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February 09-10, 2022 | Webinar

Work-related stress and coping strategies among HIV/AIDS health care providers

Huiru Tong
Guangxi University of Chinese Medicine, China

Work-related stress can negatively impact health care providers' (HCPs) ability to provide care. We examined the sources of work-related stress experienced by HCPs who provided medical care for people living with HIV/AIDS, the impact of the stress on HCPs' well-being and work performance and their coping methods. We conducted in-depth interviews with 46 HIV/AIDS HCPs in Guangxi, China. The interviews were audio-recorded, transcribed, and imported into NVivo V.11 for data management and data analysis using a thematic approach. We found that the key sources of stress at work included general work-related sources and HIV/AIDS related sources, such as the complexity of HIV/ AIDS patients' medical conditions, occupational exposure, HIV related stigma, and challenges with patients' physical, mental, and social conditions. All stress was seen to have a substantial impact on the HCPs' individual well-being, family and social life, and quality of care they provided. Furthermore, the analysis of the data revealed six general coping strategies: seeking social support, applying problem-solving strategies, adopting healthy lifestyle, developing self-compassion, using mindfulness-based stress reduction methods and avoidance and escaping. We recommended that government and health care facilities take measures to improve institutional culture and professional development for HIV/AIDS HCPs. More professional training schemes should be provided to strengthen HCPs' competence, improve universal protection from occupational exposure, and reduce the stigma toward HIV/AIDS patients and their care providers. It is also imperative to increase institutional support and develop training programs to improve problem-solving skills, healthy lifestyle, and self-compassion among HIV/AIDS HCPs in China.

Biography

Huiru Tong, MSN, RN, is a faculty member and a chief nurse at Guangxi University of Chinese Medicine. Her research interests include nursing education, health promotion for medical professionals, and HIV prevention. Her expertise and passion in improving the health and well-being of the healthcare providers push her to do a series of quantitative and qualitative research on health promotion among health care providers. Her research covers workplace stress and coping methods, burnout, lower back pain, daily activities and social support, etc. Health awareness and effective stress reduction methods as well as organization care of humanity play an important role in health promotion among health care providers.

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Qualitative research to inform economic modelling: A case study in older people's views on implementing the NICE falls prevention guideline

Joseph Kwon[1], Yujin Lee[1], Tracey Young[1], Hazel Squires[1], Janet Harris[1]

[1]*University of Sheffield, UK*

Background: High prevalence of falls among older persons makes falls prevention a public health priority. Yet community-based falls prevention face complexity in implementation and any commissioning strategy should be subject to economic evaluation. The study aims to capture the views of older people on implementing the National Institute for Health and Care Excellence (NICE) guideline on community-based falls prevention and explore how the qualitative data can be used to inform commissioning strategies and conceptual modelling of falls prevention economic evaluation in local setting.

Methods: Focus group and interview participants (n=27) were recruited from Sheffield, England, and comprised falls prevention service users and eligible non-users. Topics concerned key components of the NICE-recommended falls prevention pathway, including falls risk screening, multifactorial risk assessment and treatment uptake/adherence. Views on other falls prevention topics were also invited. Framework analysis was applied, involving data familiarisation, identifying themes, indexing, charting and mapping and interpretation.

The qualitative data were mapped to three frameworks:

(1) Facilitators/barriers to implementing the NICE-recommended pathway and contextual factors

(2) Intervention-related causal mechanisms for formulating commissioning strategies spanning context, priority setting, need, supply and demand

(3) Methodological and evaluative challenges for public health economic modelling

Results: Two cross-component factors were: health motives of older persons; and professional competence. Participants highlighted intersect oral approaches and prioritising the vulnerable groups. The commissioning strategy should consider socioeconomic, linguistic, geographical, legal and cultural contexts, priority setting challenges, supply-side mechanisms spanning provider/organisation, funding and policy and health/non-health demand motives. Methodological and evaluative challenges identified included: incorporating non-health outcomes and societal intervention costs; considering dynamic complexity; considering social determinants of health; and conducting equity analyses.

Conclusions: Holistic qualitative research can inform how commissioned falls prevention can be feasible and effective. Qualitative data can inform commissioning strategies and conceptual modelling for economic evaluations of falls prevention and other geriatric interventions.

Biography

Joseph Kwon is currently near completing his PhD in Public Health, Economics and Decision Science at School of Health and Related Research, University of Sheffield, funded by Wellcome Trust. The PhD research focuses on community-based prevention of falls among older persons as a case study in economic modelling of geriatric public health interventions. The model seeks to capture the dynamic interplay between falls incidence and multivariate frailty progression and track diverse outcomes important to older persons, including health (QALY), healthcare cost, productivity, private care expenditure and informal caregiver burden. It incorporates multiple prevention pathways - reactive for those admitted to A&E/hospital for falls, proactive for those screened by GP to be at high falls risk, and self-referred for those who enrol in community exercises without professional referrals and capacity limits that reflect the constraints faced in real commissioning settings

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Effects of a workplace health promotion training program on various health and fitness parameters in foresters

Andrea Dincher[1], Liam Feuersenger[1]

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Background: Health as a multi-faceted construct must be maintained and promoted, especially for forest workers who are exposed to high physical and psychological stresses (Gröger, & Lewark, 2002), done through an exercise program.

Hypothesis: An exercise program has a positive effect on health and fitness parameters of forestry workers.

Methods: Five districts of the Saarland state forestry enterprise (Germany) were randomized allocated to experimental (training twice a week for one year) or control group. Both groups were subjected to a pretest and posttest (resting heart rate, W/kg BW, Basic Motor Diagnostic BMD, Perceived Stress Questionnaire PSQ and Self-Efficacy Expectations SEE). SPSS was used for statistical analysis (U-test to compare the group results, Wilcoxon test to compare pretest to posttest; significance level p< .05).

Results:

Pre-test: No significant difference between groups. Experimental group shows a significant change in resting heart rate Z=-2.40, p=.016*; W/kg BW Z=-2.93, p=.003**; BMD Z=-2. 77, p=.006**; SEE Z=-2.93, p=.003**, control group shows significant differences in W/kg BW (Z=-2.52, p=.012*), PSQ (Z=-2.38, p=.017*) and SEE (Z=-2.52, p=.012*).

Post-test: Significant difference between groups on BMD (U=17.5, p=.026*). Conclusions: The training program had a positive effect on the objective parameters, which is consistent with the results by Reimers et al. (2018), Folland and Williams (2007) and Kjaer et al. (2006). The control group also increased significantly in the W/kg BW from pretest to posttest, possibly related to the fact that a lot of work may have occurred in the forest that promoted endurance and leg strength (Rudolph, 2013). That the experimental group improved in subjective parameters from pretest to posttest is consistent with the findings of Mandolesi et al. (2018). The control group also improved in PSQ, possibly related to the seasonally different work in the forest (Gorger, & Lewark, 2002). For this reasons, the project will continue.

Biography

Andrea Dincher is a lecturer for special tasks at the Sports Sciences Institute at Saarland University. Her research focuses on movement diagnostics and promotion in different settings (occupational health management, training therapy for neurological diseases, and motor development in children).

Liam Feuersenger is a student of sports science at the Sports Sciences Institute at Saarland University. He actively participated in the presented project as a trainer and wrote his master's thesis about it.

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Examining the approaches of OHS professionals to the reasons for fall from height

Deniz Akarsu
Ankara Yildirim Beyazit University, Turkey

Statement of the Problem: Except motor vehicles accidents, the death rate on occupational accidents which occur falling from high places or into depths is higher than any other accidents. According to the importance of the topic, in the study, examining the approaches of OHS professionals to the reasons and effects of occupational accidents which occur as falling from heights is aimed.

Methodology & Theoretical Orientation: 100 accident inspection reports from Labor Inspection Board were surveyed. Accident reasons were derived and evaluated according to their importance by OHS professionals. Then, the evaluation results were analysed through a statistic pocket program to see if they had any significant difference according to the participant groups.

Findings: Through analysis; it is observed if the participant groups have different points of view to the accident reasons. As a result, preventing and decreasing actions about the determined priorities were offered.

Conclusion & Significance: The study reveals:

• The factors causing the accidents which occur falling from high places or into depths

• The frequency of the factors causing the accidents

• The risk scores of those factors

• If there is a difference between the approaches of OHS Professionals

Biography

Deniz Akarsu was born in Ankara, Turkey. She has graduated from Electrical and Electronics Engineering and has been working as an OHS Expert in the Turkish Ministry of Labor and Social Security since 2012. She has written two theses in the field of OHS: the expertise thesis for the Ministry “Risk Assessment on Occupational Accidents Occur Falling from High Places or into Depths” in 2016 and the master thesis for the Middle East Technical University “Examining the Approaches of OHS Professionals to the Reasons for fall from Height”. For more than 6 years she has been the team leader of the international OSH organizations in the Ministry. She has a son named Tuna. As a mother and OHS Specialist, she wants to contribute to a better working life in every way. In this respect, she finds such organizations inspiring and remarkable

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Predictors of physical activity level in Parkinson's disease individuals: A pilot study

Vitoria Leite Domingues[1], Marina Portugal Makhoul[1], Tatiana Beline de Freitas[1], Camila Torriani-Pasin[1]
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Introduction: Parkinson's disease (PD) individuals have a low physical activity (PA) level. It is already known that physical, psychosocial, and disease-related factors are associated with their PA levels; however the factors predicting it still need further investigation.

Purpose: To investigate the effectiveness of the PA measures (diary and accelerometer) and the participant's perceived of use; to investigate the association between physical and psychosocial variables with PA level.

Method: This pilot study included PD individuals over 60-years, with Hoehn and Yahr modified score between 1-3, without clinical condition that impacts PA. Individuals with other neurological disease or dementia were excluded. The protocol duration was 7-days. The physical and psychosocial evaluations were performed on the first day: 10-meters walk test (10-MWT), Mini Mental State Examination (MMSE), Activity-Specific Balance Confidence Scale (ABC-Scale), MDS-Unified Parkinson's Disease Rating Scale part III (MDS-UPDRS-III); Timed-Up-Go (TUG), Five times sit-to-stand (FTSTS), MiniBESTest and Functional Gait Assessment (FGA). The participants received the Dynaport Move Monitor (accelerometer attached to lower back) to evaluate their PA level and a diary to record their routine. On the 7th day, the participant returned the accelerometer with their filled diary. Pearson's correlation was performed to investigate association between all variables with PA level. Alpha 0.05.

Results: All 22 participants accepted well the use of the accelerometer. However, the diary notes were not perfectly filled because there was much information to register. There was complaining of discomfort caused by the use of the accelerometer in lying and sitting positions due to its location. Besides, due to technical problems with the device, 4 samples were recollected. Only correlation with 10-MWT, MMSE and ABC-Scale weren't statistically significant.

Conclusion: The accelerometer acceptance was good for most individuals, but its effectiveness wasn't great. To better adherence, the diary needs to be shorter. Five variables were statistically significant with PA level: MDS-UPDRS-III and TUG had low correlation, and FTSTS, MiniBESTest and FGA had moderate correlation.

Biography

Vitoria Domingues is a physical education professional, with an on-going Master in Science at the University of Sao Paulo, Brazil. Since her bachelor's course, she has been involved in community programs to promote physical activity in Parkinson's disease and Stroke individuals. The present manuscript is her undergraduate final project and was design to be the pilot study of her master dissertation. Also, she is conducting a systematic review in the same theme: Factor associated with physical activity level of Parkinson's disease individuals.

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Non-communicable disease risk factors among a cohort of mine workers in Mongolia

Andy McCarthy
Edith Cowan University, USA

Aim: Prevalence of non-communicable diseases (NCD) is growing among working populations globally. The World Health Organization (WHO) estimates NCD are responsible for 80% of all premature deaths (Lancet, 2016). The purpose of this study is to determine baseline level of NCD and risk factors among mine workers and to identify intervention strategies based on results. The collected results will be compared with a NCD study on the general population of Mongolia.

Method: A cross sectional design was used for this study. 684 employees were randomly recruited to the study. We utilised WHO questionnaire to collect anthropogenic measurements, health behaviours, alcohol consumption, smoking, NCD and work related information. The study focused on four (4) key risk factors of hypertension, obesity, drinking habits and smoking habits. These factors are key contributors to NCD and decreased life expectancy.

Results: Results of the study showed prevalence's of hypertension 12.9%, obesity 64.1%, alcohol users 22.1% and smokers 38.8%. The general population prevalence's are 27.5%, 56.8%, 15.5% and 24.8% respectively. Differences between gender in the study cohort for smoking rate (men = 43.3%, women = 8.9%), alcohol consumption (men = 29.9%, women = 16.1%) and central obesity (men = 78.3%, women = 35.1%) were statistically significant ($p<0.05$).

Conclusion: Prevalence of arterial hypertension for the mine worker cohort was lower than general population; however, obesity, drinking and smoking rates were higher. The study findings allow us to target intervention strategies to mitigate the risk of NCD development in the future.

Biography

Andy McCarthy, MSc, MPH, MAIOH, COH is an AIOH Full Member and Certified Occupational Hygienist with 15 years' experience in the fields of consulting, mining and oil and gas. Andy holds a Graduate Certificate Occupational Hygiene (University of Wollongong), a Graduate Diploma OHS (Edith Cowan University), a Master of Science (Edith Cowan University), and a Master of Public Health (National University of Medical Science) and is currently working towards a PhD in Public Health (Edith Cowan University). Andy works for Rio Tinto as Practice Lead Industrial Hygiene and is based in Salt Lake City.

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Estimating Nickel exposure in respirable dust from Nickel in inhalable dust

Cornelia Wippich[1], Dorothea Koppisch[1], Katrin Pitzke[1], Dietmar Breuer[1]

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At different workplaces, the dust exposure and associated metal constituents, e. g. nickel, can be immense, and can cause occupational diseases. They range from allergic reactions to different forms of cancer. From early years of exposure measurement, only data of nickel in one dust fraction (mainly inhalable instead of respirable and inhalable) were measured. For retrospective evaluations of exposure levels or of occupational diseases, this is problematic. For this purpose, it is desirable to convert nickel concentrations from inhalable to respirable dust. Therefore, a total of 234 202 respirable fraction measurements, 123 118 inhalable fraction measurements and 32 882 nickel measurements in total were extracted from the exposure database MEGA. After several parameters and restrictions (e.g. same industrial sector, working activity and sampling duration or type of sampling) were considered, 551 parallel measurements of nickel concentrations in inhalable (c_(I(Ni))) and respirable dust (c_(R(Ni))) fractions from 2011 to 2020 could be determined and investigated by linear regression analysis. Inhalable dust is the most important predictor variable, showing an adj. R^2 of 0.767. To refine the conversion of nickel concentrations, the total dataset was divided into working activity groups 'high temperature processing', 'filling/transport/storage', and 'machining/abrasive techniques'. From these groups, more task-specific subgroups were formed: 'welding (grinding time fraction [GTF] < 5 %)', 'welding (GTF > 5 %)', 'high temperature cutting' and 'grinding'. The nickel concentrations were transformed using the natural logarithm. For each group an individual conversion function with its relating confidence interval could be calculated. All conversion functions (except for 'welding GTF < 5 %') are power functions with adj. R^2 between 0.628 and 0.924: c_(R(Ni))=□c_(I(Ni))□^k*e^(C_0), where k and C0 are regression coefficients. Thus, there is no linear correlation between c_(R(Ni)) and c_(I(Ni)), no single conversion factor and the conversion must always refer to the individual workplace.

Biography

Cornelia Wippich graduated in 2016 with a master's degree in analytical chemistry and quality assurance at the University of Applied Sciences Bonn-Rhein-Sieg, Germany. As a part of her doctoral thesis, she conducted research on the conversion of inhalable and respirable dust and metal dust constituents in different industry sectors. Since 2019 Ms. Wippich is working as a scientific employee in the section metal analysis at the Institute for Occupational Safety and Health of the German Social Accident Insurance.

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Schizophrenia: Causes, Symptoms, and Cures

Anna Cornelia Beyer
University of Hull, UK

I am a scientist with a PhD and a patient with schizophrenia since 2002. I have the advantage that I can research this illness with my own experience in mind. Since 2008, I have researched schizophrenia intensively, and published a book about it called Health and Safety for Spirit Seers, Telepaths and Visionaries – Self-help for Schizophrenia.In this talk, I will show the causes, symptoms and potential cures of schizophrenia.I want to show at my personal history how traumatic experiences and deprivation cause schizophrenia, I will argue that episodes most strongly happen in 'transition years' in the person's life, which might co-occur with global transition years.I will argue that the symptoms have a spiritual quality. My symptoms distinctly feel like spirit communication and telepathy (one can also call it clairaudience and clairvoyance). I always argue, also in my book, that the symptoms of schizophrenia must be thought of as telepathy. The main symptom in schizophrenia are auditory hallucinations, some people also see things. Auditory hallucinations are voices that the patient can hear, but no one else. To me, they have always felt like telepathy. Telepathy is an increasingly researched phenomenon. It is thought that aliens communicate that way, maybe animals too, and some accounts mention that spirits communicate via telepathy.There is not necessarily a cure for schizophrenia. But this illness can be managed so that it is less destructive and less painful to live with. I will show how medications, spirituality, loving kindness, and supplemental therapies, such as vitamin therapy and music therapy and a very healthy lifestyle, amongst others, can help in managing the condition and live a happier and healthier life.

Biography

Anna Cornelia Beyer is a former senior lecturer. She holds a PhD in Politics from the University of Hull, UK, where she worked for 12 years until 2019. She is diagnosed with schizophrenia since 2002, and since 2008 researched this illness and published about it. She published extensively about schizophrenia and spirituality and healthy living. She also founded the new discipline of International Political Psychology. She founded the Peace Academy (www.peaceacademy.biz) and the Schizophrenia Clinic (www.schizophreniaclinic.com).

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Discovering the hidden costs of Nonfatal Occupational injuries and illnesses in Agricultural works in Thailand

Densak Yogyorn

Mahidol University, Thailand

Thailand lacks occupational injury and illness (OII) surveillance data for its agricultural sector, which is not covered by the workers compensation system, yet comprises 34% of the total Thai workforce. The aim of this study was to use the limited existing data from the Universal Health Care System (UHCS) to estimate the medical costs of OII's from agricultural work in Thailand. The results showed that in 2017 OII medical costs shifted to the UHCS totalled $47 million (USD), representing ~0.2% of the GDP produced by the Thai agricultural sector in 2017. We recommend that some of the national funds that are currently used for medical treatment of OII's, should instead be used to develop and implement prevention programs in agriculture, which would improve not only worker health and safety, but also productivity. The availability of short term and disability losses to work time data could enable better public health policy formulation.This is the first report on the number and medical treatment costs of occupational injuries and illnesses in the Thai agricultural sector. Other reports on OII's have utilized data from the Workers Compensation System, which are only available to formal sector employees. This study is unique in utilizing the UCHS data to identify 1,704,655 occupational injuries among agricultural workers for 2017.The field, crop and vegetable growers had the largest number of visits and medical costs for occupational injuries, result from the wide range of activities and equipment used during land preparation, planting, cultivating and harvesting. Nevertheless, animal producers and livestock handlers suffered more severe injuries, as evidenced by higher per visit medical costs for injuries. This study estimated the annual medical costs attributed to Musculoskeletal Disease (MSDs) about 28% of the total medical cost of all agricultural OII's.

Biography

Densak Yogyorn has 24 years of experiences in Occupational Health, Safety (OHS) in many process industries, factories, and construction projects before joined the faculty of public health, Mahidol University. Unlike formal work which covered by worker compensation system, agricultural workers (so-called informal workers) have no privilege like that. Densak has built this model for estimating the costs of occupational injuries and illnesses among agricultural workers to enable the policy makers to realize this issue.

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Self-esteem of Indian nurses working in hospitals

Rajesh Kumar Sharma[1], Anurag Bhai Patidar[2]

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Introduction: Nurses with healthy self-esteem are likely to deliver therapeutic patient care, while those with low self-esteem are less likely to do so. Self-esteem also affects how the nurse thinks, feels, and provides care. Relevance of self-esteem and the ability to establish interpersonal relationships and quality of nursing care provided is undeniable.

Objectives: The objectives of the study were to assess the nurse's self-esteem among registered nurses of selected hospitals of the North India.

Material & Method: A quantitative research approach with descriptive research design study. Samples were recruited by non-probability convenient sampling technique and total 350 working nurses were recruited.

Result: Majority 69.4% (243) of nurses working in hospital setting experiencing normal self-esteem. Whereas 29.4 % (103) experiencing low self-esteem. So, it revealed that for demographic variables Age, marital status, professional educational status, area of working, number of patients seen in each shift, teaching experience, clinical experience, working in Gov./private sector, monthly salary, holding any position in professional organization and attending CNE/ conference/ workshop are significantly associated with nurse's self-esteem.

Conclusion: The study concluded that majority of nurses working in hospital setting experiencing normal self-esteem. Some factors like seniority in nursing, qualification, teaching experience, working in govt sector and high salary influence the self-esteem of nurses.

Biography

Rajesh Kumar Sharma, Associate Professor and Head of Critical Care Nursing Department in Swami Rama Himalayan University, Dehradun. He is Program Administrator for Nurse Practitioner in Critical Care Residency Program. Presently he is Secretary - TNAI Uttarakhand Branch. He is National Coordinator (Nursing Section) for Dr Padam Singh Research & Statistics Scheme under National Institute of Medical Statistics & Indian Council of Medical Research. He is Instructor & Master Trainer for Simulation Based training in Medical & Nursing Education. Also Master trainer for HIV/AIDS, Basic Life Support, Heart Saver & First Aid program of AHA. He is Coordinator for International Training Center of AHA, at SRHU, Dehradun. He has been awarded as Best Teacher and Outstanding Researcher in Critical Care. He has 27 research papers published in National & International Journals. He is also Editor & reviewer in many journals of repute. He has presented papers & posters in many National and International conferences. He has been resource person, organized & attended many State, National and International-level conferences, Seminars & workshops.

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Cognitive Ergonomics of Eye-Hand dyscoordination in chronic stroke

John Ross Rizzo[1], Todd E. Hudson[2], Mahya Beheshti[3], Acran Salmen Navarro[4]

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Statement of the Problem: Eye-hand coordination relies on the ability to visually determine details in the environment and direct goal-oriented hand movements. During task-specific movements, multimodal sensory predictions and feedback are essential to visuomotor integration and motor control. It is widely agreed that ocular motor and manual motor impairment can be caused by cerebral pathologies such as neuro degeneration and stroke. We have previously reported stroke participants had significant eye-hand dyscoordination in visually guided reaching, i.e., temporal decoupling between primary saccade and reach onsets, greater endpoint errors in both effector systems (poorer spatial performance), and an increased frequency of saccades during the temporal decoupling as compared to healthy participants. Movement repetition increases feelings of tiredness and mental fatigue, which have been shown to negatively influence performance. Accurate eye-hand coordination is important in every aspect of life but particularly important for work-related tasks, especially those requiring precision and human factors interaction with the workplace. When performing tasks that require visually guided upper extremity repetitive motion, use of hand tools, manual material handling and constant pinch / grip, ergonomic interventions are critical to adapt workplaces to the users, avoid human errors, reduce risk factors and implement safe return-to-work programs after neuro-rehabilitation. Here we sought to investigate spatiotemporal measures of eye-hand coordination during a repeated visually guided point-to-point reaching task to investigate performance decrements over the evolution of a trial block.

Methodology & Theoretical Orientation: To assess eye-hand coordination, we tested eye and hand movement performance over repeated eye-hand movement in a saccade-to-reach paradigm in chronic stroke participants. We hypothesized that participants would show impaired saccadic and manual motor control after repetitive motion as a result of cognitive fatigue. A cross-sectional study was performed on ten stroke participants (aged 46-75) with middle cerebral artery stroke and mild-moderate motor impairment (Fugl-Meyer Score 43-65). The physical configuration of the table surface and monitor allowed participants to simultaneously view the screen and make point-to-point reaches on a table top with a motion sensor attached to the index finger. Custom Matlab scripts were used to display visual stimuli and perform real-time integration of data acquired from the Eye link II eye tracker and Polhemus limb tracker.

Findings: Aside from our typical findings of dyscoordination in the experimental block, standard deviation for fixation duration changed nearly linearly from about 200ms to 400ms over the course of the experiment. Eye movement frequency was elevated consistently during the experiment, at about 6-10 eye movements per reach.

Conclusion & Significance: Cognitive ergonomics is driven by the capability of the human mind to interact with the workplace and to leverage products and tools to facilitate efficiency. Perception, memory and mental processing are all mental functions that work synergistically with eye movement in nearly all occupational settings. When normal eye behaviour is disrupted for any reason, the risk of human error increases and may lead to accidents, ultimately decreasing work productivity. Here we show fixational variance nearly doubles over the course of a short block of trials, demonstrating increasingly non-uniform fixations, as might be expected with increasing cognitive fatigue. Future studies that further characterize eye-hand coupling and the evolution of metrics over time objectively in unconstrained and naturalistic tasks within the workplace with ecological validity may produce high-yield results for occupational health, neuro rehabilitation and neuroscience.

Biography

John-Ross (JR) Rizzo, M.D., M.S.C.I., is a physician-scientist at NYU Langone Medical Center's Rusk Rehabilitation, where he serves as vice chair of Innovation and Equity for Physical Medicine and Rehabilitation with cross-appointments in the Department of Neurology and the Departments of Biomedical & Mechanical and Aerospace Engineering at NYU-Tandon. He is also the Associate Director of Healthcare for the renowned NYU Wireless Laboratory in the Department of Electrical and Computer Engineering at NYU-Tandon. He leads the Visuomotor Integration Laboratory (VMIL), where his team focuses on eye-hand coordination, as it relates to acquired brain injury, and the REACTIV Laboratory (Rehabilitation Engineering Alliance and Center Transforming Low Vision), where his team focuses on advanced wearable's for the sensory deprived and benefits from his own personal experiences with vision loss.