

Upcoming 2020 Meetings



- InVest 2020 – St George’s University, May 1-3
- IAMSE – Denver, CO, June 13-16 (Abstracts due December 1, 2019)
- VEC – Kansas State University, June 21-23
- SEVEC – VetEd Bootcamp v2; NC State University, July 20-21
- AMEE-sept 4-9 Glasgow, Scotland, September 4-9 (Abstracts due February 6)

Educational Grant Opportunities

- IAMSE Educational Scholarship and Curriculum Innovation Grants - Due January 15, 2020
- CIVME International Grants – Due January 15, 2020



Evidence-based Clinical Teaching: What do we know? What can we know?

India Lane

Master Teacher Program

November, 2019

What did you hear?



Objectives for Today



- Review a sampling of recent literature related to clinical teachers, the clinical learning environment and clinical teaching strategies
- Consider how results inform our practice
- Consider current and future methods for studying clinical teaching and learning

What is “Good?”

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Four Key Roles of the Clinical Teacher



Medical Expert

Practice
Supervisor

Intentional Role
Model

Practical Teacher

The Effective Office-Based Teacher



- Communicates expectations
- Stimulates interest with enthusiasm
- Involves learner in teaching process
- Interacts skillfully with patients
- Role models desired behaviors
- Involves the learner
- Limits the teaching points
- Gives feedback

Meta-analysis (n=68 citations)





Additional Features

- “Teacher identity”
- Dedication to vocation
- Humanistic and relational approach
- Rapport with patients
- Clear personal value system

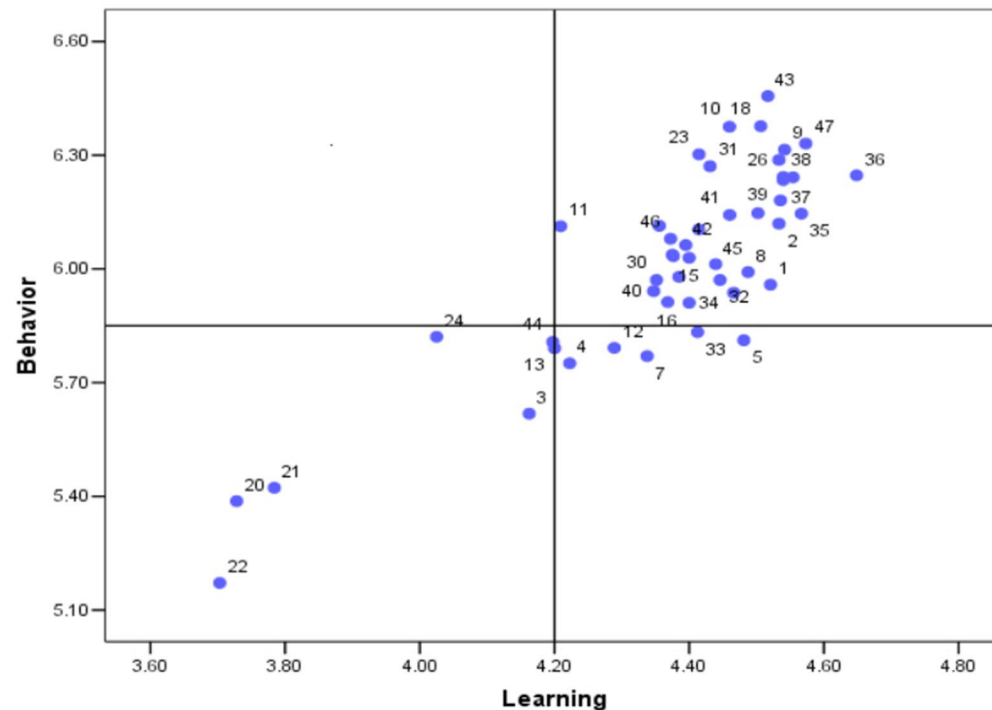
*Literature summarized by
Molodysky, Sekeklja & Lee, 2006*

**What about
Learning?**

Perceptions of Nursing Students (n=240)



Clinical Teaching Behaviors with the Greatest Influence on Learning

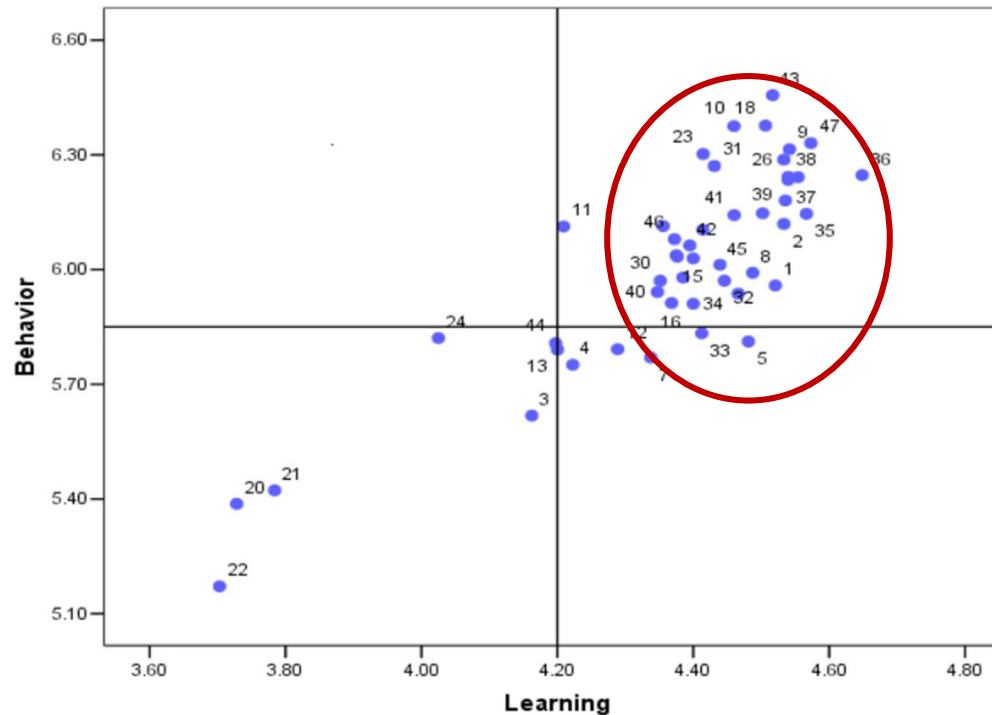


Kube M, 2010

Perceptions of Nursing Students (n=240)



Clinical Teaching Behaviors with the Greatest Influence on Learning



Kube M, 2010

What were these behaviors?



- 36 Is approachable
- 47 Appears organized
- 35 Provides support and encouragement
- 28 Provides frequent feedback
- 9 Well prepared for teaching
- 37. Encourages mutual respect
- 38 Listens attentively
- 27 Makes suggestions for improvement
- 2 Emphasizes what is important
- 26 Good role model

Kube M, 2010

More from Nursing



- Nursing students selected characteristics “imperative for effective clinical training”
 - Tops were categories of competence and student evaluation
 - Instructional skills and interpersonal relationships were next
 - Lowest was non-teaching related personality traits
- Then were asked to describe best teachers they encountered – the best weren’t perfect on all imperative points!

Benor & Leviyof; 1997

Early medical students' perceptions of effective preceptors gleaned from learning journals



- (1) Demonstrates professional expertise
- (2) Actively engages students in learning
- (3) Creates a positive environment for teaching and learning
- (4) Demonstrates collegiality and professionalism
- (5) Discusses career-related topics and concerns.

(n=120 journals over 2 months)

Reference:

**What about
veterinary students?**

Veterinary Clinical Role Models



- Exemplary Knowledge and Skills
- Good Communicators
- Managed time well
- Teachers/explainers
- Respected clients, pets, staff, colleagues, students

Schull et al, JVME, 2012

Concerns of preclinical veterinary students



- Anxiety about performance, mistakes, faculty and environment
- Anxiety about asking and answering questions
- Performing skills with little prior practice
- Hope for relevance and integration with preclinical studies
- Desire for specific and immediate feedback

Stone et al, J Ethno Qual Res, 2017



– **The Hidden Curriculum of Veterinary Education: Mediators and Moderators of Its Effects**

Carrie A. Roder, Stephen A. May

Mediators

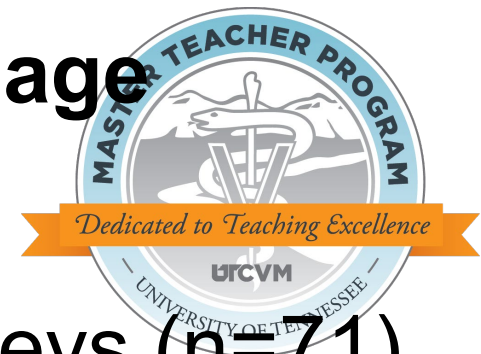
- Service organization
- Assessment

Moderators

- Role models
- Student group



Communication, Primary Language and Clinical Learning



Exploratory factor analysis of surveys (n=71)

- Communication ability due to language - significant difference based on primary language spoken
- Concern about comprehending and contributing to clinical conversations: NOT significantly different based on language
 - e.g. misinterpreting, taking longer to process, understanding clinicians, being understood by clinicians

**What is a “Good
Environment?”**

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Clinical Learning Environment Review and Reports Domains (ACGME)



Patient Safety

Quality improvement

Supervision

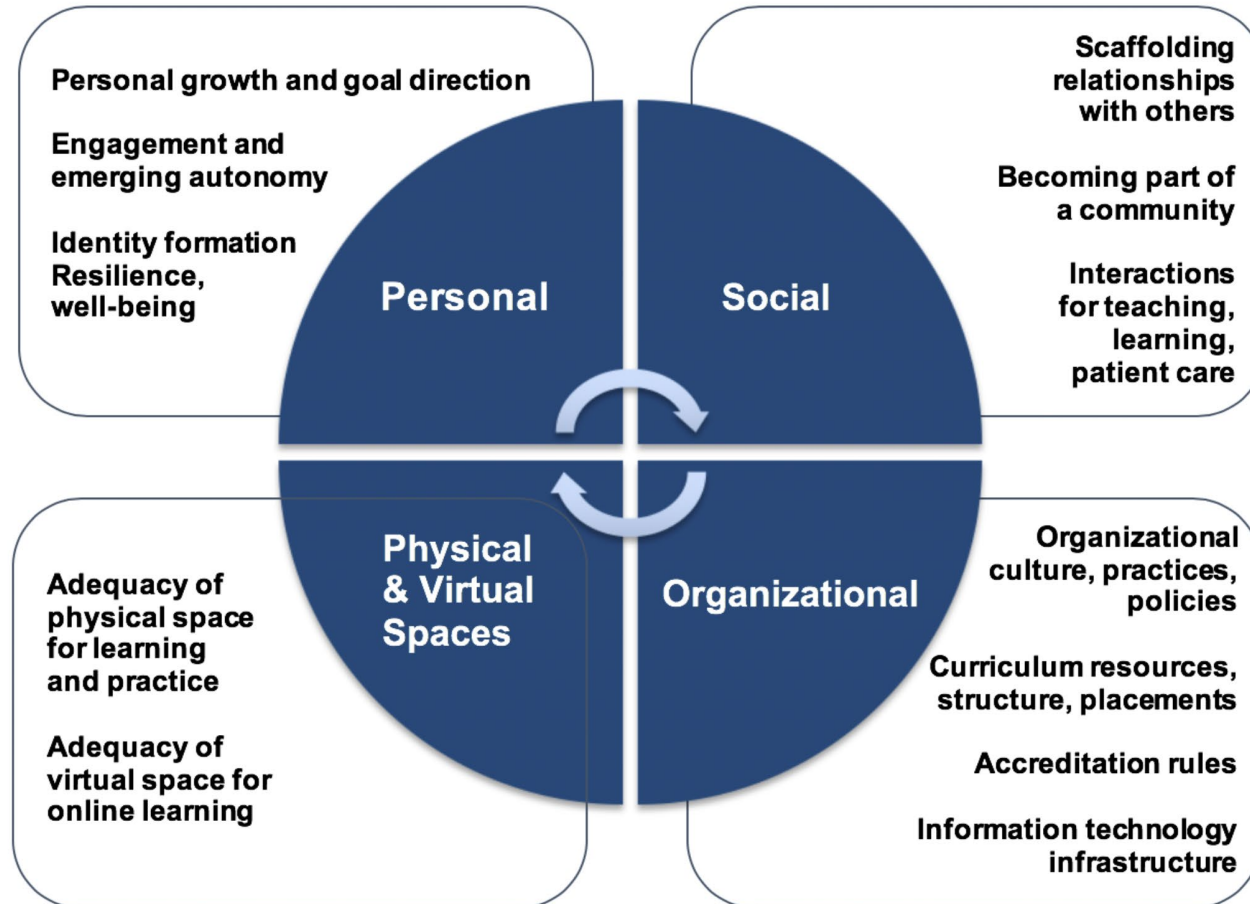
Transitions (Handoffs/Transfers)

Fatigue management (mitigation, duty hours)

Professionalism

acgme.org

The Exemplary Clinical Learning Environment





Gruppen L, Irby D, Durning S, Maggio L
MedEdPublish
<https://doi.org/10.15694/mep.2018.0000211.1>

Review of the literature

Open Access

Interventions Designed to Improve the Learning Environment in the Health Professions: A Scoping Review

Larry Gruppen[1], David M. Irby[2], Steven J. Durning[3], Lauren A. Maggio[3]

Corresponding author: Prof Larry Gruppen lgruppen@umich.edu

Institution: 1. University of Michigan Medical School, 2. University of California, San Francisco, 3. Uniformed Services University

Categories: Curriculum Planning, Education Management and Leadership, Educational Strategies, Educational Theory

Evidence: Clinical Learning Environment (LE)



- Features associated with positive LE
 - More time in direct patient contact
 - Consistent supervisor
 - Mid block assessments
 - Smaller hospitals, rural/primary care
- Interventions resulting in improved LE
 - Dedicated education units
 - Faculty development
 - Mistreatment, team skills and culture change interventions

**What difference
does it make?**

,



What about Examination Scores?

- Students exposed to good teachers had higher clerkship performance score, and NBME medicine subject exam, USMLE
- Higher exam performance among students in smaller rural hospitals and among small cohorts
- Higher local exam performance for residents in a setting with more academic support

What about Patient and Practice Outcomes?



- Residency environment somewhat associated with surgical complication rate, appropriate antimicrobial prescribing, quality of future practice (CLER reviews)
- Patient perception of safety and doctors' communication, explanations associated with some elements of LE in large Dutch study (Smirnova, 2019)

Clinical Learning Environment – Some challenges



- Resident duty hour restriction seen as negatively impactful
- Scattered reports:
 - Association with negative infant outcomes in one large OB/GYN study
 - Associated with slower attention to pain management in one patient survey

**What about
teaching
strategies”**

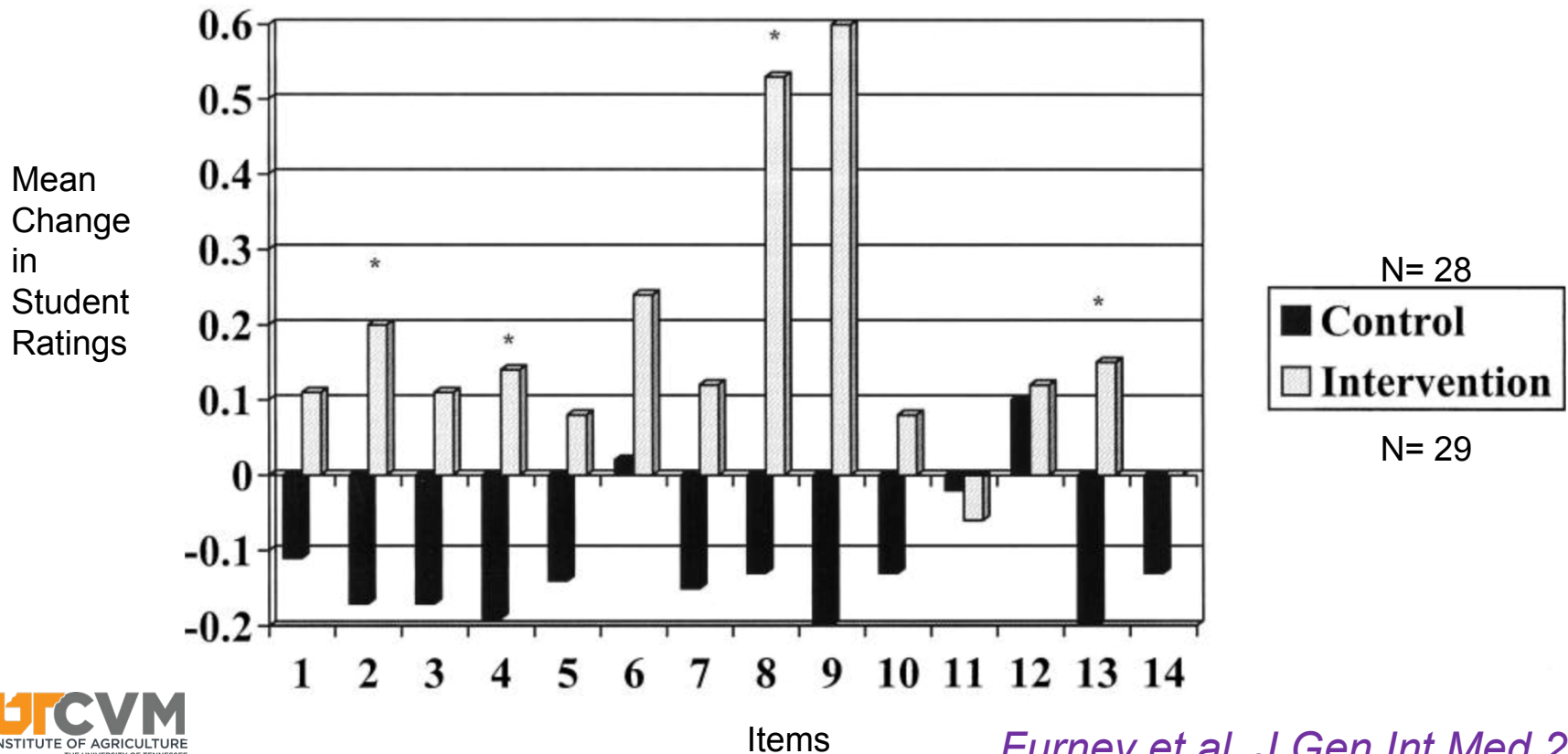
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Clinical Teaching Models

- One-minute preceptor
- SNAPPS
- miPLAN
- Aunt Minnie
- ED STAT!



In-block resident training in One-Minute Preceptor Model improved ratings of instruction



In-block resident training in One-Minute Preceptor Model improved ratings of instruction



- Self-ratings and Mean teaching scores improved in all domains except overall teaching effectiveness
- Statistically significant higher change in score for
 - “involved me in decision making”
 - “offered suggestions for improvement”
 - “Evaluated my knowledge”
 - “Gave frequent feedback”
 - “Motivated me to do extra reading”
- Similar results reported for a faculty workshop
 - Particularly feedback

What about SNAPPS?



- Compared one-minute preceptor and SNAPPS using single simulated case
 - SNAPPS was perceived by learning residents as easier to use for case presentation
 - SNAPPS was observed to facilitate expression of questions and uncertainty
- Other studies have illuminated SNAPPS value in uncovering clinical reasoning and student uncertainty

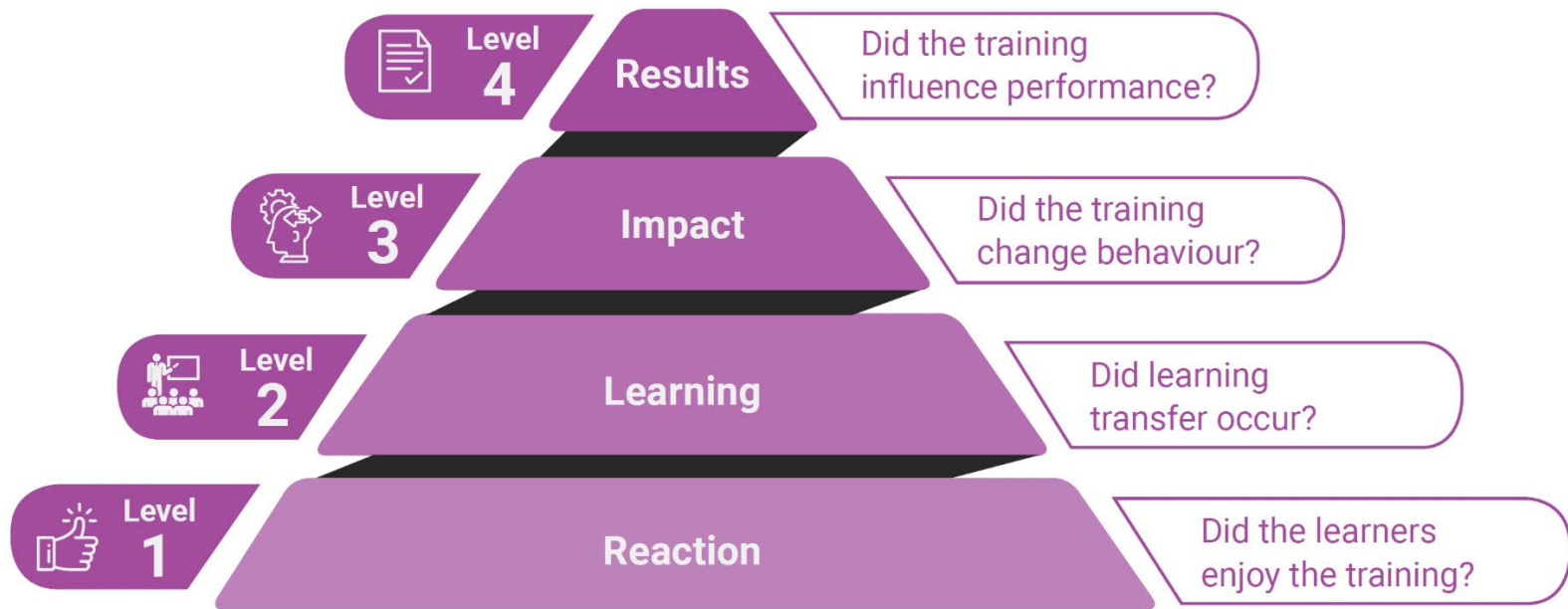
More areas of study

- Case Presentations
- Feedback
- Skill development and mastery



**So does faculty
development
really help?**

Kirkpatrick's Model



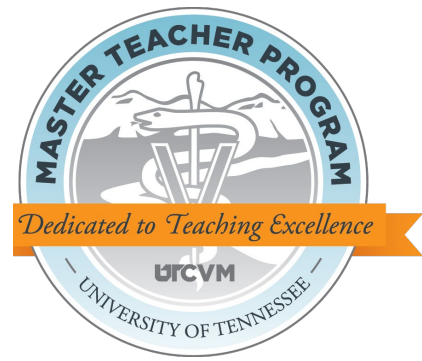
What's in it for me?

Benefits to instructors?



Long term qualitative study of faculty teaching in preclinical skills labs

- Keeping skills sharp
- Recognizing short cuts
- Awareness as role model
- Explicit deconstructing of skills and diagnoses
- Mindfulness
 - Wenrich et al, Acad Med, 86 (7), 2011



Special Report

Evaluation of team effectiveness and personal empathy for associations with professional quality of life and job satisfaction in companion animal practice personnel

Team effectiveness and work environment influenced quality of professional life, job satisfaction, burnout in veterinarians

Pizzolon, Coe and Shaw; JAVMA, 2019





Factors Associated with Veterinary Clinical Faculty Attrition

Martin Furr

- Workplace and departmental environment impacts veterinary clinical faculty retention



Conclusions?
