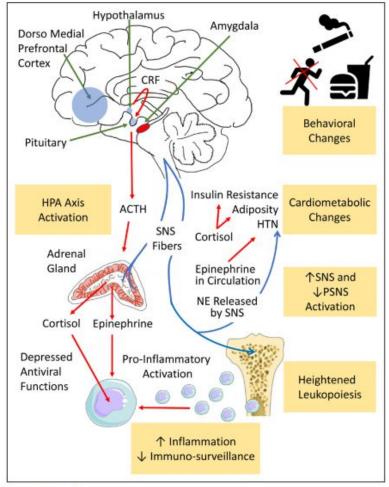
טראומה משנית ובריאות בזמני משבר Secondary Traumatic Stress & Health During Times of Crisis

Prof. Sharon Stein Merkin פרופ' שרון שטיין מרקין Liat Orenstein

Gertner Institute of Epidemiology and Health Policy Research, Sheba Medical Center

> כנס מכון הלאומי November 20, 2024

Trauma and Health





Secondary Trauma

Figure 3. Physiological consequences of stress.

Chronic stress triggers several disease-promoting physiological changes, including hypothalamic-pituitary-adrenal (HPA) axis activation, behavioral and cardiometabolic changes, increased sympathetic nervous system (SNS) and decreased parasympathetic nervous system (PSNS) activity, heightened leukopoiesis, and immune dysregulation. ACTH indicates adrenocorticotropic hormone; CRF, corticotropin-releasing factor; HTN, hypertension; and NE, norepinephrine.

Source: Osborne et al. Circ Cardiovasc Imaging. 2020





Secondary Traumatic Stress & Health

















<u>Objective</u>: To assess the association between exposure to secondary trauma on October 7th & First 2 Weeks of War and health outcomes in the general Israeli adult population

Health Changes Since Oct 7th: Worse Physical Health, Worse Mental Health, Worse Sleep



Methods

Study Sample

- Internet panel survey of general Israeli population across Israel
- March-April 2024
- 1,139 men and women ages
 18+
- March-April 2024
- Equally sampled across 3 age groups (18-34; 35-49, 50+)
- 3 geographic regions

Outcomes:

17% Worse Physical Health

34% Worse Mental Health

50% Worse Sleep

n=1139	n(%)		
Sex			
Male	573 (50.3)		
Female	Female 565 (49.6)		
Ethnic/Religious			
Jewish non-Haredi	931 (81.7)		
Druze	14 (1.2)		
Jewish Haredi	104 (9.1)		
Muslim/Christian/Other	90 (7.9)		
Household Income			
<17,000 NIS	690 (61.6)		
>=17,000 NIS	382 (34.1)		
Refused	48 (4.3)		
Direct/ Indirect Trauma			
Direct Violent	105 (9.2)		
Indirect Violent	426 (37.5)		
Displacement 102 (9.0)			
Seek Shelter Frequently	195 (17.3)		

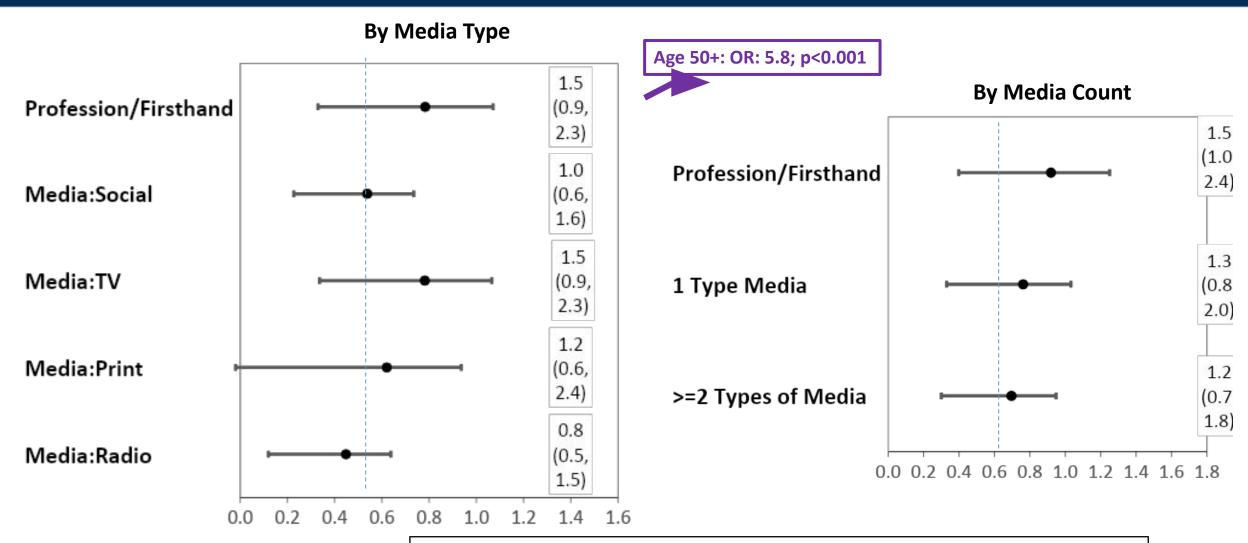


Secondary Traumatic Stress

Source	High levels of exposure + grap content, first 2 weeks of war	hic n(%)
Profession	>=5 hrs/day "Prof/First"	48 (4.2%)
Firsthand Accounts	>=22 times 189 (16.6%)	165 (14.5%)
Media		410 (36.0%)
Internet	>=6 hrs/day] "Social/New	181 (15.9%)
Social Media	>=6 hrs/day 239 (21.0%)	187 (16.4%)
Television	>=8 hrs/day	195 (17.1%)
Newspaper	>=3 hrs/day	62 (5.4%)
Radio	>=4 hrs/day	132 (11.6%)



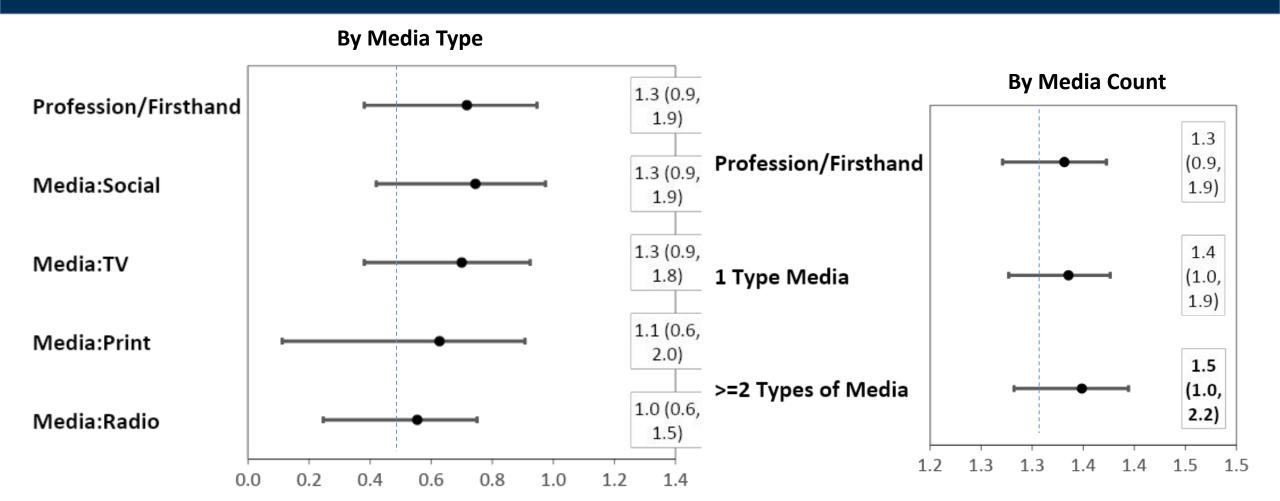
Odds Ratio of Worse Physical Health Since Oct 7th





Models adjusted for: age, sex, immigration, ethnicity/religion, employment, education, income, peripheral geography, household size, marital status, chronic conditions, social support, social integration, resilience, volunteering, previous trauma, direct/indirect trauma

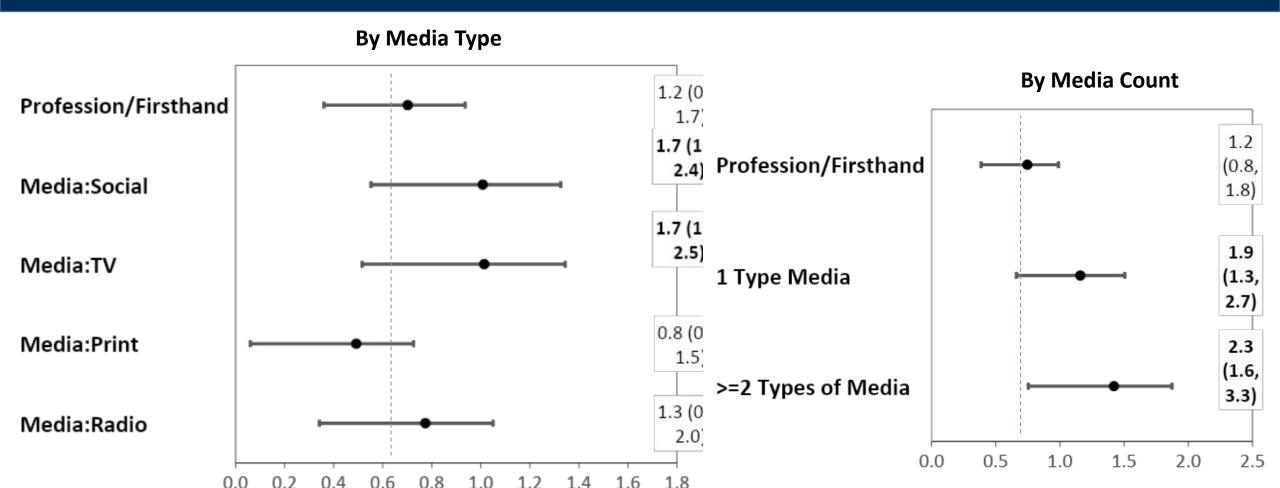
Odds Ratio of Worse Mental Health Since Oct 7th





Models adjusted for: age, sex, immigration, ethnicity/religion, employment, education, income, peripheral geography, household size, marital status, chronic conditions, social support, social integration, resilience, volunteering, previous trauma, direct/indirect trauma

Odds Ratio of Worse Sleep Since Oct 7th





Models adjusted for: age, sex, immigration, ethnicity/religion, employment, education, income, peripheral geography, household size, marital status, chronic conditions, social support, social integration, resilience, volunteering, previous trauma, direct/indirect trauma

Conclusions and Policy Implications

- ☐ Secondary traumatic stress (STS) and health outcomes
 - <u>Professional/Firsthand</u>: Suggestion of Worse Physical Health
 - Media-Induced:
 - Worse Mental Health: >=2 types of media
 - Worse Sleep: new media (social and internet) and TV; >=2 types of media
- ☐ Not evidence of causality



- Re-visit professional training guidelines
- Coping mechanisms/awareness and media-induced trauma
- Guidelines for media exposure for all ages
- Sleep as important indicator of STS



Future Research

- "Chronic" secondary traumatic stress (beyond first 2 weeks)
- Longer term effects on health changes, PTSD
- Coping mechanisms
- Additional data regarding media type
- Younger age groups



Thank you

Funded By Sheba Medical Center, Tel Hashomer, Israel

Collaboration:

Arielle Kaim, Prof. Bruria Adini, Department of Emergency and Disaster Management, Faculty of Medicine, Tel Aviv University

ResWell Multi-National Resilience & Wellbeing Research Collaboration, *Tel Aviv University*



Exposure to Secondary Traumatic Stress and Changes in Health Since Oct 7 (unadjusted)

