



ACCREDITATION COUNCIL FOR GRADUATE MEDICAL EDUCATION

*Symposium on
Physician Well-Being*

**THE WHOLE IS MORE THAN THE SUM
OF ITS PARTS: TOWARD A
CONCEPTUAL MAP FOR RESIDENT
WELLBEING**

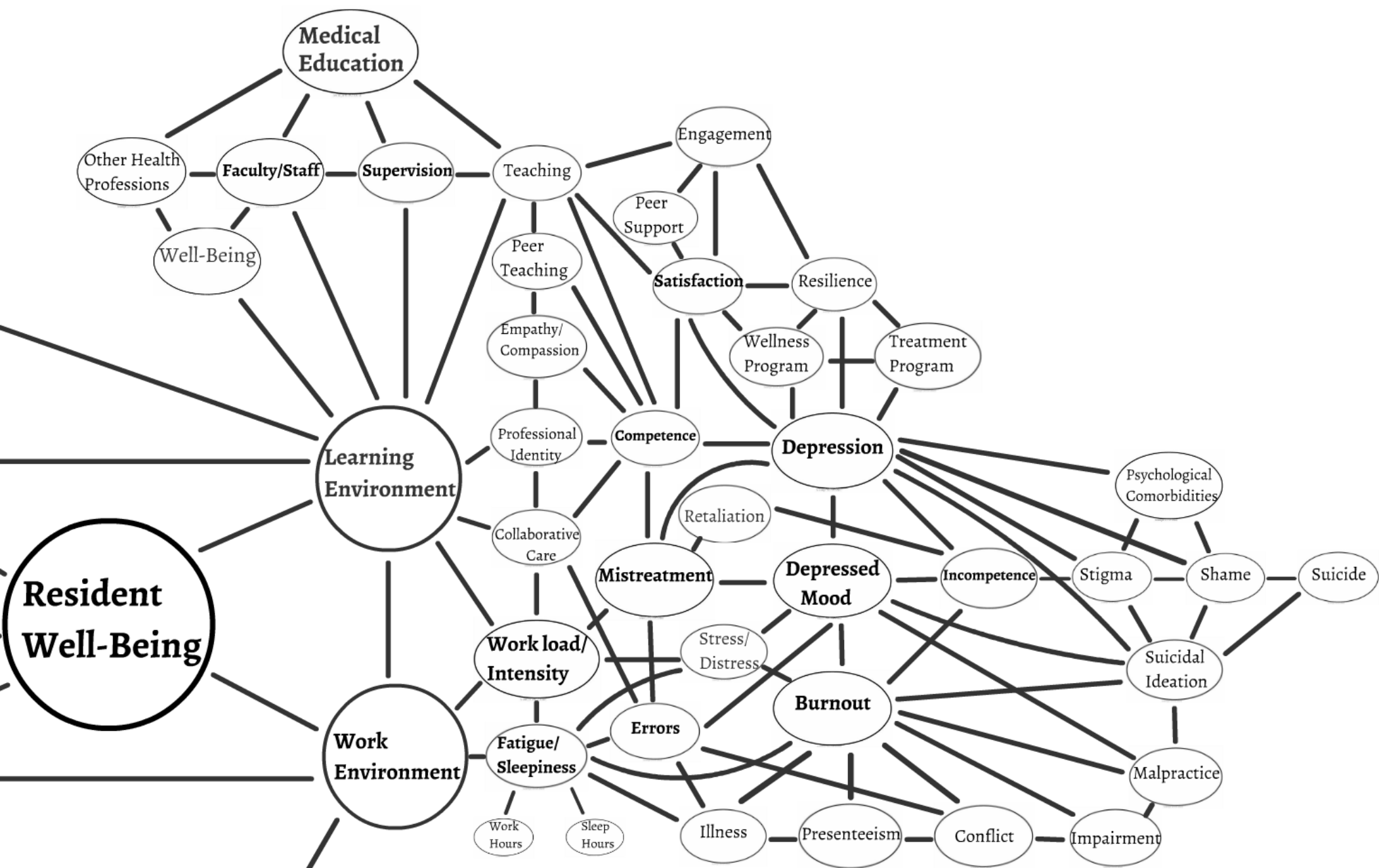
**DeWitt Baldwin, MD
Scholar-in-Residence**

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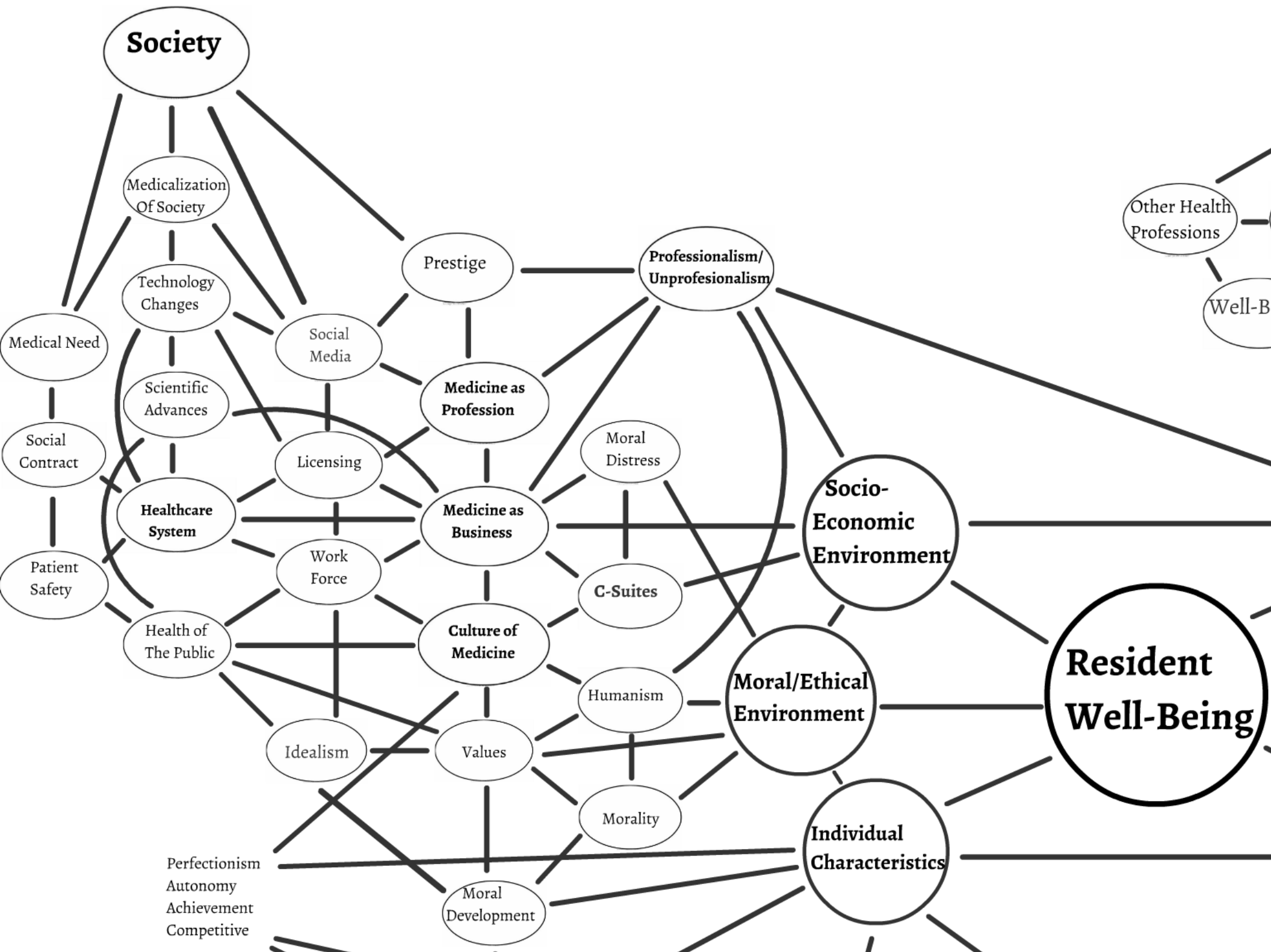


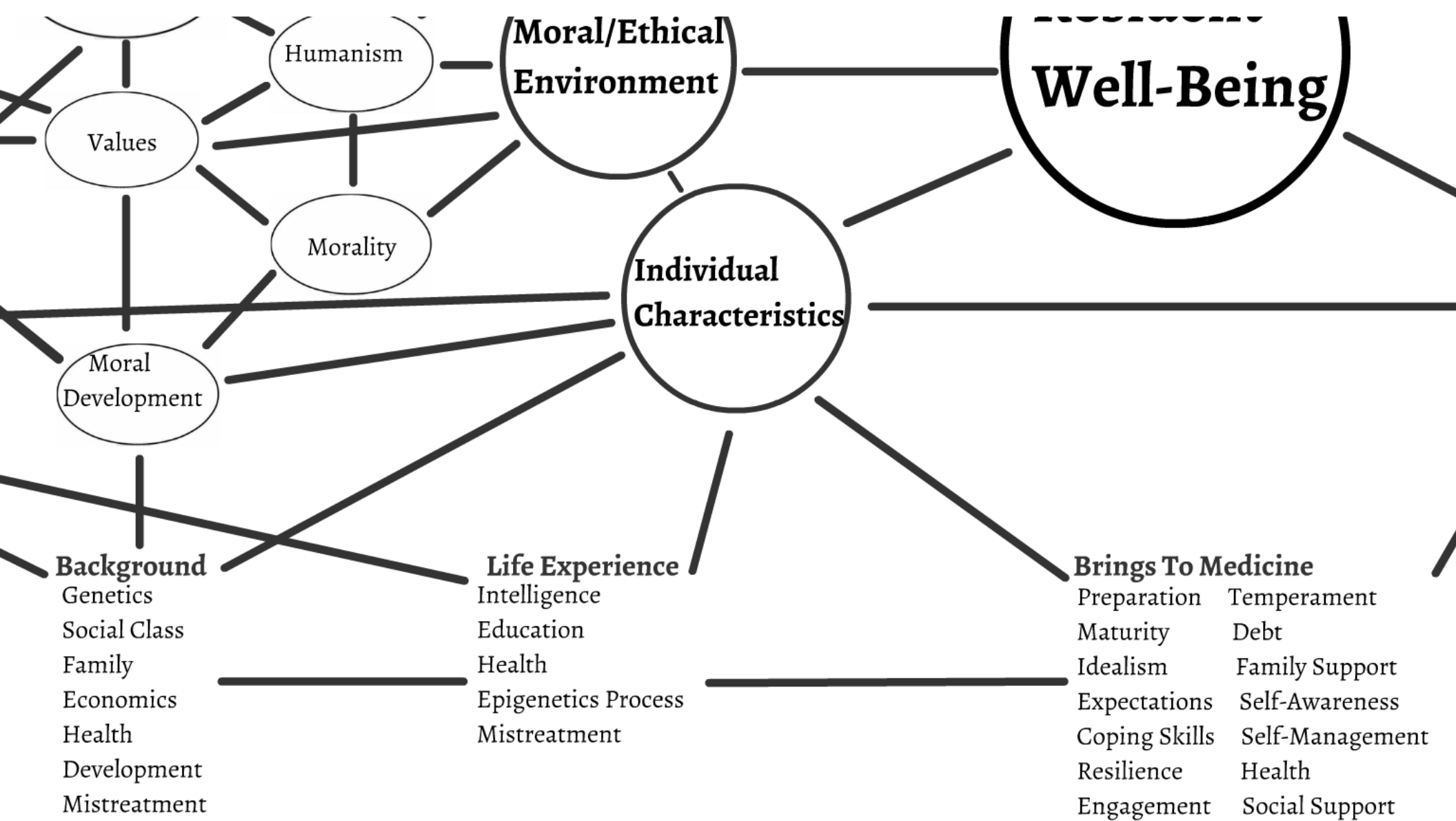
**Resident
Well-Being**

CONCEPTUAL MAP OF RESIDENT WELL-BEING



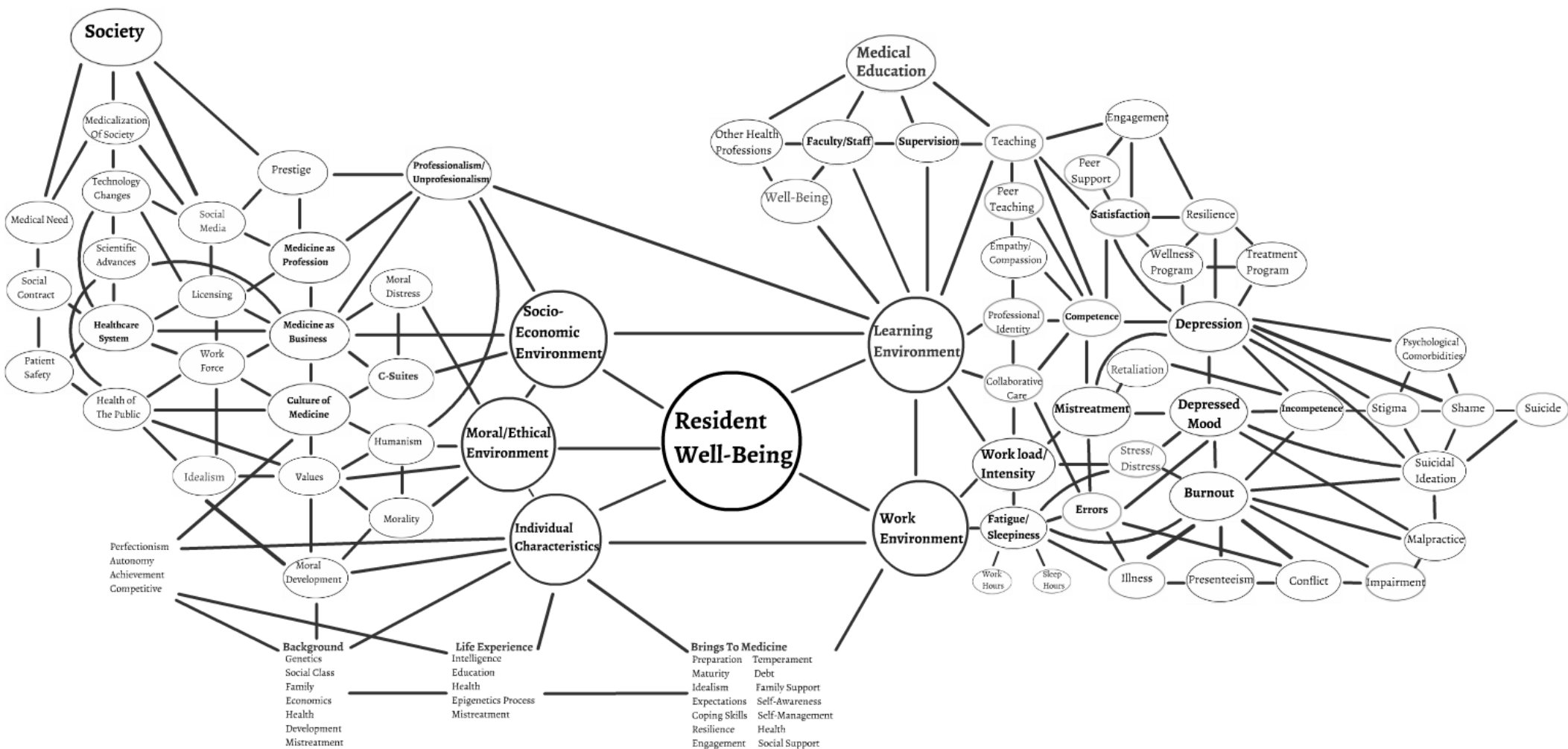
Resident Well-Being







TOWARD A CONCEPTUAL MAP OF RESIDENT WELL-BEING



Focus

Healthcare System

Profession

Specialty

Institution/Organization

Program

Individual

work

due restrictions surgery outside help back nights know research quality amount
tired difficult needs children environment interns week attendings years
times job current long may less currently schedule hard balance issues
home system service much hospital going good like learning past think feel really etc
month busy enough still rotation want never clinical just level answers old feel happy question related
even without education weeks staff great rules way survey fatigue doctors patients hours make shift reflect director
call questions none rotations health training medicine makes ACGME better go fellowship sleep faculty often part
new care year people overall get hour night duty patient time days now every
learn year find love last also well day done different family experience float medical
intern months exercise made general stress little rather especially physicians personal life take



STRUCTURAL EQUATION MODELING (SEM)

- SEM is a statistical technique for testing and estimating causal relations using a combination of statistical data and qualitative causal assumptions.
- Allows both confirmatory and exploratory modeling.
- Confirmatory: Hypothesis is represented in model.
- Model is then tested against the measurement data (manifest variables) to see how well it fits the data.
- SEM can construct latent variables which are derived from analysis of relevant directly measured variables.



WHAT DO RESIDENTS WANT?

To learn and develop clinical competence in a nurturing and positive environment with

- Responsible access to representative patients
- Dedicated and concerned faculty who prepare them to enter the practice of medicine as professional who are proficient, ethical, and humane
- Respect and acknowledgement of and support for their lives away from work



DEALING WITH COMPLEXITY

- Health Care Organizations, Hospitals, and Social, Educational, and Professional Development Programs and Institutions are uniquely COMPLEX SYSTEMS-- non-linear, dynamic, interactional, unpredictable, and emergent - characterized by technological and professional heterogeneity.
- Where individual agents have the “freedom to act in ways that are not always predictable, and whose actions are interconnected, so that one agent’s actions change the context for others”.
 - Complexity Science and Health Care Management , 2001 (McDaniel and Driebe)



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1. Complexity- world and its problems increasingly complex. Non-linear, emergent outcomes, unpredictable, solution part of system, changing processes, interaction with dynamic, changing environment.
 2. Conceptual Frameworks- ways of thinking about a problem or a study, or ways of representing how complex things work. simplified representations of reality that illuminate and magnify some aspects to possible exclusion of others.



DEALING WITH COMPLEXITY

- “Medicine had become too complex for the way we deliver health care.”

Chaos and Organization in Health Care

Thomas Lee MD and James Mongan MD

- Medicine has become too complex for the way we train physicians.
- Resident training is too complex for simple cause and effect explanations.



COMPLEXITY THEORY

- Arising of patterns, structures, or properties not adequately explained by referring only to the system's pre-existing components and their interactions.
- Nonlinearity, emergence, and interconnectedness
- Butterfly Effect- Small changes can lead to big effects.



COMPLEXITY THEORY

1. Aspects of systems that are overlooked by traditional scientific approaches.
2. Looks at behavior of complex systems and processes
3. Whole system, not just component parts.
4. Pinpoints source of social order in the nonlinear and dynamic behavior of the system.
5. Interactions result in the emerging of new patterns of order and behavior.



CONCEPTUAL FRAMEWORKS

- Conceptual frameworks help understand (illuminate) problems
- Different conceptual frameworks emphasize (magnify) different aspects of the problem or elements of the solutions
- More than one conceptual framework may be relevant to a given situation
- Any given conceptual framework, or combination of frameworks, can lead to a variety of alternative solutions
- Conceptual frameworks can come from theories, models or evidence-based best practices

Source: Bordage, G. Medical Education. 2009;43:312-319



COMPLEXITY THEORY- 1930S STYLE

- “Because every factor interacts in a social system, because every thing, every property, every relation, is therefore in a state of mutual dependence with everything else, ordinary cause and effect analysis of events is rarely possible. In fact, it is nearly always grossly misleading.”

L.J. Henderson M.D.



COMPLEXITY REQUIRES NEW CONCEPTUAL FRAMEWORKS

- Conceptual Frameworks- Ways of thinking about a problem or a study, or ways of representing how complex things work. Illuminates some aspects but may exclude others.

-Georges Bordage



UNAVOIDABLE TENSIONS

- Science strives for certainty (generalizations)
- Medicine deals with uncertainty (variation)

- Institutions dislike variation; promote standardization.
- Individuals dislike standardization; seek autonomy.

- Zero tolerance for medical errors
- Learning involves making mistakes

- Strategic planning wants precision and predictability.
- Not everything can be empirically known, predicted, or measured.

