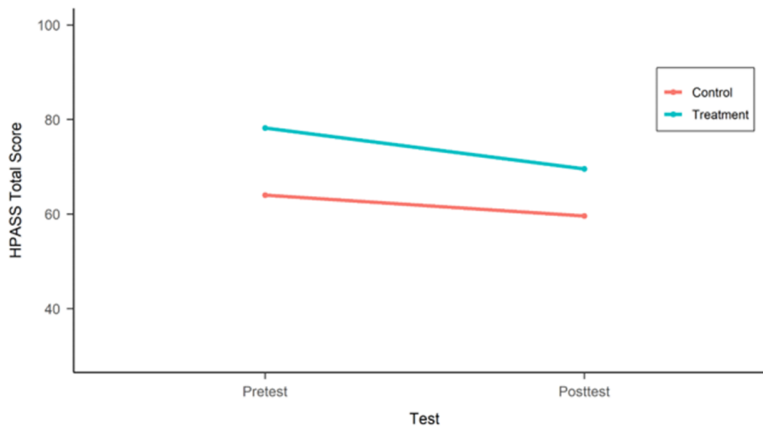
## Treatment Group

- 16 of 30 students (53%) completed posttest
- 75% reporting as White or Caucasian; 25% as other

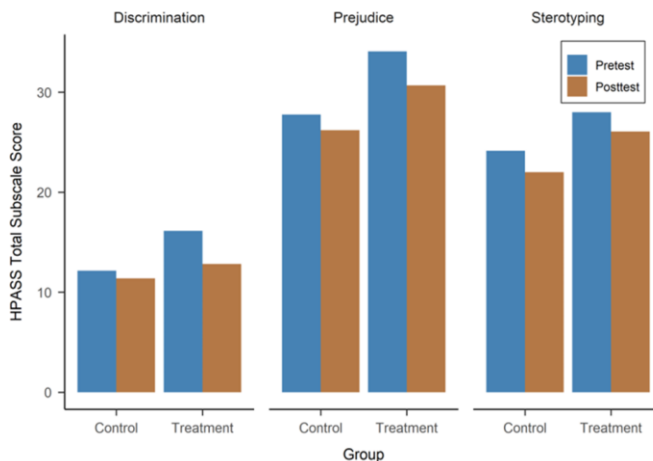
## Control Group

- 16 of 32 students (50%) completed posttest
- 69% reporting as White or Caucasian; 31% as other

# HPASS Pretest and Posttest Total Score



# HPASS Pretest and Posttest Subscale Scores



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# Clinical Significance



All item mean scores on the **Discrimination** subscale decreased more for students in the treatment group than in the control group.

Discrimination Subscale						
3. I believe I have the right to refuse to treat HIV+ patients for the safety of other patients.	2.38	1.69	.69	1.50	1.81	+.31
7. I believe I have the right to refuse to treat HIV+ patients if other staff members are concerned about safety.	2.38	2.06	.32	1.81	1.69	.12
8. I would avoid conducting certain procedures on HIV+ patients.	2.75	2.19	.56	2.25	1.81	.44
11. I believe I have the right to refuse to treat HIV+ patients if I feel uncomfortable.	3.06	2.31	.75	2.38	1.94	.44
14. I believe I have the right to refuse to treat HIV+ patients to protect myself.	2.75	2.38	.37	2.00	2.00	0
17. I believe I have the right to refuse to treat HIV+ patients if I am concerned about legal liability.	2.81	2.19	.625	2.19	2.12	.06

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# Noteworthy Changes



## Prejudice-

Decreased by 21 % in treatment group while increased in control group

18. I would rather see an HIV-negative patient than see an HIV+ patient with non-HIV-related concerns.	3.56	2.81	.75	2.38	2.50	+12
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## Stereotyping-

Decreased by 12% in treatment group while increased in control group

16. I think many HIV+ patients likely have substance abuse problems.	2.56	2.25	.31	2.19	2.38	+19
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# Implications for Nurse Educators



- Virtual patient simulation provided students the opportunity to interact with the patient and see how their nursing care impacted the patient
- “Humanized” HIV disease through interaction with the patient; experience the patient’s stress
- Created an opportunity to apply theory; supported experiential knowledge development
- Created a vehicle for participants to consider their interactions when caring for a patient with HIV
- Teaching in context; students learn important concepts while making decisions about situation appropriate care

## Key Points



1. People living with HIV face stigma and discrimination which negatively impacts their experience when accessing healthcare; nurses are in a position to change this.
2. Educating nursing students about people living with HIV can reduce stigma and discrimination but opportunities need to be provided for interaction, learning, and self-reflection.
3. Focused virtual patient simulation is a strategy to provide nursing students the opportunity to interact with and learn about patients that they would not encounter during their clinical experience.

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Nurses can positively  
impact patient care if  
given the opportunity to  
reflect on their care.