



SEX AND GENDER SPECIFIC HEALTH LEARNING OUTCOMES FOR HEALTHCARE STUDENT EDUCATION

OVERVIEW:

Global language to describe the intended educational outcomes associated with Sex and Gender Specific Health (SGSH) have not yet been adopted across all health professionals' curricula. Similar outcomes exist in other educational areas that cross health professions. For instance, there is common language to describe the 4 core tenets of Inter-professional education that serve as the basis for designing activities and stating our expectations of the learners. If it is accepted that a patient's sex and gender impact either the approach to, or effect of, our clinical decision making and care, then desired learning outcomes in the area of Sex and Gender Specific Health are relevant to all health professions. By stating learning outcomes using language universal to all health professions, curricula can be designed in a way that supports these outcomes and mapped in a way that can easily be identified in curricular review.

The below list of learning outcomes is designed to fulfill this need. First, a concise list of the top 10 learning objectives are listed based on what healthcare providers need to "Know" and "Do." Second, a more detailed breakdown of each learning objective is provided in the context of application to healthcare curriculum.

PROPOSED SEX AND GENDER SPECIFIC HEALTH LEARNING OUTCOMES What Healthcare Providers Need to Know and Do

KNOW

- Know accepted Sex and Gender Specific Health (SGSH) terminology
- Differentiate male and female anatomy / physiology
- Identify relevant SGSH Epidemiology
- Identify sex or gender differences in pathophysiology / clinical presentation
- Identify sex or gender differences in therapeutic response
- Recognize sex or gender based disparities in access to care or health policy

DO

- Search and evaluate Sex and Gender Specific Health (SGSH) Information
- Apply SGSH considerations in clinical decision making and patient care
- Incorporate SGSH in scientific inquiry and research design
- Teach SGSH information to others (peer health professionals or patients)



Examples of what Each of These Mean for Healthcare Curriculum

KNOW

- **Knowing accepted Sex and Gender Specific Health (SGSH) terminology:**
 - State definitions of sex, gender, and sexual orientation
 - Differentiate a sex exclusive vs sex inclusive focus
 - Recognize conflation of terms in published literature
- **Differentiating male and female anatomy / physiology:**
 - Describe chromosomal and genetic differentiation between male and female organisms
 - Identify aspects of anatomy and physiology that differentiate male and female e.g. reproductive organs (sex exclusive)
 - Identify sex based differences in structures and organ systems that are common to all humans (sex inclusive)
 - Identify developmental differences between sexes across the lifespan
- **Identifying relevant SGSH Epidemiology**
 - Differentiate patterns of health risk or disease virulence in male and female populations
- **Identifying sex or gender differences in pathophysiology / clinical presentation**
 - Identify differences in disease presentation and progression in male and female patients
- **Identifying sex or gender differences in therapeutic response**
 - Identify differences in therapeutic outcomes between male and female patients
 - This includes drug and non-drug outcomes. With respect to drug therapy outcomes, specifically, this can include identifying Pharmacokinetic and Pharmacodynamic differences.
- **Recognizing sex or gender based disparities in access to care or health policy**
 - Apply knowledge of sex or gender differences in approaches to patient assessment (including symptom evaluation, patient chaperones, or disparities in diagnosis accuracy...)
 - Identify gender disparities in insurability
 - Identify potential institutional bias in treatment algorithms and clinical protocols



DO

- **Searching and evaluating SGSH Information**
 - Optimize search capabilities to identify literature focusing on sex or gender
 - Evaluation literature to identify adequate representation of male and female populations
 - Critique of statistical power to analyze outcomes independently for each sex
- **Applying SGSH considerations in clinical decision making and patient care**
 - Adapt clinical approach to patients (interviewing, patient assessment) in the most appropriate way for that individual's sex or gender
 - Select the appropriate therapeutic intervention for patients based on the most sex or gender specific clinical evidence possible
 - Include relevant patient data related to sex, gender, or sexual orientation in medical records or other clinical documentation
- **Incorporating SGSH in scientific inquiry and research design**
 - Incorporate sex and gender considerations into scholarly work
 - Design research efforts for adequate statistical power for analysis in each sex
 - Include focus on sex or gender when participating in the preparation, publication, or peer review of scholarly work (including consensus guidelines)
- **Teaching SGSH information to others (peer health professionals or patients)**
 - Include relevant sex or gender specific information in all patient counseling, peer education, student training, or the preparation of other professional / instructional materials
 - Practice transparency in acknowledging when a sex or gender difference is not known due to lack of data

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