

Transformative Learning in Health Professions Education

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Education Grand Rounds
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@VipsMDMEd

Disclosures / COI

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a commitment to decreasing health disparities

increasing health equity,

University of Colorado School of Medicine



The University of Colorado School of Medicine offers comprehensive, lifelong, interdisciplinary learning for health care professionals. With state-of-the-art laboratories for discovery and innovation, a commitment to decreasing health disparities and increasing health equity, and faculty who provide world-class clinical care at Children's Hospital Colorado and UCHealth University of Colorado Hospital, the CU School of Medicine is transforming the health care landscape.

transforming the health care landscape.

Your Life-Changing Experiences

What made them lifechanging?

What sparked them?

Was anyone else involved?

What changed?



Learning Objectives

- Understand the theoretical framework of Transformative Learning (TL) Theory
- Analyze TL experiences in health professions education
- Apply TL theory to your own educational domains

A tale of two residents

Resident A

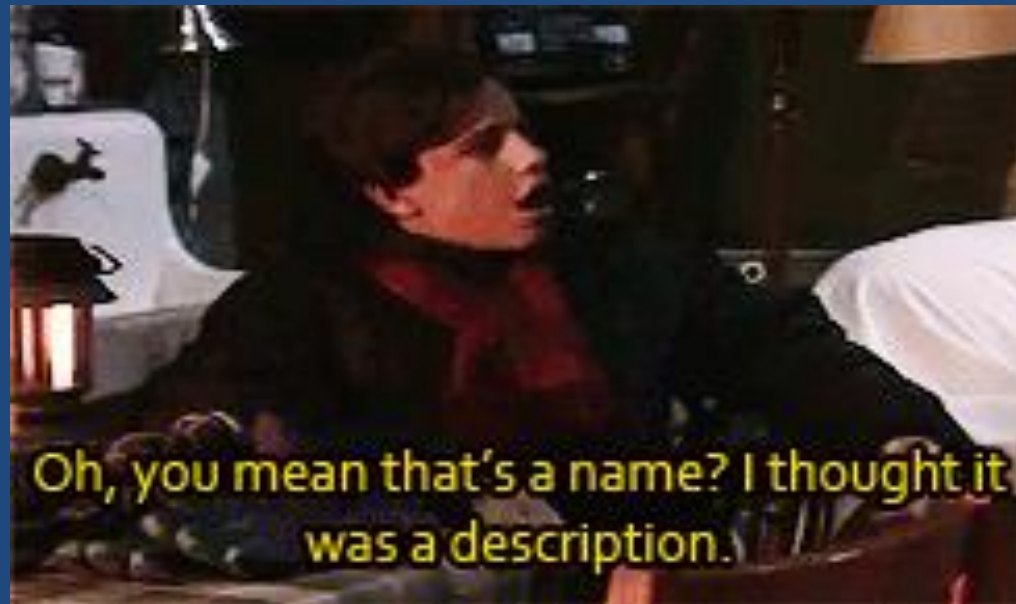
- Identified by CCC →
remediation plan →
checked all the boxes →
off plan
- Identified by CCC →
remediation plan →
checked all the boxes →
off plan
- Identified by CCC →
remediation plan →
checked all the boxes →
off plan
- Rinse, repeat...

Resident B

- Identified by CCC
- Remediation plan
- “Resident B is like a new doctor!”

Transformative Learning

It “shapes people; they are different afterward, in ways both they and others can recognize”

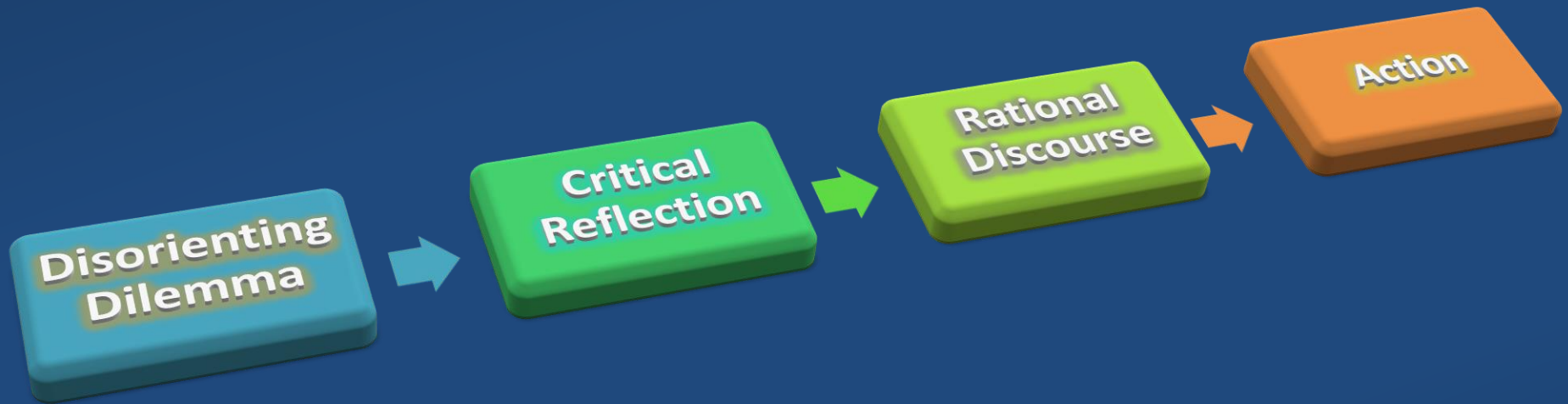


Mezirow's Phases of Transformative Learning, Used to Inform a Study of Residents' Transformative Learning and Professional Identity Formation During International Health Electives, 2001–2014^a

1. Experiencing a disorienting dilemma.
2. Conducting self-examination.
3. Making a critical assessment of assumptions.
4. Recognizing a connection between one's discontent and the process of transformation.
5. Exploring options for new roles, relationships, and action.
6. Planning a course of action.
7. Acquiring knowledge and skills for implementing one's plan.
8. Provisionally trying new roles.
9. Building competence and self-confidence in new roles and relationships.
10. Reintegrating into one's life on the basis of conditions dictated by one's new perspective.

^aAdapted with permission from John Wiley and Sons, from Mezirow J, Taylor EW, eds. *Transformative Learning in Practice*. Higher Education. San Francisco, CA: Jossey-Bass; 2009:19.





Transformative Learning



Hidden Curriculum

TL in HPE

“Health professional educators can exploit the enriched perspective of TL to transform their learners, themselves and their institutions”

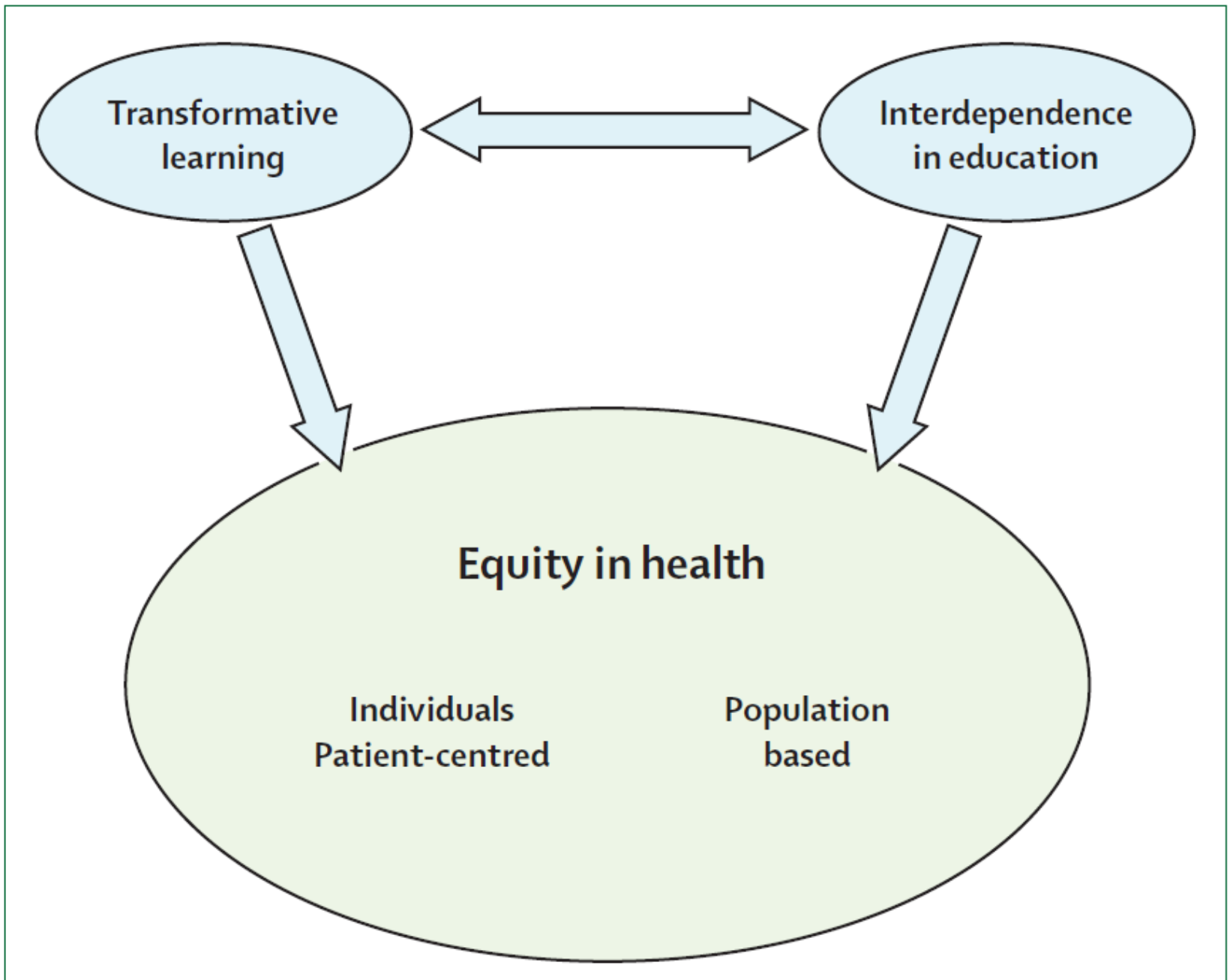


Figure 11: Vision for a new era of professional education

A woman in a white top and shorts is walking on a fence, silhouetted against a bright sunset. The background shows a line of trees and a clear sky with a warm, golden glow.

Fostering TL

“What right do I have to encourage you to question what you believe? When is it a responsibility and when is it an imposition? When is it empowering and when is it destructive?”

The NEW ENGLAND JOURNAL *of* MEDICINE

MEDICINE AND SOCIETY

MEDICAL TRAINING TODAY

Debra Malina, Ph.D., *Editor*









**Being Well while Doing Well — Distinguishing Necessary
from Unnecessary Discomfort in Training**

Lisa Rosenbaum, M.D.

TL HPE Literature



Transformative learning as pedagogy for the health professions: a scoping review

Susan C Van Schalkwyk,¹  Janet Hafler,² Timothy F Brewer,³  Moira A Maley,⁴  Carmi Margolis,⁵ Lakshini McNamee,¹ Ilse Meyer,¹  Michael J Peluso,⁶  Ana MS Schmutz,¹  Judy M Spak⁷  & David Davies⁸  On behalf of the Bellagio Global Health Education Initiative

DISCUSSION

To the best of our knowledge, this review represents the first of its kind in HPE literature.

Abstracts were excluded if they were not within the scope, specifically if they were not about TL and undergraduate HPE

Transformative Learning in Graduate Medical Education: A Scoping Review

Benjamin Vipler, MD, MEd

Amy Knehans, MLIS

Daniel Rausa, DO

Paul Haidet, MD, MPH

Jennifer McCall-Hosenfeld, MD, MSc

ABSTRACT

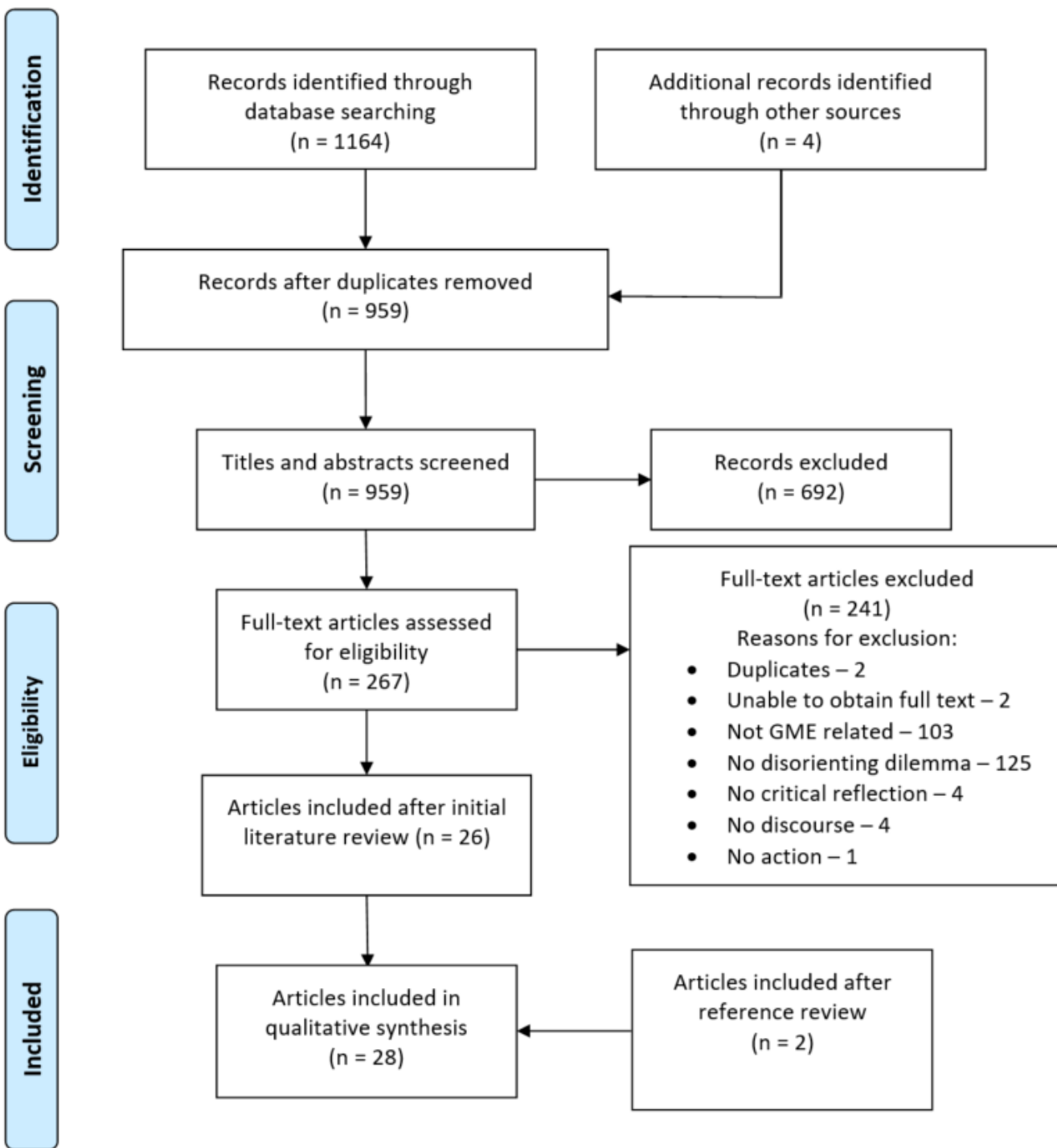
Background Transformative learning (TL) is an educational theory focused on deep fundamental shifts in an individual's worldview. Such shifts are well known to occur within graduate medical education (GME). However, TL in GME has yet to be formally explored.

Objective We performed a scoping review of the literature on TL within GME to identify areas where trainees currently experience or have potential to experience TL, and to explore areas where fostering TL has been used as a pedagogical tool.

Methods In January 2020, we searched 7 databases to identify literature on TL in GME. Additional articles were identified by hand-searching the *Journal of Graduate Medical Education*.

Results A total of 956 articles were identified through database search with 3 unique articles found via hand-searching. Abstracts and manuscripts were screened by 2 authors and disagreements arbitrated by a third, yielding 28 articles for our analysis. The main components of TL (disorienting dilemma, reflection, discourse, action) took various forms. TL was closely linked with professionalism training and professional identity formation. Training programs in primary care fields were most frequently referenced. Often, trainees were experiencing TL without recognition of the theory by their educators. Gaps in the graduate medical education literature exist pertaining to TL in venues such as diversity, equity, and inclusion.

Conclusions Our scoping review uncovered the following themes: TL and professionalism, TL and primary care, and TL by other names. TL is likely occurring but going unrecognized in some settings.



Themes

- TL and professionalism
- TL and primary care
- TL by other names
- Gaps in the TL GME literature (DEI)



<https://www.pexels.com/photo/close-up-photo-of-yellow-tape-measure-3143085/>

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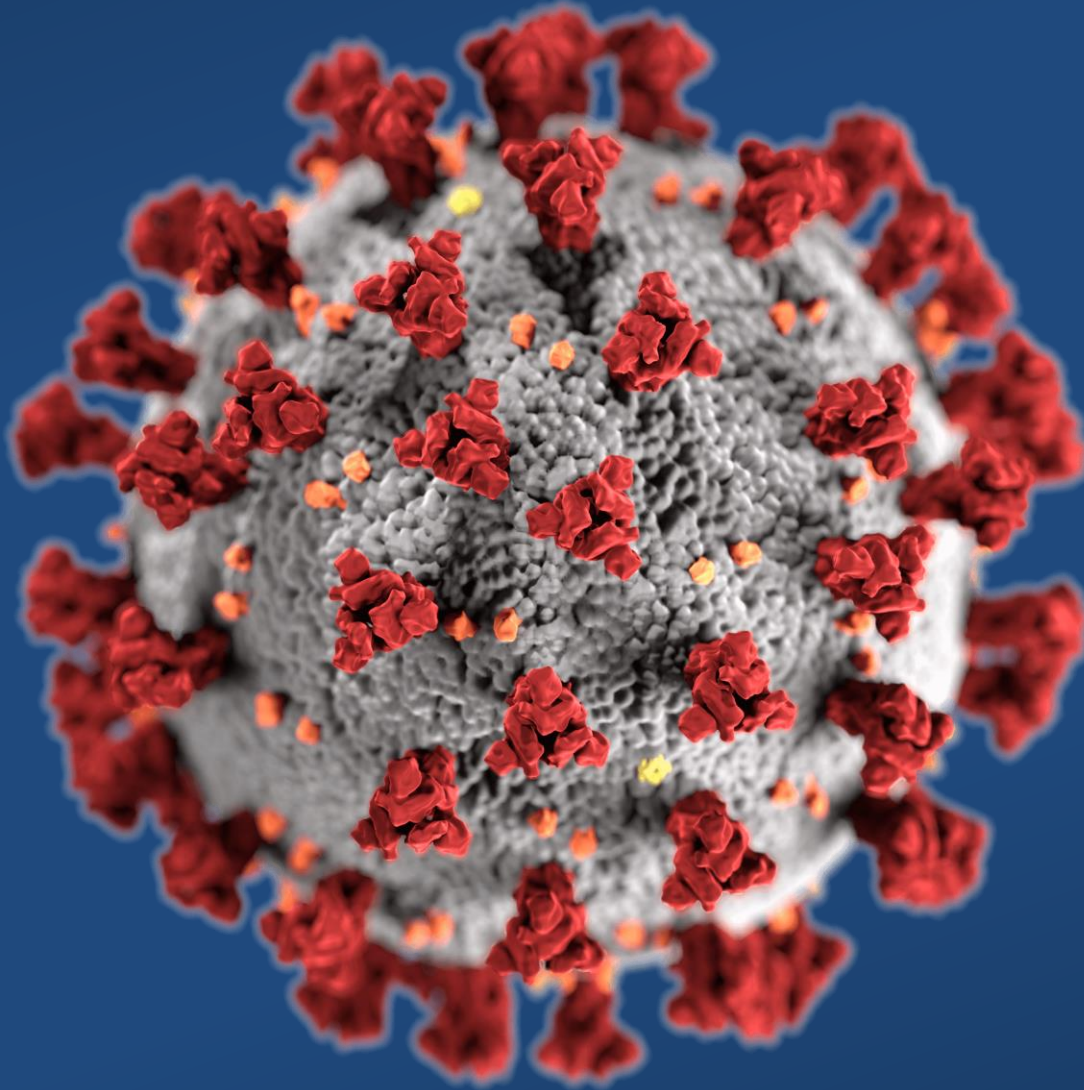
jtd.sagepub.com



Developing a Survey of Transformative Learning Outcomes and Processes Based on Theoretical Principles

**Heather L. Stuckey¹, Edward W. Taylor²,
and Patricia Cranton³**

Disorienting Dilemma



Disorienting Dilemma

“The death of a loved one, being a victim of a crime, or losing your job”

Understanding Adult Learners Amidst Societal Crisis: Learning and Grief in Tandem

Kathleen P. King

The tragedy of September 11, 2001, was felt deeply across the United States and the world. Since that terrible day, the media has explored the impact that

Background

September 11, 2001, started off as a usual workday

RESEARCH ARTICLE

Transformative learning of medical trainees during the COVID-19 pandemic: A mixed methods study

Benjamin Vipler^{1,2*}, **Bethany Snyder**³, **Jennifer McCall-Hosenfeld**^{2,4}, **Paul Haidet**^{2,4,5}, **Mark Peyrot**⁶, **Heather Stuckey**^{2,3}

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TL in COVID-19

Population

- **UME**
 - PA
 - Medical students
- **GME**
 - Residents
 - Fellows

Aims

- **Processes**
 - Cognitive Rational
 - Extrarational
 - Social Critique
- **Outcome (TL)**
 - Self-Awareness
 - Acting Differently
 - Openness
 - Shift Worldview

Ranked Means for Outcomes/Processes

TL Outcomes	Mean	SD	groupings
Self-Awareness	59.80	24.9	a
Acting Differently	55.56	25.3	a, b
Openness	52.32	20.3	b
Shift Worldview	48.08	27.3	b
TL Processes	Mean	SD	groupings
Cognitive Rational	68.12	13.5	c
Social Critique	64.90	16.3	c
Extrarational	53.45	16.8	d

NOTE: All measures are grouped so that line items can be compared with other line items. All measures with the same grouping letter are not significantly different from each other ($p > 0.05$). Measures not sharing the same grouping letter are significantly different from each other ($p \leq 0.05$, two-tailed).

Group Differences

Measure	Student		Housestaff		p-value
	Mean	SD	Mean	SD	
Outcomes	52.12	20.8	54.85	21.3	.729
Cognitive Rational Processes	66.67	12.1	68.85	14.4	.669
Extrarational Processes	50.30	17.7	55.03	16.5	.455
Social Critique Processes	69.32	16.1	56.06	13.1	.025

Sub-processes:

Social Action (M \pm SD: 77.0 \pm 15.40 vs 62.4 \pm 17.45; p = 0.023)

Ideology Critique (75.0 \pm 18.34 vs 57.6 \pm 16.94; p = 0.010)

Content Analysis

- Positive change
- Negative change
- *Existential change*
- No change

Existential Change

“Showed me how leading medical experts and institutions have little to no interest in operating on [an] evidence basis and adapting as more information is acquired, and instead are more in favor to conforming to an underlying social moral” [HS]

“COVID-19 opened the discussion for structural racism in the healthcare setting as well as in other settings. I became more aware of what is going on and more vocal about what we can do to change it” [S]

Take Home Points



- **Self-Awareness**
- **Cognitive Rational & Social Critique**
- **UME and Social Critique**
- **Negative change**
- **No change**



<httpswww.pexels.com/photo/dog-lying-on-shore-during-day-2252311:///>

GROUNDWORK

A Graphic Transformation: A Qualitative Study of Transformative Learning in Medical Trainees during COVID-19 Using Comics as Data Presentation

Benjamin Vipler^{a,c} , Michael Green^{b,c}, Jennifer McCall-Hosenfeld^{c,d} , Paul Haidet^{b,c,d} and Elizabeth Tisdell^e

^aDivision of Hospital Medicine, Department of Medicine, University of Colorado School of Medicine, Aurora, CO, USA; ^bDepartment of Humanities, Pennsylvania State University College of Medicine, Hershey, PA, USA; ^cDivision of General Internal Medicine, Department of Medicine, Pennsylvania State University College of Medicine, Hershey, PA, USA; ^dDepartment of Public Health Sciences, Pennsylvania State University College of Medicine, Hershey, PA, USA; ^eLifelong Learning and Adult Education, Pennsylvania State University – Harrisburg, Middletown, PA, USA

Aim

- **If and how residents and fellows engaged in transformative learning through their experience with clinical care of COVID-19 positive patients admitted during the initial peak of the pandemic**

Methods

- Qualitative interpretive study
- Semi-structured interviews
- Single center, housestaff caring for COVID-19 positive inpatients
- First peak
 - March 11th – May 28th, 2020

Results

- **6 participants**
 - 4 residents (medical & surgical)
 - 2 fellows
- **44-67 minutes**
- **Thematic Analysis**

Themes

- A sense of guilt
- The impact on training
- Venues and processes for reflection



Calling all frontline workers!



**GRAPHIC
MEDICINE**
international collective



PennState
College of Medicine

WHEN PEOPLE HEARD
I WAS A DOCTOR,
THEY'D TREAT ME
LIKE A HERO.



YOU A FRONT-LINE
WORKER?

NO

I'LL GIVE YOU
A DISCOUNT ANY-
WAY. THANKS FOR
WHAT YOU DO.



I'M LITERALLY DOING
NOTHING WHILE SOME
KID IN INDIA IS
KNITTING MASKS WITH
HIS FEET.



THEY MADE ME SIT
AT HOME ON MY HANDS
SO I WOULDN'T EXPOSE
MYSELF, THEN CALLED
ME A HERO.



I HATED IT

DURING THE PANDEMIC, IF A PATIENT WITH COVID CAME IN WITH APPENDICITIS, WE PROBABLY WOULDN'T TAKE THEM TO THE OPERATING ROOM.



THIS ISN'T THE USUAL WAY IT'S DONE IN THE U.S., BUT AT THE TIME, IT SEEMED BETTER THAN EXPOSING THE WHOLE SURGICAL TEAM TO COVID.



IT ALTERED OUR OPINION ON HOW WE MANAGE SURGICAL PATIENTS IN GENERAL.



IT'S LIFE CHANGING WHEN YOU TAKE A STEP BACK AND REALIZE THAT THERE ARE A LOT OF WAYS TO MANAGE PATIENTS.





Artwork by Michael Green, MD, MS

[Eric, Fellow]

Art & TL



- **Art to display TL**
- **Art to foster TL?**



Perspectives on
Medical Education

Journal of the Netherlands
Association of Medical Education

PME

Disorienting or Transforming? Using the Arts and Humanities to Foster Social Advocacy

REVIEW

SNOW WANGDING 

LORELEI LINGARD 

PAUL HAIDET 

BENJAMIN VIPLER 

JAVEED SUKHERA 

TRACY MONIZ 

 ubiquity press

*Author affiliations can be found in the back matter of this article

A&H → Social Advocacy

- **Critical narrative review**
 - Moniz. *Acad Med.* 2021.
 - 27 articles using A&H to promote social advocacy
 - Additional search of MedEdPORTAL

Themes

- Emphasis on A&H for disorientation/dissonance
- Not enough “how”
- Current/future work
 - Reflection venues
 - Faculty role in discourse

Transformative Learning



Hidden Curriculum

What do you want to change?



What do you want to change?

- **Disorienting dilemma**
 - Harness?
 - Create?
- **Reflection**
 - Venues?
- **Discourse**
 - Mentorship?

Questions?

