BIOBEHAVIORAL PERSPECTIVES ON THE COMPLEX PATIENT

CANCER & CVD: COMMON CO-MORBIDITIES
67% OF CANCER PATIENTS OVER 65 HAVE ≥ ONE CARDIOVASCULAR CONDITION - SEER Database

CO-MORBID
- 2 or more physical diseases
- Chronic disorder and then develops another due to common risk factors or iatrogenic effects of treatment for the first
- ADVERSE TREATMENT RISKS
- e.g. cardiomyopathies from toxic cancer treatments

SHARED RISK FACTORS
- Smoking
- Sedentary lifestyle
- Obesity

GIVEN THAT...
- cancer (CVD) share biobehavioral, biological risk factors and biopsychosocial, researchers usually consider one disease at a time...

WE RECOMMEND THAT BIOPSYCHOSOCIAL RESEARCHERS CONDUCT INTEGRATED RESEARCH ON COMPLEX PATIENTS WITH CO- AND MULTI-MORBIDITIES

HPA - Hypothalamic-pituitary-adrenal axis
CVD - Cardiovascular disease
SNS - Sympathetic nervous system
PNS - Parasympathetic nervous system

RISK FACTORS
- Biological
  - e.g. obesity
- Behavioral
  - e.g. smoking, sedentary lifestyle
- Psychological
  - e.g. depression, negative outlook
- Social
  - e.g. loneliness, isolation

EMERGING RESEARCH OPPORTUNITIES

MECHANISMS
- Risk Factors influence one another
- HPA activity
- SNS activity
- PNS activity
- Immune response

BIOLOGICAL MECHANISMS

HEALTH OUTCOMES
- Cardiovacular vulnerability
- Tumor progression

EMERGING RESEARCH OPPORTUNITIES

1. CANCER & CVD share biobehavioral risk factors (appear to share some common pathways, e.g. inflammation). Is it possible to bundle risk factors for both disease categories?
2. Are the effects of having cancer & CVD on psychological burden, morbidity, and longevity additive or interactive?
3. DO BIOPSYCHOSOCIAL FACTORS MODULATE THE HPA AND SNS IN BIOLOGICALLY RELEVANT WAYS and ALTER DISEASE COURSE FOR CANCER & CVD?
4. IS THERE DISEASE SPECIFICITY (i.e. only certain types of CVD, certain types of cancer)?
5. HOW DO THE HPA AND SNS AFFECT TISSUE ENVIROMENTS RELEVANT TO CANCER AND CVD?
6. SHOULD BIOPSYCHOSOCIAL INTERVENTIONS MOVE BEHAVIORAL OR BIOLOGICAL ENDOPOINTS; TARGET BOTH?