

The relationship between
Employment, Unemployment,
Job Loss, Reemployment, and
Mental Health:
A review of 48 longitudinal studies

Kenneth C. Hergenrather, PhD, CRC

The George Washington University

Introduction

- Mortality has decreased as premature death has been reduced
- Longevity has increased and people are working longer
- World Health Organization (WHO) includes mental well-being in the definition of “health”
- This is associated with the prevention of mental illness, treatment of individuals with mental illness, and disability as a result of mental illness
- Worldwide, depression is the leading cause of disability; bipolar disorder is also in the top 10
- Most countries have enacted legislation to protect the rights of individuals with disabilities, including their right to work

Introduction

- WHO Commission on Social Determinants of Health was organized in 2003 to address social causes of health inequities
- The commission (CSDH) assessed factors related to child development, globalization, health systems, employment, gender equity, and social exclusion
- Goal was to improve individual health and the health of the global community
- From these factors, the CSDH made recommendations for policy change and research in the social environment, the physical environment, health services, living conditions, power, money, and resources

Introduction

- Ultimately, the social determinants of health were identified as:
 - poverty status
 - education level
 - median household income
 - and employment status
- The Centers for Disease Control and Prevention (CDC) adopted this framework for use in the United States
- In April 2013, the CDC recognized employment as a social determinant of health for people living with HIV/AIDS; this was the first time a federal document did so. The National Institutes of Mental Health now refer to Social Determinants of Health.

Introduction

- Unemployment is correlated with:
 - depression
 - Increased mortality
 - psychiatric symptomology
 - poor health
 - mental illness
 - lower executive functioning
 - increased maladaptive health behaviors
- Among unemployed individuals, re-employment is correlated with:
 - reduced depressive symptoms
 - increased autonomy
 - restored psychological and social functioning

Price, Choi, & Vinokur, 2002; Burgoyne & Saunders, 2001; Gifford, Laurent, Gonzales, Chesney, & Lorig, 1998; Hammarstrom & Janlert, 2002; Jin et al., 1995; Kasl, Rodriguez, & Lasch, 1998; Kessler, Turner, & House, 1989; Olesen et al., 2013; Schuring, Mackenbach, Voorham, & Burdorf, 2010

Introduction

- This correlation can be explained by two possible scenarios
 - A) Poor mental health → increased chance of being unemployed
 - B) Unemployment → decreased mental health
- Cross-sectional studies collect data at a single time point
 - Difficult to identify cause-and-effect relationships
- Longitudinal studies collect data over multiple time points
 - Allows for an analysis of change and, therefore, of causal relationships
- The present analysis is a review of literature specifically targeting longitudinal studies that have assessed the causal relationship between employment status and mental health

Methods

- Literature Search
 - Five databases (EBSCO, MEDLINE, PsychoInfo, PubMed, and SCIEDIRECT)
 - Searched from inception to 2013
 - Key word search
 - mental health, physical health, neurological health, executive functioning, attention deficit, neurocognitive, employment, unemployment, work, labor force participation, and job
 - Search parameter for only longitudinal studies
 - Exclusionary criteria
 - 1) not published in English-language peer-reviewed journals; 2) commentaries and editorials; 3) opinions, letters, and news sections; 4) book review; 5) books and book chapters; 6) insufficient reporting of methodology or results for complete abstraction; and 7) non-longitudinal methodology

Methods

- Literature Search (cont.)
 - Initial search yielded more than 5,000 results
 - Titles were individually assessed for relevance
 - Resulted in 132 abstracts selected for further review
 - 44 articles were retained for analysis
 - Bibliographies of retained articles were reviewed
 - 16 additional articles were identified
 - A total of 60 articles were included
 - Of those, 48 reported significant results regarding mental health
- Data Abstraction and Analysis
 - Key features were abstracted
 - Length of study, sample demographics, health outcomes measure utilized, and statistically significant findings (i.e., reported $p < .05$)
 - Authors independently analyzed each study for themes
 - Cohen's Kappa = .71, indicated good inter-rater reliability (Blackman & Koval, 2000)

- Step 1: Literature Search to 2013 (n = 5172)

Database keyword search
(n = 5172)

- Step 2: Title Review (n = 132)

Excluded for non-relevance
(n = -5040)

- Step 3: Abstract Review (n = 44)

Excluded for meeting exclusionary criteria
(n = -88)

- Step 4: Bibliography Search (n = 60)

Added for relevance and not meeting exclusionary criteria
(n = +16)

- Step 5: Mental Health Results (n = 48)

Excluded for not including mental health as dependent measure
(n = -12)

Results (Articles)

- Published between 1983 and 2012
 - 52.1% (n = 25) since 2000
- 29.2% (n = 14) US; 16.7% (n = 8) Australia; 14.6% (n = 7) UK/Britain; 39.6% (n = 19) Other
- 89,667 total participants (mean = 1,868)
 - 60% (n = 36) had >500 participants
 - 8.3% (n = 4) were exclusively male samples
 - 12.5% (n = 6) were exclusively female samples
 - 31.3% (n = 15) included race/ethnicity information
 - 54.2% (n = 26) included mean age; others included age ranges or limits
 - 31.3% (n = 16) used national survey data
- Standard measures were used in 93.8% (n = 45) of the studies
 - 27.1% (n = 13) GHQ; 16.7% (n = 8) CES-D; 10.4% (n = 5) RDAS & SF-36

Results (Articles)

- 64.6% (n = 31) included control variables in the analysis
 - 54.8% (n = 17) gender; 54.8% (n = 17) education; 48.4% (n = 15) age; 45.1% (n = 14) marital status; 32.2% (n = 10) race/ethnicity
 - 74.2% (n = 23) controlled for baseline levels of the DV
 - Other examples are income, job classification, number of children, physical health, social support, life events, and unemployed family members
- Odds ratio (OR) was reported in 18.8% (n = 9) of the studies
 - 32 OR > 1.0 compared unemployed, job loss, or retired individuals to employed individuals
 - 7 OR < 1.0 compared employed individuals to unemployed individuals

Results (Trajectories)

- Identified 4 employment status trajectories
 - Continuous Employment
 - Continuous Unemployment
 - Reemployment
 - Job Loss
- Continuous Employment
 - Compared to unemployed persons:
 - better mental health
 - lower psychological distress
 - lower depression
 - lower depressive affect
 - better general morale
 - lower anxiety
 - better mood
 - higher quality of life
 - fewer psychological symptoms

Results (Trajectories)

- Continuous Unemployment
 - Compared to employed persons, UNEMPLOYED PERSONS present:
 - decreased mental health
 - higher levels of depression
 - increased depressive affect
 - increased depressive symptoms
 - greater psychological distress
 - increased suicidal ideation
 - increased anxiety
 - lower life satisfaction
 - increased alcohol abuse/dependence
 - increased illicit drug use/dependence
 - more nervous symptoms

Results (Trajectories)

- Job Loss

- Compared to employed persons, person with JOB LOSS present :
 - decreased mental health
 - increased psychological distress
 - Increased depression
 - greater depressive affect
 - increased negative mood was reported at 9 months after job loss than during months 1 through 8 after job loss

- Reemployment

- Compared to employed persons:
 - Found both increased and decreased psychological distress
 - Contingent upon type of employment (i.e., underemployment, temporary employment)

Results (Trajectories)

- Reemployment
 - Compared to unemployed persons, REEMPLOYED persons presented:
 - increased mental health
 - decreased psychological distress
 - decreased anxiety
 - psychological symptoms
 - lower depression
 - less extreme depression
 - decreased depressive symptoms were correlated when reemployed within six months after job loss
 - among persons reemployed after retirement, lower depression is reported

Results (Trajectories)

- Retirement
 - Compared to employed persons, RETIRED persons presented:
 - improved mental health
 - lower depression
 - increased psychological distress
 - *contingent upon financial resources secured for retirement
- Job Quality
 - Better mental health was associated with better quality jobs and poorer mental health was associated with poor quality jobs
 - Compared to adequately employed persons, UNDER-EMPLOYED persons reported:
 - greater depression
 - increased depressive symptoms
 - increased psychological distress
 - suboptimal mood
 - increased nervous symptoms

Employment status and Mental Health (n=48)

Summary of Findings across Trajectories when compared to employed persons

	Employed	Unemployed	Job Loss	Reemployed
Mental Health (↑ = better)	↑	↓	↓	↑
Psychological Distress ^a (↓ = better)	↓	↑	↑	↓
Depression ^b (↓ = better)	↓	↑	↑	↓
Anxiety ^c (↓ = better)	↓	↑		↓
Mood (↑ = better)	↑		↓	
Quality of Life ^d (↑ = better)	↑	↓		

Notes: ^aPsychological distress also includes psychological symptoms. ^bDepression also includes depressive affect, depressive symptoms, and suicidal ideation. ^cAnxiety also includes nervous symptoms. ^dQuality of life also includes life satisfaction.

Employment status and Physical Health (n=22)

Summary of Findings across Trajectories when compared to employed persons

	Employed	Unemployed	Job loss	Re-employed
Physical health (↑ = better)	↑	↓	↑ ^g	
Physical activity (↑ = better)	↑	↓		
Physical limitations (↓ = better)	↓	↑	↑	↓
Chronic disease (↓ = better)	↑ ^{a,b}	↑	↑	
Physical functioning (↑ = better)		↓	↓	↑
Perceived health (↑ = better)	↓ ^c	↓		↑
Functional health (↑ = better)	↓ ^b	↓		
Hospitalizations (↓ = better)	↑ ^d	↑ ^e		
Mortality (↓ = better)	↑ ^d	↑		
Biomarkers (↓ = better)		↑ ^f	↑ ^h	↓ ⁱ
Somatization (↓ = better)		↑	↑	↓

Notes: ^aoveremployed; ^bunderemployed; ^cpart-time; ^dtemporary; ^estroke, self-harm (suicide attempt), alcohol-related diagnoses, injuries from traffic incidents; ^fdecreased PHA and PPD lymphocyte reactivity, increased blood pressure and cortisol level; ^gvoluntary; ^hincreased blood pressure, decreased body weight; ⁱdecreased blood pressure, reduced weight gain, decreased cholesterol.

Discussion

- The evidence suggests that, in general, stable employment and reemployment is associated with better mental health while unemployment and job loss is associated with poorer mental health
 - The association between reemployment and mental health may be moderated by the time between job loss and reemployment, adequacy of reemployment, job satisfaction, and job quality
 - Reemployment within the first six months after job loss was associated with better mental health and lower depression
 - Although there are evidenced benefits of reemployment, these benefits are only experienced if the job type aligns with highest skill level
 - The depression level, psychological well-being, and mental health of underemployed persons is similar to that of unemployed persons

Discussion

- Retirement is a dynamic issue
 - Conflicting findings surrounding effects of retirement
 - Improved mental health and depression but increased distress
 - From 2003-2013, the number of employed persons > 65 years of age in the U.S. workforce increased 68.9% from 4.6 million to 7.8 million
 - Reemployment after retirement provides earnings to supplement other (often limited) retirement resources
- Issues surrounding temporary employment
 - 20% of U.S. workers are employed in temporary status positions
 - From 2001 to 2003, temporary employment represented approximately 2.0 % of employment but 25% of the jobs lost
 - Individuals with temporary employment reported increased depressive symptoms, psychological distress, increased nervous symptoms, and suboptimal mood

Discussion

- Reciprocal relationship between employment and mental health
 - Unemployed individuals with poor mental health are less likely to become employed than unemployed individuals with better mental health
 - Among unemployed persons, level of depression has been reported to impact the ability to function in the workplace
 - Poor social support has also been associated with unemployment status
 - Compared to employed individuals, unemployed individuals report less social support, lower perceived social support, fewer social contacts, poorer social relationships, and greater social isolation

Discussion

- Measurement of mental health
 - Most frequently cited measure (i.e., GHQ) was reported in only 27.1% of the studies
 - Future studies could prioritize a single standardized measure
 - 36-item World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0)
 - Component of the International Classification of Functioning, Disability, and Health (ICF)
 - ICF broadens disability to include individual, medical, social, and environmental influences upon individual functioning, health, and disability
 - Six activity domains of Cognition (e.g., understanding, communicating); Mobility (e.g., moving, getting around); Self-care (e.g., hygiene, dressing, eating, being alone); Getting along (e.g., interacting with other people); Life activities (e.g., home responsibilities, leisure, work, school); and Participation (e.g., engagement in community activities)

Conclusions

- Vocational service providers could consider using assessments such as the WHODAS to explore consumer functioning, disability, employment status, and health
 - Among unemployed individuals, mental health concerns are most severe during the first nine months of unemployment and recede only partially thereafter
 - Nine months post job loss, depressive affect and negative mood increases
 - Within 6 to 18 months post job loss, individuals experience increased depression
 - Although reemployment within six months of job loss is associated with better mental health, depression may continue at lower levels
- Paramount for vocational service providers and mental health providers to acknowledge the interaction of employment status and mental health to enhance outcomes.

Thank You