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ABSTRACTS

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PLENARY SESSIONS
Mental Health and Technologies: A Relationship with a Promising Future

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The development of Information and Communication Technologies (ICTs) has been impressive in the last decades. Their use has spread to all fields, changing the way in which we interact with the context and relate to other people. Albeit their potential dangers and limitations, the use of ICTs is impacting significantly on both society and individuals, and Psychology is one of the areas where ICTs can have a relevant influence. The Internet, mobile phones and devices, sensors, virtual and augmented reality, etc… they are very useful tools that can help us in many of the tasks and objectives entrusted to Psychology. ICTs can provide us dynamic data of the behaviors in the context, collected in an ecological, unbiased, and non-intrusive way, allowing us to develop more comprehensive and complex theories on human behaviors and experiences. But they also allow us to design and deliver precise and personalized interventions, which are delivered in the specific contexts, monitoring and promoting significant changes leading to healthy and adaptive behaviors. Tools such as virtual reality and augmented reality provide “tailored” world simulations, which can be inhabited by virtual agents and avatars, and that can constitute ecological labs for researching complex behaviors in safe and controlled situations. But they can also be useful as training contexts to promote significant and endurable changes. This keynote will provide a view on what ICTs are offering and can offer in the next future to Psychology, focused mainly in the Clinical Psychology field.

**Keywords:** Internet, Virtual Reality, Mobiles, ICTs, Mental Health.

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Stress from a Neuropsychological Perspective

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Historically has adopted a Cartesian dualism suggestive of a functional/organic dichotomy that resulted in the development of psychological theories and practices that bifurcate the two. This presentation proposes that this is an artificial separation that inhibits a complete understanding of how emotions interface with the brain. Stress will be viewed as an epiphenomenon arising from brain functioning and, in turn, controlling brain functioning. This idea is based on the concepts formed by Roger W. Sperry, developer of the split-brain phenomenon and the first psychologist to win a Nobel Prize (1981). This perspective provides a more robust perspective of not only how to interface the “functional” with the “organic” but also provides an increase robustness of understanding stress as a continuous and biological activity which mirrors, controls and as if affected psychological activity.

Key words: Stress, Neuropsychology, Theoretical models

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Special plenary Symposium STAR 40th Anniversary:

Celebrating STAR Research Journeys over the Decades

Discussants:
Esther Greenglass and Erica Frydenberg

Overview

Since the inception of STAR by Professor Charles Spielberger and his colleagues some four decades ago, STAR has been the leader in the field of stress and coping research, with a high-level journal and a strong academic conference held annually. In this special plenary session five eminent STAR participants reflect on their research over the decades, where they have described their research and what they see as their main achievements and impacts on the field of stress and coping.

Krys Kaniasty describes a research focus on the importance of social support and challenges the dichotomy between perceived and received support. Esther Greenglass’ early research interests were in the area of the psychology of women and distress. Her studies on stress and coping have culminated in a focus on proactive aspects of coping and their contribution to healthy functioning. Some of this research is based on cross national samples to validate her findings.

Kate Moore has focused her research attention on coping with chronic illness and more recently she has turned her attention to resilience and the importance of appraisal in the process of seeing situations as challenging rather than threatening.

Petra Buchwald has focused on aspects of stress in the educational context with teachers and students. Her interest in dyadic and communal coping highlights the social and relational aspects of the coping process.

Erica Frydenberg addresses measurement and implementation across the lifespan in diverse populations, with an appreciation of the importance of developing coping skills in the early childhood years for maximum impact.

The presentations here highlight the range of theoretical issues and empirical approaches to stress and coping research and tangible outcomes that have been achieved. Finally the perspective of the presenters on “what next” is offered.
In graduate school, when I was interviewing for a coveted assistantship with a team studying the impact of stressful life events on well-being, I was handed a list of variable names from their data set and asked: “If hired, what constructs do you want to concentrate on?” I considered myself a social psychologist, so I immediately went down the list to the letter “S” and searched for something “social.” Since then, my primary interests have been in social support dynamics. I discovered very quickly that the mechanisms through which helping each other produces desirable effects are not as clear as popular adages compellingly proclaim. Providing and receiving help in crisis situations is a complex and difficult process where good intentions and sincere concerns often blend with confusion, scepticism, and psychological threats. My scholarly career has been submerged in the field of social and community processes that enhance or undermine the efficacy of social support exchanges in times of coping with collective trauma of natural and human-induced disasters. Our work (chiefly in collaboration with Fran Norris) successfully introduced to the literature two related theoretical frameworks (i.e., social support mobilization and a deterioration model, social support deterioration deterrence model) that organize knowledge concerning different, and at times conflicting, processes that emerge following traumatic events. Despite all the research, we still have not adequately answered the question that continually troubles me: Why is received support less influential than perceived support? Frankly, I am afraid we have not yet adequately answered that simple question. The field still cannot offer parsimonious and efficacious ways of helping people to be genuinely helpful to each other in times of stressful circumstances.

Key words: Social support, Trauma, Community interventions
Stress in School and the Conservation of Resources Theory

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In the past, I thought about positive and negative effects of social support, exchange of help and the inherent communal and dyadic processes during critical life events. When I attended Stevan Hobfoll's keynote address at the STAR conference in Graz, Austria, in 1996 I was quickly convinced that I found the theoretical basis for my future research in Hobfoll's Conservation of Resources Theory. Over the past few decades, my research has focused on stress, anxiety and coping primarily in the context of the school and teaching. Topics such as teacher stress, burnout and test anxiety were in the foreground and thus increased awareness of stress within the educational system. Today the term stress is an integral part of everyday life and continues to attract research attention. Innovations such as the smartphone have meant that we are almost always in touch with our work which can lead to chronic stress and burnout. New imaging technology of the brain has elucidated the role of specific brain areas and their interaction. Of particular relevance will be the findings of epigenetics which show how the stress reaction network in the brain adapts to environmental requirements as it matures thus influencing susceptibility to stress throughout life. As a result of my work in the field of stress and coping, there is increased awareness of communal and dyadic coping which has advanced the knowledge base in the field and demonstrated their importance for psychological well-being.

Key words: Stress at school; Test anxiety; Communal coping; Conservation of Resources Theory (COR)

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My STAR Journey: Then and Now

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Since the seminal work of Richard Lazarus coping has entered our nomenclature, so much so that today it is closely aligned with resilience. The development of empirical tools to measure coping has enabled us to move beyond answering some key empirical questions to utilise the concepts and constructs to inform implementation in a range of settings across the life span. The work of Stevan Hobfoll has highlighted the necessity of looking beyond definition of constructs to the socio-cultural context where resources are all important. Our work over the past few decades has identified the construct of coping, and developed measurement tools first for adolescents, followed by parents and children. The tools have enabled us to measure coping, identify correlates such as anxiety and depression, develop clinical and educational interventions for generic populations and specific ones, such as that for dyslexic young people and then apply the insights into parenting programs. In the last decade the importance of early education and intervention has been recognised so our research and application efforts have focused on 4-6 year olds both in the educational and parenting space. The sum total of these efforts has been the translation of research and measurement into accessible applications for diverse audiences with a more recent focus on early childhood. Coping has now joined a vast body of work that has enabled it to be incorporated into positive psychology. Along with concepts such as emotional intelligence, grit, mindset and motivation, coping contributes to well-being and resilience to enable individuals to flourish. Thus it has and will continue to move from the stress community to the health, well-being and resilience research communities.

Key words: Coping, Community educational interventions, Socio-cultural context

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My research journey into stress and coping began with the study of the psychology of women when I found that work/family conflict precipitated greater distress in women than in men. This led to further research on gender differences in emotion, motivation, as well as giving and receiving social support which alleviates stress. Using Spielberger’s scales to assess anxiety and anger I went on to develop theoretical notions relating to the experience and management of emotions including coping. At the time coping research dealt with alleviating stress that had already occurred. Based on the notion that a lot of stress is anticipated, I developed The Proactive Coping Inventory (with R. Schwarzer) that focused instead on future stressors and how they could be prevented using planning, thinking ahead and anticipatory behavior. In this way, individuals are seen as agentic rather than passive in that they potentially have the ability and resources to modify their environment in a positive way before disaster strikes. Applying my theoretical concepts to everyday issues, my students and I have studied teacher stress and burnout, psychological reactions to SARS and other applied topics including The Great Recession. Using social psychological theory and tools developed in the lab, we continue to apply our knowledge to the study of stress and coping in real-life situations and when possible, we include cross-national data to validate our findings.

Key words: Coping, Planning, Applications
A question that many of us ask of others and perhaps of ourselves is: Why do some people succumb to stress and anxiety while others are more resilient? This question prompted my early research into the factors that help people cope with a chronic illness such as end-stage liver disease, Multiple Sclerosis, and Parkinson’s disease. Less than personality, more than social support, it was people’s attitudes that appeared to inform their adaptation to or coping with chronic illness whether of a physical or even a psychological nature. The idea of seeing issues as a challenge rather than something to be avoided leads to future research relating positive coping to resilience and investigating the impact of people’s attitudes across a range of life domains and organizations. Using The Deakin Coping Scale, my colleagues, students and I have modeled people’s attitudes towards problems or demands of a personal and workplace nature, and outcomes. Our attitudes or perceptions can be likened to Lazarus and Folkman’s idea of appraisals which, to misinterpret Rene Descartes, can be translated into common parlance of “I am what I think”. Not only is this idea relevant to how we perceive demands, but also to our sense of self-esteem, confidence and efficacy, which we are currently investigating in terms of the ‘imposter syndrome’.

Key words: Resilience, Chronic illness, Positive coping

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STAR Distinguished Spielberger Address:

Psychosocial resources and coping with life challenges

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Coping with challenges and adversity can be facilitated by personal resources such as perceived self-efficacy as well as by social resources such as social support. The theoretical background of personal and social resource factors will be described, and the mechanisms how they may be related to various psychosocial outcomes and behaviours will be investigated. Such mechanisms are mainly studied in terms of mediation and moderation. One example is a reanalysis of post-traumatic stress disorder (PTSD) and resilience in New York police officers who were involved in the 9/11 terrorist attack. Other examples are on migrants, cardiac surgery patients, and factory workers. In multi-morbid senior citizens, friend support as well as self-efficacy predict physical exercise frequency and autonomy: those with low support were less likely to be active even if they were highly self-efficacious; low self-efficacy and low support were jointly associated with lack of autonomy; receiving social support bolstered autonomy in lower self-efficacious individuals, but support threatened autonomy in highly self-efficacious individuals. Advances in the study of personal and social resources, using more complex mechanisms, are discussed.

Keywords: Self-efficacy, coping with stress, social support, resilience, coping resources

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Early Career Award Recipient's Address:

School-related stress
The art of a stress-free learning environment

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During the school years, young people undergo critical stages in their cognitive and behavioral development accompanied with contextual changes due to school transitions, often resulting in elevated stress levels. Young people need support throughout these stages, as their development and learning must not be left to chance. Recognizing the importance of a students’ environment, I am interested in identifying contextual and individual resources that support students’ development and well-being. In my talk I will focus on both contextual aspects such as the supportive role of peers and teachers as well as on individual aspects such as neuroticism and academic buoyancy that impact students’ stress perception. Taking an interdisciplinary perspective, I will provide insight on how scholastic social relationships shape the brain and influence stress perception.

Keywords: Class and school climate, Perceived stress, Interdisciplinary research

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SYMPOSIA
SYMPOSIUM 1:
Learning-related emotions and achievement in Higher education

Chair: Tobias Ringeisen

- The relationships between learners’ characteristics, test anxiety, and outcomes: Validating their proposed structure based on control-value theory. Christian Heckel, Caterina Messerschmidt-Grandi and Tobias Ringeisen

- The Italian Multi-Faceted Test Anxiety Questionnaire (PAF-I): A validation study. Tobias Ringeisen, Christian Heckel and Caterina Messerschmidt-Grandi

- Performing during a presentation: The role of self-efficacy, enjoyment, and cortisol. Tobias Ringeisen, Kristina Klug, Wubamlak Endale, Tobias Eckart, Marco Schickel and Sonja Rohrmann

- How students learn to present better: The interplay of boredom, self-perceived competence and presentation performance. Marco Schickel and Tobias Ringeisen
LEARNING-RELATED EMOTIONS AND ACHIEVEMENT IN HIGHER EDUCATION

General abstract

Research has provided multiple evidence that learning-related emotions serve as an important intervening variable between learners' characteristics and outcomes in school settings. For the context of higher education, however, existing studies have seldom examined the mediating role that learning-related emotions may play for performance and competence development, especially if behavioral indicators of performance are considered, aside from self-report. Moreover, research has often neglected the multi-faceted nature of learning-related emotions which may, for instance, contain physio-affective and cognitive manifestations.

In response, the current symposium presents four papers which examine the interplay between dispositional learners’ characteristics such as self-efficacy, selected facets of learning-related affect, and outcomes in terms of learning behavior and academic performance.

In the first paper, Ringeisen et al. report on the validity of the multi-faceted Italian Text Anxiety Questionnaire which allows the simultaneous assessment four anxiety manifestations in Italian-speaking university students. In the second paper, Heckel et al. provide support for a sequential structure between dispositional learners’ characteristics, facets of negative affect, learning behavior, and academic performance. In the third paper, Schickel and Ringeisen demonstrate that lowering boredom and increasing presentation competence has performance-enhancing reciprocal benefits during a course to foster presentation skills in university students. In the fourth paper, Ringeisen et al. present data which show that self-efficacy may buffer from stress-related changes in enjoyment and cortisol, which, in turn, predict performance during a presentation, as indicated by observer ratings with regard to dominance, perceived competence, and expressed enjoyment.

Taken together, the findings suggest that distinct facets of negative and positive affectivity may serve as intervening variables between dispositional personality characteristics such as self-efficacy or conscientiousness, learning processes and self-perceived as well as observed performance.
THE RELATIONSHIPS BETWEEN LEARNERS' CHARACTERISTICS, TEST ANXIETY, AND OUTCOMES: VALIDATING THEIR PROPOSED STRUCTURE BASED ON CONTROL-VALUE THEORY

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Control-value theory (CVT) proposes a framework to examine the structure of the relationships between dispositional learners' characteristics, achievement-related emotions, particularly test anxiety, learning behavior, and academic performance. However, research remains pending which confirms the full proposed structure. Moreover, existing studies focused on selected anxiety manifestations, thereby neglecting a joint assessment of the four major test anxiety facets. In response, the current study examined whether the four test anxiety dimensions serve as intervening variables between learners’ characteristics and outcomes, namely learning behavior and academic performance. By means of a cross-sectional survey, a sample of 746 Italian university students (57% female; Mage = 21.64, SD = 4.04) completed established self-report instruments that measured dispositional learners' characteristics (performance approach goals, assertiveness), the four test anxiety facets (emotionality, worry, interference, lack of confidence), learning behavior (perseverance and diligence) and academic performance (average grade). Structural equation modeling was used to analyze the interplay of the variables. The findings largely supported the assumptions of CVT regarding the proposed structure of relationships among the study variables. Learners’ characteristics were differentially related with the four test anxiety facets. While assertiveness showed negative associations with emotionality, interference and lack of confidence, performance approach goals were negatively related to lack of confidence, yet positively to emotionality and worry. Greater learning efforts in terms of perseverance and diligence were predicted by lower levels of interference and lack of confidence and surprisingly by higher levels of worry, while emotionality did not serve as a predictor. Greater perseverance and diligence, in turn, was related to a better grade. Applying bias-corrected bootstrapping analysis, the indirect pathway between assertiveness and grade through lack of confidence and learning behavior emerged as significant. Overall, the findings suggest that CVT acts as useful framework to explore the differential role of test anxiety facets between learners’ characteristics and outcomes in terms of learning behavior and performance. Implications for further research on test anxiety correlates and its application to education settings are discussed.

Key words: control-value theory, CVT, test anxiety, learning, learner characteristics, students

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THE ITALIAN MULTI-FACETED TEST ANXIETY QUESTIONNAIRE (PAF-I): A VALIDATION STUDY

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Test anxiety is conceptualized as a situation-specific and multidimensional form of trait anxiety which comprises three cognitive components (worry, interference, lack of confidence) and one bodily-affective facet (emotionality) (see e.g., Hodapp, Rohrmann, & Ringeisen, 2011; Hoferichter, Raufelder, Ringeisen, Rohrmann, & Bukowski, 2016). In the recent PISA study, Italian students reported test anxiety scores which rank among the highest worldwide (Organisation for Economic Cooperation and Development, 2017). Existing measures for Italian students, however, are restricted to emotionality and worry. In response, the current study validated the Italian Test Anxiety Questionnaire (PAF-I) which enables a simultaneous assessment of all four test anxiety facets. Based on a sample of 746 Italian university students (Mage = 21.64, SD = 4.04, 42.8% male, 56.3% female), factorial, construct and criterion validity of the PAF-I were examined. All items of the German PAF (Hodapp et al., 2011) were adapted to Italian by means of a multi-step back-translation procedure (Son, 2018). To examine convergent and discriminant validity of the PAF-I, we examined latent associations with the five-factor personality model, captured by the Italian Big Five Inventory (Ubbiali, Chiorri, Hampton, & Donati, 2013). Data were analyzed by means of confirmatory factor analyses (CFA) and structural equation modeling (SEM). CFAs corroborated the expected four-factor structure, with factor loadings >. 60. for each subscale, on average. Each subscale consists of five items yielding a total of 20 items. Reliability analyses substantiated favorable properties, with McDonald’s omega ranging from .78 to .86. SEM supported construct validity, both in terms of convergent (positive relations between neuroticism and all four PAF-I facets; negative associations between conscientiousness and interference/lack of confidence) and discriminant validity (non-significant associations between remaining five-factor personality dimensions and test anxiety facets). Further, lower interference scores were related to a better average grade which signified criterion validity. Overall, our findings suggest that the PAF-I represents a self-report measure which may be used to assess the four dimensions of test anxiety simultaneously in a time-efficient fashion in Italian-speaking academic settings and offer consultancy for affected students.

Key words: test anxiety, multi-dimensional instrument, assessment, students

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PERFORMING DURING A PRESENTATION:  
THE ROLE OF SELF-EFFICACY, ENJOYMENT, AND CORTISOL

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High self-efficacy may reduce emotional and physiological stress responses while enhancing positive emotions and performance in the context of social-evaluative encounters like oral presentations. However, it remains unclear whether both responses develop congruently over time, and to which extent changes in these responses are related to self-efficacy and performance. In response, the current study investigated how levels of reported enjoyment and cortisol develop over the course of a presentation, and whether intensity and changes in these responses are associated with self-efficacy and behavioral indicators of presentation performance. Based on an adapted protocol of the Trier Social Stress Test (TSST), 126 students (85 women) participated in a mock job interview during which they prepared and delivered a presentation. Self-efficacy with regard to presentation skills was assessed on the same day before the TSST (t1). Enjoyment was measured before (t2) and after an instruction prior to the presentation (t3), and after participants delivered their presentations (t4). Considering the latency of the cortisol response, as compared to the immediate emotional stress response, salivary cortisol samples were collected at t3 and t4, and after recovery (t5). All presentations were video-taped and rated by three blind raters with regard to dominance, competence, and expressed enjoyment. Data were analyzed by means of latent growth curve modeling. Greater self-efficacy predicted higher levels of reported enjoyment and lower cortisol concentration at t2. From t2 to t4, reported enjoyment decreased while cortisol concentrations increased signifying an intensifying stress response. Regarding reported enjoyment, greater pre-instruction levels at t2 were related to a steeper decline. A steeper decline in reported enjoyment, in turn, was associated with lower ratings for dominance and performance. Greater pre-instruction cortisol concentrations at t2 were associated with lower expressed enjoyment. Overall, our findings suggest that in the lead up to a presentation high self-efficacy may reduce emotional and physiological stress responses. Intensity and changes of these stress responses, in turn, may differentially dampen the presentation performance in terms of dominance, competence, and expressed enjoyment.

Key words: oral presentations, presentation self-efficacy, salivary cortisol, enjoyment, performance

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HOW STUDENTS LEARN TO PRESENT BETTER:  
THE INTERPLAY OF BOREDOM, SELF-PERCEIVED  
COMPETENCE AND PRESENTATION PERFORMANCE

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Academic education nowadays focuses on the development of oral communication  
competences. However, research on the acquisition process is sparse, especially  
when the role of learning-related emotions is considered. Based on control-value  
theory, the present study therefore investigated how levels of learning-related  
boredom and self-perceived presentation competence develop throughout a  
university course to foster oral presentation skills and whether intensity and changes  
in both variables are associated with presentation self-efficacy and behavioral  
indicators of presentation performance. 158 students (Mage = 24.40, SD = 4.04;  
61% females) took part in a university course to foster presentation skills. A  
longitudinal design with four measurement points was realized, with intervals of  
roughly four weeks apart. Using validated self-report measures, self-efficacy was  
assessed at the beginning of the course (T1), while self-perceived presentation  
competence and learning-related boredom were measured after completion of the  
course introduction (T2), half way through the course (T3), and after completion of  
the course (T4). Additionally, at T4, the students' behavioral performance during a  
practical presentation exam was evaluated independently by two lecturers by means  
of a standardized evaluation sheet. Data were analyzed by means of latent growth  
curve modeling. From t2 to t4, presentation competence increased significantly  
while boredom decreased. Greater boredom at t2 was related to lower self-reported  
competence at t2, and to a steeper linear decline of boredom from t2 until t4. Vice  
versa, a greater decline in boredom was related to lower competence levels at t2,  
and to a greater increase in presentation competence from t2 to 4. Greater self-  
efficacy at T1 was associated with higher levels of presentation competence at t2,  
but was unrelated to boredom at t2. A better presentation performance at t4 was  
predicted by lower levels of boredom and higher levels of presentation competence  
at t2, by a steeper decline of boredom from t2 to t4, and by higher presentation self-  
efficacy at t1. Aligned with control-value theory, our findings suggest reciprocal  
effects between intensity and change trajectories of boredom and presentation  
competence, which, in turn, contribute to better presentation performance, aside  
from high self-efficacy beliefs.

Key words: presentation competence; boredom; learning-related emotion;  
academic performance

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SYMPOSIUM 2:

The stress of disenfranchised loss and grief

Chair: Michal Mahat-Shamir


- "You Did Not Desert Me My Brothers in Arms": The Continuing Bond Experience of Men Who Have Lost a Brother in Arms. Michal Mahat-Samir, Yaira Hamama-Raz and Keshet Lebowitz

- Phantom Pains: Meaning Construction in Response to Father Loss Before Birth. Shani Pitcho-Prelorentzos and Michal Mahat-Shamir

- The sounds of silence: The meaning of loss in the experience of sons who have lost their mother to suicide. Udi Yehuda David and Michal Mahat-Shamir
THE STRESS OF DISENFRANCHISED LOSS AND GRIEF

General abstract

Grief is a normative and universal response that psychologically aids individuals in accommodating loss. This process occurs at intrapersonal and interpersonal levels (Corr, 2002). Interpersonally, bereaved individuals attend to their loss in a private, internal process of coping. The interpersonal process occurs between grievers and their social environment, engaging others to help redefine life in the face of loss. Doka explained that “grieving rules” [that socially and culturally set grieving expectations for bereaved individuals] .... attempt to specify who, when, where, how, how long, and for whom people should grieve” (1989, p. 4). Inevitably, for some grievers, their expressions and needs are in violation of social expectations, and their experience becomes delegitimized, unrecognized, or unsupported by the social systems around them (Corr, 2002). Such experiences of disenfranchised grief occur when “the grief that persons experience when they incur a loss cannot be openly acknowledged, publicly mourned, or socially supported” (Doka, 1989, p. 4). The proposed symposium will present disenfranchised loss and grief as experienced by four populations - Jewish Israeli women confirmed as BRCA 1/2 carriers who had undergone risk-reducing surgery; Israeli men who have lost a comrade with whom they served in mandatory military service; orphans who lost their fathers before they were born; and sons whose mothers died by suicide. The presentations will address the loss experience of each population, the disenfranchisement they experience and the stress that disenfranchised loss may cause to the individual. Practical implications to address this highly stressful situation will be provided.
A GENETIC CHAIN OF LOSS AND GUILT: THE EXPERIENCE OF JEWISH ISRAELI WOMEN CARRIERS OF BRCA MUTATIONS WHO UNDERWENT RISK-REDUCING SURGERY

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Both a woman's revelation that she is a carrier of a BRCA mutation (a genetic factor in the development of breast and ovarian cancer) and risk-reducing surgery involving the removal of breast(s) and or ovaries can be characterized as disenfranchised losses to a woman's body, health and self-image. This presentation will focus on how these losses are a family affair that reverberates through the generations. The current study aimed at exploring how Jewish Israeli women carriers of BRCA mutations, experience themselves following risk-reducing surgery, i.e. mastectomy and/or oophorectomy. This qualitative study was based on in-depth interviews with thirteen women confirmed as BRCA 1/2 carriers who had undergone risk-reducing surgery. Textual analysis of the transcribed interviews was executed using the holistic-content and categorical-content narrative approaches. In a cross-case analysis, three central themes of the women's experience with a stressful chronic health problem were identified. This presentation will address one of the themes, termed: "A Genetic Chain of Loss and Guilt ". It has been well-substantiated in the psycho-oncology literature that everyone in the family is affectively and instrumentally affected by a cancer diagnosis. Like trauma, as illness experiences accumulate over generations, they become legacies, handed down from one generation to the next alongside the genetic alteration marking their family’s genetic structure (Werner-Linn, 2008). When it comes to the genetic chain of illness, there is certainly no control over previous generations. In the previous generation, there was also no option of genetic testing, which may explain the participants' ability to empathize with predecessors without blaming. All participants expressed guilt about becoming ill and having their illness affect their children. Participants also felt guilty about the possibility of transferring the gene on to their own children. Regarding the next generation, we see the attempt to maintain at least an illusion of control by planning the genetic testing for their children. It is often the future generation, the well-being of their children that motivated the participants to make judicious use of the control that they do have over their own health.

Key words: BRCA Carriers, Disenfranchised Loss, Health Related Stress

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"YOU DID NOT DESERT ME MY BROTHERS IN ARMS": 
THE CONTINUING BOND EXPERIENCE OF MEN WHO HAVE LOST A BROTHER IN ARMS

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Maintaining an attachment to the deceased can facilitate a healthy adjustment to loss. Nevertheless, bereaved men's continuing bond relationships with their deceased brothers in arms tend to be muted. This is especially true in Israel, where men, and especially combat soldiers, are expected to endure pain and to control emotion. Thus, bereaved brothers in arms are a neglected population whose voice is socially subdued. The current study provides an in-depth account of the continuing bond experience of bereaved Israeli men who have lost a comrade with whom they served in mandatory military service (a brother in arms).

Textual analysis of twelve interviews conducted with twelve Israeli men who have lost a comrade with whom they served in mandatory military service, was executed using the holistic-content and categorical-content narrative approaches.

Our study findings indicate that bereaved men experienced continuing bond relationships with their deceased brothers in arms on two axes – an internal axis and an external axis. Together, the two axes connected the bereaved to the deceased. Furthermore, the bereaved constantly (re)negotiated these connecting axes vis-a-vis Israeli social norms and expectations.

Each society is likely to have bereaved populations who perceive themselves as partly or fully unrecognized. The current study highlights the difficulties of coping with such an experience as Israeli culture rejects the integration of the experience of continuing bonds between participants and their deceased rothers in arms with larger cultural narratives. As a result, participants were required to establish their own means of maintaining relationships with their deceased brothers in arms.

Key words: Comrades, Disenfranchised Grief, Men

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PHANTOM PAINS: MEANING CONSTRUCTION IN RESPONSE TO FATHER LOSS BEFORE BIRTH

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A constructivist view of bereavement emphasizes the inveterate human quest to find order and significance in life after loss at personal, interpersonal, social, and cultural levels. Moreover, literature suggest that meaning construction plays a crucial role in bereaved individuals’ adjustment to loss. However, despite the large number of born-orphaned children worldwide, little is known about the prevalence or the experience of children who lost their fathers prior to birth. The study’s aim was to highlight the unique experience of orphans who lost their fathers before they were born, and to describe the unique meanings constructed in light of their loss.

Textual analysis of twelve interviews conducted with orphans who lost their fathers before they were born, was executed using the interpretive phenomenological analysis (IPA) approach. Three central templates of meaning were identified via which the orphans construct meaning to their loss. This presentation will address one template: ‘ambiguous loss; phantom limb pain caused by an organ they did not have to begin with’.

Participants’ description of their loss resembles phantom limb pain, as they invoked metaphoric language of losing a part of their actual bodies, albeit not sure what in fact was lost, as they had never known their fathers. Findings highlight the notion that meaning construction in response to loss is a process forged by social and cultural forces, as well as the use participants make in metaphoric language regarding physical aspects when constructing meanings to their loss.

Key words: Disenfranchised Grief, Father Loss, Orphans

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THE SOUNDS OF SILENCE:  
THE MEANING OF LOSS IN THE EXPERIENCE OF SONS WHO HAVE LOST THEIR MOTHER TO SUICIDE

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Constructivist theories have informed understanding of grief emphasizing the role of meaning reconstruction in adaptation to bereavement as well as the role of social support in the process of meaning reconstruction. The bereaved must relearn themselves and the world, negotiating between the personal psychological system and the external social system. Though there is a need in negotiating with society, sons whose mothers died by suicide are a neglected population whose voice is socially muted. The current study aimed at highlighting the unique experience of bereaved men whose mothers died by suicide, and to describe the unique meanings constructed to their loss.

Textual analysis of twelve interviews conducted with bereaved men whose mothers died by suicide was executed in accordance with the principles of content analysis. Three central templates of meaning were identified via which the men construct meaning to their loss. This presentation will address one template - "secret".

Participants outlined their stressful experiences in encounters with society's expectations regarding their loss and their gender. As men they are not expected to openly express their grief and as suicide survivors, they are expected not to disclose their type of loss. As participants are stressed to identify with these social expectations, they construct a meaning of 'secret' to their loss.

Men whose mothers died by suicide are a doubled disenfranchised population. First, due to their masculinity - as in western society men are not permitted to openly express weakness and bereavement; and second due to their mother's death by suicide, a form of death that is perceived by society as a "madness" that constitutes a threat and as such should be silenced.

**Key words:** Disenfranchised Grief, Men, Suicide Survivors

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SYMPOSIUM 3:

Feeling Young may Help Heal the Wounds: The Effect of Views on Aging on Stressful Conditions in the Second Half of Life

Chair: Yuval Palgi

- Understanding the Long-Term Connections between Posttraumatic Stress, Subjective Age, and Successful Aging among Midlife and Older Adults. Yuval Palgi, Amit Shrira, Sharon Avidor, Yaakov Hoffman, Ehud Bodner and Menachem Ben-Ezra

- PTSD-depression comorbidity and health among older adults exposed to missile attacks: The buffering effect of young subjective age. Yaakov Hoffman and Amit Shrira

- Lower Subjective Life Expectancy in Later Life Is a Risk Factor for Posttraumatic Stress Symptoms among Trauma Survivors. Sharon Avidor, Yuval Palgi and Zahava Solomon

- The Reciprocal Effects of Health Anxieties and Physical Functioning are Mediated by Attitudes to Aging. Ehud Bodner, Amit Shrira and Yuval Palgi
FEELING YOUNG MAY HELP HEAL THE WOUNDS:
THE EFFECT OF VIEWS ON AGING ON STRESSFUL
CONDITIONS IN THE SECOND HALF OF LIFE

General abstract

This symposium is comprised of four separate presentations that examine how positive views on aging are associated with better coping under stressful and traumatic circumstances. These presentations introduce novel findings drawn from several databases of clinical and community populations, including advanced longitudinal, cross-lagged analyses of adults and older adults. The common factor in all of these studies is that the consequences of exposure to stressful conditions was mitigated by favorable views on aging. Thus, we offer new insights into how older adults cope with massive and ongoing traumas, such as war captivity, living for years under repeated missile attacks, or with more daily stressors of chronic illness. Palgi and colleagues will bring findings from a longitudinal study showing that PTSD symptoms predicted an older subjective age a year later (Time 2), whereas the reverse relationship was non-significant. In addition, higher PTSD symptoms and an older subjective age at Time 2 predicted lower successful aging at Time 3 (approximately another year ahead). Hoffman and Shrira show in their study that older adults suffering from a PTSD-depression comorbidity (compared to PTSD only/depression only or no pathology) reported the lowest levels of physical health. However, these differences diminished and even disappeared in some health indices when the comorbid participants displayed a young subjective age. Avidor and colleagues show in two studies that those who experienced war captivity in the Israeli 1973 Yom Kippur War, reported higher PTSD symptoms than comparable veterans, and that these relationships were weaker for those with higher subjective life expectancy. Similarly, exposure to rocket attacks in the south of Israel, predicted higher levels of PTSD symptoms, but this relationship was weaker among participants with a longer subjective life expectancy. Finally, Bodner and colleagues examined the reciprocal relationships between health anxieties and physical functioning among community-dwelling older adults suffering from chronic illnesses. Increased health-related anxieties predicted increased negative views of aging as primarily a period of losses. This, in turn, predicted worse physical functioning six months later.
UNDERSTANDING THE LONG-TERM CONNECTIONS BETWEEN POSTTRAUMATIC STRESS, SUBJECTIVE AGE, AND SUCCESSFUL AGING AMONG MIDLIFE AND OLDER ADULTS


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Introduction: The nature of the reciprocal relationships between PTSD symptoms and subjective age and their effects on successful aging are important issues that have been so far understudied. Clarifying these relationships has many theoretical and practical implications for the understanding of how individuals age in the shadow of traumatic exposure. The present study examined the reciprocal relationships between PTSD symptoms and subjective age in a longitudinal design, and examined how these variables predict successful aging. Method: Using in-region random digit dialing, we collected a stratified sample of community-dwelling older adult residing in the south of Israel. Of that sample, 132 midlife and older adults (T1 age range=50-87, mean age=65.84, SD=9.12) were interviewed three times across a period of two years and four months (2014-2016). Participants completed measures of PTSD symptoms and subjective age in the first two interviews (T1 and T2) and successful aging indices in the third interview (T3). PTSD symptoms and subjective age measured at T1 and T2 served as predictors and outcomes in a cross-lagged model and as predictors of successful aging at T3.

Results: T1 PTSD symptoms predicted an older proportional subjective age at T2, whereas the reverse relationship (i.e., T1 proportional subjective age as predicting T2 PTSD symptoms) was non-significant. Moreover, higher PTSD symptoms and an older subjective age at T2 predicted lower successful aging at T3. Conclusions: In addition to clarifying the temporal sequencing of PTSD and subjective age, the study further suggests that increased PTSD symptoms and an older subjective age identity could separately render midlife and older adults more susceptible to less successful aging. Accordingly, we advocate further exploration of the mechanisms underlying these complicated relationships.

Key words: Older adults, PTSD, subjective age, Successful aging

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PTSD-DEPRESSION COMORBIDITY AND HEALTH AMONG OLDER ADULTS EXPOSED TO MISSILE ATTACKS: THE BUFFERING EFFECT OF YOUNG SUBJECTIVE AGE

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Introduction: The current study examined the potential fortifying effect of a young subjective age in older adults suffering from PTSD-only, depression-only and PTSD-depression comorbidity. Measures of Physical health (# illnesses, ADL-IADL, and handgrip) were assessed to gauge whether a young age identity can mitigate detrimental health effects associated with PTSD-depression comorbidity. Prior research has indicated a positive buffering role of a young subjective age in the face of trauma, including trauma resulting from missile attacks. The aim of the current study was to examine this buffering role in a more vulnerable population suffering from comorbid psychopathology, which thus far has not been examined. Method: Data on exposure to missile shooting events during the 2014 Israel-Gaza conflict and ensuing PTSD symptoms were taken from the Israeli component of the Survey of Health, Ageing and Retirement in Europe (SHARE Israel; N=1,793, mean age=69.6, age range=50-105). These data also included questionnaires assessing depressive symptoms, various indices of physical health (e.g., handgrip strength test) and subjective age. Results: Approximately two-thirds of the sample (67.7%) had no PTSD or depression, 5.2% had PTSD-only, 21.0% had depression-only, and 6.1% suffered from PTSD-depression comorbidity. Relative to other groups, older adults suffering from PTSD-depression comorbidity reported higher physical impairment. They also felt older than the PTSD-only groups. Moreover, subjective age moderated the association between psychopathology with physical impairment. The most severe health impairments observed in the PTSD-depression comorbidity group diminished and even disappeared in some health indices when the comorbid participants displayed a young subjective age. Conclusions: While PTSD-depression comorbidity is related to poorer health, subjective age moderates the strength of the association. The interactions suggest that subjective age is determined both by resources and by stressors, as such, it is a complex diagnostic entity. Accordingly, practitioners should be aware of both the protective role of a young subjective age in older adults, as well as contextualizing it within the stressors that one is experiencing. Following such understanding, one can implement different intervention programs with older populations to both reduce stressors as well as bolstering a young age identity.

Key words: Comorbidity, depression, Older adults, PTSD, subjective age

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LOWER SUBJECTIVE LIFE EXPECTANCY IN LATER LIFE IS A RISK FACTOR FOR POSTTRAUMATIC STRESS SYMPTOMS AMONG TRAUMA SURVIVORS

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Introduction: Two studies examined whether exposure to traumatic events at different stages of life would predict posttraumatic stress symptoms (PTSS) in old age. Furthermore, the regulating role of perceptions that relate to one’s future time horizons (subjective life expectancy, SLE) and age (subjective age) were also examined. It was hypothesized that exposure to trauma would predict more PTSS, and that this association would be moderated by subjective life expectancy and subjective age, so that for those with higher subjective life expectancy and a younger subjective age, exposure to trauma will have a weaker association with PTSS. Method and Results: Study 1 (N = 294) revealed that among Israeli war veterans (mean age 57), those who experienced the trauma of war captivity in the Yom Kippur War reported higher PTSS than comparable veterans, and that the relationship between captivity and PTSS was weaker for those with a higher subjective life expectancy. Study 2 (N = 339), which was based on older adults who were currently exposed to ongoing rocket fire in the south of Israel (mean age 65), revealed the same pattern of findings: Exposure to rocket fire predicted more PTSS, but this relationship was weaker among those with a higher subjective life expectancy. Subjective age did not reveal a moderation effect. Method and Results: Study 1 (N = 294) revealed that among Israeli war veterans (mean age 57), those who experienced the trauma of war captivity in the Yom Kippur War reported higher PTSS than comparable veterans, and that the relationship between captivity and PTSS was weaker for those with a higher subjective life expectancy. Study 2 (N = 339), which was based on older adults who were currently exposed to ongoing rocket fire in the south of Israel (mean age 65), revealed the same pattern of findings: Exposure to rocket fire predicted more PTSS, but this relationship was weaker among those with a higher subjective life expectancy. Subjective age did not reveal a moderation effect. Conclusions: These findings suggest that different traumatic experiences, whether in the past or present, predict PTSS in later life. Moreover, it appears that subjective time horizons until death, but not subjective age since birth, can buffer against the negative effect of the trauma.

Key words: Captivity, future time horizons, PTSD, Subjective Life Expectancy

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THE RECIPROCAL EFFECTS OF HEALTH ANXIETIES AND PHYSICAL FUNCTIONING ARE MEDIATED BY ATTITUDES TO AGING

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Introduction: Lower physical health can increase health anxieties, yet health anxieties can also impair physical functioning. However, the mechanisms underlying these effects are less understood. Therefore, the current study had two objectives: (1) to investigate the reciprocal effects between health anxieties and physical functioning, and (2) to examine different attitudes to aging as mechanisms explaining these effects.

Method: A stratified sample of 455 community-dwelling older adult reporting at least one chronic illness, was recruited using in-region random digit dialing. Of that sample, 226 participants (T1 age range=65-97, mean age=73.85, SD=6.44) completed two phone interviews across a period of nine months. In both interviews, participants completed measures of health anxieties, physical functioning and attitudes to aging including psychosocial loss, physical change, and psychological growth. A cross-lagged analysis was conducted on health anxieties and physical functioning which served as both predictors and outcomes in this analysis. T2 attitudes towards aging served as mediators (controlling for their T1 level).

Results: The temporal sequencing of worse physical functioning leading to increased health anxieties was significant (both directly and indirectly via increase in psychosocial loss), whereas the reverse temporal sequencing was significant only indirectly via increase in psychosocial loss.

Conclusions: Physical impairments lead to increase health anxiety. The opposite direction of increased health anxiety predicting lower physical functioning failed to show a direct association, yet increased health anxiety may lead to the accommodation of negative views on aging which in turn can impair physical functioning.

Key words: Attitudes to Aging, Health Anxieties, Older adults, Physical Functioning

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SYMPOSIUM 4:

Stressed teachers and stressed students at risk. The impact of individual and contextual factors on the emergence and prevention of stress

Chair: Frances Hoferichter
Discussant: Tobias Ringeisen

- Ambulatory Assessment of Psychological and Physiological Stress on Workdays and Free Days Among Teachers. Fabienne Kühne, Alexander Wettstein, Wolfgang Tschacher and Roberto La Marca

- How classmates' stress affects student's quality of motivation. Diana Raufelder, Rebecca Lazarides and Alexander Lätsch

- Potentially school-absent students: Which role does stress and anxiety play? Petra Buchwald and Petra Begic

- The development of school-related well-being among lower secondary school students: High perceived academic buoyancy and supportive class and school climate as buffers. Frances Hoferichter, Riikka Hirvonen and Noona Kiuru
STRESSED TEACHERS AND STRESSED STUDENTS AT RISK. THE IMPACT OF INDIVIDUAL AND CONTEXTUAL FACTORS ON THE EMERGENCE AND PREVENTION OF STRESS

General abstract

Over the last decades, a remarkable amount of research from the fields of education, psychology, and various insurance companies has dealt with the common phenomenon of stress among teachers and students. According to this research, teachers are affected by high levels of job stress, leading to one of the highest rates of burnout (Fisher, 2011; Larrivee, 2012). Besides teachers, an increased amount of students report elevated stress levels (American Psychological Association, 2010), leading to test and school anxiety, school burnout, depression, headache and abdominal pain (Alfven, Östberg, & Hjern, 2008), placing a sever risk to the healthy development of youth.

In order to shed light on the emergence of stress among both teachers and students, this symposium investigates contextual and individual factors that contribute to stress on the one hand and buffer stress on the other hand. The studies presented investigate samples from Switzerland, Germany, and Finland, apply sophisticated, complex methods and give practical implications to support the health of teachers and students.

The first presentation focuses on teacher’s stress level during work and non-work days in Switzerland, investigating teachers’ heart rates (HRs) and heart rate variability (HRV), salivary cortisol and alpha-amylase. The second presentation analyses how the classmates’ stress level impacts students’ motivation from high-tack vs. low tack schools in Germany, applying a multi-level approach. Taking a resilience perspective, the following work deals with social coping strategies of potentially school-absent youths vs. non-absent youths, experiencing stress. The final presentation presents how academic buoyancy as well as the class and school climate buffer stress and anti-school attitude among Finnish students from grade seven to nine. In sum, the symposium focuses on various risk groups within the educational context, affected by high stress levels. Practical implications for teachers and students are being discussed.
Teachers are affected by high levels of job stress, leading to one of the highest rates of burnout. Research on teacher stress is usually limited to self-reports, representing retrospective ‘one-shot’ examinations of psychological events. In contrast, we assessed teacher stress multidimensionally by measuring biological and psychological factors continuously and in real-life conditions. The purpose of our pilot study was to investigate the diurnal course of teachers’ psychological and physiological stress responses (cortisol levels, alpha-amylase, heart rate, and heart rate variability). Another aim of the project was to test the applicability of ambulatory assessment methods in daily teaching situations. In a non-clinical sample of eight primary school teachers in Switzerland, continuous biopsychological data on two workdays and a free day were assessed. The teachers’ heart rates (HRs) and heart rate variability (HRV) were measured continuously using an ambulatory ECG. Additionally, eight saliva samples were collected from the teachers repeatedly throughout the day to determine the diurnal course of salivary cortisol and alpha-amylase (sAA). Perceived stress and anger ratings were assessed simultaneously. As hypothesized, the teachers’ morning cortisol levels, perceived stress, and anger levels were significantly higher, and their overall HRV was significantly lower on workdays than on a free day. Conversely, sAA levels and HRs showed no significant differences between working and free days. Salivary markers exhibited the expected diurnal course, with decreasing cortisol and increasing sAA levels over the course of the day, while self-rated stress reached the maximum at midday during working days. The results of the present explorative study show that physiological and psychological parameters differ within, as well as between, working and free days for teachers. This present study has corroborated the feasibility of our approach – our study has shown that the tested combination of methods is manageable and allows an ecologically valid assessment of teacher stress in everyday life. The inclusion of biochemical and electrophysiological measures, on the one hand, and the assessment of perceived stress and anger and work strains on the other hand enhance our understanding of the multifaceted stress processes in teachers.

Key words: ambulatory assessment, cortisol, heart rate variability, salivary alpha-amylase, teacher stress

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HOW CLASSMATES’ STRESS AFFECTS STUDENT’S QUALITY OF MOTIVATION

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Over the last decades, more and more adolescents and children feel chronically stressed, which negatively affects their school performance. However, less is known whether classmates’ general stress affects an individual student’s quality of motivation. Therefore, based on conservation of resources (COR) theory, this study examined the precise interplay between general stress and the quality of motivation for students in high- and low-tracking schools considering potential context effects.

For the main analysis, this study conducts a multigroup multilevel structural equation model (MGMLSEM; Bouvaird, 2007). This model considers both the nested structure of the data (1,088 students from 71 classrooms; specifically, 309 students from 24 classrooms in low-tracking schools and 779 students from 47 classrooms in high-tracking schools) and multiple groups (students from low-tracking schools and students from high-tracking schools).

The results show that the relationship between class-level stress and students’ individual level of motivation is significant for students from high-tracking schools. Therefore, these students seem to be much more dependent on their classmates in their individual general stress perception and motivation, whereas students from low-tracking schools are apparently less sensitive to class-level contextual effects. These fundamental differences in students from high-tracking schools versus low-tracking schools underline the objective and culturally construed nature of the environment in determining the stress process as stated in the COR theory (Hobfoll, 2001).


Key words: achievement goal theory, conservation of resources theory, motivation, school form differences, stress

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Potentially school-absent youths are at heightened risk to physical and psychological health problems. More precisely, they are in hazard of experiencing specific patterns of anxiety, depression and stress (Kearney, 2008). Therefore coping with a multitude of small as well as large stressors is crucial for middle adolescence. In line with the conservation of resources theory (COR; Hobfoll, 1989) coping can be explained through three main and non-excluding axes: active – passive, indirect – direct and prosocial – antisocial. Since the social environment, as for example social interactions with other peers at school, has a tremendous influence on the youth, this study focuses on the social aspect of coping on absenteeism (Wentzel, 1998). Previous research has already shown, that absenteeism is associated with antisocial behavior in youths (Galloway, 1982), but is it possible to predict school absenteeism by a social dimension of coping? This research question was addressed in a sample of 340 students, who filled in the German version of the Strategic Approach to Coping Scale (SACS; Schwarzer, Starke & Buchwald, 2004) and standardized items on facets of school absenteeism. Preliminary results revealed that absent students report significantly more social coping than non-absent students. Particularly, absent students reported more instinctive action (t(123)=2.10, p<.05) and antisocial-aggressive action (t(123)=2.61, p<.05) than their peers. Further, in a significant binary logistic regression model on occasional school absenteeism ($\chi^2(1) = 7.24$, p<.05) the individual coefficient of antisocial action, as a dimension of social coping, explained 76% of the differentiation between absent and non-absent students. Respectively, if antisocial action rises by one standard deviation, the relative probability of attending school significantly decreases by 29.3%. Altogether, in this study self-reported social coping behavior sheds further light on the social impacts on individuals coping with school attendance. The study emphasizes the opportunity for future prevention approaches to address and strengthen the social component of coping in at risk students. This research suggests the possibility to focus on the other end of the axes by developing social support, cautious action and social joining. Moreover, findings are going to be discussed regarding methodological limitations as well as implications for school-practitioners and researchers.


**Key words:** anxiety, coping, risk-factors, school absenteeism, stress

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THE DEVELOPMENT OF SCHOOL-RELATED WELL-BEING AMONG LOWER SECONDARY SCHOOL STUDENTS: HIGH PERCEIVED ACADEMIC BUOYANCE AND SUPPORTIVE CLASS AND SCHOOL CLIMATE AS BUFFERS

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Research indicates that school stress, anti-school attitude, and dissatisfaction with school are putting students’ well-being and academic attainment at risk (Ivaniushina & Alexandrov, 2018; Kaplan, Liu, & Kaplan, 2005). Particularly, during early and middle adolescence, students are increasingly vulnerable to stressors due to emotional and developmental changes (Smith, 2013). In search for factors that would support students’ development, research has examined individual factors, such as academic buoyancy (Hirvonen et al., 2019) as well as contextual factors, such as class- and school climate (Sakic & Raboteg-Saric, 2011), which are related to low stress and high school satisfaction. However, it is not clear, how both buoyancy as well as class and school climate moderate school stress, anti-school attitude, and school satisfaction among boys and girls from grade 7 to 9. The current study examined 1041 students (54.7% girls) from Finland, Mage 13.3 years (SD = 0.4) at the first measurement point. Latent-moderated structural equation modeling revealed that school stress (B = .07, SE = .03, p < .05) was moderated by academic buoyancy and that girls perceived higher stress levels compared to boys (B = -.12, SE = .03, p < .001). Furthermore, school satisfaction was moderated by buoyancy (B = -.07, SE = .03, p < .05), while there were no gender differences. Additionally, anti-school attitude was moderated by class climate (B = -.09, SE = .05, p < .05), as well as by school climate (B = -.14, SE = .04, p < .01), while boys reported more anti-school attitude (B = .09, SE = .03, p < .05). The results indicate that academic buoyancy buffers school stress and enhances school satisfaction, while class and school climate buffer anti-school attitudes. Girls tend to feel more stressed, while boys show more anti-school attitude. To support boys’ and girls’ well-being, buoyancy as well as class and school climate should be emphasized within school.

Key words: academic buoyancy, class and school climate, coping, well-being

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SYMPOSIUM 5:
Running in the Family: Mechanisms of Intergenerational Transmission of Trauma

Chair: Amit Shrira

- Actual and Perceived Parental PTSD as Concomitants of Offspring Successful Aging. Amit Shrira

- Conceptual Priming of Ancestral Holocaust Trauma. Yaakov Hoffman, Amit Shrira and Sara Fridel

- Dyadic Effects of Family Involvement and Secondary Traumatization among Offspring of Holocaust Survivors and their Children. Tom Rubinstein, Amit Shrira and Yuval Palgi

- Modeling the What and How of Transmission of Multigenerational Legacies of Trauma. Yael Danieli, Fran Norris and Brian Engdahl

RUNNING IN THE FAMILY: MECHANISMS OF INTERGENERATIONAL TRANSMISSION OF TRAUMA

General abstract

Over the past decades evidence amassed to indicate that traumatic events extend their effects to impact the descendants of traumatized individuals. Accordingly, scholars are now moving from the general question of whether descendants of trauma survivors are more or less resilient relative to comparisons, to more specific questions, asking in which families, and via which mechanisms, should we expect to see signs of trauma and its transmission on descendants. The current symposium tackles cardinal conceptual issues in the field of intergenerational transmission of trauma by presenting findings from five studies. Danieli et al. present an integrative framework modeling the associations between Holocaust survivors' posttrauma adaptational styles with their children's reparative adaptational impacts. Shrir presents evidence that the way offspring of Holocaust survivors perceive their parents' PTSD has an incremental effect on their functioning above and beyond actual parents' PTSD. Stein et al. show that offspring personality traits mediate and moderate the relationship between the distress of ex-POW parents and the distress of their offspring. Hoffman et al. examined grandchildren of Holocaust survivors and found that secondary traumatization symptoms can be primed just as PTSD symptoms can; this principally occurred among grandchildren who perceive the Holocaust as central to their identity. Rubinstein et al. demonstrate the dynamic nature of transmission mechanisms by referring to the reciprocal effects that parents and children have on each other in the context of family involvement and secondary traumatization. Overall the symposium elucidates the dynamics and mechanisms of trauma transmission; thereby instructing scholars and practitioners who wish to understand and address the potential needs of descendants of trauma survivors.
ACTUAL AND PERCEIVED PARENTAL PTSD
AS CONCOMITANTS OF OFFSPRING SUCCESSFUL AGING

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Prior works suggest that parents’ PTSD is related to less successful aging among middle-aged offspring of trauma survivors. The current study examined whether the way offspring perceived parental PTSD had a unique association with offspring successful aging beyond the effect of actual parents’ PTSD. Parents (mean age=82.4; 114 Holocaust survivors, HS, and 73 comparisons) reported PTSD symptoms while their offspring (mean age=55.4) rated how they perceive parental PTSD symptoms. Offspring also reported their own PTSD, depression symptoms and successful aging (medical conditions, disability, somatic symptoms and self-rated health).

Relative to offspring of comparison parents, offspring of HS parents with probable PTSD had lower scores on successful aging. However, when including parents’ PTSD together with offspring perception of parental PTSD, only the latter significantly associated with offspring lower successful aging. The effect of perceived parental PTSD remained significant even after controlling for offspring background characteristics, as well as offspring PTSD and depressive symptoms. Overall, 33.1% and 23.8% of the offspring underestimated and overestimated their parents’ PTSD level, respectively, while 43.0% gave relatively accurate estimations. Overestimation of parental PTSD was related to lower successful aging. When looking at specific PTSD syndromes, successful aging was lower among offspring who overestimated parental negative cognitions and parental trauma-related arousal.

The study provides the first evidence that offspring successful aging is uniquely associated with the way they perceive parental PTSD. These findings have critical implication for the field of intergenerational transmission of trauma, as they suggest that the subjective accounts of parental traumatization, especially an overestimation of parental suffering, is detrimental to offspring health beyond the effect of parents' actual symptoms.

Key words: Holocaust, Intergenerational transmission, old age, Posttraumatic stress disorder

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CONCEPTUAL PRIMING
OF ANCESTRAL HOLOCAUST TRAUMA

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In a recent study we showed that post-traumatic stress disorder (PTSD) has been tied to conceptual and not only perceptual priming processes. It may be argued that conceptual priming activated perceptual memory in turn activating the trauma. Thus in the current study we conceptually primed ancestral trauma in third generation Holocaust survivors to reveal if secondary traumatization will be affected despite the grandchildren never having perceptually experienced such trauma. We hypothesized that elevated secondary trauma symptoms resulting from priming will be observed in persons whom the Holocaust is central to their identity. Third generation Holocaust survivors (N=141) were divided into three priming groups where they saw pictures (Holocaust-priming, ISIS-priming and no-picture priming) and reported centrality of the Holocaust to their identity and secondary traumatization symptoms. The Priming X Centrality of the Holocaust interaction was significant, revealing that secondary traumatization symptoms were primed by Holocaust-pictures for participants who had high Holocaust centrality. This study provides the first evidence that secondary traumatization of Holocaust offspring can be primed just as PTSD can. Moreover, the nature of this priming was conceptual, under conditions that render likely the lack of perceptual processes. These results abide by a contextual theory of trauma that does not distinguish between perceptual and conceptual processes. These findings also have important implications for intergenerational transmission of trauma, as they suggest that its underlying mechanism is similar to that of PTSD.

Key words: Centrality of trauma, Holocaust, Intergenerational transmission, Priming, Secondary traumatization

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DYADIC EFFECTS OF FAMILY INVOLVEMENT AND SECONDARY TRAUMATIZATION AMONG OFFSPRING OF HOLOCAUST SURVIVORS AND THEIR CHILDREN

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The present study examined dyadic effects wherein family involvement of parents may associate with tertiary traumatization in their children, and family involvement of children may associate with secondary traumatization of their parents. In addition, we assessed whether these dyadic effects differed among Holocaust survivor families versus comparison families.

The sample included 159 dyads of parents and children: 92 dyads included offspring and grandchildren of Holocaust survivors and 67 dyads included offspring and grandchildren of European-origin parents who were not directly exposed to the Holocaust. We used Actor-Partner Interdependence Model (APIM) that examined the possible dyadic effects of family involvement and traumatization.

Offspring and grandchildren of Holocaust survivors reported higher level of secondary/tertiary traumatization relative to comparisons. In addition, family involvement was positively related to level of traumatization among all participants (Actor effect). Finally, there was a significant partner effect of family involvement on traumatization only among offspring and grandchildren of Holocaust survivors. Meaning, that in these dyads parents' involvement associated with children's traumatization, and vice versa: children's involvement associated with parents' traumatization.

Our findings show reciprocal effects of transgenerational transmission of family atmosphere among Holocaust survivor families. Family over-involvement of parents was associated with the transmission of tertiary traumatization from the second to the third generation, but also over-involvement of the third generation possibly augmented secondary traumatization symptoms among the second generation parents.

Key words: Family involvement, Holocaust, Intergenerational transmission, Secondary traumatization, Tertiary traumatization

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MODELING THE WHAT AND HOW OF TRANSMISSION OF MULTIGENERATIONAL LEGACIES OF TRAUMA

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To operationalize the theory of Trauma and the Continuity of Self: a Multidimensional, Multidisciplinary, Integrative Framework (Danieli, 1998), we created a testable model using factors in Holocaust survivors’ lives that may have affected their offspring’s adaptation.

A web-based sample of 422 adult children of survivors completed a three-part inventory assessing multigenerational legacies of trauma. To explain the severity of the child’s reparative adaptational impacts, we conducted hierarchical regression analyses (Phase 1) and path analyses (Phase 2). We hypothesized that these impacts followed largely from the (child-reported) intensities of parents’ victim, numb, and fighter posttrauma adaptational styles. These styles, in turn, followed from family history and post-Holocaust family milieu.

With all effects of family history and milieu on offspring specified as indirect (through parents’ victim styles), the initial path model fit the data well with one exception: broken generational linkages had direct as well as indirect effects. While survivors' Holocaust experiences -- especially internment -- had significant indirect effects on their children, each component of post-Holocaust family milieu had one or more associations with mothers’ and fathers’ victim, numb and/or fighter styles. The strongest relationships emerged for broken generational linkages -- a risk factor for negative effects -- and sociocultural setting (living in Israel rather than North America) -- a protective factor.

Because the healing processes that underlie observed effects of family milieu are malleable, survivors’ and offspring’s suffering might be reduced through efforts to recapture meaning, purpose, identity, connectedness of past, present and future, and attachments to community and place.

Key words: (Children's) reparative adaptational impacts, Continuity of self, Holocaust, Intergenerational transmission, Parents adaptational styles

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DO OFFSPRING'S PERSONALITY TRAITS MATTER IN THE INTERGENERATIONAL TRANSMISSION OF POSTTRAUMATIC STRESS SYMPTOMS? EXAMINING VETERANS AND THEIR ADULT OFFSPRING

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Combat veterans and former prisoners of war (ex-POWs) are susceptible to posttraumatic stress symptoms (PTSS). Research indicates that the ramifications of trauma are not limited to the primary victim, but may also manifest among their offspring. The mechanisms underlying this intergenerational transmission of trauma, however, are only partially understood. Thus, the role that offspring’s personality traits might play in explaining individual differences remains uninvestigated. The current presentation reports findings from a study that examined veterans' offspring’s Big Five personality traits, PTSS and global psychiatric distress (GD) in relation to their fathers' posttraumatic symptomatology. One hundred and twenty-three dyads of fathers (79 ex-POWs and 44 combat veterans) and their adult offspring were examined. Fathers' PTSS and GD were assessed 30 and 35 years after the war, and offspring's PTSS, GD, and Big Five personality traits were assessed 40 years after the war. Mediation and moderation effects were tested. Analyses revealed that among ex-POWs' offspring, Neuroticism mediated the link between father's and offspring's PTSS and GD. Moreover, Openness to experience and Extraversion moderated the detrimental link between fathers' and offspring's psychiatric outcomes. These findings suggest that offspring’s personality traits may indeed play a role in the transmission of posttraumatic psychopathologies from veterans to their offspring, and may explain individual differences in this respect. Specifically, high levels of Neuroticism may place offspring at risk for secondary traumatization. Possible explanations and limitations are discussed, and future research directions are suggested.

Key words: Big Five personality traits, Intergenerational transmission, Offspring, posttraumatic distress, Veterans
SYMPOSIUM 6:

Physiological responses to acute stress

Chair: Grace McMahon

- Perceived social support mediates the association between attachment and cardiovascular reactivity to acute stress among young adults. Grace McMahon, Ann-Marie Creaven and Stephen Gallagher

- Type D personality, social relationships and cardiovascular reactivity to acute psychological stress. Adam O’Riordan, Stephen Gallagher and Siobhán Howard


- The influence of trait and state rumination on cardiovascular recovery from an acute negative emotional stressor. Aisling Costello, Ann-Marie Creaven and Siobhán Howard

- Biological reappraisal alters interpretations of physiological arousal and anxiety during an acute psychological stress task. Annie Ginty, Danielle Young and Sarah Williams
PHYSIOLOGICAL RESPONSES TO ACUTE STRESS

General abstract

Atypical physiological responses to acute stress have been implicated in the development of cardiovascular disease (CVD) and other adverse health outcomes. As such, this symposium focuses on the biological processes that underlie this association between acute stress and CVD. It will synthesize neuropsychological and psychosocial factors that influence such physiological responses to stress, and incorporate recent developments in acute stress reactivity research.

The symposium brings together an international team of stress researchers to discuss their recent findings in the area of cardiovascular psychophysiology and neuroimmunology, gathered from observational and experimentally designed laboratory-based studies.

First, in demonstrating the importance of social relationships, Grace McMahon will discuss the role of social support in understanding the adverse impact of insecure attachment styles on cardiovascular reactivity. Adam O’Riordan will continue this focus, evaluating social relationships as a mediator between Type D personality and cardiovascular reactivity. Next, in further exploring psychosocial factors that can influence cardiovascular reactivity, Dr Brenda O’Connell will focus on individual differences and will discuss the protective role of gratitude on reactivity. Aisling Costello will examine the prolonged activation of the cardiovascular system during a post-stress recovery phase and how it is influenced by rumination. Finally, Dr Rachel Sumner will focus on the neuroimmunological responses to stress, and discuss how stress-induced changes in asymmetric prefrontal cerebral perfusion relate to consequent changes in interleukin-6. To close, discussant Dr Siobhan Howard will summarise the key factors shown to influence physiological stress responses, reflect on current methodological issues, and point to future directions in the field of stress and health.
PERCEIVED SOCIAL SUPPORT MEDIATES THE ASSOCIATION BETWEEN ATTACHMENT AND CARDIOVASCULAR REACTIVITY TO ACUTE STRESS AMONG YOUNG ADULTS

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It is widely known that adverse (blunted or exaggerated) cardiovascular responses to acute psychological stress are damaging for health. Social relationships, however, have been noted as an important factor beneficial for health, particularly for alleviating the damaging effects of stress. Though much previous research has focused on the impact of social support (the tangible or emotional support that these relationships provide) on reactivity, the empirical evidence is somewhat mixed. Despite this, few studies examining social support as an influencing factor on the association between stress and health, consider the role of attachment. Therefore, we aimed to examine both the role of specific attachment bonds (i.e., mother, father, partner, best friend), and perceived social support, on cardiovascular responses to acute stress. A cross-sectional study was conducted on healthy students, recruited through an online credit system, from the University of Limerick (N = 138). Participants completed the Relationship Structures Questionnaire (RSQ) and Medical Outcomes Study- Social Support Survey (MOS-SSS). Cardiovascular reactivity measures were continuously monitored during a standardised stress testing protocol, which included a baseline, an acute stress exposure and recovery period. Results show that both anxious and avoidant attachment was negatively associated with systolic (SBP) and diastolic (DBP) blood pressure responses to acute psychological stress. This negative impact of anxious attachment on SBP and DBP reactivity is mediated by perceived social support; however, this varies across attachment figures and is noted in terms of mother, father and best friend relationships, but not partners. Regarding, avoidant attachment, the negative effect on SBP and DBP reactivity is also mediated by perceived affectionate support, but is only evident for father, and partner relationships. These findings suggest that insecure attachment bonds among young adults are linked to a blunted (i.e., sub-normal) blood pressure response to an acute psychological stressor. Specifically, the findings indicate that insecure attachment leads to lower levels of perceived social support, and this in turn, leads to a blunted cardiovascular response to an acute stressor. Overall, these findings extend the literature on the social support-reactivity link by illustrating the importance of attachment for cardiovascular reactivity, particularly across different relationship figures.

Key words: acute stress, attachment, cardiovascular reactivity, social support, young adults

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Type D personality, characterised by increased levels of social inhibition and negative affectivity, has been consistently associated with adverse cardiovascular health. Recent evidence suggests that atypical physiological reactions to acute psychological stress may be a mechanism leading to negative cardiovascular health amongst Type D individuals. Although Type D personality has been associated with atypical cardiovascular responses to acute stress, the underlying psychosocial factors facilitating this association have yet to be explored. Given that Type D Individuals are highly socially inhibited, the current study aims to examine if the association between Type D personality and cardiovascular reactivity to acute stress is mediated by positive (instrumental and emotional support) and negative (perceived rejection and hostility from others) social relationships. A sample of 196 healthy undergraduate students (140 female) completed psychometric measures assessing positive social relationships (instrumental and emotional social support), negative social relationships (perceived rejection and hostility) and Type D personality. All participants then completed a standardised stress testing protocol consisting of a resting baseline and an acute stressor phase (mental arithmetic and public speaking task). Systolic blood pressure (SBP), diastolic blood pressure (DBP), heart rate (HR) cardiac output (CO) and total peripheral resistance (TPR) were monitored throughout the resting baseline and acute stressor phase. There was a significant main effect of Type D personality on SBP and DBP reactivity, with Type D individuals exhibiting blunted cardiovascular reactions. Similarly, increased perceptions of hostile social relationships significantly predicted blunted SBP and DBP reactivity. Furthermore, the relationship between Type D personality and SBP was significantly mediated by perceived hostile social relationships. Type D individuals exhibit blunted cardiovascular reactions to acute psychological stress, indicating a potential psychophysiological mechanism leading to adverse health outcomes. Furthermore, the relationship between Type D personality and blunted cardiovascular reactivity was mediated via hostile social relationships, whereby Type D individuals reported an increased perception of hostile social relationships, which result in blunted cardiovascular responses to acute stress.

Key words: acute stress, cardiovascular reactivity, social relationships, Type D Personality

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MORE THANKFUL, LESS STRESSED?: IMPACT OF GRATITUDE ON CARDIOVASCULAR REACTIVITY TO ACUTE STRESS

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Although we cannot avoid stress, how we react to stress can have a detrimental impact on physical health and wellbeing. Specifically, atypical psychophysiological reactivity to stress (if prolonged or exaggerated) have been associated with irregular blood pressure and increased risk of CVD morbidity and mortality. Previous research has identified stable characteristics (age, gender, personality, and epigenetics) that render certain people more susceptible to the deleterious effects of stress than others. Similarly, scholars have explored the role of psychosocial factors, such as social support, in buffering against pathogenic effects of stressful events. However, none of these works have addressed the central question of how positive psychological constructs, such as gratitude, may serve a protective role in how stress is perceived and affects the physiological systems that regulate stress. This research aims to explore how gratitude influences cardiovascular reactivity to acute stress. This study employed an experimental within-subjects design. Sixty-eight adults completed psychometric measures of state and trait gratitude and participated in a standardised cardiovascular stress-testing protocol. Physiological responses (blood pressure and pulse) were recorded throughout a baseline, standard stress-task (mental arithmetic task) and recovery period using a GE Dinamap Pro 400 V2. The primary predictor variables were state and trait gratitude, with cardiovascular reactivity (systolic blood pressure (SBP), diastolic blood pressure, and heart rate) serving as outcomes. Hierarchical linear regression revealed that higher levels of state gratitude predicted lower SBP reactivity to the stress task while controlling for baseline SBP, gender and trait gratitude. In this instance how grateful, thankful, and appreciative participants felt prior to the stress task, rather than their dispositional levels of gratitude in general, appeared to reduce cardiovascular reactivity to stress. This provides novel, preliminary evidence that gratitude may serve as a buffer to cardiovascular reactivity following a psychological stressor. Research shows that gratitude can be fostered and is susceptible to change through simple interventions, therefore, this first step is critical in understanding how gratitude impacts psychophysiological stress reactivity and may serve as a coping mechanism in the face of daily stressors.

Key words: acute stress, cardiovascular reactivity, gratitude

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THE INFLUENCE OF TRAIT AND STATE RUMINATION ON CARDIOVASCULAR RECOVERY FROM AN ACUTE NEGATIVE EMOTIONAL STRESSOR

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Laboratory research has predominantly focused on physiological reactivity as the key underlying pathway in the stress-cardiovascular disease relationship. Less attention has been paid to recovery which accounts for an element of the stress response that extends beyond the presence of the acute stressor. The total duration of physiological activation, therefore, may be more greatly implicated in the development of CVD. Perseverative thinking manifested as rumination is a potential mechanism leading to disease via prolonged physiological activation. The aim of this study was to evaluate the influence of trait and state rumination on cardiovascular recovery following a negative emotional stressor. Previous research indicates a tendency for women to ruminate more than men and as a result has predominantly employed exclusively female samples. To address this gap, the current study also sought to examine if the relationship between rumination (trait, state) and cardiovascular recovery varies by gender. A standardised stress-testing protocol was utilised whereby participants (N = 88) had their cardiovascular responses (SBP, DBP, HR, CO, TPR) measured throughout a baseline, stress task and recovery phase. Trait rumination was assessed using the rehearsal subscale of the revised Emotion Control Questionnaire while state rumination was measured with the negative thoughts subscale of the Thoughts Questionnaire. Preliminary results revealed that there was no main effect of trait rumination and no interaction effect of trait × state rumination on the aforementioned parameters of cardiovascular recovery. However, there was a significant main effect of state rumination on DBP and TPR recovery amongst males, whereby low state ruminators exhibited delayed cardiovascular recovery in comparison to high state ruminators. High state rumination facilitated cardiovascular recovery in comparison to low state ruminators who demonstrated significantly poorer cardiovascular recovery, but only for males. It might be that high state ruminators, by immediately engaging with the adverse emotional consequences of a stressor after its termination demonstrate health protective cardiovascular responses. Low state ruminators may be more vulnerable to the enduring physiological effects of the negative emotional consequences of a stressor by not immediately addressing them. Additionally, our findings suggest that state rumination and its relationship with cardiovascular recovery may be more pertinent to males.

Key words: acute stress, cardiovascular recovery, prolonged physiological activation, rumination

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BIOLOGICAL REAPPRAISAL ALTERS INTERPRETATIONS OF PHYSIOLOGICAL AROUSAL AND ANXIETY DURING AN ACUTE PSYCHOLOGICAL STRESS TASK

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Research has shown that brief reappraisal instructions prior to a stressful task can reduce feelings of anxiety. However, researchers have not examined whether reappraisal instructions change the degree to which individuals interpret their anxiety and physiological arousal as harmful or helpful to their performance. The current study examined if biological reappraisal improved how individuals interpreted anxiety and physiological arousal experienced in response to an acute psychological stress task. 130 participants (M age = 19.50 years, SD = 1.20; 100% female) completed a resting baseline and were randomly assigned to one of three conditions: Anxiety Evoking (n = 42, informed physiological arousal increases with stress), Biological Reappraisal (n = 43, informed physiological arousal increases with stress but that arousal may be helpful), and Control (n = 44; no information provided). Participants then completed the mental arithmetic stress task. Heart rate (HR) was measured continuously during baseline and stress. With 7-point Likert scales, participants self-reported their level of physiological arousal, cognitive anxiety, and somatic anxiety (1=not at all; 7=extremely) and if the intensity for each variable was helpful or hurtful (-3 extremely hurtful; +3 extremely helpful). HR reactivity was calculated as stress HR – baseline HR. No significant differences existed between conditions on intensity ratings for physiological arousal, cognitive anxiety, and somatic anxiety (p’s > .15). However, individuals in the Biological Reappraisal condition reported their physiological arousal (F (2, 126) = 6.82, p = .002, eta2 = .098), cognitive anxiety (F (2, 126) = 5.38, p = .006, eta2 = .074), and somatic anxiety (F (2, 125) = 5.02, p = .008, eta2 = .079) levels as significantly more helpful compared to individuals in the anxiety evoking and control conditions. There were no group differences for HR reactivity (p = .42). While biological reappraisal instructions did not impact the intensity of arousal, cognitive and somatic anxiety, or actual heart rate reactivity, it did significantly reduce negative interpretations of these anxiety and physiological arousal responses experienced. Future research should investigate the impact of varying levels of reappraisal training.

Key words: acute stress, cardiovascular reactivity, Cognitive reappraisal, psychological stress

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SYMPOSIUM 7:

Point of view: How subjective evaluation of traumatic events predicts vulnerability and resilience - introducing the STO

Chair: Yuval Palgi

- **Perception Counts: The Relationships of Inner Perceptions of Trauma and PTSD Symptoms Across Time.** Yuval Palgi, Sharon Avidor, Amit Shrira, Ehud Bodner, Menachem Ben-Ezra, Oleg Zaslavsky and Yaakov Hoffman

- **The theoretical and psychometric properties of the Subjective Traumatic Outlook (STO) questionnaire.** Menachem Ben-Ezra, Amit Shrira and Yuval Palgi

- **Subjective Traumatic Outlook as a Screening Tool for Psychological Trauma: Cut-off Values and Diagnostic Criteria.** Lia Ring, Michal Mahat-Shamir, Osnat Lavenda, Yuval Palgi, Yaira Hamama-Raz, Lee Greenblatt-Kimron, Shani Pitcho-Prelontzos, Eti Bar-Shua and Menachem Ben-Ezra

- **The Theoretical Basis for the Development of the STO.** Michal Mahat-Shamir, Menachem Ben-Ezra and Yuval Palgi
POINT OF VIEW: HOW SUBJECTIVE EVALUATION OF TRAUMATIC EVENTS PREDICTS VULNERABILITY AND RESILIENCE - INTRODUCING THE STO

General abstract

The suggested symposium is comprised of four separate presentations that expose findings regarding a new questionnaire named the Subjective Traumatic Outlook (STO). This new measurement tool, evaluate the psychological inner perspective one has regarding to the traumatic event that s/he was exposed to. It is assumed that individuals suffering from PTSD are aware of their difficulty to integrate pre- and posttraumatic experiences and memories.

First findings show that this short and easy to handle tool, has excellent psychometric qualities and may serve as a screening tool in first assessment after traumatic events. Mahat-Shamir will first present in her lecture the theoretical perspective that was underlie in the development of the tool. Ben-Ezra will present the psychometric development of the tool based on five studies that were conducted for that purpose, and will present its items and properties. Ring, will present first findings regarding the development of a cutoff point for the tool as a screening measurement and will discuss its practical implications. Finally, Palgi will present two studies that examined how the subjective traumatic outlook attenuate the association between posttraumatic symptoms across time and what the reciprocal relations between inner perceptions of trauma and posttraumatic symptoms are.
PERCEPTION COUNTS: THE RELATIONSHIPS OF INNER PERCEPTIONS OF TRAUMA AND PTSD SYMPTOMS ACROSS TIME


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****Ariel University, Israel
*****University of Washington, USA

Introduction: This study examined how inner perceptions that develop in the aftermath of exposure to trauma attenuate the association between posttraumatic symptoms across time and what the reciprocal relations between inner perceptions of trauma and posttraumatic symptoms are. Method: The present article is based on two studies. The data in Study 1 are drawn from three waves of a longitudinal study of community-dwelling midlife adults and older adults residing in the south of Israel. In Wave 1, 339 participants were interviewed (mean age = 65.44, SD = 9.77). Of these participants, 170 and 132, respectively, participated in Waves 2 (one year later) and 3 (two years later). Posttraumatic stress symptoms were self-reported in all three waves. Inner perceptions of trauma were assessed with the Subjective Traumatic Outlook scale (STO) and Centrality of Event Scale (CES), administered at Wave 3. Study 2 is drawn from two waves of research of young adults. Wave 1 included 138 participants (mean age = 32.01, SD = 10.57) from a convenience sample. At Wave 2, 128 participants were interviewed again a month later. Participants reported their level of posttraumatic stress symptoms and completed the STO and the CES in both waves. Results: In Study 1, analyses showed stronger associations between posttraumatic symptoms across waves among those who reported higher subjective traumatic outlook and higher centrality of events. In Study 2, significant reciprocal relationships between PTSD and STO were found, but whereas the W1 PTSD–W2 CES path was significant, the W1 CES–W2 PTSD path was not. Conclusions: The findings emphasize that over integration and especially disintegration of the pretraumatic identity with traumatic experiences are associated with the deleterious effects of long-lasting exposure to traumatic events.

Key words: Centrality of Events Scale, PTSD, Subjective Traumatic Outlook

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THE THEORETICAL AND PSYCHOMETRIC PROPERTIES
OF THE SUBJECTIVE TRAUMATIC OUTLOOK (STO)
QUESTIONNAIRE

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Introduction: The present study aimed to develop the theoretical construct and examine the psychometric properties of a new scale for measuring subjective traumatic outlook (STO) among individuals exposed to traumatic events. The main idea behind this construct is that it examines the extent to which individuals are able to integrate pre-trauma past-self and present-self.

Method: Using four samples, we conducted five studies that examine the new questionnaire’s exploratory/confirmatory factor analysis (EFA/CFA), test retest reliability, and construct validity.

Results: The STO was best captured by a five-item factor construct. This construct was found to have good convergent validity with similar, related subjective eventuation of PTSD and PTSD-related constructs. Yet, the STO also has unique and divergent properties compared to other questionnaires.

Conclusions: The STO is a new, short questionnaire with excellent psychometric properties, which may provide practitioners with a good screening tool for attaining first impressions about one’s inner traumatic world, and predicting future risk for developing PTSD.

Key words: Assessment, PTSD, Subjective Traumatic Outlook

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SUBJECTIVE TRAUMATIC OUTLOOK AS A SCREENING TOOL FOR PSYCHOLOGICAL TRAUMA: CUT-OFF VALUES AND DIAGNOSTIC CRITERIA


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The Subjective Traumatic Outlook (STO) deals with changes in individuals’ perception, following a traumatic event and the difficulties of integrating pre-trauma past memories, inner traumatic memories, and current daily life. Although this short scale has excellent psychometric properties its cut-off scores for potential clinical use have yet to be established. In addition, due to the discrepancy between the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD) in the measurement of post-traumatic stress disorder (PTSD), the present study aimed at revalidating the STO and establishing cut-off scores for potential clinical use, based on both approaches to measure PTSD and complex post-traumatic stress disorder (CPTSD).

Three hundred forty-three adults who were recruited through social media apps filled in self-report online questionnaires dealing with subjective perception of psychological trauma, PTSD and CPTSD.

Revalidate the STO as a screening tool for PTSD and CPTSD. We recommend a STO cut-off score of 13 and above when using the ICD-11 PTSD proposed algorithm along the PCL-5 cutoff score and a STO cut-off score of 15 when using the ICD-11 CPTSD proposed algorithm.

In light of the present findings, the integration of DSM and ICD approaches is discussed.

Key words: Assessment, PTSD

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THE THEORETICAL BASIS 
FOR THE DEVELOPMENT OF THE STO 

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Subjective Traumatic Outlook (STO) refers to people’s evaluation of themselves as traumatized when comparing their pre- and post-event conditions. The underlying assumption is that people have a good ability to evaluate whether or not they are suffering from post-trauma, as in the case of the subjective evaluation of their physical and mental condition (Benyamini and Idler, 2000; Oswald and Wu, 2010). We believe that the main innovation of our questionnaire is that it focuses on the difficulty of posttraumatic individuals to integrate their lives before and after the trauma.

It is suggested that those exposed to traumatic event, may find it hard to bridge several discrepancies related to their life before and after the trauma: 1. The discrepancy between one’s life before the trauma vs. their current traumatic life; 2. the discrepancy between the external functioning self and the inner, traumatic impaired self; and 3. the discrepancy between everyday social relations and inner chaotic traumatic feelings and thoughts that cannot be connected to the world in which they now live.

Key words: Subjective Traumatic Outlook

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SYMPOSIUM 9:

Life-event stress and coping skills through the life span: Implications for risk and resilience in youth

Chair: Paulina Arenas

- Anxiety and coping strategies in elementary school children: community interventions. Gabriela Martínez-Espinola, Paola M Ramírez-Ibarra, Karen C Sandoval-Carlos, Paulina Arenas-Landgrave and Emilia Lucio

- Changes in adolescence’ perception of disturbance over time in case of traumatic events: Conditions of permanence, increase or recovery. Maria Forns, Teresa Kirchner, Ernesto Magallón-Neri, Caterina Calderón and Irina Planellas

- Personality and emotional regulation: Their role in predicting functional and dysfunctional adolescent coping. Raquel Rodríguez Alcántara, Blanca Estela Barcelata and Emilia Lucio

- Depression and suicidal behavior treatment for young people in primary and community university centers. Paulina Arenas-Landgrave, Susana Góngora-Acosta, Natalia Escobedo-Ortega, Liliana Guzmán-Álvarez and Sofía Cristina Martínez-Luna
LIFE-EVENT STRESS AND COPING SKILLS THROUGH THE LIFE SPAN: IMPLICATIONS FOR RISK AND RESILIENCE IN YOUTH

General abstract

The study of life-event stress, coping and health has been of considerable importance in any psychological field. There are numerous methodological approaches involved in answering the basic question of whether there is an association between stressful life events and the development of some kind of disorder in children, adolescents and young adults. In order to discuss different cross-cultural approaches in the measurement and treatment of stress, anxiety and coping and its impact in mental health during the life span, the current symposium takes a research and clinical perspective by analysing the relation of life-event stress in the development of behavioural problems and resilience in children and youths, as well as the way to implement clinical interventions in the community and the school contexts. Through this symposium, implications and recommendations due to evidence-based treatments for depression and suicide are also discussed.

The first presentation examines the relation between anxiety and coping skills in elementary school children and a group intervention strategy at the school context. From a Spanish perspective, the second presentation addresses changes in adolescence’ perception of disturbance over time in case of traumatic events with regard to conditions of risk and resilience in this population. From a person-centered approach, the third presentation examines the role of personality traits and emotion regulation in functional and dysfunctional adolescent’s coping in a Mexican sample. Finally, the last presentation points out some benefits and difficulties in the implementation of some evidence-based treatments for anxiety, depression and suicide in Mexican college students at primary mental health centers.
ANXIETY AND COPING STRATEGIES IN ELEMENTARY SCHOOL CHILDREN: COMMUNITY INTERVENTIONS

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For many years, stress research literature establishes that anxiety disorders were exclusive of adulthood; it was also believed that clinical symptoms in childhood did not cause a significant impact. However, since the 90’s decade there was an increase in research on this matter, and today it is known that anxiety is the most common disorder among child population. Nowadays, the percentage of school children that presents this type of symptoms is increasing in the public health and mental health settings in Mexico City. The current research analyzed the relationship between coping strategies and anxiety in school children in order to implement evidence-based clinical practices to promote healthy emotional development in children within the school context. The sample included 221 children from a public elementary school in Mexico City, 109 boys and 112 girls aged 9 to 12 years old. School authorities, parents and children permission was obtained in order to administer the scales. A cross-sectional field study was carried out. The participants responded three questionnaires administered in a group format: The Children's Coping Scale for Mexican population (EIA, Gómez-Maqueo, Durán, & Romero, 2016) that includes four dimensions, functional, dysfunctional, emotion-centered and avoidant coping strategies; the Children's Manifest Anxiety Scale-2 (CMASR-2, Reynolds & Richmond, 2012) that allows obtaining a Total Anxiety Index with five additional subscales: Physiological Anxiety, Restlessness, Social Anxiety, Defensively and an Inconsistent Response Index; and a Socio-demographic Questionnaire for Children and Parents was also administered. The Children’s Coping Scale for Mexican population evidenced that the coping strategies more used among the children were the dysfunctional followed by the emotion-centered strategies. According to the Children’s Manifest Anxiety Scale-2, most children reported average levels in the Anxiety Index and the highest subscale reported was Restlessness. These results provides useful information with regard to difficulties in coping in the sample as there is a positive relationship among dysfunctional coping strategies and high levels of anxiety but also an opportunity to implement brief evidence-based interventions at the school context in order to create an integrative care program focused on both mental health and educational attainment for children.

Key words: Children anxiety, Coping strategies, School context

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CHANGES IN ADOLESCENCE’ PERCEPTION OF DISTURBANCE OVER TIME IN CASE OF TRAUMATIC EVENTS: CONDITIONS OF PERMANENCE, INCREASE OR RECOVERY

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A deeper understanding of the mechanisms and processes underlying positive adjustment in the face of adversity is still under construction. Traumatic experiences are threats that temporarily disrupt an individual ability to cope with stress in a habitual way. Adolescents are often concerned by strong emotions, however their perception of disturbance can have a significant psychological effect on their emotional well-being and overall development. The objective of this study is to evaluate the change in the adolescent’s perception of discomfort for any traumatic event suffered under the conditions of permanence, diminution and/or increase in discomfort, in a convenience sample of 553 Spanish teenagers between 13 and 19 year-old (60.6% girls). The measures used were the Lifetime Incidence of Traumatic Events Student Scale (LITE-S) that analyzes non-interpersonal (nIP) and interpersonal (IP) potentially traumatic life events (PTLE), it evaluates the events occurrence, frequency, the time elapsed from the initial incident and the perception of disturbance experienced when the initial trauma occurred and how it is experienced now. A differential diagnosis was performed through the Youth Self Report YSR-DSM for the conditions of change established (groups of permanence in non-disturbance, permanence on the initial disturbance, increase and decrease of the disturbance). Results of this study show that 92% of teens suffered at least one trauma. The non-interpersonal (nIP) traumatic events were more frequently reported than the IP. From 48% to 74% of teens reported a recovery from the initial upset over time. The rates of increase and/or permanence of disturbance are much lower, but excessive from the point of view of mental health, and occurs mainly in IP events. Been tacked away from the family is the IP event that shows the most permanence of disturbance. The degree of psychological maladjustment was at a normative score and rarely the groups of change reach borderline level. The analysis of the change in disturbance in terms of permanence, increase or recovery here exposed is discussed and expanded to the study of personal resources linked to change and resilience in youths.

Key words: Adolescents, Disturbance, Mental health, Psychological maladjustment, Traumatic life events

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PERSONALITY AND EMOTIONAL REGULATION: THEIR ROLE IN PREDICTING FUNCTIONAL AND DYSFUNCTIONAL ADOLESCENT COPING

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The five-factor model of personality (Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness) has been used to study specific traits in adolescence and their association on coping strategies. For example, extraversion has been associated with positive thinking and social support seeking, and neuroticism is related to avoidance coping. However, coping structure may change across different developmental periods in association with other processes. Thus, emotional regulation (cognitive change, expression of positive and negative emotions, suppression, etc.), has been studied for better understanding the course of development of coping strategies. Therefore, the aim of this study was to analyze the role of personality traits and emotional regulation in predicting adolescent coping. Participants were 848 adolescents from public high schools in urban and suburban areas of Mexico City. The Big Five Questionnaire for Children, the Multidimensional Scale of Emotional Regulation for Adolescents and the Coping Scale for Adolescents were administered. A cross-sectional study was carried out (granted by PAPIIT-IN305917, UNAM and CONACyT-Mexico). In order to assess the relationship between personality traits and emotional regulation, and their predictive role in adolescent coping; correlational and hierarchical regression analyses were conducted. Personality traits consciousness and agreeableness, and emotional regulation strategies cognitive change and recognition of positive and negative emotions were predictors of positive thinking (R²=.324; F=80.765; p<.001). Social support seeking was predicted by expression of positive emotions, recognition of positive emotion, extraversion, cognitive change and consciousness (R²=.197; F=41.320; p<.001). Finally, obsessive thoughts and hopelessness were predicted by neuroticism, suppression and physiological reactivity (R²=.187; F=64.913; p<.001). As hypothesized, positive personality traits, such as, agreeableness and consciousness were positively related to functional coping strategies, as well as, positive emotional regulation strategies like cognitive change and recognition of emotions. On the other hand, negative personality traits, such as neuroticism, were associated with dysfunctional coping strategies, and suppression of emotional expression. These results provide evidence that some characteristics of personality in addition to certain emotional regulation strategies contribute to coping, which is important in developing prevention and intervention for vulnerable adolescents.

Key words: Adolescents, Big five model, coping, Emotional regulation

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DEPRESSION AND SUICIDAL BEHAVIOR TREATMENT FOR YOUNG PEOPLE IN PRIMARY AND COMMUNITY UNIVERSITY CENTERS

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In the last few years, primary and community university mental health-care centers in Mexico have been dealing with a growing number of young people, especially college students, manifesting depression and/or suicidal symptoms. In this population, risk behaviors are usually detected by academic and administrative staff who, in most cases, does not know what to do to help their students. Based on these two realities, healthcare professionals, specifically clinical psychologists, have a social commitment in seeking for accessible alternatives adapted to local needs, and that are effective in treating depression and suicide risk behavior. This study presents the algorithm designed and implemented in the psychological services center of the Faculty of Psychology of the National Autonomous University of Mexico to treat students with anxiety, depression and/or suicidal behavior (granted by PAPIME PE311319). Through this algorithm, it is determined the evidence-based intervention more convenient as a psychological treatment for the person according to his/her symptoms and his/her milieu. School advisors referred most of the students, but some of them looked for the attention themselves. The inclusion criteria were being a student, having symptoms of depression, having suicidal behavior (suicidal thoughts, plans, and/or attempts), and having symptoms of borderline personality disorder (specifically, emotional dysregulation). The two interventions used were Behavioral Activation Therapy and Dialectical Behavior Therapy-oriented treatment. A total of 95 patients were treated using this algorithm between April 2018 and April of 2019. Twenty-three concluded their treatment having reached the goals set at the beginning of the process; 36 are still in treatment, either participating in a skills group, or in an individual therapy; 21 were referred to a different type of mental health service because they didn’t meet the criteria; and 15 interrupted their treatment. The use of the algorithm reduces the gap between the available resources in these psychological centers and the high demand that has recently occurred among the student’s population, providing immediate attention to people who needs it. Finally, the effectiveness of the algorithm in addressing health and mental health problems related to depressive symptoms and suicide risk through brief evidence-based interventions is discussed.

Key words: Depression, Evidence-based treatments, Mental health, Suicidal behavior, Young adults

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ORAL COMMUNICATION SESSIONS
SESSION 10:

Emotions and Social aspects

Chair: Anna Bronowicka

- C1 Single parenting: Social change or compromise? Asnat Dor

- C37 The meanings of stress. Shulamith Kreitler

- C38 Core Vulnerability: Predictors of Social Anxiety Among Online Dating Users. Shani Pitcho-Prelontzos, Christian Heckel and Lia Ring

- C98 Negative emotional appraisals of the sociopolitical and economic system predict the acceptance of an authoritarian leader. Anna Bronowicka
SINGLE PARENTING: SOCIAL CHANGE OR COMPROMISE?

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Introduction. This qualitative study focuses on the experience of Israeli single mothers and the decision-making process they underwent in making their choice of having a single-parent family.

Method. The study population included 20 Israeli single mothers of one or two children, all from the north of Israel. Mean age at first delivery was 39.41 (SD = 5.41) A three-question research protocol was designed, and the women underwent semi-structured open interviews, aimed at gaining an in-depth look at their personal perceptions of single parenthood, as well as related obstacles and advantages. Following the interview, a thematic analysis was conducted to derive distinct themes for each question.

Results. Most of the women interviewed said they had been determined to become mothers, and had chosen single parenting after they realized that they would not find a partner. They described exhaustion, heavy financial burden, stress, solitude, social criticism, and being in constant need of help. Five of the interviewees had chosen single parenting at a relatively early age (32-34). All participants were unanimous in appreciating both the ability to raise their child as they saw fit, without having to consider the other parent's way, and being able to devote all their attention to the child without the emotional stress of an adult relationship.

Conclusions. All the participants acknowledged the difficulties of single parenting, and perceived their ongoing coping as being a heavier burden than that of married mothers. Most participants said that this family structure would not have been their first choice, but one made as they reached a relatively later age (37-40+), after a long search for a marriage partner. Unlike unmarried women in former generations, these women expressed a parental sense of competence and coping resources, felt they did not have to compromise on a man who did not meet their needs to become mothers, and they had made peace with their decision to parent. Some of them clearly stated that parenting need not be related to marriage, perhaps demonstrating a social change.

Key words: Coping resources, Mothers' coping, Mothers' perceptions, Parental sense of competence, Single parenting

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THE MEANINGS OF STRESS

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Introduction. Stress is a reaction to some kind of triggering situation. As such it is likely to be a function of the meaning the individual assigns to the situation. The meanings could range from "it is harmless or does not affect me at all", in which case no stress reaction is likely, to "it is catastrophic", in which case a stress reaction may be triggered. Along this scale there are different kinds of possible meanings which may affect stress differentially. The objective was to test the hypothesis that a stress reaction is triggered by specific meanings assigned to the situation.

Methods. The participants were 183 students of both genders. The meanings of stress were assessed in terms of the Kreitler meaning system with the meaning-based questionnaire of stress. The questionnaire included 30 items (each with four response alternatives) referring to four clusters of contents: those referring to actional-dynamic aspects, those referring to perceptual-sensory aspects, those referring to experiential-evaluative aspects and those referring to contextual aspects. In addition, the subjects responded to the perceived stress scale (Sheldon Cohen, 1988) which served as dependent variable and to The Social Readjustment Rating Scale" (Holmes & Rahe, 1967), for control purposes.

Results. The results showed that the subjects whose meaning of stress focused on the actional-dynamic aspects and on the contextual aspects had significantly lower perceived stress scores than the others. The overall score for the meanings of stress was not related to perceived stress. Women scored higher on the clusters related to higher perceived stress (the experiential-evaluative and sensory-perceptual clusters). The results show that stress reactions depend on the meanings assigned to the situation and provide guidelines for interventions designed to moderate stress reactions.

Key words: Experiential-evaluative, Gender, Meaning, Perceived stress

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CORE VULNERABILITY: PREDICTORS OF SOCIAL ANXIETY AMONG ONLINE DATING USERS

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In the past two decades, online dating has become widely common and accepted, especially among younger individuals. However, dating remains a source of stress for many individuals around the world, and although finding potential partners online may lessen some worries with regard to social anxiety, it nevertheless is related with specific challenges that online dating individuals have to face. According to Janoff-Bulmans' theory of world assumptions (1989), negative views about the world and the self might prone certain individuals to experience general vulnerability. However, research focusing on relations between social anxiety among online daters and worldviews remains scarce. The current study aimed at exploring predictors of two specific dimensions of social anxiety in the context of online dating, and to provide a broader theoretical understanding of this phenomena. Using a cross-sectional online survey, a sample of 494 Israeli adults (78% female, Mage=33.55, SD=9.42) completed field-tested instruments that measured online dating users perceptions (recognition concerns, worldviews and self-efficacy), negative affect (social anxiety facets in online dating contexts, namely interaction anxiety, and self-evaluation anxiety) and sociodemographic variables (age, gender and relationship status). Using SPSS, hierarchical multiple regressions were applied to analyze the relations between social anxiety and the users’ characteristics. Results show the significant role of higher recognition concerns, negative worldviews, and low perception of self-efficacy, as prominent predictors of both interaction anxiety and self-evaluation anxiety among online dating users. Findings indicate close relations between users' perceived social anxiety in online dating, specific attitudes and personal characteristics. Furthermore, an examination of the results through the theory of world assumptions emphasizes that vulnerability to experience social anxiety in the context of online dating (e.g., interaction anxiety and self-evaluation anxiety) lies within people’s basic assumptions about the world and themselves. Meaning, that negative core perceptions of the benevolence of the world, meaningfulness of the world, and worthiness of the self, might contribute to experiencing higher recognition concerns, lower self-efficacy, and therefore, more interaction-related anxiety and self-evaluation anxiety.

Key words: Anxiety, Psychological stress, Stress

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NEGATIVE EMOTIONAL APPRAISALS OF THE SOCIOPOLITICAL AND ECONOMIC SYSTEM PREDICT THE ACCEPTANCE OF AN AUTHORITARIAN LEADER

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Introduction: Authoritarian attitudes depend not only on personality predispositions, but also on situational factors which activate them. The present research addressed a question of whether emotional appraisals of a country’s political system are predictors of authoritarian beliefs. It was hypothesized that negative evaluations of the sociopolitical and economic conditions (i.e., extent of fears and anger concerning current political situation) would be associated with less support for a democratic rule. Method: A survey was conducted in Opole, Poland, with a sample of university students (N = 208). The outcome variable, authoritarian beliefs, was operationalized as a propensity to accept an authoritarian leader. The Authoritarian Leader Acceptance Scale was used to measure beliefs that, in certain circumstances, an undemocratic rule is better that a democratic one, and to assess the level of acceptance of a charismatic authoritarian leader, who pledges societal well-being and security of at the cost of civil liberties. The key predictor variables were: gender, conspiracy beliefs, socioeconomic fears, and anger at political unfairness. Results: Hierarchical regression analysis identified the following variables as significant predictors of the authoritarian leader acceptance: gender, conspiracy beliefs (“politicians killed the airplane crash were assassinated”), fears resulting from economic and sociopolitical threats to Poland, and anger at the unfair political system. Greater acceptance of an authoritarian leader was associated with: 1) being male, 2) having stronger conspiracy convictions 3) experiencing higher levels personal fears about the economic and political future of the country, and 4) exhibiting more anger at the unfairness of the political system functioning in current Poland. Discussion: Polish university students, our future political leaders who will take responsibility for the fate of democracy in Poland and Europe, are characterized by fairly high levels of authoritarian beliefs and political alienation. High levels of negative affect resulting from the appraisals of the country’s political system influenced young people’s propensity to support the rule of authoritarian power and reject pro-democracy ideas.

Keywords: Acceptance of the authoritarian leader, Emotional appraisals, Fear and anger about politics, Alienation

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SESSION 11:

Health Psychology

Chair: Stephen Gallagher

- C30 The Association of Cardiovascular Reactivity during the Trier Social Stress Test with Health Related Quality of Life in Patients after Acute Coronary Syndrome. Julija Gecaite, Julius Burkauskas, Adomas Bunevicius, Julija Brozaitiene, Nijole Kazukausiene and Narseta Mickuviene

- C33 Social identity, online and off-line social support and depression in those living with breast cancer. Stephen Gallagher and Ann-Marie Creaven

- C41 Savoring and psychological well-being in family dyads coping with cancer: An Actor-Partner Interdependence Model. Wai Kai Hou, Li Liang, Kam Man Lau and Mila Hall

- C86 Do emotions influence what we eat and when? Exploring the perceptions of patients diagnosed as clinically obese with binge eating disorder. Tracey Devonport, Wendy Nicholls, Robin Gutteridge and Lynne Johnston
THE ASSOCIATION OF CARDIOVASCULAR REACTIVITY DURING THE TRIER SOCIAL STRESS TEST WITH HEALTH RELATED QUALITY OF LIFE IN PATIENTS AFTER ACUTE CORONARY SYNDROME

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Introduction. Acute coronary syndrome (ACS) is the most common cause of death in developed countries (Sanchis-Gomar, Perez-Quilis, Leischik, & Lucia, 2016). Health Related Quality of Life (HRQoL) in ACS patients is known to be impaired (Seo et al., 2015; Unsal, Sut, & Durna, 2007). The importance of psychological stress in the development and course of heart diseases is well established (Chauvet-Gelinier, Trojak, Verges-Patois, Cottin, & Bonin, 2013). Previous research revealed that healthy individuals with higher cardiovascular reactivity to emotional stressor held more positive perception of their health (Phillips, Der, & Carroll, 2009), which is one of the HRQoL domains. However, to our knowledge, there has not been a study examining objective psychophysiological responses to stress and overall HRQoL in ACS patients. The aim of our study was to investigate the association of cardiovascular stress reactions with HRQoL in patients with ACS. Methods. In sum, 136 patients (84.6% men, age 52±8) within 2 weeks after ACS were recruited in this cross-sectional study. Patients were evaluated for HRQoL (SF-36), symptoms of anxiety and depression (HADS) and Type D personality (DS14). Trier social stress test (TSST) was employed to evaluate cardiovascular reactivity (systolic and diastolic blood pressure [BP], and heart rate [HR]) to psychosocial stress. Multiple linear regression analyses were performed to test for possible associations between cardiovascular stress reactivity and HRQoL. Results. After controlling for gender, age, body mass index, arterial hypertension and New York Heart Association functional class, anxiety and depressive symptoms, Type D Personality, and medication use, the SF-36 General health perception score was associated with higher HR during the TSST at Baseline rest (β=.312, p=.001), Task instruction (β=.270, p=.005), Preparation (β=.283, p=.002) and Recovery time (β=.241, p=.011). No associations were found between HRQoL and BP measures. Conclusion. In patients with ACS, higher cardiovascular reactions to stress was related to HRQoL, specifically general health perception, even after controlling for potential confounders. Our results suggest that patients, who consider their overall health as being poor may exhibit an adaptive profile of response to mental stressors, perhaps suggesting a certain degree of emotional protection in the form of reduced cardiac reactivity.

Key words: Acute coronary syndrome, Acute stress, Anxiety, Cardiovascular reactivity, Health related quality of life

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SOCIAL IDENTITY, ONLINE AND OFF-LINE SOCIAL SUPPORT AND DEPRESSION IN THOSE LIVING WITH BREAST CANCER

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Background: Recent research has found that people living with chronic illness who have stronger social identity with their support group have better well-being compared to those who identity less. However, whether this relationship is mediated with social support is not known, i.e. do people living with a chronic illness who identity strongly with their social support group report greater social support and hence report better well-being. The present study tested this notion in a sample of people living with breast cancer.

Methods: One hundred and sixty-nine people living with breast cancer who were members of an online support group completed indices of sociodemographics and health variables as well measures of social identity, perceived social support and well-being.

Results: Social identity with their online support group was not directly related to well-being in those living with breast cancer. However, there was evidence of an indirect mediation effect, effect = .0080, CI [-.0051, .0280], such that people living with breast cancer who has a stronger social identity with their online support group reported higher levels of social support and better well-being compared to those with lower social identity. These finding withstood adjustment for confounding such as treatment and cancer stage, effect = .0002, CI [-.0162, .0130].

Conclusion: These results suggest that the social identity is a key factor in understanding how social support groups operate and how ones strength of identity with such groups drives the level of perceived social support available to those involved.

Key words: Cancer patients, Depression, Social support
SAVORING AND PSYCHOLOGICAL WELL-BEING IN FAMILY DYADS COPING WITH CANCER: AN ACTOR-PARTNER INTERDEPENDENCE MODEL

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Previous studies have investigated interdependence of the associations between predictors and negative psychological outcomes in dyads of cancer patients and family caregivers. This study examined the dyadic effects of perceived capability of savoring on psychological well-being.

A total of 152 dyads of cancer patients and caregivers reported their perceived capability of savoring (i.e., Savoring Beliefs Inventory), state positive affect (Chinese Affect Scale), and life satisfaction (Satisfaction With Life Scale) within six months following diagnosis.

Actor-Partner Interdependence Model (APIM) demonstrated that patients’ and caregivers’ capability of savoring was positively associated with their own positive affect and life satisfaction (actor effects: \( \beta = .131 \)–.532, 95% CI=.053, .678, p<.001). Patients’ perceived capability of savoring was positively associated with caregivers’ positive affect (\( \beta = .122 \), 95% CI=.021, .266, p=.028), whereas caregivers’ perceived capability of savoring was positively associated with patients’ life satisfaction (\( \beta = .056 \), 95% CI=.006, .117, p=.020). Partner effects between caregivers’ perceived capability of savoring and patients’ positive affect and between patients’ perceived capability of savoring and caregivers’ life satisfaction were not significant.

The findings suggest the role of savoring in psychological well-being within patient-caregiver dyads, highlighting the importance of investigating positive psychological pathways in their joint adaptation.

**Key words:** Actor-Partner Interdependence Model (APIM), Cancer patients, Family caregivers, Positive emotion regulation

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DO EMOTIONS INFLUENCE WHAT WE EAT AND WHEN? 
EXPLORING THE PERCEPTIONS OF PATIENTS DIAGNOSED 
AS CLINICALLY OBESE WITH BINGE EATING DISORDER

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This paper presents perceptions of treatment seeking clinically obese patients regarding their emotions and eating behaviours. All patient participants had received a diagnosis of Binge Eating Disorder (BED). Emotional eating has been identified as more prevalent in obese populations compared to non-obese people (Rommel et al., 2012) and is positively correlated with the presence and severity of BED (Ricca et al., 2009). In contrast to a focus on negative emotions (Tchanturia et al., 2015) the present study adopted a neutral position allowing for the possibility that both pleasant and unpleasant emotions may be antecedents of eating. The lead clinicians at two English specialist weight management services helped recruit fifteen patients with a diagnosis of BED-Obesity. Ten patient participants (female n = 8; male n = 2) attended one of two focus groups and a further five (all female) completed individual semi-structured interviews. Analysis of data followed the six-stages of thematic analysis developed by Braun and Clarke’s (2006). Three themes were identified; (1) ‘Lightbulb moment’ details participants recollections of the point at which they recognised themselves to be emotional eaters. (2) ‘Emotional eating’ describes the pleasant and unpleasant emotions that appeared to elicit eating and the associated eating behaviours. (3) ‘Off the wagon’ presents participants thoughts, emotions and behaviours evident after an emotional eating episode. Findings support the notion that eating is used to regulate unpleasant emotions, however, participants provided many examples of pleasant emotions prompting eating. Consistent with previous research, emotional eating presented a potential barrier to sustained weight loss (Munsch et al., 2012). Data indicate that the negative cycle of out of control eating which characterises BED undermined self-efficacy and mediated against changes in eating behaviours. Findings highlight the need to understand more fully the role that pleasant and unpleasant emotions may have with regards to eating, as well as investigating suggestions that BED needs to be considered as part of a life course journey of relationships with food.

Key words: Emotional regulation, Maladaptive Coping, Wellbeing

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SESSION 12:

Stress and coping

Chair: Juan José Miguel-Tobal

- **C48 The Benefits of Mastery Imagery Ability During Acute Psychological Stress.** Sarah Williams, Mary Quinton, Jet Veldhuijzen van Zanten, Jack Davies, Clara Moller, Gavin Trotman and Annie Ginty

- **C60 Mastery Imagery Training to Regulate the Psychophysiological Responses to Stress: A Pilot Study.** Sarah Williams, Clara Moller, Mary Quinton, Jet Veldhuijzen van Zanten, Jack Davies, Gavin Trotman and Annie Ginty

- **C96 Emotional intelligence and personal problem solving.** Juan José Miguel-Tobal, Mª Isabel Casado and Mónica Melón Schmidt

- **C97 Arts on Prescription in UK Primary Care: Efficacy in alleviating anxiety and depression.** Rachel Sumner, Diane Crone, Samantha Hughes and David James
THE BENEFITS OF MASTERY IMAGERY ABILITY DURING ACUTE PSYCHOLOGICAL STRESS

Sarah Williams*, Mary Quinton*, Jet Veldhuijzen van Zanten*, Jack Davies*, Clara Moller*, Gavin Trotman* & Annie Ginty**

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Mastery imagery (i.e., images of being in control and coping in difficult situations) is used to regulate anxiety during stress. Higher levels of the ability to image this type of imagery content (i.e., mastery imagery ability) is also associated with dispositions such as confidence, challenge appraisal of a stressful situation, and lower levels of trait anxiety. Specifically, mastery imagery ability partially mediates the relationship between trait confidence and anxiety. However, no study has examined mastery imagery ability’s association with confidence and anxiety responses to an acute psychological stress task. The present study examined whether mastery imagery ability mediated the relationship between confidence and anxiety, and the subsequent associations on performance during acute psychological stress. Participants (N = 130; 55% male; Mage = 19.94 years; SD = 1.07 years) were assessed in their mastery imagery ability and completed a 6 minute Paced Auditory Serial Addition Test (PASAT). Confidence, cognitive and somatic anxiety intensity, and whether these anxiety symptoms were viewed as positive or negative (i.e., anxiety interpretation) were assessed immediately prior to the PASAT. Path analyses revealed a good fit to the data: χ² (8) = 6.10, p = .636, CFI = .99, TLI = 1.00, SRMR = .03, RMSEA <.001 (90% CI < .001-.09), supporting a model whereby mastery imagery ability mediated the relationship between confidence and cognitive and somatic anxiety interpretation (p’s < .05). However, regression paths from mastery imagery ability to cognitive anxiety intensity and somatic anxiety intensity were non-significant (p’s > .05) suggesting that mastery imagery ability did not mediate the relationship between confidence and anxiety intensity. Greater mastery imagery ability and confidence were both directly associated with better PASAT performance. Findings suggest that mastery imagery ability may help individuals experience more facilitative anxiety and perform better during acute psychological stress. Therefore, improving mastery imagery ability may be an effective strategy to help individuals with high levels of anxiety or clinical anxiety disorders experience more positive anxiety during stress evoking situations and improve performance during stressful situations.

Key words: Anxiety, Anxiety interpretation, Confidence, Imagery ability, Mastery imagery

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MASTERY IMAGERY TRAINING TO REGULATE THE PSYCHOPHYSIOLOGICAL RESPONSES TO STRESS: A PILOT STUDY

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Imaging being in control and coping in difficult or stressful situations (i.e., mastery imagery) can lead to greater confidence, more facilitative interpretations of anxiety, and lower heart rate reactivity during acute psychological stress. Additionally, imaging this content more easily (i.e., greater mastery imagery ability) is associated with higher confidence, a greater challenge appraisal, and more positive interpretations of anxiety symptoms in response to stress-evoking situations. Therefore, increasing mastery imagery ability may elicit more adaptive appraisals and responses to stress. However, this has yet to be examined. The present pilot study examined whether a two-week training program to improve mastery imagery ability could increase confidence, control, and coping, and regulate anxiety and cardiovascular responses to an acute psychological stress task (speech task). 26 females (Mage = 21.76 years; SD = 3.02 years) were assessed in mastery imagery ability and completed a public speaking task before and after being randomly assigned and completing either two-weeks of imagery training (n = 13) or a control condition (n = 13). In response to each speech task, measures of confidence, control, coping, and anxiety were obtained, and heart rate (HR) and systolic (SBP) and diastolic (DBP) blood pressure were measured during each task and the preceding baselines. Data was analyzed using t-tests. The intervention increased mastery imagery ability (p < .05). Intervention participants also experienced elevations in confidence, control, coping, and more positive interpretations of cognitive anxiety from pre to post intervention (p’s < .05), and reductions in SBP and DBP reactivity (p’s < 024); there were no changes in these variables for the control group. Unlike the intervention group, control participants experienced lower HR reactivity and more facilitative interpretations of somatic anxiety from pre to post intervention (p’s < .05). This pilot study suggests that increasing mastery imagery ability may enable individuals to cope better and feel more confident and in control of stress-evoking situations. This may enable individuals to perceive their cognitive anxiety as more facilitative and experience lower blood pressure responses to stress. Future research must look to replicate this work on a larger scale.

Key words: Anxiety, Cognitive reappraisal, Imagery, Stress appraisal

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Traditionally, emotion regulation has been seen as an element that facilitates the manner in which individuals confront and resolve conflicts that appear in their personal sphere. With the emergence of the concept of Emotional Intelligence (IE), it is assumed that individuals with low levels of IE have greater difficulties managing coping strategies and a greater probability of failures in their attempts to solve social conflicts. However, in this general assumption the different dimensions of IE are not contemplated nor the fact that these dimensions will not all operate in the same manner in relation to coping strategies. When studied separately, data indicates that the dimensions of Emotional Clarity and Emotional Repair seem to be associated with adapted coping styles based on reflective thinking and on an active and positive role confronting the problems. Nevertheless, high scores in Emotional Attention can lead to ruminating and avoidance strategies that hamper coping with personal problems. Currently research data in this field is insufficient and inconclusive partly due to the scant treatment of the specific role that the different dimensions of IE play in each of the dimensions found in the current models personal problem solving and coping. This paper presents the results and analysis of a correlation study involving the relationship between the different dimensions of both variables, IE and personal problem solving and coping. The assessment tools used were the Inventory of Problem Solving and Coping- ISAP- (Miguel-Tobal & Casado, 1992) and the Trait-Meta Mood Scale (Mayer & Salovey, 1995) in its abbreviated Spanish version TMMS-24 (Fernandez-Berrocal, Extremera, & Ramos, 2004).

Key words: Emotional intelligence, Problem solving and coping, TMMS-24, ISAP.

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ARTS ON PRESCRIPTION IN UK PRIMARY CARE:
EFFICACY IN ALLEVIATING ANXIETY AND DEPRESSION

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Arts on Prescription (AoP) are a form of social prescribing intervention in UK primary care. The present study is based on an AoP programme in the South West UK, where patients are referred for an eight-week course of community-based arts. Previous research has established these interventions as being effective in improving wellbeing, including in patients with multimorbidity. This present work evaluates the efficacy of such an intervention in alleviating symptoms of anxiety and depression for the first time in a large cohort of patients. Participants are referred to this AoP intervention for a variety of reasons, but usually to support overall wellbeing in cases of complex or long-term care needs. Using anonymised data from the most recent wave of participants for this particular intervention (N≈360), we evaluate the impact on anxiety (measured by the GAD-7), depression (measured by the PHQ-8), and wellbeing (WEMWBS). Alongside these outcomes, data concerning participants' demographic variables (age, sex) socio-economic status (Index of Multiple Deprivation), and reasons for referral will be assessed. Regressions will be used to understand the contribution of these patient factors to anxiety, depression, and wellbeing. Data analyses are ongoing, but it is anticipated that participants will experience significant reductions in anxiety and depression symptoms, along with significant increases in wellbeing supporting and extending the existing evidence base. Factors relating to variance in each outcome will also be assessed. This study will strengthen existing research into social prescribing interventions providing a substantial analysis on clinical markers of mental health for the first time. The present study will also support prior qualitative findings that have noted participants' perceptions of the alleviation of symptoms of anxiety and depression. Associations between changes in these clinical markers and prior measures (wellbeing) will provide added context to existing AoP intervention evidence.

Key words: Arts for health, Mental health, Primary care, Social prescribing, Wellbeing

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SESSION 13:

Stress and Anxiety in Sports (I)

Chair: Christopher Elsey

- C20 Resources do make a difference: the impact of psychological resources on stress and athletic performance. Ohad Nahum

- C21 Mental health discourses: Public disclosures of anxiety, stress and depression in professional sport. Christopher Elsey

- C22 The influence of ear acupuncture and physical training, on acute mental stress. Ramona Jurcau, Ioana Jurcau, Nicolae Colceriu, Dong Hun Kwak, Calin Girlea and Mihai Kiss
RESOURCES DO MAKE A DIFFERENCE: 
THE IMPACT OF PSYCHOLOGICAL RESOURCES ON 
STRESS AND ATHLETIC PERFORMANCE

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The importance of personal resources in human stress process and performance has been the subject of a substantial body of research. While research in this area has lately shifted to identifying and exploring aggregated resources, such as psychological capital (Avey, Reichard, Luthans, & Mhatre, 2011; Kammeyer-Mueller, Judge, & Scott, 2009), relatively little of it has focused on professional athletes, especially from the perspective of conservation of resources (COR) theory (Hobfoll, 1989, 2001). COR theory emphasizes the importance of changes in resource levels, (rather than momentary levels), as predictors of stress. In line with the theory, the current short longitudinal study was designed to explore the associations between changes in personal resources, stress and performance among professional basketball players. A total of 145 men's and women's first league basketball players completed a questionnaire package during three consecutive weeks of the 2017-2018 basketball season. The questionnaire package included the State Hope Scale (SHS), Shirom-Melamed Vigor Measure (SMVM), New General Self-efficacy (NGSE), Perceived Stress Scale (PSS), and Athlete’s Subjective Performance Scale (ASPS). The results indicated that psychological resources (i.e., hope, self-efficacy and vigor) were loaded on a single factor, thus aggregating and co-traveling together. Weekly changes in resource levels predicted both changes in stress levels and in athletic performance. Furthermore, path analyses revealed both direct and indirect significant associations between resources and athletic performance, as moderated by stress levels. This study provides strong support for the importance of psychological resources on athletic performance, in line with the COR theory perspective. Not only did psychological resources aggregate, they also played an important role in determining players’ performance. Understanding the direct and indirect impact of resources on athletic performance, can open new directions of research and push sport performance practice into new avenues. Specifically, sport performance enhancement should include interventions aimed to foster/increase resources which can both improve both performance and athletes' well-being.

Key words: Coping resources, COR theory, Psychological stress, Sport psychology

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MENTAL HEALTH DISCOURSES:
PUBLIC DISCLOSURES OF ANXIETY, STRESS AND DEPRESSION IN PROFESSIONAL SPORT

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Publicly accounting for absences from professional sporting activities to the media is a routine and generally unproblematic practice. However, when the reason for the absence relates to mental health concerns (e.g. anxiety, stress, depression) players can encounter difficulties in trying to define, describe and conceptualise their issues in their own words when making them public. Evidently stigma and the 'sporting ethic' ('no, pain, no gain) can privately and publicly delay or prevent mental health disclosures. This presentation will demonstrate the different 'mental injury' disclosure narratives constructed by sports players and their sporting organisations. The research draws on the methods of ethnomethodology and conversation analysis, using press interviews and (social) media statements by various players and/or organisations which were made at the time to account for enforced absences. The paper will demonstrate the different strategies that players employ to categorise and explain their predicament to the public and how this changes over the course of their 'mental injury' timelines (i.e. from initial absence to competitive return). The presentation will examine the range of mental injury disclosure narratives, as well as exploring the consequences of these media strategies. These include: tragic stories and absent disclosures (e.g. footballer Robert Enke (depression)); initial denials and conflation with physical illness (e.g. footballer Bojan Krkic (anxiety) and cricketer Markus Trescothick (depression)); employment of surrogate place-holder categories (e.g. 'personal' or 'family' reasons or issues) (e.g. footballer Leigh Griffiths ('mental health')); involuntary detention under Mental Health Act and subsequent club announcements (e.g. footballer Aaron Lennon (stress-related illness)); and, finally, the open and transparent approach whereby players speak 'on the record' at the time that mental health issues led to enforced absences (e.g. cricketer Sarah Taylor (anxiety) and American footballer Brandon Brooks (anxiety)). Players can be caught in a bind; reluctant to speak out due to the perceived stigma in the sporting environment and internal concerns, yet aware that an extended absence will be particularly conspicuous and the media rumour mill may try to 'fill in the blanks'. Clearly there is a need to normalise 'mental injury' narratives and improve support mechanisms within sporting organisations.

Key words: Ethnomethodology, Media Discourses, Mental Health Disclosure, Professional Sport, Stigma

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THE INFLUENCE OF EAR ACUPUNCTURE AND PHYSICAL TRAINING ON ACUTE MENTAL STRESS

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Introduction: Ear acupuncture (EAc) is an anti-stress therapeutical method. The objective was to highlight EAc and physical training (PT) action, on blood sugar (BS) and anxiety (A), in acute mental stress. Methods: Sedentary subjects (n=24 males) were organized into 3 groups: 1) control (C=8) no EAc, no PT; 2) with EAc, no PT (EA=8); 3) with EAc and PT (EAPT=8). Study steps: a) EAc (P1) for EA and EAPT: 21 days, at physical rest - the needles were placed on the points liver, lungs, kidney, shen men and sympathetic; b) PT (P2) for EA: pedaling on a cycloergometer, a week, 12 min/day; c) mental stress (P3) for all groups: a difficult mathematical exercise. BS and A measuring: T1=before P1; T2, T3, T4 = at the end of P1, P2, P3 respectively. Assessments: BS, with a portable glucometer; A, with STA1 and visual facial anxiety scale. Statistical evaluation was based on Student test. Results: T4 comparison: BS and A decreased at EAPT: intensive significantly, versus C (BS, p=0.004; A, p=0.002); moderate significantly, versus EA (BS, p=0.03; A, p=0.01). Conclusions: 1) EAc acted more intense on A than on BS. 2) Under the EAc and PT influence, BS and A had a similar evolution. 3) EAc and PT together had a more intense effect on HT and A. 4) EAc and especially EAPT, may be useful to modulate BS and A on acute mental stress, in sedentary persons.

Key words: Ear acupuncture, Physical training, Stress, Mental stress, Blood sugar, Anxiety

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SESSION 14:

Stress and Anxiety in Sports (II)

Chair: Lee Moore

- **C23 An Examination of Organizational Stressors, Mental and Physical Health, and Perceived Performance Over Time in Semi-Elite Athletes.** Max Simms, Rachel Arnold, James Turner and Kate Hays

- **C24 Military Veteran Athletes’ Experiences of Competing at The 2016 Invictus Games.** Gareth A. Roberts, Rachel Arnold, Fiona Gillison, James Bilzon and Martin Colclough

- **C25 How consistent are challenge and threat evaluations? A generalizability analysis of stress appraisals among sports performers.** Lee Moore, Paul Freeman, Adrian Hase, Emma Solomon and Rachel Arnold
AN EXAMINATION OF ORGANIZATIONAL STRESSORS, MENTAL AND PHYSICAL HEALTH, AND PERCEIVED PERFORMANCE OVER TIME IN SEMI-ELITE ATHLETES

Max Simms*, Rachel Arnold*, James Turner* & Kate Hays**

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Research shows that organizational stressors have the potential to undermine the psychological well-being and performance of athletes. Indeed, cross-sectional research has found that organizational stressors can be associated with negative affect, burnout, and performance dissatisfaction. Less is known, however, about how these associations unfold over time and whether organizational stressors can impact upon physical health (e.g., illness symptoms). The current study, therefore, illustrates a longitudinal examination of the associations of organizational stressors with components of perceived performance, mental health (anxiety and depression), and physical health (illness symptoms and missed training days through illness) at the within-person level. Semi-elite female rowers (N = 23) completed monthly measures of study variables for six-months (November-April). Multilevel modelling indicated that selection-related organizational demands positively predicted symptoms of mental and physical ill-health, and negatively predicted perceived performance. Conversely, coaching and team and culture organizational stressors negatively predicted symptoms of mental ill-health. Stressors related to logistics and operations positively predicted perceived performance, whereas goals and development stressors negatively predicted perceived performance. These findings demonstrate for the first time that organizational stressors can predict symptoms of mental and physical ill-health in high-level athletes. From a practical perspective, practitioners can incorporate these findings into the development of appropriate stress management interventions to prevent and reduce the organizational demands encountered, and assist with how performers interpret and cope with such demands and their consequences.

Key words: Acute illnesses, Anxiety, Depression, Longitudinal, Strain

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MILITARY VETERAN ATHLETES’ EXPERIENCES OF COMPETING AT THE 2016 INVICTUS GAMES

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Previous research has long championed the use of sport as a form of recovery for wounded, injured, and sick military veterans. Nevertheless, there is a lack of research on military veterans’ experiences of competing at international sporting competitions. The aim of this study, therefore, was to explore wounded, injured, and sick military veterans’ experiences of participation at the 2016 Invictus Games, including the build up to and post the event. The sample comprised 15 military veterans (10 male, 5 female) who all had an impairment and/or illness and all participated in the 2016 Invictus Games (including the build-up to the competition and the post-competition period). Participants took part in semi-structured interviews and transcripts were analysed using applied thematic analysis. Three overarching themes were identified: team and culture stressors, sources of motivation, and impact of the Games. Team and culture stressors were prominent and encapsulated the organizational stressors associated with the attitudes and behaviours within the team and the ethos of the team (e.g., communication, roles, team atmosphere, reintegration with a military team). Sources of motivation consisted of veterans’ motives for getting involved with and continuing participation with the Invictus Games. Impact of the Games comprised of veterans’ perceptions of both the positive and negative personal and social consequences of being involved with the Invictus Games. These novel findings offer the first insight into military veterans’ experiences of the Invictus Games, from their reasons for participating through to the stressors they encountered, and the effect that they felt the Games had on them. Equipped with the findings from this study, practitioners can develop and implement appropriate interventions for military veterans that effectively promote rehabilitation through competitive sport and specifically target the stressors that military veterans may encounter.

Key words: Acculturation stress, Affect, Competition, Rehabilitation, sport

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HOW CONSISTENT ARE CHALLENGE AND THREAT EVALUATIONS? A GENERALIZABILITY ANALYSIS OF STRESS APPRAISALS AMONG SPORTS PERFORMERS

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Viewing stressful situations as a challenge (i.e., coping resources exceed situational demands), rather than a threat (i.e., situational demands exceed coping resources), has been associated with better performance and long-term health. However, despite these important outcomes, little research has explored whether individuals have tendencies to evaluate all stressful situations as a challenge or threat. Therefore, this study used generalizability theory to investigate the consistency (or variability) of challenge and threat evaluations across potentially stressful situations among sports performers. 1813 sports performers (140 males, 1625 females; Mage = 33 years, SD = 7) completed an online survey in which they read 9 brief vignettes, with each describing a potentially stressful situation (e.g., injury, deselection, family illness). After reading each vignette, self-report items assessing demand and resource evaluations were completed (e.g., “how demanding would you find this situation?”, “how well would you be able to cope with this situation?”). All items were rated on Likert scales anchored between 1 (not at all) and 6 (extremely). A demand resource evaluation score (DRES) was then calculated for each vignette by subtracting evaluated demands from resources (range -5 to +5), with a positive score reflecting a challenge evaluation (i.e., resources exceed demands) and a negative score indicating a threat evaluation (i.e., demands exceed resources). Generalizability analysis revealed that the Athlete x Stressor interaction effect accounted for the largest amount of variance in DRES (51.9%), suggesting unique matches between athletes and stressors, and that athletes had idiosyncrasies in their tendency to view particular stressors as more of a challenge or threat. The Athlete (15.4%) and Stressor (21.9%) effects were also significant. The Athlete effect implied that the athletes differed in whether they tended to view the stressors as more of a challenge or threat, while the Stressor effect suggested some agreement among the athletes in their tendency to view some stressors as more of a challenge or threat than others. The findings suggest little consistency in challenge and threat evaluations, with variability in such evaluations mostly due to unique interactions between athletes and stressors. These results have important implications for the development of stress management interventions.

Key words: Appraisals, Personal resources, Sport psychology, Stress management, Stressor

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SESSION 15:

War-related trauma

Chair: Robin Goodwin

- **C2 Personal Mastery and Community Dedication as Mediators of the Influence of Trauma Exposure on PTSD and PTG.** Krys Kaniasty, Lea Zanbar, Navit Ben-Tzur and Rachel Dekel

- **C104 Value change following a terrorist attack.** Robin Goodwin, Lukasz Walasek, Henrik Singmann and Rish Kumar

- **C35 War-related trauma and mental health among Darfuri refugees in Israel.** Vered Slonim-Nevo and Shirly Dorchin-Regev

- **C63 Evaluation of Support Programs for Canadian Armed Forces Ill and Injured Personnel.** Megan Therrien and Julie Coulthard

- **C87 Intergenerational Transmission of Attachment in the Shadow of War Captivity Trauma Dyadic Study.** Roy Aloni and Zahava Solomon
PERSONAL MASTERY AND COMMUNITY DEDICATION AS MEDIATORS OF THE INFLUENCE OF TRAUMA EXPOSURE ON PTSD AND PTG

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Hobfoll’s Conservation of Resources (COR) theory asserts that people invest in resource caravans and rely on them in combating loss of resources as they experience stressful events. Indeed, many personal, social, and material resources are connected to each other, making them jointly vulnerable to losses but also mutually complementing each other in the process of coping with life challenges. The present study investigated two resources hypothesized to serve protective functions in the aftermath of a potentially traumatic event: personal mastery (i.e., beliefs that one has control over important life circumstances) and community dedication (i.e., engagement in efforts aimed at improvements of a community’s quality of life). The study was conducted 2-3 months after the 2014 Israel-Gaza conflict. The sample consisted of 1014 Israeli who completed a web-delivered questionnaire assessing the levels of past and present trauma exposure (i.e., the predictor variables), community dedication and personal mastery (i.e., the mediators), and the extent of symptoms of posttraumatic distress and experiences of posttraumatic-growth (i.e., PSS and PTG as the outcomes). Structural equation modeling analyses and dedicated mediational tests partially supported the study’s predictions. Higher levels of personal mastery were associated with lower levels of PSS symptoms, however, the anticipated link between community dedication and distress was not significant. Not surprisingly, mastery also mediated the influence of past trauma exposure on posttraumatic distress. As predicted, community dedication was positively related to PTG and it also mediated the influence of trauma on posttraumatic growth. Most interestingly, personal mastery was negatively associated with experiences of PTG as it mediated the influence of trauma on this outcome. Two competing explanations for our findings are possible: a) persons with higher levels of mastery did not need to engage in seeking posttraumatic benefits because they trusted their own coping efficacy, or b) persons with higher levels of mastery were denied the benefits of growth in coping with trauma and thus their self-confidence could have been a liability. These findings will be discussed for perspectives conceptualizing posttraumatic growth as a genuine coping asset and/or a self-enhancing illusory concomitant of coping with trauma and distress.

Key words: Community dedication, Exposure to trauma, Mastery, Posttraumatic distress, Posttraumatic growth

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VALUE CHANGE FOLLOWING A TERRORIST ATTACK

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As core components of personality, values are usually seen as stable. However previous assessments of value change have relied on experimental manipulations, or compared different populations before and after a major event. We analyse naturally occurring language, coded for values, drawing on data from Twitter users who tweeted within the five days before and five days following a major terrorist incident (Manchester Arena bombing in May 2017, which killed 23 concert goers). We select those whose geo-locations indicate they tweeted within Manchester (2146 tweets), and a control group of those geo-located within another major city (Birmingham, 1933 tweets). To construct a representative sample of words describing each value we draw on a dictionary of words elicited from Linguistic Inquiry Word Count dictionaries and use vector space models to quantify the semantic association between tweets and ten unique Schwartz values, employing statistical regularities in language to derive vector representations for each word in multidimensional space (using the Word2Vec method). The model was pre-trained on a corpus of Google News consisting of 100 billion words. Consistent with Schwartz’ value theory (and his specification of anxiety-based values), and hypotheses from Terror Management Theory, tweets that include words associated with conservation values (security, tradition, conformity) and those showing concern for others (benevolence and universalism) all demonstrate marked increases in the hours following the attacks (compared to this value expression in the previous days). However these value indicators return to baseline within 48 hours. In contrast, there were no clear changes in values in achievement, hedonism, self-direction or stimulation values. Changes occurred in Manchester, but not the (more distal) Birmingham. Following a terror attack conservation and self-transcendent values increase. However changes are short-lived, returning to baseline in approximately two days, and are primarily restricted to the geographical area closest to the trauma.

Keywords: Values, Terrorism, Social media, Twitter, Value change

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WAR-RELATED TRAUMA AND MENTAL HEALTH AMONG DARFURI REFUGEES IN ISRAEL

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Research suggests that the ethnic community plays a major role in the mental health of traumatized refugees arriving from collective societies. This study explored the relationships between war-related trauma and mental health separately for direct trauma exposure (i.e., events directly endorsed by asylum-seekers) and indirect trauma exposure (i.e., events endorsed by family, friends and other community members). Data for 300 Darfuri asylum-seekers living in Israel were obtained in a cross-sectional design. Data for 300 Darfuri asylum-seekers living in Israel were obtained in a cross-sectional design. Hierarchical regressions were used to examine how direct versus indirect trauma exposure were associated with posttraumatic stress disorder (PTSD), depressive and anxiety symptoms and psychological well-being. Results showed that direct trauma exposure was associated with worse mental health symptoms and reduced well-being. In contrast, indirect trauma exposure to similar events of others was linked with fewer PTSD, depressive and anxiety symptoms and improved well-being. These findings offer preliminary insights into the nature of trauma and mental health in asylum-seekers from collective cultures: While trauma directly experienced by the individual is associated with increased risk for poor mental health; exposure to others’ similar experiences may be associated with reduced emotional distress. Findings are discussed in terms of their potential implications for culturally sensitive assessment and group therapy in refugees.

Key words: Trauma, Refugees, Mental health, PTSD

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EVALUATION OF SUPPORT PROGRAMS FOR CANADIAN ARMY ILL AND INJURED PERSONNEL

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In response to an increase in Canadian Armed Forces (CAF) personnel who are ill and/or injured, senior military leadership has identified the need to strengthen the supports and services provided to these members. As part of this commitment to their care, the range of resources and programs have been consolidated under one umbrella organization comprised of regional and local support units across Canada. At any given time, these units are assisting approximately 5,000 ill/injured service members in their recovery, rehabilitation, and reintegration. Given their role in providing care to these members, it is critical that the quality of service delivery of these support units be explored. Prior research lacked the necessary scientific rigour and a properly defined sampling frame which made it difficult to assess the validity of previous findings. Between November 2018 and February 2019, the Member Satisfaction Survey was administered to all actively serving Regular Force CAF members who had accessed the services of the support units between 2016 and 2017. This survey asked ill/injured members to report on their satisfaction and experiences with the organization as a whole and on the individual resources and programs. Responses were obtained from approximately 700 survey participants. This survey addresses the significant methodological limitations of the prior data collection. Preliminary results provide insight into the awareness and perceptions of the support units from the perspective of the users, as well as on the usage and satisfaction of key programs, and includes self-rated levels of well-being of ill/injured members both before and after service delivery. While the previous analyses indicated that the majority of survey participants reported high levels of satisfaction, this presentation will provide a more comprehensive and thorough review. The findings from the revised administration of the survey will provide methodologically-sound data and, with plans to continue administering the survey every second year, these baseline results will be vital to understanding the role of the support units and help to shape and direct their policies going forward. The valuable knowledge gained from these findings can ensure that a high level of quality care is provided to ill/injured service members.

Key words: Ill/Injured, Satisfaction, Service Delivery, Support Units, Well-being

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INTEGENERATIONAL TRANSMISSION OF ATTACHMENT IN THE SHADOW OF WAR CAPTIVITY TRAUMA DYADIC STUDY

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The long-term implications of trauma may also impact those in a close emotional relationship with the traumatized person, in the form of secondary traumatization. The current study investigated fathers who were held captive during the Yom Kippur War and their adult offspring, in order to shed a light on the intergenerational transmission process of trauma, via attachment theory. The study included 121 fathers-adult offspring dyads, 77 dyads of ex-POWs and their adult offspring and 44 dyads of a matched control group of veterans, who were not captured, and their adult offspring. The data (attachment, post-traumatic symptoms) for the fathers were collected at three-time points (1991, 2003, and 2008), and for their offspring at one-time point (2014). Study results revealed that ex-POWs reported more insecure attachment compared to controls. Moreover, among ex-POWs, we found an increase in avoidance attachment over-time, alongside a high degree of anxious attachment that was stable over-time, compared to controls. In addition, we found that ex-POWs reported higher posttraumatic symptoms as well as an increase over time, compared to controls, who reported a low stable degree of posttraumatic symptoms over time. Furthermore, ex-POWs' offspring reported higher levels of insecure attachment (avoidance and anxious) and higher posttraumatic symptoms compared to controls' offspring. Moreover, ex-POWs' offspring expressed lower positive emotion to neutral stimulation after the priming of an attachment figure, compared to controls' offspring. Finally, among ex-POWs-offspring dyads, we found that the fathers' high levels of anxious attachment in the first measurement and the difference over time, led to higher levels of insecure attachment (avoidance and anxious) among the offspring. Importantly, the effect of the fathers' attachment is beyond the effect of the fathers' posttraumatic symptoms on offspring attachment. Our study highlights the importance of expanding research and therapeutic knowledge in this field. In addition, traumatic war experiences, in general, and war captivity, in particular, are unfortunate situations that are intertwined with Israeli reality. Thus, the recognition and understanding of intergenerational transmission trauma processes will contribute to the development of diagnostic and therapeutic interventions for the second generation of those facing psychological distress.

Key words: Attachment, Captivity, Intergenerational transmission, PTSD, Secondary traumatization

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SESSION 16:

New Technologies, new addictions

Chair: Aneta Przepiorka

• **C65 The role of distress and social functioning in mobile phone addiction.** Agata Blachnio, Aneta Przepiorka, Oleg Gorbaniuk, Ana Ivanova, Alan Angeluci, Ana Maria Abreu, Menachem Ben-Ezra, Tihana Brkljacic, Rebecca Bendayan, Maria J. Blanca, Nenad Cus Babic, Martina Benvenuti, Igor Pantic, Ivo Pilar, Belén Rando, Lancy D’Souza, Meika Makita, Sadia Malik, Elvis Mazzoni, Anita Milanovic, Bojan Musil, Gwendolyn Seidman, Mariek Vandenabeele, Anise M.S. Wu and Shu Yu.

• **C83 Procrastination and new media addictions: A Mediating Role of Future Anxiety and Dark Future.** Aneta Przepiorka and Agata Blachnio

• **C84 Facebook Intrusion, Depression, and Future Time Perspective in Sleep Problems.** Aneta Przepiorka and Agata Blachnio
THE ROLE OF DISTRESS AND SOCIAL FUNCTIONING IN MOBILE PHONE ADDICTION

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The number of studies reporting detrimental effects of smartphones on mental and physical health as well as life satisfaction is constantly increasing. A previous study suggested that smartphone addiction not only has negative consequences for health but also worsens the quality of social interactions, including relationship satisfaction and personal well-being. The study aims to expand knowledge on the role of mobile phone addiction in a level of distress, satisfaction with relationship and flourishing.

The model was tested in following countries Belarus, Brazil, China, Croatia, Spain, Netherlands, Israel, Mexico, Pakistan, Poland, Portugal, Serbia, Slovenia, USA, Italy, Ukraine, India. In the study, 6386 participants took part from 17 countries in age between 12-85, M=25.7, SD=9.9, 62.7% was women. We used the Adapted Mobile Phone Use Habits, six-item K6, The Scale of Perceived Social Support, and Flourishing Scale. The two-level mediation analysis was performed. The mobile phone is positively related to distress and negatively with satisfaction with the relationship. What is more, mobile phone addiction is negatively related to flourishing. The relations between mobile phone addiction and flourishing were mediated by satisfaction with relation and distress. Moreover, sex moderated this mediation, namely among women was partial mediation, while in the case of men it was full mediation. We showed the role of mobile phone addiction in a level of distress, satisfaction with relationship and flourishing.

Key words: Emotional distress, Mobile phone addiction, Psychological well-being, Social support

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PROCRASTINATION AND NEW MEDIA ADDICTIONS: A MEDIATING ROLE OF FUTURE ANXIETY AND DARK FUTURE

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General procrastination assesses the frequency with which people postpone performing everyday behavioural tasks or activities, whereas decisional procrastination indicates the tendency to the purposive delay in making decisions within some specific time frame. The purposes of this study were (a) to examine the relationships among these two types of procrastination (general and decisional), future anxiety, negative future perspective, and new media addictions and (b) to test the mediating effect of future anxiety and negative future. The term of new media addictions refers to the Facebook addiction and mobile phone addiction. Facebook intrusion refers to the lack of control over use of Facebook what leads to excessive involvement in Facebook. Facebook user despite negative consequences and detrimental impact on one's life uses Facebook to a great of extent. Facebook intrusion may be one of the manifestation of Facebook addiction. Recent study showed that Facebook may be a way for procrastinating. Mobile phone addiction is seen as a behavioral addiction. Mobile phone addiction refers to impulse control, using mobile to avoid unpleasant moods, having problems because of using a mobile, and intensive online activity, sending a large number of text messages, and devoting a large amount of time to using mobile use every day. The participants were students in Poland (N = 478), with mean age 19.93 years (SD = 1.77) and age range 18 and 27 years. Following measures were used: General Procrastination Scale, Decisional Procrastination Scale, Facebook Intrusion Questionnaire, the Adapted Mobile Phone Use Habits, Future Anxiety Scale-Short Form, and the Future Negative Scale. The results indicated that future anxiety serves as a mediator between procrastination and new media addictions. Individuals with higher levels of procrastination reported higher level of Facebook intrusion and mobile addiction. The current study advances understanding of the relationships among procrastination, future anxiety, and new media addiction (Facebook intrusion and mobile addiction).

Key words: Dark Future, Facebook intrusion, Future Anxiety, Mobile phone addiction, Procrastination

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FACEBOOK INTRUSION, DEPRESSION, AND FUTURE TIME PERSPECTIVE IN SLEEP PROBLEMS

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Sleep is important for well-being and normal functioning. Getting an adequate amount of sleep is of paramount importance for young people in adolescence, when rapid physical growth occurs and when other emotional and psychological processes develop. The main aim of the study was to examine the possible determinants of sleep problems in adolescence including Facebook intrusion, depression, and future orientation.

The participants were 426 adolescents, aged M = 14.68, SD = 0.98 (49% were female). The authors used the the Future Time Perspective Scale (FTP), the Center for Epidemiologic Studies Depression Scale (CES-D), the Facebook Intrusion Questionnaire (FIQ), and the Medical Outcomes Study Sleep Scale (MOS-Sleep)

It was found that depression was positively related to Facebook intrusion and sleep problems. Facebook intrusion was negatively correlated with future orientation as well as long-term goals.

The results contribute to knowledge on excessive social media use and its relations with mental health; they can be applied in the treatment of addictive social media use.

Key words: Adolescence, Depression, Facebook intrusion, Future orientation, Sleep problems
SESSION 17:

Emotions and cardiovascular responses

Chair: Brian Hughes

- **C42 Does the emotional content of the stressor matter? Implications for emotion regulation and cardiovascular reactivity.** Siobhán Griffin, Siobhán Howard and Stephen Gallagher

- **C55 How to bring the Autonomic Nervous System in balance with heart rate biofeedback resilient training.** Kees Blase

- **C58 Does trait openness facilitate adaptation of the cardiovascular stress response?** Brian Hughes, Páraic Ó Suíilleabháin and Siobhán Howard

- **C62 Psychophysiological reading of wound healing processes like EMDR.** Kees Blase
DOES THE EMOTIONAL CONTENT OF THE STRESSOR MATTER? IMPLICATIONS FOR EMOTION REGULATION AND CARDIOVASCULAR REACTIVITY

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Instructed use of reappraisal to regulate stress arousal has been associated with a more adaptive cardiovascular response profile; indexed by greater cardiac output (CO) and lower total peripheral resistance (TPR). In contrast, instructed use of suppression has been associated with exaggerated cardiovascular reactivity (CVR). The current study examined individual differences in habitual use of these strategies, as well as individual differences in emotion regulation difficulties. Forty-eight participants (25 women, 23 men) completed a typical laboratory stress paradigm; 20-minute acclimatization period, 10-minute official baseline, and two 5-minute speech tasks separated by a 10-minute recovery period. The emotional valence of the speech task was examined as a potential moderating factor; participants spoke about a block of negative-emotion words and neutral-emotion words (word order counterbalanced). Cardiovascular parameters were measured using the Finometer Pro. Trait reappraisal and suppression were assessed by the Emotion Regulation Questionnaire. Difficulties in emotion regulation were measured by the Difficulties in Emotion Regulation Scale. ANCOVA analysis found there was a significant Phase × Reappraisal interaction effect for TPR, $F(1.61, 46.42) = 7.99, p = .005$, partial $\eta^2 = .167$ and the effect for CO approached significance ($p = .077$). Greater use of reappraisal was associated with lower TPR and greater CO responding to the negative task. There was also a Phase × Difficulties interaction effect for TPR [$F(1.15, 45.52) = 4.71, p = .031$, partial $\eta^2 = .105$], and CO [$F(1.62, 64.92) = 4.90, p = .015$, partial $\eta^2 = .109$]. Greater emotion regulation difficulties were associated with greater TPR and lower CO reactivity to the negative task. Neither trait reappraisal or difficulties in emotion regulation influenced responding to the neutral task. However, greater habitual use of suppression was associated with greater systolic and diastolic blood pressure (SBP and DBP) responding to both tasks [SBP; $F(1.70, 67.92) = 4.75, p = .011$, partial $\eta^2 = .106$, DBP; $F(1.66, 66.30) = 5.81, p = .007$, partial $\eta^2 = .127$]. The findings suggest that, at least in a negative-emotion context, individual differences in emotion regulation translate into altered and damaging patterns of CVR to stress.

Key words: Acute stress, Cardiovascular reactivity, Cognitive reappraisal, Emotion regulation difficulties, Suppression

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HOW TO BRING THE AUTONOMIC NERVOUS SYSTEM IN BALANCE WITH HEART RATE BIOFEEDBACK RESILIENT TRAINING

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Stress-related disorders like PTSD, depression and anxiety disorders show an over-activated Sympathetic Nervous System and dysregulation of the vagal nerve. Heart Rate Variability biofeedback is a non-invasive treatment in which patients are assumed to self-regulate a physiological dysregulated vagal nerve. Combining Treatment As Usual with this HRVbiofeedback method (developed since 1996) can be an innovative step forward in efficacy of treatment. Systematic review in PubMed and Web of Science yielded 789 studies with evidence based critical review. After critical appraising 10 studies have been selected and showed significant clinical efficacy. Description of the studies in a table describes relevance (RCT,n=,domain,setting, scales) results (pre-post, reduction exp, reduction control) and validity (significance, blind, dropouts). In a table we can show the results of ten studies of HRVbiofeedback additional to treatment as usual in PTSD and depression. In the control groups reduction of BDI-depression scale was 37% versus 77% with treatment as usual combined with HRVbiofeedback. PTSS studies showed 24% effect in the control studies and 53% in the studies to treatment combined with HRVbiofeedback. Significant outcomes of this randomised studies indicate there may be a clinical improvement when HRVbiofeedback training is integrated into treatment of PTSD and depression, particularly when this integration procedure is combined with psychotherapy. Research shows that HRVbiofeedback where clients are breathing in a personal resonance frequency is much more effective and significant than breathing in one frequency (0.1 Hz or slow breathing). In this presentation we will show opportunities to integrate HRVbiofeedback in regular treatment to make treatment of stressrelated disorders more clinical effective.

Key words: Depression, HRV-biofeedback, Neurophysiology, PTSD, Self-employment

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DOES TRAIT OPENNESS FACILITATE ADAPTATION OF THE CARDIOVASCULAR STRESS RESPONSE?

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Trait openness (aka openness to experience) has been associated with positive health outcomes, including cardiovascular well-being, but its direct physiological effects on cardiovascular responses is unknown. This study examined the role of openness in the context of cardiovascular responsivity to acute psychological stress, taking account the purported benefit of openness in facilitating coping flexibility. Continuous cardiovascular response data were collected for 74 healthy young female adults across an experimental protocol, including differing counterbalanced acute stressors. Openness was measured via self-report questionnaire. Analysis of covariance revealed openness was associated with systolic blood pressure (SBP; p=.016), and diastolic blood pressure (DBP; p=.036) responsivity across the protocol. Openness was also associated with heart rate (HR) responding to the initial stress exposure (p=.044). Examination of cardiovascular adaptation revealed that higher openness was associated with significant SBP (p=.001), DBP (p=.009), and HR (p=.002) habituation in response to the second differing acute stress exposure. Taken together, the findings suggest persons higher in openness are characterized by an adaptive cardiovascular stress response profile within the context of changing acute stress exposures. This study is also the first to demonstrate individual differences in cardiovascular adaptation across a protocol consisting of differing stress exposures. More broadly, this research also suggests that future research may benefit from conceptualizing an adaptive fitness of openness within the context of change. In summary, the present study provides evidence that higher openness stimulates short-term stress responsivity, while ensuring cardiovascular habituation to change in stress across time.

Key words: Acute stress, Big Five personality traits, Cardiovascular reactivity, health, Young adults

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PSYCHOPHYSIOLOGICAL READING OF WOUND HEALING PROCESSES LIKE EMDR

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Trauma healing can be treated by EMDR, and other emotion processing methods (like somatic experience). To follow the process of emotion regulation HeartRate Variability (as a marker of the Autonomic Nervous System) can we used to see the processing and to make the correct interventions. At a computer screen you can see what is happening in the body (heartrate and HRV). Interesting possibilities for research and for optimizing clinical interventions. By n=1 studies we can understand emotion processing during EMDR and somatic experience when we read the HRV tachogram and understand the meaning of the different frequencies. Results you can see with the psychophysiological analysis by showing tachogram (HRV-pattern in time), the frequencies (autonomic balance or overactivated sympathetic nervous system). It is amazing to see how simple we can analyse the processing and how clinically important it is you see at the screen what is happening in the body. Measuring HRV enhances the emotion regulation processing of EMDR and somatic experience.

Key words: EMDR, Emotion processing, HRV, Psychophysiology

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SESSION 18:

LGTBI studies

Chair: Lior Oren

- C26 Understanding Minority Stress among Black, Asian and Minority Ethnic Lesbian, Gay and Bisexual People in the UK: A Service Provider Perspective. Zaqia Rehman, Rusi Jaspal and Julie Fish

- C27 A dyadic study on the relationship between internalized homophobia and relationship quality among LGB couples. Lior Oren
UNDERSTANDING MINORITY STRESS AMONG BLACK, ASIAN AND MINORITY ETHNIC LESBIAN, GAY AND BISEXUAL PEOPLE IN THE UK: A SERVICE PROVIDER PERSPECTIVE

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Despite the inclusion of mental health in the NHS Five Year Forward View 2016 (NHS, 2016), mental health inequalities among Black, Asian and Minority Ethnic (BAME) people from lesbian, gay and bisexual (LGB) communities persist and remain under-researched. This study is the first in the UK to explore, from the perspective of service providers, minority stress experienced by BAME LGB people. Twenty-three participants were interviewed and data were analysed using thematic analysis. Minority stress theory was utilised to analyse the data. The following themes: (1) Stress induced by conflicting sociocultural norms, (2) interpersonal inhibitors of coming out, (3) and problematic coping. BAME LGB individuals are exposed to stressors due to their intersecting sexual, gender, religious, and cultural identities. Major psychological stressors include stigmatised identity, expectations of a heterosexual marriage, and maladaptive coping strategies.

Key words: Ethnicity, LGB, Maladaptive Coping, Psychological stress, Service Provider

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A DYADIC STUDY ON THE RELATIONSHIP BETWEEN INTERNALIZED HOMOPHOBIA AND RELATIONSHIP QUALITY AMONG LGB COUPLES.

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Internalized homophobia is a set of negative attitudes toward homosexuality in others and in oneself and is considered a proximal stress that characterize LGB people according to Minority Stress model (Mayer, 2003). Whereas many studies found internalized homophobia to be related to low levels of physical and mental health, its relationship to romantic relationship qualities were seldom studied. In the current study we investigated the associations between internalized homophobia and the constructs of Investment Model of Commitment Processes (Rusbult, 1980). According to the model commitment to relationship is positively related to satisfaction and investment and negatively related to alternatives. A questionnaire measuring the investment model constructs and internalized homophobia was administered to 170 same-sex couples (112 homosexual and 58 lesbian) who were in relationship an average of 48 months (SD=53). Actor–partner interdependence models were tested. There was strong support for actor effects. Commitment was positively associated with satisfaction and investment and negatively associated with alternatives. Internalized homophobia was negatively associated with satisfaction and positively associated with alternatives. Regarding partner effect, having a partner with higher homophobia was associated with lower levels of relationship commitment. Investment Model of Commitment Processes is also valid among homosexual couples in predicting commitment to relationship. Internalized homophobia has negative associations with relationship quality among same-sex couples. Theoretical consequences and practical recommendations are discussed.

Key words: Actor-Partner Interdependence Model (APIM), Internalized homophobia, Investment Model of Commitment Processes, LGB, Same-sex couples

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SESSION 19:

Adolescence

Chair: Ohad Nahum

- C31 Parental versus Adolescent Reports of Parental Socialization of Emotions and Coping and their Association with Adolescent Psychological Adjustment. Shira Goldberg

- C61 Failure to launch: A brief review of the phenomenon of young dependent adults, and the innovative Non-Violent Resistance intervention model. Ohad Nahum

- C68 Traumatic experiences and the development of depressive symptoms in adolescents. The role of early maladaptive schemas. Michal Sienski and Michal Ziarko
PARENTAL VERSUS ADOLESCENT REPORTS OF PARENTAL SOCIALIZATION OF EMOTIONS AND COPING AND THEIR ASSOCIATION WITH ADOLESCENT PSYCHOLOGICAL ADJUSTMENT

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Parental socialization of emotions (SOE) and coping (SOC) has been found to have long-term implications for children's socio-emotional development. However, most studies have not taken both the parent's and child's perceptions of parental SOC and SOE into account when explaining children's psychological health. The current study compared parent and adolescent perceptions regarding parental SOC and SOE, and their association with adolescents' psychological functioning (self-efficacy for affect regulation, self-perception, and coping strategies). The sample included a convenience sample of 50 Israeli adolescents, aged 15-17, and at least one of their parents, aged 33-54. Each participant (i.e., the parent and his/her adolescent child) independently completed self-report questionnaires on parental SOC and SOE. In addition, adolescents reported on their self-criticism, self-esteem, self-efficacy for affect regulation, ego status, and coping mechanisms. Findings indicated that parent-child reports of parental socialization were moderately associated with one another, although some were inversely related, especially father-son reports. Child reports of parental socialization were more closely associated with their psychological functioning than parental reports. The level of disparity between mother-child reports on engagement SOC was significantly associated with the adolescents' use of coping strategies, self-efficacy for negative affect regulation, self-esteem, ego clarity, and self-criticism. These findings uncover a complex relationship between the subjective perceptions of adolescents and their parents regarding parental SOC, and their association with adolescents' psychological functioning.

Key words: Affect regulation, Parental Socialization of coping, Parental socialization of emotions

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FAILURE TO LAUNCH:  
A BRIEF REVIEW OF THE PHENOMENON OF YOUNG DEPENDENT ADULTS, AND THE INNOVATIVE NON-VIOLENT RESISTANCE INTERVENTION MODEL

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Young dependent adult is an emerging adult (Arnett, 2000) who does not successfully transition into adult life. The young dependent adult is characterized by extreme avoidance, social withdrawal and a failure to establish and maintain a productive routine - not engaged in work or education, living with parents or with their financial support, rarely leaving the house, engaging in unproductive use of technologies, and reversing the day-night cycle (Omer, Dolberger, Nahum, et al., 2011). Lately, this phenomenon has been documented in many modern countries, especially in urban areas (Stip et al., 2016). The best-known form of this phenomenon is the severely shut away Japanese young adult – the “Hikikomori.” However, various nicknames have been used to describe dependent young adults around the world, including “Bamboccioni” in Italy or “KIPPERS” (kids in parents' pockets eroding retirement savings) in England. Nonetheless, the literature on the phenomenon is still scarce, and there is currently a prominent paucity of therapeutic interventions for parents of young dependent adults. In this presentation, I will briefly review the phenomenon of the young dependent adult based on the current, limited literature – its estimated prevalence, etiology, and the subjective experience of young dependent adults and their parents. Then, I will present the intervention model of non-violent resistance (NVR) psychology (Omer, 2004). NVR is an innovative parental guidance model, whose main advantage lies in the possibility it offers to provide a brief and efficient therapeutic model even in situations in which the young dependent adult refuses to cooperate with therapy. The model provides parents a way to decrease malignant accommodation (Nahum, 2016) – those age-inappropriate emotional or material supports supplied by the parents – which deepens the young adult's dependency. Consequently, the young dependent adult's avoidance gradually decreases, and self-efficacy and independent functioning are gradually restored.

Key words: Emerging adulthood, Family Accommodation, Non-Violent Resistance, Parents, Social withdrawal
TRAUMATIC EXPERIENCES AND THE DEVELOPMENT OF DEPRESSIVE SYMPTOMS IN ADOLESCENTS. THE ROLE OF EARLY MALADAPTIVE SCHEMAS

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The results of previous studies and clinical observations indicate that many patients suffering from mental illnesses at earlier stages of their lives experienced traumatic events. In this study we investigate two issues: (1) Is there a link between traumatic experiences and the development of early maladaptive schemas? (2) What is the role of those schemas in the development of depressive symptoms? The study was conducted in form of retrospective reports on a group of 68 adolescents aged 14 to 17 years, who in their family of origin experienced violence from one of their caregivers. Respondents completed both the Children's Trauma Questionnaire and Young's Early Maladaptive Schema Questionnaire. The results indicate that the experience of violence in childhood leads directly to the intensification of depressive symptoms in the group of adolescents. The partial mediation role of beliefs about oneself, one's loved ones and the world, which can be observed in the form of intensification of early maladaptive schemas in the relationship between violence and symptoms of depression, has been confirmed. The results of the study on the experience of violence at an early age lead to multifaceted changes in the cognitive aspects of personality and play a significant role in the development of depressive symptoms. It turns out that the most important role in the relationship between experiencing violence and depression is played by schematic domains that represent the most interpersonal aspects of functioning in close relationships (Disconnection/Rejection and Impaired Limits domain).

Key words: Adolescence, Depression, Early Maladaptive Schemas, Traumatic stress, Violence

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SESSION 20:

Childhood

Chair: Liat Hamama

- C32 Evaluation of an explicit social and emotional learning intervention for preschool children: the impact of program facilitation experience on outcomes. Monique Alexander, Erica Frydenberg and Jan Deans

- C54 Applicability of the attentional control theory to attention biases for threat in socially anxious children: New evidences from electrophysiological data. Erika Wauthia, Fabien D'Hondt, Wivine Blekic, Laurent Lefebvre and Mandy Rossignol

- C59 New theoretical concepts to address children's anxiety: Malignant and benign parental accommodation. Ohad Nahum

- C66 Children with Epilepsy: Assessing State Anxiety through Drawings and a Self-Report Questionnaire. Liat Hamama and Maya Alshech
EVALUATION OF AN EXPLICIT SOCIAL AND EMOTIONAL LEARNING INTERVENTION FOR PRESchool CHILDREN: THe IMpACT OF PROGRAM FACILITATION EXPERIENCE ON OUTCOMES

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This study examined the effectiveness of the COPE-Resilience curriculum on the emotional and social development of 4 to 5 year old children in an Australian preschool setting. COPE-Resilience is an explicit universal social and emotional learning (SEL) intervention designed for preschool children. In addition to evaluating program efficacy, the current research aimed to identify whether children would benefit equally when a teacher experienced in facilitating COPE-Resilience delivered the program, compared to a first-time program facilitator. Participants were 94 preschool children from three classrooms in an early learning centre in Melbourne, Australia. Classrooms were allocated to receive the six-week intervention by a teacher experienced in COPE-Resilience (n = 34), a first-time program facilitator (n = 30), or participate as a non-intervention embedded SEL comparison group (n = 30). Teacher, parent and direct child measures were incorporated to elucidate program outcomes. Quantitative analysis was undertaken using SPSS using ANOVA and ANCOVA analyses. Results indicated that both the explicit COPE-Resilience program and embedded SEL approaches facilitated significant increases in direct measures of children’s emotional literacy and coping skills across the intervention period. In addition, students in COPE-Resilience classrooms demonstrated significant improvements in teacher rated prosocial skills and positive coping following intervention, compared to embedded SEL. Importantly, students undertaking COPE-Resilience with an experienced teacher facilitator demonstrated the greatest improvements in teacher rated behavioural and coping outcomes, and direct measures of child coping. These results indicate that level of program facilitation experience enhances implementation success. Parent reported outcomes did not concur with teacher reports, suggesting program gains were not generalizable to the home setting. Consideration for the impact of program delivery experience, and the benefits of multiple informants in evaluation design will be discussed.

Key words: Cognitive emotion regulation, Coping, Early childhood, Emotional regulation, Prosocial behavior

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APPLICABILITY OF THE ATTENTIONAL CONTROL THEORY TO ATTENTION BIASES FOR THREAT IN SOCIALLY ANXIOUS CHILDREN: NEW EVIDENCES FROM ELECTROPHYSIOLOGICAL DATA

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Enhanced attentional engagement and disengagement impairments from threat have frequently been reported in children with social anxiety disorder. According to the attentional control theory (ACT) developed by Eysenck and colleagues (2007), these attention biases (AB) are hypothesized to arise from attentional control deficits. However, recent studies using standard behavioral paradigms reached conflicting results regarding these AB, that could be explained by the second assumption of the ACT stating that anxiety has a greater impact on processing efficiency than on performance effectiveness. Therefore, event-related potentials (ERPs) appear to be a first choice technique to delineate these conflicting results as to investigate the precise nature of AB for threat in socially anxious children. We recorded electroencephalographic (EEG) data of children with high (HSA) and low levels of social anxiety (LSA) aged between 8 and 12. In experiment 1 (N=35; mean age= 10.27; SD= 1.16), children had to perform a spatial cueing task requiring them to process targets following an individual neutral or disgusted face. In experiment 2 (N=45; mean age=10.20; SD= 1.17), we proposed a visual dot-probe task asking children to process targets preceded by neutral/disgusted or neutral/happy pairs of faces. Results failed to demonstrate significant effect of group on reaction times in both experiments. In experiment 1, principal component (PCA) analyses showed increased N2 [p=.003] and lower P3a amplitudes [p=.021] for targets following disgusted faces in a valid condition in HSA children. In experiment 2, we found increased N2 [p=.045] and P3b [p=.001] in HSA children confronted to disgusted faces in comparison to neutral faces. These results confirmed the idea of the ACT according to which socially anxious individuals can have similar performances that low anxious ones (‘performance effectiveness’) because they recruit more neural resources while performing a task (‘processing efficiency’). PCA data of both experiments also demonstrated that social anxiety acts, in children, as a filter on the later, top-down, stages of the attentional processing that need more attentional control abilities. In conclusion, our results confirmed the applicability of the attentional control theory to the understanding of AB in socially anxious children.

Key words: Attentional control, Children, Social anxiety disorder

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NEW THEORETICAL CONCEPTS TO ADDRESS CHILDREN'S ANXIETY: MALIGNANT AND BENIGN PARENTAL ACCOMMODATION.

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Parental accommodation refers to the ways in which parents change their behavior to help their children to diminish or avoid the distress caused by a disorder or dysfunction (Calvocoressi et al., 1995). In cases of child anxiety, parental accommodation has been associated with more severe symptoms (Settipani, et al., 2013), therefore decreasing parental accommodation behaviors of reassurance, protection and soothing has become a primary therapeutic goal (Lebowitz, et al., 2016). Such efforts are closely related to CBT's technique of gradual exposure, in order to decrease the child's fearful reactions and anxiety. However, in some situations, parental accommodation behaviors of reassurance, protection and soothing actually strengthen and facilitate the child’s ability to cope with the anxiety. Those situations are closely related to another CBT technique of relaxation and acceptance, which decreases anxiety and promotes functioning. Therefore, the current depiction of accommodation in the literature is incomplete, stressing the negative aspect of parental accommodation and neglecting its positive empowering aspect. The presentation will discuss the new theoretical differentiation between malignant and benign accommodation (Nahum, 2016), which offers to fill that gap. While malignant accommodation provides support that increases anxiety, avoidance and dysfunction, benign accommodation does the opposite and strengthens the anxious child’s ability to cope. A brief literature review and short clinical examples will be used to clarify the new terms and their utilization for clinicians and for future research of anxious children's family dynamics.

Key words: Affect regulation, Anxiety, Child anxiety, Parenting styles

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CHILDREN WITH EPILEPSY: ASSESSING STATE ANXIETY THROUGH DRAWINGS AND A SELF-REPORT QUESTIONNAIRE

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Introduction: Children and adolescents with epilepsy are at increased risk for anxiety disorder. The aim of this preliminary study was to examine children and adolescents' self-report on state anxiety by utilizing drawings (the Draw-A-Person method) and a structured questionnaire (the State Anxiety Inventory). Method: The sample consisted of 30 patients (between the ages of 7 and 13 years) diagnosed with epilepsy. Each participant was asked to complete a self-report questionnaire and to draw two drawings: one depicting himself/herself today and one depicting himself/herself before the illness. Results: The mean score of children and adolescents' state anxiety on the structured questionnaire (State-Trait Anxiety Inventory) was moderate, and the administration of the projective Draw-A-Person method added nonverbal approval to this result. Namely, the change of indicators to children and adolescents' present anxiety was not significantly higher than "before the illness." Conclusions: The findings indicate that despite potential critiques and limitations of the use of figure drawings as a research tool, future studies can incorporate both art therapy assessments and psychometric measures to address psychosocial aspects of epilepsy in children and adolescent. The use of drawings as a research tool may enable a broader and more in-depth exploration of the multiplicity of illness conditions.

Key words: Children with Epilepsy, State Anxiety, Drawing, Questionnaires

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SESSION 21:

Stress in educational settings

Chair: Richard Lambert

- C15 Acculturative stress, coping strategies, and depressive symptoms among Arab students in Israel. Sarah Abu-Kaf

- C17 Medical doctors opinions, before a postgraduated course about stress, for medical practice. Ramona Jurcau, Ioana Jurcau, Nicolae Colceriu, Calin Girlea and Octavian Andercou

- C93 Occupational Concerns of White, Hispanic, and African American Teachers in the U.S. Richard Lambert, Christopher McCarthy and Paul Fitchett
ACCULTURATIVE STRESS, COPING STRATEGIES, AND DEPRESSIVE SYMPTOMS AMONG ARAB STUDENTS IN ISRAEL

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During the past two decades, there has been an increase in the number of Arab students studying at institutions of higher education in Israel. Many Arab college students experience acculturative stress as they learn about new and sometimes confusing cultural rules and expectations, deal with prejudice and discrimination, and attempt to preserve elements of their old culture while incorporating elements of the new culture into their lives. This study investigated the association between acculturative stress and depressive symptoms among Arab college students in Israel. Specifically, it explored the roles of coping strategies in the association between acculturative stress and depression among this population. One hundred and eighty bachelor students at institutions of higher education participated in this study. Participants completed the Acculturative Stress Revised Short Form (SAFE), the Coping Orientations to Problems Experienced Inventory short form (brief-Cope), the Center for Epidemiological Studies Depression Scale (CES-D), and a demographic questionnaire. Findings revealed gender differences related to coping strategies and levels of depression, but no gender differences in levels of acculturative stress. Female students reported higher levels of active coping, avoidant coping, and depressive symptoms. Among the males, acculturative stress was indirectly related to depressive symptoms via the use of active-coping strategies. Among the female students, acculturative stress was indirectly related to depressive symptoms via the use of avoidant-coping strategies. These findings underscore the significance of gender differences in pathways involving acculturative stress and adjustment. Furthermore, the predicted relations between acculturation stress, coping strategies, and depressive symptoms are important for applied areas. Such knowledge is expected to help student support units to be aware of different factors and aspects of emotional distress and the adjustment problems that characterize collectivistic minority students.

Key words: Acculturation stress, Arab students, Coping strategies, Depression, Higher education

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MEDICAL DOCTORS OPINIONS, BEFORE A POSTGRADUATED COURSE ABOUT STRESS, FOR MEDICAL PRACTICE

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Introduction: Stress (ST) is studied in many countries in the world in various forms of organizing training courses. The objective was to evaluate medical doctors (MD) opinion before a postgraduated medical course about ST for medical practice. Methods: Voluntary subjects (MD=134) had participated, according to the study. Questionnaire relating ST had different questions, eg.: 1) How many courses on stress have you participated so far; 2) The factors involved in stress can be (enumeration); 3) The ages most affected by stress are (enumeration); 4) The most stressful medical procedures are (enumeration); 5) The most common parameters for stress assessment are (enumeration); 6) On a scale of 1 to 10, how much do you use antistress remedies in your personal life; 7) On a scale of 1 to 10, how much do you prescribe antistress remedies to your patients; 8) What antistress remedies do you use: nothing, synthetic drugs, herbal extracts, other remedies; 9) What antistress remedies do you indicate to your patients: nothing, synthetic drugs, herbal extracts, other remedies; 10) On a scale of 1 to 10, how useful do you expect this ST course to be, for your medical practice. Statistical evaluation was done using the Student test. Results: Most MD responses: 1) MD= no one; 2) exams, work, family problems; 3) 30-49; 4) operations, invasive techniques, dental procedures; 5) cortisol; 6) 3; 7) 3; 8) herbal extracts; 9) herbal extracts; 10) 9. Conclusions: 1) For MD participants, this postgraduate course seems to be the first one regarding ST for medical practice. 2) For most MD participants, the medical context of stress, although properly framed, is still little known. 3) For most MD participants, the use and indication of antistress remedies is still very low. 4) As most of the MDs respond, a training course can provide an adequate professional education in the ST field, for medical practice.

Key words: Medical doctors, Medical practice, Stress, Stress courses

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OCCUPATIONAL CONCERNS OF WHITE, HISPANIC, AND AFRICAN AMERICAN TEACHERS IN THE U.S.

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The occupational concerns of white, African-American, and Hispanic teachers were evaluated using the National Teacher and Principal Survey (NTPS). The NTPS 2016 cohort is a nationally representative sample of 31,945 teachers from 6,434 school across the entire U.S and is collected by the U.S. National Center for Education Statistics. The dataset also includes responses from 5,711 school Principals. Occupational concerns were defined as appraisal of classroom demands, appraisal of school-provided resources, risk for occupational stress, job satisfaction, and workplace fatigue. Each of these scale scores was constructed from NTPS survey item responses using the Rasch Partial Credit Model. Schools were categorized by the racial / ethnic composition of the students as follows: 1.) no dominant group, 2.) 51-74% white, 3.) ≥ 75% white, 4.) 51-74% African-American, 5.) ≥ 75% African-American, 6.) 51-74% Hispanic, and 7.) ≥ 75% Hispanic. Each of the racial / ethnic groups of teachers, across all school categories, was compared to peers working in a school with no dominant racial / ethnic group of students. White teachers reported lower risk for stress, lower demands, higher resources, higher job satisfaction, and lower workplace fatigue when working in majority white (racially congruent) settings. They reported much higher risk for stress, higher demands, lower resources, lower job satisfaction, and higher workplace fatigue when working in majority African-American or Hispanic (racially incongruent) schools. African-American and Hispanic teachers reported similar patterns. However, for them the majority white schools were incongruent settings, and the schools where the majority of children were African-American or Hispanic, were racially or ethnically congruent settings. The lowest risk for occupational stress was reported by African-American teachers in schools with greater than or equal to 75% white students. The highest risk for stress was reported by white teachers working in schools with greater than or equal to 75% African-American students. Similar patterns were found when controlling for the percentage of students qualifying for free or reduced price lunch, a proxy for poverty. However, the adjusted effect sizes for the differences between teachers in racially congruent and incongruent settings were smaller. Implications for teacher training and professional development are discussed.

Key words: Job burnout, Job demands, Job resources, Job satisfaction, Teacher stress

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SESSION 22:
Organizational Stress and Coping

Chair: Yaira Hamama-Raz

- **C18** Coping strategies in secondary traumatization and post traumatic growth among nurses working in a Medical Rehabilitation Hospital - A pilot study. Yaira Hamama-Raz and Ronit Minerbi

- **C19** Unemployment, employment precarity, and inflammation. Rachel Sumner, Rachel Bennett, Ann-Marie Creaven and Stephen Gallagher

- **C34** Adjustment to Life After Caring: The Lived Experience of Former Careers. Kelly Warwicker, Wendy Nicholls, Darren Chadwick and Debbie Stevens-Gill

- **C64** The utility of a dual-factor mental health model for predicting pro-preventive orientation towards suicide. Patryk Stecz, Katarina Millová and Alena Slezácková
COPING STRATEGIES IN SECONDARY TRAUMATIZATION AND POST TRAUMATIC GROWTH AMONG NURSES WORKING IN A MEDICAL REHABILITATION HOSPITAL. A PILOT STUDY

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Secondary traumatization and post traumatic growth have been recognized as psychological reactions that might occur among the medical staff in general, and among nurses in particular. Nurses in the field of medical rehabilitative care might reveal such reactions as their work involves stress and traumatic situations. Coping strategies might either alleviate or exacerbate work-related stress experienced by nurses. The aims of the current study were to explore the link between secondary traumatization and post traumatic growth exhibited by nurses in the field of medical rehabilitative care, and to examine the link between problem-focused coping strategies and emotion-focused coping strategies to secondary traumatization and post traumatic growth.

One hundred and fifty-three rehabilitative nurses completed self-report questionnaires regarding personal data, post traumatic growth, secondary traumatization, ways of coping strategies and personal negative life events.

Correlation matrix for the path analysis model revealed positive significant correlation between secondary traumatization and post traumatic growth. Both, problem-focused coping and emotion-focused coping strategies were linked to secondary traumatization and post traumatic growth.

Nurses employed in a medical rehabilitation hospital who cope via problem-focused strategies as well as emotion-focused strategies in their work, might reveal secondary traumatization but might simultaneously benefit from post-traumatic growth.

Key words: Coping strategies, Secondary traumatization, Post-traumatic growth

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UNEMPLOYMENT, EMPLOYMENT PRECARITY, AND INFLAMMATION

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Unemployment is considered to be a chronic stressor, introducing psychosocial and financial stress whilst simultaneously removing important stress buffers such as social support. The impact of unemployment on health is well-established; however, the impact of employment precarity is less understood. The present study used secondary data from a national survey in Great Britain to explore the impact of unemployment relative to different types of employment contract on two markers of peripheral inflammation: C-reactive protein (CRP) and fibrinogen.

This study uses data from Understanding Society: The Household Longitudinal Survey, to examine these inflammatory markers across employment groups (unemployed; permanent, temporary, and self-employed), controlling for socio-demographic and health variables.

After controlling for individual, socio-economic, and health-related variables, unemployment was associated with higher levels of fibrinogen but not CRP. Further analyses of employment subgroup revealed a similar pattern when comparing to permanent employed. When compared with the temporary and self-employed, there were no associations with either inflammatory marker. For the temporary employed, the association of employment status and fibrinogen was made non-significant by controlling for all confound groups in isolation or combination. For the self-employed, the association with fibrinogen was made non-significant when all confound groups were controlled together.

Unemployment is associated with increases in one marker of peripheral inflammation. Importantly, the analyses show that associations vary depending on employment type, with the temporary and self-employed showing similar levels of inflammation to the unemployed. This is particularly relevant given the current economic context where employment trends are changing, and precarious employment is increasingly common.

Key words: Health, Inflammation, Self-employment, Temporary employment, Unemployment

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ADJUSTMENT TO LIFE AFTER CARING:
THE LIVED EXPERIENCE OF FORMER CARERS

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There has been a rise in the number of informal carers and consequently, in those making the life transition from carer to non-carer. This transition is identified as a significant stressor, however, there is minimal research discussing the cessation of caring roles and the after effects in respect of their lived experience. The aim of this research was to explore the lived experiences and adjustment to life after caring, of those who are no longer in a caring role.

Interpretative Phenomenological Analysis (IPA) guided the five semi-structured interviews and the overall analysis in which participants discussed their perception of being a carer, allowing them to give voice to their reflections and experiences, with the focus being to draw on this small sample through their verbatim accounts IPA aided in gaining the perspective of those with an illness or a service user, and was a useful method for exploring the experiences of those in a caring context.

The findings supported previous literature, identifying caring as a unique role in which there is a significant impact on the lives of those as carers as well as those being cared for. Adjustments are necessary throughout all aspects of the caring role from the transition into the carer role but also into the post caring period. The results were an organised framework of themes derived from the rich data that emerged in the interviews and translated into the resulting narrative. Four themes emerged: Acclimatisation; The Serial Carer; Life Defining; 24/7, 365.

The overall narrative that emerged was one of a seemingly unending caring experience, identifying the transition from carer to non-carer as being dependent on the nature of the caregiving role, requiring significant adjustment and support. The analysis of the transition from carer to non-carer involved a diverse collection of individuals helping to inform practical recommendations for future support, including how individuals cope during the post caring transition; how individuals attempt to re-engage with everyday life; knowing what to expect both in the transition to and from the caring role; and identifying oneself as a carer.

Key words: Family caregivers, Informal Carer, Loss, Transition

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THE UTILITY OF A DUAL-FACTOR MENTAL HEALTH MODEL FOR PREDICTING PRO-PREVENTIVE ORIENTATION TOWARDS SUICIDE

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Previous studies found that psychological symptoms (e.g., depression and anxiety) are related with attitudes towards suicide, while more questions occur about the relationship between psychological well-being and orientation towards prevention. The aim was to assess whether positive and negative conceptualizations of mental health integrated together have predicting value for attitudes towards suicide prevention among the potential gatekeepers. A convenient sample of 239 helping profession students (166 females and 73 males, mean age of 22.84 ± 5.15) was recruited in the study (response rate over 98%). Study participants answered a set of questionnaires, including Questionnaire on Attitudes Towards Suicide (ATTS) (Sallander Renberg & Jacobsson, 2003; Stecz, 2019) Goldberg Health Questionnaire (GHQ-28) (Goldberg et al., 2001) and Psychological Well-Being Scale (PWB-42) (Ryff, 1989; Krok, 2009). Hierarchical multiple regression models included general mental health at stage one and well-being characteristics at stage two. Demographic variables were not related to attitudes towards suicide, therefore they were not included in regression model. The results have shown that psychological well-being (environmental mastery, purpose in life, positive relationships with others) and general mental health symptoms (anxiety, depression, social dysfunction and somatization) explained the variability of pro-preventive orientation F(4, 238)=3.042, p=.001. Anxiety and emotional distress remained significant predictor of pro-preventive orientation after controlling for well-being characteristics. Depression symptoms were not significant when well-being was included at stage two. Overall, findings suggest that positive mental health conceptualized as low emotional distress and high psychological well-being have moderate importance for predicting pro-preventive attitudes. Emotional overload and anxiety may be related to lower expectations of the provider towards the outcome of intervention. Positive functioning is regarded to improve readiness to prevent, which has implications for understanding helping behavior.

Key words: Anxiety, Attitudes towards suicide prevention, Emotional distress, Helping behavior, Psychological well-being

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SESSION 23:
Stress and Anxiety Basic Research
Chair: Ephraim Grossman

- **C40** The association between multi-morbidity and regularity of daily routines: An ecological momentary assessment study of community-dwelling Chinese adults in Hong Kong. Wai Kai Hou, Francisco Tsz Tsun Lai and Tsz Wah Ma

- **C49** Subjective age is more sensitive to sleepiness effects than subjective nearness-to-death. Ephraim Grossman, Yaakov Hoffman, Amit Shrira and David Anaki

- **C94** Time perception and anxiety in elderly depressed patients. Lika Mikeladze
THE ASSOCIATION BETWEEN MULTI-MORBIDITY AND REGULARITY OF DAILY ROUTINES: AN ECOLOGICAL MOMENTARY ASSESSMENT STUDY OF COMMUNITY-DWELLING CHINESE ADULTS IN HONG KONG

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Limited by conventional data collection methods, previous research does not provide sufficient information on how community dwelling multi-morbid people’s daily routines are affected. This study investigated the differences in the everyday life schedules between multi-morbid and non-multi-morbid people. We adopted an ecological momentary assessment design whereby 300 community-dwelling adults representative of the Hong Kong Chinese population provided real-time self-reports of daily routines over a seven-day period using a mobile application. Stratified by baseline multi-morbidity status, we implemented generalized linear mixed models (binomial) for each of the four listed activities as the outcome, i.e. meal, chores, conversation, and work/school. Time was categorized by 12 two-hour intervals (0:00-2:00 to 22:00-24:00) and included as an independent variable. Odds ratios of engaging in the activities by time intervals were tabulated, plotted, and compared.

Significant differences by multi-morbidity status were identified. For instance, late-night meals were prevalent among multi-morbid participants (OR=2.75, 95% CI=0.87-8.71 in 22:00-24:00 versus 12:00-14:00) but not non-multi-morbid participants (OR=0.43, 95% CI=0.24-0.76 in 22:00-24:00 versus 12:00-14:00). Also, multi-morbid participants did chores significantly earlier in the morning (OR=3.62, 95% CI=1.93-6.79 in 8:00-10:00 versus 12:00-14:00), whereas non-multi-morbid participants did chores later in the evening (OR=2.81, 95% CI=2.09-3.78 in 18:00-20:00 versus 12:00-14:00). Late-night conversations were significantly more likely than conversations in the afternoon among non-multi-morbid participants (OR=3.53, 95% CI=1.60-7.81 in 22:00-24:00 versus 12:00-14:00), but not multi-morbid participants. Lastly, multi-morbid participants seemed to have less typical working/schooling hours than non-multi-morbid participants did. Nevertheless, there was no evidence of a more irregular schedule among multi-morbid participants. Further studies are warranted to investigate how these disruptions may be related to lower levels of quality of life and how they could be remedied.

Key words: Chronic illness, Community care, Comorbidity, Daily routines, Quality of life

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SUBJECTIVE AGE IS MORE SENSITIVE TO SLEEPINESS EFFECTS THAN SUBJECTIVE NEARNESS-TO-DEATH

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Sleep is related to physical and mental health. Sleep contributes to biological and cognitive functions and rectifies damage caused by daily life stresses and lack of sleep is a stressor that has consequences for the brain and other body systems. Insufficient sleep can completely alter one's lifestyle, self-esteem and confidence. Sleep deprivation also contributes to the reframing of self-perceptions and sets life expectations. In the current study we tracked the impact of sleep deprivation on self-perceptions related to stress/anxiety and resources, namely subjective age (how old one feels) and subjective nearness-to-death (how close to dying one feels).

Thirty four university students, (3 males, age = 22.5 +/- 2.9) spent a sleepless night at the sleep lab in groups of 4-5 participants under continuous staff supervision. We recorded physiological measures, subjective levels of sleepiness, subjective age, subjective nearness-to-death and other measures, every 30 minutes between 20:30 and 10:00am. In addition the participants were assessed on a control (=baseline) morning with parallel measures between 08:30am and 10:00am.

Reports were clustered into 2 hour bins starting with the 21:30 report. All sleepiness reports were significantly different than baseline. Subjective age measures taken in the late night and test morning sessions differed from baseline. For subjective nearness-to-death only measures taken at 01:30am-03:00am differed from baseline.

Sleep deprivation is a major stressor that is experienced and dealt with differentially across one's circadian rhythm. Sleep deprivation seems to be impacted also by one's changing level of resources – as both stress and resources comprise subjective ageing indices. Subjective nearness-to-death (future perspective) reports are less prone to change than subjective age (past perspective) reports obtained with wakefulness accumulation.

Key words: Sleepiness, Stressor, Subjective age, Subjective Nearness to Death

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TIME PERCEPTION AND ANXIETY IN ELDERLY DEPRESSED PATIENTS

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In recent years the number of works dedicated to the construct of time perspective (TP) has increased considerably. Among the widely used instruments devised to measure TP is the Zimbardo Time Perspective Inventory (ZTPI) which measures major five temporal orientations – Past Positive, Past Negative, Present Hedonistic, Present Fatalistic and Future. The characteristics of TP in elderly people have been investigated in several works. Nevertheless, the features of TP in late life mental diseases have not yet been studied. The actuality of such research is determined by the increase of the risk of depression in late life. Moreover, the time perception deficit is typical for depression. In this regard, we investigated the experience of the past, the present and the future in elderly depressed people.

The ZTPI was administered to a sample of 48 people aged between 50 and 80 years old who were under the treatment in the Mental Health Research Center of RAMS and to a control group of 26 healthy people aged 50–81. According to the hypothesis, the most apparent tendencies in late life depression would be the pessimistic attitude toward the past and the fatalistic attitude toward the present; the future orientation would be low in both groups.

The results confirmed the first hypothesis. It also demonstrated that in depression the present wasn’t associated with satisfaction, the future orientation was low. Contrary to the second hypothesis, healthy elderly people were highly future oriented.

In conclusion, our results shed new light on the problem of TP in late life: the characteristics of TP in elderly people sharpen in late life depression, lowers the index of positive emotionality. The high future orientation in healthy people seems to be one of the indexes of the ability to cope with life changes and one of the predictors of psychological wellbeing.

Key words: Anxiety, Depression, Future time horizons, Old age, Older adults

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SESSION 24:

Discussing about Stress and Anxiety

Chair: Kate Moore

- C56 Psychological models of dental anxiety. Małgorzata Sobol-Kwapinska, Leszek Jaskiewicz, and Alicja Senejko

- C57 Influence of Ginseng, Schizandra chinensis and Lavender on a mental stress model. Ramona Jurcau, Ioana Jurcau, Nicolae Colceriu, Dong Hun Kwack, Calin Girlea and Octavian Andercou

- C88 Decision-Making Stress and Satisfaction: Challenging dominant narratives and a contemporary re-modelling. James Lucas and Kathleen Moore

- C95 Dealing with Stress: The Indian Way. Vandana Sharma
PSYCHOLOGICAL MODELS OF DENTAL ANXIETY

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Dental anxiety is a condition suffered by many patients. It causes discomfort and avoidance of dental appointments, which in turn may lead to health issues. The aim of this presentation is to review dental anxiety studies, paying particular attention to the conditions as well as the ramifications of this type of anxiety.

We present also a Polish version of the Modified Dental Anxiety Scale (MDAS; Humphris, Morrison, & Lindsay, 1995).

There were 820 participants, aged 18-65. The construct validity of the MDAS was assessed by correlating it with STAI, IPIP 20 and PANAS.

The results suggest that the MDAS is a reliable and valid instrument in Poland.

Key words: Affect, Anxiety, Health Anxieties

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INFLUENCE OF GINSENG, SCHIZANDRA CHINENSIS AND LAVENDER ON A MENTAL STRESS MODEL

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Introduction: Ginseng can improve anxiety and reduces postprandial glycemia; Schizandra chinensis attenuates anxiety and lower glycemia; Lavender reduce anxiety and protects against diabetes. Methods: 24 volutary men participated. Mental stress was represented by learning in short time the Korean alphabet, by non-Korean speakers. It was used a product containing Ginseng extract, Schisandra chinensis extract, and Lavandula officinalis extract (GSLP). Study had three groups: control (C, n=8), without treatment; placebo (P, n=8); GSLP treated (GSL, n=8). Assessments were: 24 hours (T1) and 30 min (T2) before; 30 min (T3) and 24 hours (T4) after stress. Analyzed indicators: anxiety (A), glycemia (GL), salivary pH (SpH). Statistical evaluation was made on the basis of Student test. Results: At all moments, compared to T1, differences were: intense significant, for A (T2-C, p=0.003; T2-P, p=0.005; T2-GSL, p=0.05); significant, for GSL (T3-C, p=0.003; T3-P, p=0.003; T3-GSL, p=0.02), and SpH (T3-C, p=0.003; T3-P, p=0.004; T3-GSL, p=0.03). For C and P, compared to GSL, all indicators values were significantly increased under stress. Conclusions: 1) Influence on A was both pre- and post-stress; on GL and SpH, only post-stress. 2) A, GL and SpH changes were the least intense to GSL. 3) GSL influenced significantly more A, than GL and SpH. 4) GSLP may be an effective, safe and accessible modulation path, for this mental effort model, and further studies concerning GSL use could bring additional benefits in mental stress modulation.

Key words: Ginseng, Schizandra chinensis, Lavender, anxiety, Glycemia, Salivary pH, Korean alphabet, Mental stress

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DECISION-MAKING STRESS AND SATISFACTION: CHALLENGING DOMINANT NARRATIVES AND A CONTEMPORARY RE-MODELLING

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The dominant narrative in decision-making research is focused on predicting what people choose from a set of given alternatives (the normative approaches) or describing what processes people utilise (the heuristic and dual-process approaches). Any consideration of people's appraisals, stress, and coping in making satisfying decisions across important life domains (e.g., work, family, and health) remains at the periphery. In an attempt to address this gap, a Contemporary Model of Decision-Making Stress and Satisfaction (CMoDSS) was proposed drawing upon Janis and Mann's Conflict Theory and Lazarus and Folkman's Transactional Model of Stress and Coping. As a novel inclusion, people's metacognitive awareness and acceptance of their thoughts and feelings while making decisions, as aligned with the new third-wave cognitive-behavioural therapies, was explored in terms of its effect on decision-making stress and coping.

A quantitative, repeated-measures design was utilised to test the CMoDSS across two important life domains: work/study and family/relationships. A convenience sample of 182 adults participated in Phase 1, with 46% of this sample (n = 84) participating in Phase 2. Structural equation modelling was utilised to test the CMoDSS in the work/study context and for its invariance in the family/relationships context.

Participants' appraisals of having sufficient resources (e.g., time and energy) to make their work-study decision had a direct effect on their decision-making levels, which in turn predicted how satisfied they were with the decision they made. The stability of these effects in a family/relationship context was also supported, along with the positive role of participants' metacognitive awareness and acceptance in minimising decision-making stress and increasing decision satisfaction. Despite dominant trends in the decision-making research, the experience of decision appraisals, stress, coping, and metacognitions appear to have an important role in whether a person is able to make a satisfying decision or not. These findings are contrary to the dominant research trends whereby decision are best made involving narrative, heuristic, and dual-processes approaches. While initial support was found for the CMoDSS within the work/study and family/relationships contexts, further research is needed in additional life domains.

Key words: Appraisals, Coping, Decision-making, Stress

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DEALING WITH STRESS: THE INDIAN WAY

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Stress is one of the frequently used words in Psychology. Hans Selye introduced this term in the life sciences. Most of the researches in this field take the external point of view into consideration, phenomenological analysis is the neglected aspect of stress. Indian philosophy pays more emphasis on this aspect. This paper is an attempt to search the ancient Indian texts like Srimad Bhagwat Geeta and Ram charit Manas and share the wisdom of these texts with the world.

Qualitative data analysis technique was used for analysis. Both these text were extensively analyzed for searching the stressful situations and the ways to deal with these situations. Srimad Bhagwat Geeta is very ancient text and believed to be the teaching of God to a depressed prince, at the battle field. Ram Charit Manas is the epic written by poet Tulsidas, who throws light on the life of God Ram, his difficulties and his courage. Both these epics influence the Indian's life to a great extent.

Analysis reveals that Indian have a very different style of dealing with stress. They believe too much in past karma/ past life. This belief influences their coping style. Western world can call it flight, but this is very much different from flight reaction. Indian text also emphasizes on prevention of stress. Caste system in India was also one of the ways to deal with occupational stress.

We can conclude by saying that culture to a large extent influences coping pattern. Indian coping pattern is very different from other countries.

Key words: Ancient Indian Texts, Past Life Karma, Ram Charit Manas, SriMad Bhagwat Geeta, Tulsidas

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Posters Sessions
POSTER SESSION 1

Resilience, Test Anxiety, and Challenges of the 21st Century

Chair: Natasa Jokic Begic

- P1 An investigation of the relationship between parenting style and children’s online and offline behaviours and parenting confidence. Angela Ashford-Rumph and Mary Katsikitis
- P2 Online habits and perfectionism as predictors for cyberchondria. Anita Lauri Korajlija and Lea Slavcic
- P11 Mindfulness-Based Cognitive Therapy (MBCT) increases work ability of patients with chronic Major Depressive Disorder (MDD). Dorota Żołnierczyk-Zreda
- P14 Gender differences in early maladaptive schemas development. Michal Sienski and Michal Ziarko
- P15 Beliefs and affect in predicting prosocial behavior. Mariola Laguna
- P16 The mediating role of experiential avoidance and dissociation in the relationship between negative life events and non-suicidal self-injury among youth in penitentiaries. Melinda Reinhardt, Zsolt Horváth, Boglárka Drubina, Blanka Márton and Gyöngyi Kőkönyei
- P19 Sistematic review for identifying the psycho-social, demographic, and medical factors implied in the delay of diagnosis and non-adherence to treatment in breast cancer. Roxana Campean
- P20 Emotional flexibility, inertia, and smoke cessation: A case study from a state space approach. Patricia García-Pazo and Xavier Bornas
- P21 Physical Activity and Resilience in Early Adolescence. Ariela Broday
- P34 Predictors of post-event processing in test anxiety. Sarah Kahl, Olga Rapoport and Eva Neidhardt
- P35 Statistics anxiety and academic procrastination in undergraduate students. Olga Rapoport, Sarah Kahl and Eva Neidhardt
- P36 Psychosocial predictors of cyberchondria. Natasa Jokic-Begic
- P41 Development of a behavioural laboratory measure for human perseverance and persistence. Ilmari Määttänen, Emilia Makkonen, Johanna Närväinen and Penttie Henttonen
- P42 Cognitive-Behavioral intervention in a case of Panic disorder with Agoraphobia. Carolina Álvarez-Ortíz and Juan José Miguel Tobal
AN INVESTIGATION OF THE RELATIONSHIP BETWEEN PARENTING STYLE AND CHILDREN’S ONLINE AND OFFLINE BEHAVIOURS AND PARENTING CONFIDENCE

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Increases in Internet-enabled technology and digital device use has had a profound influence on the social and cultural environments. So ubiquitous is their use that it is commonplace to see society’s youngest members using, with ease and accomplishment, a variety of Internet-based technologies. Parenting styles are known to impact on child development and as such can influence a child’s technology and digital device behaviours. However, to date, much of the literature has focused on the child’s role in their online behaviours and the effects this is having on their offline behaviours such as aggression and reduced wellbeing. Recent media headlines have shifted the balance of responsibility for children’s problematic technology and digital device use directly onto the parents through finding fault in their parenting practices such as discipline and control, both aspects of parenting style. The focus has the potential to negatively affect parental confidence which unfortunately is associated with parenting quality including reduced time and energy spent on their child, ineffective parenting practices, a lack of positive parenting behaviours, and parental stress and depression. The role of parenting style and the erosion of parental confidence poses many challenges for parents and society alike in guiding, monitoring, and supervising children’s technology and digital device use in the future. Based on the premise that parents hold the key to their children’s online and digital device behaviours, the aim of this research is to investigate the associations between parenting styles and children's technology and digital device use; children's offline behaviours including prosocial behaviours and conduct problems; and whether combined, the abovementioned variables predict parental confidence. Parents and caregivers with a child who uses technology and digital devices participated in this research. They completed an online survey of 15 minutes duration. As well as demographic information, the survey comprised four questionnaires, (1) The Internet Addiction Test for Families, (2) The Strengths and Difficulties Questionnaire, (3) The Parenting Style Questionnaire and (4) The Parenting Sense of Competence Scale. This is an active study and data is being gathered currently. Based on these aims the following hypotheses are proposed: Authoritarian and permissive parenting will predict greater levels of children's problematic online behaviour. Children with higher levels of problematic online behaviour will have lower levels of prosocial behaviour offline and have more conduct behaviours. Location and visibility of children’s online usage will predict problematic online behaviour. The greater the hours a child spends on online activities will predict greater prosocial behaviour online and less prosocial behaviour offline. There will be a relationship between parenting style and parenting confidence given the child’s online behaviour and the child’s offline behaviour.

Key words: Online/offline prosocial behaviour, Parental confidence, Parental sense of competence, Parenting styles, Stress

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ONLINE HABITS AND PERFECTIONISM AS PREDICTORS FOR CYBERCHONDRIA

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Internet has become one of the major sources of health information (Flaherty, 2016). The recurrent and extreme search for health information on the internet, triggered by worry and anxiety, leads to even greater concern and anxiety called cyberchondria (Starcevic and Berle, 2013). The aim of this study was to check the possibility of predicting the symptoms of cyberchondria on the basis of socio-demographic characteristics, habits of using the internet and the dimensions of perfectionism.

The survey was conducted through an online survey, with 382 participants aged between 18 and 73 years old. We used the Short Cyberchondria Scale, Cyberchondria Severity Scale, eHEALS - The eHealth literacy scale and The Almost Perfect Scale revised.

The results show that more prominent cyberchondria is within younger, lower educated, those who spend more time on the internet and have lower levels of eHealth literacy and higher levels of negative perfectionism. Regarding the dimension of cyberchondria, the best predictors were gender, eHealth literacy and positive and negative perfectionism. Women show greater excessiveness, distress and need for reassurance by medical professionals during online health information seeking, and men show a greater degree of mistrust towards medical professionals. The high levels of eHealth literacy is associated with a greater excessiveness and the need for reassurance when searching online for symptoms. Positive perfectionism proved to be a protective factor in the development of cyberchondria. Those with more higher levels of positive perfectionism had lower results on the dimensions of cyberchondria, while higher results on cyberchondria dimensions showed those with higher levels of negative perfectionism. These results can be used in planning future results as well as planning intervention for cyberchondria.

Key words: Cyberchondria, eHealth literacy, Perfectionism

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MINDFULNESS-BASED COGNITIVE THERAPY (MBCT) INCREASES WORK ABILITY OF PATIENTS WITH CHRONIC MAJOR DEPRESSIVE DISORDER (MDD)

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Major Depressive Disorder (MDD) severity is significantly associated with an increased unemployment and disability, as well as with a reduced work performance. The aim of the present study was to examine whether mindfulness-based cognitive therapy (MBCT) increases work ability of patients with chronic MDD.

A randomized-controlled trial was conducted comparing treatment-as-usual (TAU) (N=31) with MBCT (N=29) in 60 chronically depressed outpatients who actually received pharmacotherapy (≥4 weeks).

Controlling demographic factors, ANCOVA revealed a significant difference in positive (F =7.97, p<0.005) but not negative effect (p<0.82) measured with CES-D2 on participants in the MBCT + TAU condition, compared to those in the TAU condition in posttreatment. Moreover, compared to the TAU group, the MBCT + TAU group reported a higher increase in work ability diagnosed with WAI3 (F=4.03, p<0.02) than the TAU group. The percentage of non-completers in the MBCT + TAU condition was relatively high (n = 12, 24.5%).

MBCT was proved to have a beneficial effect on work ability of depressed patients in terms of their both psychological and physical resources needed to maintain employment. Reasons for non-completion should be further investigated.

Key words: CBT, depression, Emotion regulation difficulties, Job satisfaction

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GENDER DIFFERENCES IN EARLY MALADAPTIVE SCHEMAS DEVELOPMENT

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Domestic violence can lead to serious consequences, especially in the group of young people with immature mental apparatus. The study analysed gender differences in the development of early maladaptive schemas in the adolescent group.

The study was conducted in a group of 68 teenagers aged between 14 and 17 years who experienced violence in their family of origin by one of their parents or caregivers. Respondents completed the Children's Trauma Questionnaire, Young's Schemas Questionnaire, and answered questions about sociometric data.

The results showed that despite similarities in forms and intensity of violence, there were gender differences in the development of early maladaptive schemas. In a group of male adolescents, different from females, there was a correlation between the experience of violence and the intensity of the schemas in all five domains. Moreover, both the overall result and the intensity of the schemas in the categories of impaired autonomy and overvigilance / inhibition were significantly higher in the male group.

It is possible that the more serious consequences for the development of early maladaptive schemas in a group of boys are due to the fact that the object of primary identification (in the case of heterosexual male children - the father) provides not only a supportive pattern for identification, but also pain and suffering, leading to serious disorganisation in terms of the perception of self, others and the relationship with them.

Key words: Adolescence, Early Maladaptive Schemas, Gender differences, Traumatic stress, Violence

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BELIEFS AND AFFECT IN PREDICTING PROSOCIAL BEHAVIOR

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The beliefs-affect-engagement model (the B-E-A model; Laguna, 2018), explaining relationships between traits and states, describes mechanisms through which positive beliefs stimulate behavior and lead to high performance. The model postulates that positive beliefs increase positive affect and decrease negative affect, which in turn fosters activity engagement. Moreover, the B-E-A model distinguishes the trait and state components of beliefs, affect, and activity engagement as well as relatively stable and temporal-specific aspects of each state, as postulated by the two-factor state theory (Tisak, Alessandri, & Tisak, 2017). The proposed mechanisms explaining activity engagement take into account the trait and two state components of each construct. The B-E-A model was applied to explain prosocial behavior.

A daily diary study was performed to illustrate how the trait and state components of beliefs and affect are related to behavior. Participants were university students. The Positive Orientation Scale, the Positive and Negative Affect Schedule (PANAS), the Adult Prosocialness Scale, and the Daily Goal Realization Scale were applied.

The results of the multilevel modelling allow isolation of the relatively enduring ("trait-like") and volatile ("state-like") components of beliefs, affect, and prosocial behavior. They also confirm interplay between traits and the relatively stable and temporal-specific aspects of states in predicting daily prosocial behavior. The role of affect as a mediator was demonstrated.

The B-E-A model contributes to further development of the theory of affect, explaining relationships between traits and the two aspects of affective states. It also helps to explain prosocial behavior in youths.

Key words: Affect, Diary study, Prosocial behavior, State, Trait

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THE MEDIATING ROLE OF EXPERIENTIAL AVOIDANCE AND DISSOCIATION IN THE RELATIONSHIP BETWEEN NEGATIVE LIFE EVENTS AND NON-SUICIDAL SELF-INJURY AMONG YOUTH IN PENITENTIARIES

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Non-suicidal self-injury (NSSI) is a significant public health problem during adolescence worldwide (Klonsky et al., 2011). According to the literature both dissociation and experiential avoidance play an important role in the occurrence of NSSI-acts (e.g. Chapman et. al., 2006; Karpel et al., 2015; Xavier. 2017). Our study aimed to investigate the relationship between former negative life events and NSSI, furthermore we tested whether dissociation and experiential avoidance acted as mediators between negative life events and NSSI in a sample of underaged offenders. 244 adolescents in Hungarian juvenile penitentiaries responded to our questions about NSSI (Self-Injury Questionnaire-TR, Claes et al., 2007), adverse life events (Adolescent Life Events Questionnaire, Hankin et al., 2002) and their emotion regulation strategies (Adolescent Dissociative Experiences Scale, Armstrong et al, 1997; Avoidance and Fusion Questionnaire for Youth, Greco et al., 2008) in the academic year of 2017-2018. Mean age of the sample was 16.99 years (SD=1.28), the vast majority of them was boy (92.6%). 26.2% (N=64) of them admitted to have performed at least one type of NSSI in the past month, other 34.4% (N=84) reported NSSI in their life before. Most of the self-injurers (59.38%) use one type of NSSI, the most common types are bruising or cutting.

Structural equation modeling showed that the direct effect of negative life events on current self-harm was significant (β= .28; p=.005). The indirect effect of negative life events through increased experiential avoidance on current self-harm was also significant (β=.09; p=.024): elevated rates of negative life events predicted higher level of experimental avoidance (β= .38; p=.001), which subsequently increased the odds for current self-harm behaviour (β=.25; p=.010). Thus, experiential avoidance partially mediated the relationship between adverse life events and current self-harm. In contrast, dissociative experiences did not mediate the relationship between adverse life events and current NSSI-acts. The over-presentation of NSSI among juvenile offenders indicates the importance of psychological treatment regarding the estimation and elaboration of earlier adverse life events and psychological inflexibility. Our findings pointed out that experiential avoidance could reduce intense emotions stemmed from negative life events, but its consequence could be self-harm.

Key words: Dissociation, Experiential avoidance, Juvenile delinquents, Negative life events, Non-suicidal self-injury

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Sistematic review for identifying the psycho-social, demographic, and medical factors implied in the delay of diagnosis and non-adherence to treatment in breast cancer

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Breast cancer is currently the second most common type of cancer worldwide and the most common type of cancer among women. Delay in seeking help for breast cancer symptoms and understanding the factors involved in the patients' non-adherence and non-persistence with treatment is crucial. This can be prevented by identifying possible factors or barriers, thus improving survival rates. There are two major types of delay: (i) patients delay in seeking medical attention after self-discovering a potential breast cancer symptom, and (ii) system delay referring to the delay within the health care system in getting appointments, scheduling diagnostic tests, receiving a definitive diagnosis, and initiating therapy.

Objective: The present study is intended to investigate the reasons for delaying medical consultation for cancer symptoms, psychosocial, demographic and medical factors that influence decisions to accept or refuse cancer treatment, adherence, and nonadherence, persistence and non-persistence of treatment, on a continuous basis starting with the first symptoms being found in the long-term decisions to follow or not the recommended treatment. These aspects become important especially in the contemporary context of informed and shared decisions, where patients are encouraged to assume a more active role in health-care, but also the heuristics and biases that lead to the inconsistency of decisions and the theoretical explanations regarding the mechanisms of these decisions.

Methods: The present study is a systematic review of the psycho-oncological literature identified in the 1990-2018 timeframe. Of the 80 selected studies, 48 measured the diagnosis delay and 32 measured the adherence and persistence of the treatment.

Results: The factors that led to the diagnosis delay and to the nonadherence and non-persistence of cancer treatment included negative attitude toward treatment, fear of side effects, perception of symptoms and preference for alternative therapy.

Conclusions: Intervention strategies are required to promote early presentation to the physician after the first symptoms have been identified, the acute risk assessment associated with the diagnosis delay, and future research should be carried out to identify psychosocial determinants of nonadherence or non-persistence that are modifiable through intervention.

Key words: Breast cancer, Non-adherence to treatment, Delay of diagnosis, Psychosocial, Demographic and medical factors.

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EMOTIONAL FLEXIBILITY, INERTIA, AND SMOKE CESSATION: A CASE STUDY FROM A STATE SPACE APPROACH

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The aims of this study were (a) to show how a state space approach can be applied in a clinical setting using rather short time series of self-reported data, (b) to test the hypothesis, based on a previous model of emotional inertia, that better outcomes would be achieved when the angle between the behavior trajectory and the treatment vector is small, and (c) to explore the general hypothesis that patients with high emotional (anxiety and depression) flexibility get better outcomes than less flexible patients from a smoking cessation treatment.

From 12 patients who were invited to participate, only four had enough pre-treatment data to be analyzed in this study. Two of them completed treatment and quit smoking whereas the other two did not. As expected, only the first two showed a descending trajectory in their smoking behavior along pre-treatment, thus confirming the first hypothesis. Further, the plots of the two-dimensional (anxiety, depression) reconstructed state spaces clearly illustrated higher emotional flexibility for patients who get satisfactory treatment outcomes.

These findings should be considered cautiously because this is a case study involving only four patients. The study has proved that state space reconstruction techniques can be helpful in clinical settings.

Key words: Anxiety, Dynamical flexibility, Inertia, Smoking cessation, State space

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PHYSICAL ACTIVITY AND RESILIENCE IN EARLY ADOLESCENCE

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Resilience is the process of returning to adaptive functioning following a life setback. The literature reports on a vast of models and applied interventions that pursue resilience promotion. Most of the interventions try to promote resilience by addressing either the cognitive, social or emotional aspects in the person's life. Yet, a question arises as to the feasibility of advancing resilience via addressing the physical – or behavioural – aspect of person's life. The importance of such a possibility stems from both the Cognitive-Behavioral Model of change (e.g., Stress Inoculation Training; Meichenbaum, 1984) as well as from accumulating evidence on resilience promotion among athletes (e.g., Galli, & Gonzalez, 2015). The current literature review and analysis explored the state of art in the topic of physical activity and resilience, with a special focus on early adolescents.

Seven databases PsycNET, PubMed, Embase, Medline, Scopuse, Eric and ScienceDirect were searched for terms referring to physical activity, resilience and intervention. Works which met the following criteria were included: English peer-reviewed academic journal articles, dissertations, reviews, systematic reviews, scoping reviews and meta-analyses and available full text. These works include pilot studies and feasibility studies with no results or minimal results, variety of methodological designs, qualitative and quantitative studies, various age groups and psychological conditions and both sexes.

Altogether, the search yielded 2889 works, from them 65 were selected according to the abovementioned criteria. From this works, the big majority of the interventions (55 studies) indicate an improvement in psychological (and/or physiological and physical) outcomes. Only 6 interventions show negative PA effects, insignificant or only potential effects of PA, explained by uncontrolled mediational effects or methodological problems. Works that compared CBT+PA to CBT or PA alone (9 studies) show that the integrated condition CBT+PA is better than the one component condition in improving psychological outcomes; yet, only 1 study has been conducted among early adolescents. The integration of physical activity and CBT in a resilience intervention constitutes a promising way to promote resilience among early adolescents, a developmental stage which is largely acknowledged as vulnerable and critical for future adaptation.

Key words: CBT, Early Adolescence, Physical activity, Resilience

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PREDICTORS OF POST-EVENT PROCESSING IN TEST ANXIETY

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Post-event processing (PEP) as brooding over a past social situation is known from social anxiety. In prior studies, we successfully evidenced PEP to occur after exams, as well. In the current study, we wanted to identify the factors by which PEP after exams is predicted best. N = 37 students filled out questionnaires at different times before and after a written test. We assessed trait test anxiety, depressive symptoms, social anxiety and fear of negative evaluation one week prior to the exam. Students rated their state anxiety in the minutes right before the exam and reported their PEP one day as well as one week after the exam. We had a relatively high drop-out. Nevertheless, regarding our variables, students who participated in all measuring times did not differ significantly from students who dropped out. We calculated multiple regression analyses to find the factors predicting PEP1day as well as PEP1week. The regression model regarding the criterion PEP1day was significant (F(6, 25) = 10.11, p < .001, R2 = .69). PEP1day was predicted significantly by trait test anxiety (β = .70, p = .003) and the state anxiety right before the exam (β = .43, p = .004). Depression, social anxiety or fear of negative evaluation were no significant predictors. The second regression model regarding the criterion PEP1week included all predictors from the first model plus PEP1day as a further predictor. This regression model was significant as well (F(7, 23) = 11.49, p < .001, R2 = .769). PEP1week was predicted significantly only by PEP1day (β = .574, p = .014). Our results show that PEP after test situations is best predicted by measures of test anxiety (trait and state), whereas social evaluative anxiety or depressive symptoms do not predict brooding after an exam. This suggests that PEP after exam situations is a construct that can be differentiated from PEP after social situations in socially anxious individuals. Interestingly, PEP one week after the exam is best predicted by previous brooding, not by any of the other factors.

Key words: Exam, Post-event processing, Rumination, Test anxiety

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The study of Onwuegbuzie (2004) shows some factors of statistics anxiety to be related to increased levels of procrastination in graduate students. Our study was designed to take a closer look at this relationship in undergraduate college students. As part of a larger test battery, we used the German versions of the Statistical Anxiety Rating Scale (STARS, Cruise & Wilkins, 1980) and the Academic Procrastination State Inventory (APSI-d, Patzelt & Opitz, 2014). 41 undergraduate students (36 women, M = 20.46 years, SD = 3.45) of a methodology course participated in the study.

In line with previous results, we evidenced a positive correlation between the APSI-d subscale fear of failure and the STARS subscales fear of asking for help (rff = .443, p = .004) and computational self-concept (rff = .376, p = .015), as well as a positive correlation between the APSI-d subscale task aversiveness with the STARS subscales computational self-concept (rta = .398, p = .01) and worth of statistics (rta = .45, p < .001). These subscales primarily capture the attitude component of statistics anxiety. Interestingly, in contrast to Onwuebuzie (2004), we found fear of failure and task aversiveness to correlate highly with test and class anxiety (rff = .713, p < .001; rta = .539, p < .001) and interpretation anxiety (rff = .661, p < .001; rta = .540, p < .001). These subscales primarily capture the anxiety component of statistics anxiety.

These data suggest statistics anxiety to be related to procrastination differently in undergraduate compared to graduate students. The fear component seems to play a greater role for this group. The next step should be to specify this relation as well as to find out about casual direction.

Key words: Procrastination, Statistics anxiety, Undergraduate students

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PSYCHOSOCIAL PREDICTORS OF CYBERCHONDRIA

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Seeking health information online has become an increasingly common behavior. A recent survey conducted by the European commission suggests that more than 59% of European citizens searched for health information on the Internet in the last 12 months. Exposing people with no medical training to the complex terminology and descriptions of medical conditions may put them at risk for the harmful consequences of self-diagnosis and self-treatment. Apart from inaccurate information, the Internet can also be an anxiety-provoking environment. Cyberchondria is modern form of helath anxiety, defined by repeated and extreme online searching for medical information that leads to an increase in anxiety or worry and that persists as one continues to search and fails to find information that offers reassurance over the long-term.

The aim of this study was to examine the role of sociodemographic factors and personality traits in the prominence of cyberhondria. The study was conducted online on a sample of 724 adult participants. The survey included demographic questions, the Short Cyberchondria Scale, Anxiety Sensitivity Index, Health Anxiety Questionnaire and Intolerance of Uncertainty Scale.

The results show that people with higher intolerance to uncertainty, anxiety sensitivity and health anxiety are more susceptible to developing cyberhondria, with health anxiety mediating the relation between anxiety sensitivity and cyberhondria. Also, women are more susceptible to cyberhondria.

This study contributes to the knowledge about anxiety pathology induced by the searching helath information on the internet. Female gender, anxiety sensitivity, intolerance of uncertainty and helath anxiety are risk factors for developing of cyberchondria. Practical and theoretical implications of these results will be discussed.

Key words: Anxiety sensitivity, Cyberchondria, Health anxiety, Intolerance of uncertainty

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DEVELOPMENT OF A BEHAVIOURAL LABORATORY MEASURE FOR HUMAN PERSEVERANCE AND PERSISTENCE

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Personality psychology has recently been mostly concerned with self-reported measures of personality and behavioural tendencies, rather than real-life measures of such phenomena. In this study, we wanted to establish whether an evolutionarily relevant behavioural tendency, the ability and motivation of an individual to continue an unpleasant behavior, can be measured in a laboratory setting. This ability can be called perseverance or grit in English, and “sisu” in Finnish language. We devised several measurements to study this phenomenon. Our hypothesis was, that the different tasks would correlate with each other, providing evidence of an underlying factor or factors that reflect this behavioural tendency. We devised six different tasks to measure perseverance: a thread and needle task, a cold pressor task, an anagram task, a verbal reasoning task, a hand grip endurance task, and a boring video task. The hand grip endurance task required strength and was adjusted by the hand grip strength of the subject, and was repeated after a pause. In each of the tasks, one measure was taken for the analysis: total time used in all of the other tasks, and time used for the first impossible task in the anagram and verbal reasoning tasks. Correlations between many of the tasks were often relatively large and positive. We ran an exploratory factor analysis to find the possible underlying factor(s). According to our results, the task performances formed two separate perseverance factors. Cold pressor task and hand grip endurance tasks were mostly loaded to one factor, “physical perseverance”. The other tasks were mostly loaded to another factor, “mental perseverance”. Based on our results the following things can be argued: tasks that require perseverance under physically unpleasant situations reflect a single trait, and the same is true for mental perseverance. Our results suggest that evolutionarily relevant personality-like traits can be measured in a laboratory setting, also without the use of questionnaires. In order to understand the evolution and adaptations of human and animal personalities, more rigorous empirical tests for such traits should be developed.

Key words: Grip, Mental toughness, Perseverance, Persistence, Resilience

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COGNITIVE-BEHAVIORAL INTERVENTION IN A CASE OF PANIC DISORDER WITH AGORAPHOBIA

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Panic disorder is defined as the recurrent and unforeseen appearance of panic attacks (intense fear that reaches its maximum expression in minutes). Agoraphobia refers to an intense fear in specific situations (such as public transport, crowds or being alone away from home, for example).

The aim of this study is to evaluate the efficacy and effectiveness of a psychological intervention in a single case of panic disorder with agoraphobia. Cognitive-behavioural therapy has been applied over nine months, based in funtional behavioral analysis. Relaxation, cognitive restructuring and in vivo exposure were used. Results show that the intervention is efficient and effective in terms of providing techniques to manage and cope situations.

Key words: anxiety, panic disorder, agoraphobia, cognitive-behavioural therapy, relaxation, in vivo exposure.

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POSTER SESSION 2

Different faces of Stress

Chair: Lászlo Toth

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SUPPORTING STRESS MANAGEMENT: MENTORING FOR STUDENT TEACHERS DURING THEIR FIRST SCHOOL INTERNSHIP

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According to the Allensbach study, every fifth young teacher reports increased stress upon entering the teaching profession (Süßlin, 2012). A majority of young teachers don’t feel prepared to interact with students, parents and are overwhelmed by daily school life (van Dick & Stegmann, 2001). In order to prepare future teachers for their career and to encourage stress management (e.g., positive thinking, active stress coping, social support), a Peer- School- and Tandem Mentoring was implemented during the first school internship, lasting one semester. Students were accompanied by (1) a Peer-Mentor, who already completed the internship and participated in a mentoring qualification, (2) a Tandem, i.e. a student who also participated in the internship at the same school, and (3) a School-Mentor, i.e. a teacher who worked at the school and participated in the mentoring qualification.

In total 26 student teachers (65% female, Mage= 24, age span= 20-45 years, SD=5.46) participated in the study before and after their school internship. Applying path analysis in Mplus, we tested how the Mentoring enables students to apply coping strategies in order to reduce their stress level. The results indicate that the Peer-Mentoring was positively related to active stress coping ($\beta = 0.41$, SE= 0.13, $p < 0.01$), Tandem-Mentoring was positively related to positive thinking ($\beta = 0.49$, SE= 0.21, $p < 0.05$) and active stress coping ($\beta = 0.40$, SE= 0.19, $p < 0.05$). Contrary, School-Mentoring was negatively related to positive thinking ($\beta = -0.51$, SE= 0.17, $p < 0.01$), active stress coping ($\beta = -0.47$, SE= 0.18, $p < 0.05$), and social support ($\beta = -0.49$, SE= 0.19, $p < 0.01$). This study suggests that the Peer-and Tandem-Mentoring supports teacher students during their first school internship to apply positive thinking and active stress coping in order to reduce stress. However, students who receive school-mentoring apply less coping strategies. These results encourage the implementation of a Peer-and Tandem-Mentoring in teacher trainings during school internships. Furthermore, teachers who act as school-mentors may profit from programs such as stress management in the first place and only then may act as role models for teacher students.

Key words: Coping strategies, School internship, Stress management, Teacher training

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TESTING THE VALIDITY OF A NOVEL PASSIVE STRESS TASK

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Stress tasks can be defined as active or passive stressors by the opportunity afforded to participants to influence task outcomes. During passive tasks participants simply endure the task, while active tasks require active engagement whereby participants aim to exert some control over the task, e.g. a speech or math task. Typically, passive tasks include viewing negative film-clips or images, or physical stressors such as the cold pressor (CP) task (immersing a body part in cold water). In term of effects, passive tasks tend to elicit increases in blood pressure (BP) and total peripheral resistance (TPR). Whereas, active tasks elicit greater BP reactivity, increased cardiac output (CO) and heart rate (HR), with little or no change in TPR. However, current passive stressors arguably do not create a coping context ecologically representative of real-life stressful situations. The current study sought to test the validity of a novel passive stress task to overcome such limitations.

Twenty-five participants (17 females, 8 males) completed two laboratory visits consisting of a 20-minute acclimatization period, 10-minute official baseline, and a 5-minute task. During visit 1 participants completed an active speech task while being video-recorded. Participants watched this recording at visit 2 (passive stress task). Cardiovascular parameters were measured using the Finometer Pro.

Paired samples t-tests found that the passive task elicited increases in SBP, DBP, and TPR. The active task elicited increases in SBP, DBP, HR and CO, but no change in TPR. When comparing the magnitude of cardiovascular reactivity elicited by each task, paired samples t-tests confirmed that the active task elicited greater SBP, DBP, HR and CO reactivity than the passive task, SBP; t(24) = 5.43, p < .001, DBP; t(24) = 5.99, p < .001, HR; t(24) = 7.59, p < .001 and CO; t(24) = 3.21, p = .004.

The current pattern of results demonstrates the utility of this task as a valid passive stressor. The passive task elicited patterns of cardiovascular responding similar to traditional passive tasks. This novel task offers several advantages over previous tasks believed to elicit a passive coping context.

Key words: Active coping, Acute stress, Cardiovascular reactivity, Passive coping, Validity

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ORGANIZATIONAL MOTIVATION VS. INTRINSIC MOTIVATION

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This work intends to analyze what kind of motivation leads to people interested in taking part in a work context as complex, as it is the area of emergencies. At the same time, the main objective is to recognize a professional profile with respect to the motivation underlying the choice and permanence of staff of emergencies on the basis of socio-demographic variables such as sex, age, level of education achieved, professional branch and seniority in the institution.

Methodology: The study sample is made up of professionals and volunteers from governmental and non-governmental organizations of the community of Balearic Islands emergency services (police, fire, health, etc.). For this data collection has been used a motivational questionnaire, whereas the highlights of some theories and reviewed studies on the variables involved in the organizational context, such as teamwork, decision-making, risk, social recognition and permanence in the institution, among others.

The results of this research are running a profile according to which women and youngest (whether men or women) stand out in the choice of responses that include behavior of increased risk and the greater seniority in the choice of answers related with decision making.

These results lead us to consider the need to incorporate new questionnaires of personality in the selection of staff in order to discriminate possible emotional imbalances or other personal motivation that could put at risk the professional himself and also to the collective of workers.

Key words: Emergencies; Motivation, Risk, Decision-making

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LATENT PROFILES OF PERFECTIONISM, MENTAL HEALTH AND STRESS IN AMERICAN AND HUNGARIAN UNDERGRADUATES

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The ambition to be perfect seems to be high in several cultures. In market-based societies, there is a great pressure for ‘always the best’ performance, therefore students in higher education in those societies persistently have to cope with high expectations, ranking, and sorting by teachers as well as by peers and even employers. Our intent was to compare the stress and well-being profiles of college students in two nations based on differing patterns of their perfectionist characteristics. A total of 734 American (65.1% female; mean age=24.38 years; SD=6.50) and 554 Hungarian (71.5% female; mean age=22.17 years; SD=4.01) university students completed measures of perfectionism (Short Form of the Revised Almost Perfect Scale; Rice et al, 2014), subjective well-being (Mental Health Continuum–Short Form; Keyes et al, 2008), and psychological stress (Short Stress Overload Scale, Amirkhan, 2016) in the academic year of 2017-2018. Latent Profile Analysis revealed three subgroups in both the American and Hungarian samples. In the USA sample, 21% were labelled as non-perfectionist (with low personal standards and self-criticism), 56% showed a potentially adaptive style of perfectionism (high standards with low self-criticism), and 23% were in a seemingly maladaptive perfectionist group (high standards and self-criticism). The Hungarian latent classes were somewhat similar to the American profiles. The non-perfectionists (9%) and the maladaptive perfectionists (36%) had similar patterns of elevations, but the third and potentially adaptive subgroup (55%) had average personal standards combined with low self-criticism. According to our further results, in both nations students with adaptive perfectionism have the lowest level of stress and the highest level of emotional, psychological and social well-being in contrast with maladaptive perfectionists. In summary, three well-differentiated perfectionistic subgroups emerged both among American and Hungarian college students, but the Hungarian undergraduates showed lower levels in personal standards compared to their American counterparts. Each perfectionistic subgroup displayed different patterns of association with positive mental health and stress, and those patterns were similar in both samples. These results can strengthen generalizable support for different types of perfectionism across the two countries, and reveal as well some special national variations in those types.

Key words: Adaptive and maladaptive perfectionism, Cross-cultural comparison, Stress, Subjective well-being

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THE RELATIONSHIP OF EARLY AND RECENT LIFE STRESS WITH GENOME-WIDE DNA METHYLATION: THE CASE OF THE EHMT1 GENE.


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Several lines of evidence indicate that early and recent life stress may impact the development of psychopathology. DNA methylation is the potential mediating mechanism underlying this effect. Our study aimed to investigate possible links between early and recent life stress and DNA methylation profiles in an epigenome-wide manner. Two models of stress consequences were verified: match/mismatch and cumulative stress. The first one assumes that early adversities may promote optimal coping with similar events in the future, through fostering the development of coping strategies. The second model assumes that the effects of stress are additive, independently of the timing of the stressors.

The studied group includes 87 participants (44 male and 43 female) aged 18 – 25 years (M = 21.6; SD = 1.81) selected from the group of 503 subjects by the Early Life Stress Questionnaire (ELSQ) and Recent Life Changes Questionnaire (RLCQ) scores. The DNA methylation status was analyzed with the use of the reduced representation bisulfite sequencing in the DNA derived from the blood cells. The expression of the EHMT1 gene was determined using qPCR method.

We will present data on differences in methylation status of single CpG sites between groups differing in the level of stress, as well as pathway analysis results. We will also present the results of the expression analysis of the EHMT1 gene, which was identified as one of the loci differentially methylated among distinguished stress groups.

We will discuss the obtained results in the light of the previous knowledge on the consequences of early and recent stress on behavior.

Key words: Cumulative stress, DNA methylation, Early stress, Match-mismatch hypothesis, Recent stress

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STRESS AND RESILIENCE RESPONSES IN ADOLESCENTS TO MEXICO CITY’S EARTHQUAKE: ANALYSES OF CONTEXTUAL AND PERSONAL FACTORS

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Introduction: An earthquake is considered a natural disaster and universal stressful event due its capacity to produce high levels of distress, frequently associated with emotional and physical symptoms, like post-traumatic stress disorder. However, there are a wide range of responses among adolescents given the interaction of contextual factors related to the disaster situation (i.e. earthquake’s location, damages, and losses) with individual factors (i.e. appraisal situation, coping strategies). Little has known about how adolescents react to earthquakes in Mexico, despite of the relevance of designing evidence-based intervention programs, given the high probability that another event of this nature occurring. The current research (supported by PAPIIT-IN305917, UNAM) examined the responses of adolescents to Mexico City’s earthquake (2017), and its relationship to contextual factors during and after the disaster. Methods: A non-probabilistic sample of 573 adolescents aged 13 to 17 years (M=14.87; SD=1.38) from public high schools of metropolitan area of Mexico City (including the suburban areas) was selected. The Natural Disasters Response Scale for Adolescents (α=.839) was administered within the 12 months after earthquake, which explores the earthquake contextual conditions (i.e. place, location, consequences) and regarding adolescents’ thoughts, feelings and behaviors during and after the earthquake across six dimensions: stress reactions (α=.773); social support (α=.786); cognitive change (α=.770); proactive behaviour (α=.638); passiveness (α=.796); and religious thought (α=.816). Descriptive, mean differences and correlational analyses were conducted. Results: Data revealed significant differences (p<.01) in stress symptomatology (t=2.828) and religious thought (t=2.29) between adolescents from schools located in central and suburban areas, in which there were severe material and personal damages. Social support showed the highest values (M=3.10) and was positively related to cognitive change (r=.669; p<.01) and proactive behaviour (r=.426, p<.01). Stress symptomatology showed moderates scores (M=2.98); positive significant correlations (p<.01) were found with material (r=.172) and personal losses (r=.321) (i.e. school, family belongings, known people), passiveness (r=.597), and religious thought (r=.536). Conclusions: Most of adolescents presented indicators of resilience, as high level of perceived social support, cognitive change and proactive behaviour which were related to the objective conditions of the earthquake exposure and its consequences. However, the stress symptoms and passive behaviour reported by suburban population, suggest that preventive and selective programs to adolescents are needed.

Key words: Adolescents, Earthquake, Natural disaster, Post-traumatic stress, Resilience

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MODIFICATION OF ATTENTIONAL BIAS MECHANISM FOLLOWING AN ACUTE STRESS INDUCTION IN TRAUMA-EXPOSED INDIVIDUALS: EVIDENCES FROM ELECTROPHYSIOLOGICAL DATA

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Cognitivo-behavioural studies among individuals suffering from Post-Traumatic Stress Disorder (PTSD) have highlighted attentional biases (AB) for threat as a key factor for the maintenance of the disorder. Those behavioural AB have been proved to be indexed by enhanced P100 and P300 amplitudes following negative stimuli in clinical population. However, a recent meta-analysis has raised the question of the differential impact of PTSD and trauma itself on behavioural and neural responses to stress. Consequently, this study aims to examine the impact of trauma exposure, independently of PTSD, on behavioural and neural stress responses.

18 trauma-exposed (TE) and 17 non-trauma-exposed (NTE) participants (18 males, 17 females, mean age = 25.34; SD = 6.41) completed a dot-probe task using neutral and threatening pictures from the International Affective Picture Rating System before (T1) and after (T2) a Cold Pressor Task (CPT). Trauma Exposure, PTSD symptoms, depression and anxiety were assessed by the Traumatic Event Questionnaire (TEQ), Posttraumatic Checklist for DSM-5 (PCL-5) and Depression Anxiety Stress Scales (DASS) questionnaires. At T1, TE participants exhibited slower reaction times (RT) in incongruent trials in comparison with NTE group (F(1,34) = 4.89, p = .034). After stress induction, TE group exhibited a larger P100 (t(16)= -2.546; p=.022) and P300 (t(17)= -2.601, p=.019) amplitudes following threat in comparison with T1. Interestingly, they also showed a smaller P3 amplitude than NTE group at both T1 (F(1,34)=7.693, p=.009) and T2 (F(1,34)=4.361, p=.045). A multiple regression analyses was conducted in order to understand the factors predicting the P3 amplitude at T1. Two factors, respectively reaction times following congruent trials at T1 and history of trauma, explained 44.2% of the variance in the P3 amplitude (R2 = .442, F(1, 33) = 12.260, p=.000). These results confirmed the hypothesis that trauma itself induces long lasting behavioural and neural changes. At a behavioural level, trauma-exposed individuals present a unique initial avoidant pattern from threat followed by an enhanced attentional allocation for those stimuli in response to stress. This is supported by a specific increase of P300 amplitude after stress, only displayed by trauma-exposed individuals. Clinical and empirical implications are discussed in regard of recent findings.

Key words: Attention bias, Electrophysiology, Post-traumatic stress, Trauma

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AN ANALYSIS OF COACHES’ SUPPORTIVE ATTITUDES TOWARDS PROSOCIAL AND ANTISOCIAL BEHAVIOUR

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An important aspect of sports is athletes’ moral attitudes (Kavussanu et al., 2013). Recent studies focused on the relationship between prosocial and antisocial behaviour and other psychological constructs (e.g. motivation or motivational climate; for a summary, see Kavussanu & Stanger, 2017). Our study was aimed at revealing psychological factors underlying coaches’ attitudes supporting prosocial and antisocial behaviour of the team members towards their own team and those of the opponent team. The sample included male and female coaches with varying levels of education and professional success in different team sports (N=139, 26.6% were females). Participants’ mean age was 32.99 years (SD=13.03). The following measures were administered: Big Five Inventory (BFI, John & Srivastava, 1999), Short Almost Perfect Scale (SAPS, Rice et al., 2014), Cognitive Emotion Regulation Questionnaire (CERQ, Garnefsky et al., 2006), Interpersonal Reactivity Index (IRI, Davis, 1983), Prosocial and Antisocial Behaviour in Sport Scale (PABSS, Kavussanu & Boardley, 2009). The results showed that the subscale measuring coaches’ support for prosocial behaviour towards the opponent was predicted by internal perfectionist standards, acceptance as a cognitive emotion regulation strategy, empathic concern, and conscientiousness (F=4.275, p<.05). The model explained 17.3% of the total variance in coaches’ attitudinal support for prosocial behaviour towards the opponent. The only predictor of coaches’ support for prosocial behaviour within their own teams was empathic concern, which explained 7.1% of the total variance in the dependent variable (F=11.407, p<.001). Predictors of support for antisocial behaviour within coaches’ own teams were agreeableness (as a negative predictor), catastrophizing situations, and empathic distress (F=5.452, p<.021), which explained 9.5% of the total variance in coaches’ attitudinal support for antisocial behaviour within their teams. Coaches’ support for antisocial behaviour towards the opponent was negatively predicted by agreeableness, empathic distress, and positive refocusing, while maladaptive cognitive emotion regulation strategies were found to be positive predictors (F=5.607, p<.05). These findings suggest that coaches’ moral behaviour may be adequately determined by the tested psychological variables. Supportive attitudes towards prosocial behaviour are predicted by positive psychological characteristics, while supportive attitudes towards antisocial behaviour are determined by maladaptive psychological characteristics.

Key words: Big Five personality traits, Cognitive emotion regulation, Empathy, Perfectionism, Prosocial/antisocial supportive attitudes.

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EMOTIONAL REGULATION IN SPORTS

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This study presents a review of scientific research work on emotional regulation and sports published to date. Little by little, the number of articles in the area have increased and gained importance for psychologists working on a daily basis in the sports field.

The following databases have been used to write up this review: Scopus, PubMed, PsycARTICLES, PsycINFO and Web of Science. The keywords selected for the search are: emotional regulation, sports and athletes.

With the selected articles, a classification has been made using the following criteria: principal authors of the studies, type of sports, studied variables, instruments and year of publication.

This information will help us know what is being investigated and find future lines of research. In addition, this review will improve the knowledge about the athlete’s emotional regulation process for practical professionals who work in the field.

Key words: Emotional regulation, Sport and athletes

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DIFFERENCES IN THE ASSOCIATION OF SPIRITUALITY, FORGIVENESS, PTSD AND STRESS AMONG SOCIAL WORKERS AND SOCIAL WORK STUDENTS TREATING TRAUMA SURVIVORS

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In the last two decades, there has been a growing body of evidence exploring the effects of working with traumatized individuals, while recent research literature has also begun to examine the unique effect on social workers (Cohen & Collens, 2013; Gil & Weinberg, 2015). This concept becomes even more relevant when examining the various versions of the Diagnostic and Statistical Manual of Mental Disorders (DSM), beginning with DSM-III (APA, 1980), which first coined the term posttraumatic stress disorder (PTSD), through DSM 5 (APA, 2013), where determined in criterion “A” that experiencing repeated or extreme exposure to aversive details of the traumatic event(s) may lead to PTSD. Within this concept, research has demonstrated that social workers, who are at the front line dealing with trauma survivors are at high risk for developing traumatic symptoms, as they are increasingly being called on to assist childhood abuse, domestic violence, violent crime, disasters, war and terrorism. A survey conducted among social workers found that 70.2 percent experienced at least one symptom of PTSD in the previous week, 55 percent met the criteria for at least one of the core symptom clusters, and 15.2 percent met the core criteria for a diagnosis of PTSD (Bride, 2007). Indeed, as the notion of PTSD gained recognition, it showed that not only the direct survivor of the traumatic event might suffer from PTSD symptoms, but those who are in close relationships with the survivor might suffer as well from secondary traumatic stress (Figley, 1999). Research literature has identified numerous risk factors for PTSD symptoms and stress among professionals treating trauma survivors, including trauma caseload volume, caseload frequency, having a personal trauma history, work support, perceived level of exposure, social support, gender, experience, supervision and negative coping strategies (Gil & Weinberg, 2015; Hensel, Ruiz, Finney & Dewa, 2015). However, less attention has been given to personal resilient factors. Thus, social workers who are unique at their various aspects of continued exposure to trauma survivors including: therapy sessions, case management, social welfare and crises interventions, require better understanding of the relationship between significant personal resources and emotional distress. Furthermore, among social work students who are also exposed to trauma survivors as part of their training and education, no study has been conducted examining the relationship between their personal resilient resources, PTSD symptoms and stress when comparing them to trained professional experienced social workers. To bridge this gap the present study examined the relationship between tendency to forgive and spirituality with PTSD symptoms and stress among experienced and in-training professionals treating trauma survivors. The sample consisted of one hundred and fifty seven Israeli participants treating trauma survivors (N = 157). Of them, 94 were certified trained social workers and 63 were in their third year of undergraduate social work studies. Study questionnaires included: Tendency to forgive was examined using the Heartland Forgiveness Scale (HFS; Thompson et al., 2005). Spirituality was assessed with the Spirituality Assessment Scale (SAS) (Howden, 1992). PTSD symptoms were evaluated using the PTSD Symptom Levels (PSL) questionnaire compiled by Gil, Weinberg, Or-Chen, and Harel (2015). Stress was assessed using the Perceived Stress Scale (PSS) (Cohen, Kamarck, & Mermelstein 1994). Screening the subcales revealed that social work students had higher negative PTSD alteration symptoms than trained social workers while trained social workers had higher levels of forgiveness to self. Additionally, structural equation model analyses were conducted with AMOS (version 18) (Arbuckle, 2009) in order to examine the research variables and their association with both PTSD symptoms and stress symptoms among social workers tendency to forgive the self was negatively associated with both PTSD symptoms (b = -.26, p = .02) and stress (b = -.27, p = .02), spirituality was negatively associated with both PTSD symptoms (b = -.22, p = .03) and stress (b = -.52, p < .001). In addition a positive relation was found between PTSD symptoms and stress (r = .31, p < .01). This model significantly explained 17% of the variance in PTSD symptoms and 47% of the variance in stress. Among social work students only tendency to forgive self was negatively associated with stress (b = -.54, p < .001), and a positive relation was found between PTSD symptoms and stress (r = .27, p = .04). This model significantly explained 29% of the variance in stress. The findings illuminate spirituality and forgiveness as key factors that can help cope with the emotional toll of those who assist trauma survivors, while focusing on differences for trained professionals and training professionals. Theoretical and clinical implications are discussed.

Key words: Coping, Stress, Social Work, PTSD, Trauma survivors

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HOW DO SELF-RELATED CONSTRUCTS INFLUENCE THE OCCURRENCE OF BURNOUT SYMPTOMS IN PSYCHOSOCIAL COUNSELORS?

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People working in the field of social work and other helping professions have an increased risk for stress and stress-related diseases like burnout (Blomberg, Kallio, Kroll, & Saarinen, 2015; Albani, Blaser, & Brähler, 2008). According to the transactional model (Lazarus & Folkman, 1984) it is a matter of imbalance between the realization of demands and resources that might lead to stress. If demands outweigh the resources, stress can be the result. In our study we focused on self-related constructs as resources like general self-acceptance, occupational self-efficacy and the most occupation-related self-concept of counseling ability. The aim of the present study was to examine the influence of these constructs on burnout among social work graduates and professionals with at least one year of experience in psychosocial counseling. It was hypothesized that the self-concept of counseling ability, in addition to more general personal resources such as global self-esteem, self-acceptance, and occupational self-efficacy, has an impact on self-reported burnout levels in the three dimensions emotional exhaustion, depersonalization, and reduced personal accomplishment.

Utilizing standardized questionnaires, data were collected from n = 140 social work bachelor graduates and n = 222 social workers and other practitioners in psychosocial counseling. Multiple regression analysis were conducted to test the hypothesis.

The self-concept of counseling ability was negatively associated with depersonalization and reduced personal accomplishment. It had a crucial additional impact on reducing burnout levels in these dimensions to global self-esteem, general self-acceptance, and occupational self-efficacy.

The findings suggest that professional counseling education should besides teaching and exercising counseling skills, techniques and attitude include positive feedback and promotion of self-reflection to enable students to develop a high self-concept of counseling ability.

Key words: Burnout prevention, Occupational self-efficacy, Self-concept of counseling ability, Social work

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DEFINING CARDIOVASCULAR RECOVERY FROM ACUTE PSYCHOLOGICAL STRESS: A SYSTEMATIC REVIEW

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A primary focal point of psychosomatic research has been the cardiovascular reactivity hypothesis, which postulates that exaggerated cardiovascular responses to acute psychological stress promotes the development of cardiovascular diseases. However, reactivity is limited in that it captures only the magnitude of the stress response in the presence of the stressor. Relatively less attention has been paid to recovery which accounts for an element of the stress response that extends beyond the presence of the acute stressor. Explanations for ignoring recovery are credited to difficulties in its conceptualisation in comparison to reactivity. However, studying recovery can deliver promising findings in that it has been shown to strengthen results already observed or has delivered findings not already apparent during the baseline-task phase. The aim of this review is to build on previous research surrounding the varying operational definition’s of recovery from acute psychological stress The systematic review followed the guidelines set out by PRISMA-P Statement (Preferred Reporting Items for Systematic Reviews and Meta-Analyses). The following databases were electronically searched: EBSCOHost (all databases) which included: PsycARTICLES, PsycINFO, Medline, CINAHL Complete as well as PubMed, Web of Science and Science Direct. Cardiovascular parameters and recovery and their related synonyms were included as key search terms and were used in systematic combinations with boolean terms. Studies were included in this review if they reported (a) the length and (b) the calculation, of the recovery period (post-task) to experimentally induced acute stress.

It is expected that the systematic review will elucidate the varying conceptualisations of cardiovascular recovery in the current literature. It will also inform current laboratory protocols of the most optimal way of measuring and reporting cardiovascular recovery in acute stress studies. Current stage of work: The systematic review is currently being conducted with articles being screened. We concluded that stress recovery issues are neglected and a renewed case is made for their conceptual and ecological importance. The systematic review will provide future research with the most appropriate way to operationalise cardiovascular recovery from acute stress.

Key words: Acute stress, Cardiovascular reactivity, Cardiovascular recovery, Operationalisation

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TESTING THE HEALTH IMPAIRMENT PROCESS IN A ONE-YEAR CROSS-LAGGED STUDY. THE MODERATION EFFECT OF INTERPERSONAL AND TASK RESOURCES

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Drawing from Job Demand-Resources model, the study aimed to test longitudinally the health impairment process. The second aim was to investigate whether interpersonal and task resources moderate the process over time. Specifically the study examined (1) the direct and indirect – mediated by job burnout– effects of job demands on depression, (2) moderation effect of interpersonal and task resources on job demands – job burnout link, (3) moderated moderation effects of the two kinds of job resources on job demands – job burnout link. This study considers three kinds of job demands including quantitative, emotional and cognitive demands. The hypotheses were tested with cross-lagged analyses based on two waves over a 1-year period. The sample (N = 601) was composed of three professional groups included: (1) tutors in youth reform schools (n = 200), (2) staff of social care centres for mentally ill children and young people (n = 200), (3) staff of department of psychiatry and addiction treatment (n = 201). At baseline (T1), a questionnaire survey was conducted among 855 participants. 601 of them took part in the follow-up (T2). The selected job demands and job resources were measured with subscales of COPSOQ II. To measure of job burnout the OLBI was used. Depression was assessed by means of CES-D. The results don’t confirm the direct link between job demands and depression. The mediation effect of job burnout was supported strongly. High job demands led to increase of job burnout, and this led to increase of depression. Two-way interactional effects (demands x resources) were supported partially. Only two of the six effects were statistically significant. Interpersonal resources buffer the negative impact of cognitive demands on job burnout and task resources buffer the negative impact of quantitative demands on job burnout. The three-way interactional effects (demands x interpersonal resources x task resources) were not confirmed. The results support the health impairment process as proposed in Job Demand-Resources model and provide further insight into process of coping with high job demands by means of different kinds of job resources.

Key words: Depression, Health impairment process, Job burnout, Job demands, Job resources
POSTER SESSION 3
Stress and Anxiety Basic Research, and Coping strategies

Chair: Shani Pitcho-Prelorentzos

- **P3** How Important is Temperament in Predicting Coping Behaviors in Young Female Drivers? A Preliminary Study. Monika Maria Malkiewicz, Patrik Stecz, Lukasz Subramanian and Jan Felicjan Terelak
- **P4** Strategies for Coping with Career Indecision among Arab Adolescents in Israel. Yuliya Lipshits-Brazilier, Moshe Tatar and Itamar Gati
- **P6** Support-related coping online among Arab adolescents in Israel. Sima Amram-Vaknin, Yulia Lipshits-Brazilier and Iman Barhum
- **P7** Dysfunctional metacognitions, rumination and maladaptive coping strategies – analysis of associations. Małgorzata Dragan
- **P8** Time and coping with affect depending on the level of extraversion. Małgorzata Sobol-Kwapinska and Aneta Przepiórka
- **P9** Between the Inside and the Outside World: Coping of Ultra-Orthodox Individuals with Their Work Environment After Academic Studies. Tehila Kalagy
- **P10** A walk on the wild side: How interactions with non-companion animals might help reduce stress. Rachel Sumner and Anne Goodenough
- **P24** Stressful life events and adolescent well-being: The role of parent and peer relationships in a national cohort study. Grace McMahon, Stephen Gallagher and Ann-Marie Creaven
- **P25** Negative social relationships mediate the association between Type D personality and perceived life events stress. Adam O’Riordan, Stephen Gallagher and Siobhán Howard
- **P26** More Thankful, Less Stressed?: Impact of Gratitude on Cardiovascular Reactivity to Acute Stress. Brenda H. O’Connell and Stephen Gallagher
- **P27** Dental Anxiety and Psychological defense in terms of function-action approach. Alicja Senejko, Małgorzata Sobol-Kwapinska and Leszek Jaskiewicz
- **P28** The effect of melatonin on body mass and behaviour of rats during an exposure to microwave radiation from mobile phone. Dusan Sokolovic, Nikola Stojanovic and Danka Sokolovic
- **P29** Effects of short-term inhalation of lemon balm (Melissa officinalis L.) essential oil on healthy humans’ cognitive functions. Nikola Stojanovic, Pavle Randjelovic, Marko Mladenovic, Dusan Sokolovic and Niko Radulovic
- **P38** The impact of trauma exposure with and without life threat on attentional networks: alterations of executive control and orientation network. Wivine Blekic, Nicholas Van Dam, Erika Wauthia, Mandy Rossignol and Kim Felmingham
HOW IMPORTANT IS TEMPERAMENT IN PREDICTING COPING BEHAVIORS IN YOUNG FEMALE DRIVERS?
A PRELIMINARY STUDY

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There is a growing number of young female drivers and accidents caused by them, however the knowledge about their coping behaviors in the context of their temperamental traits is still limited. The present study was conducted to identify the temperamental traits underlying coping behaviors among young female drivers. Temperament as one of the personality dimensions is conditioned biologically at the level of congenital and acquired properties of the central nervous system (Strelau 2006, 2014) and is assumed to be one of the key factors in predicting coping behaviors. The study encompassed 81 young female drivers (aged 20-26 years), who had received their driver's licenses at least two years prior. However, the final statistical analyses were conducted on a sample of 76 participants. PTS Scale (Strelau and Zawadzki, 1998) was used for measuring temperamental traits, whereas stress coping styles were assessed with use of Polish version of CISS Questionnaire by Endler and Parker (Szczepaniak, Strelau, Wrześniewski, 2005). In general, temperamental traits were associated with coping behaviors among young female drivers. High level of strength of excitation (SE), strength of inhibition (SI), and mobility of nervous processes (M) were associated with high level of task-oriented coping style. However, only high level of SI remained as predictor of the task-oriented coping behaviors. High level of SE, SI and M were related to low level of emotion-oriented coping style, but only SE was a good predictor of emotion-oriented coping. Further, high level of SI was associated with low level of avoidance-oriented coping style, while high level of M was associated with high level of avoidance-oriented coping activities. Although temperamental traits are related to coping styles, only some of them can help predict the coping behaviors among young female drivers. Thus, in further research, one should consider factors that might mediate the relationship between temperamental traits and coping activities.

Key words: Coping style, Female drivers, Psychological stress, Temperamental traits, Young drivers

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STRATEGIES FOR COPING WITH CAREER INDECISION
AMONG ARAB ADOLESCENTS IN ISRAEL

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Making a career decision is a complex task that may result in indecision, which is frequently associated with distress and anxiety. Therefore, the ability to cope is an important component of decision-making. Lipshits-Brazier, Gati, and Tatar (2016) developed a theoretical model and corresponding measure for assessing strategies for coping with career indecision (SCCI). The model consists of 14 coping strategies, reflecting three styles: productive coping, support-seeking, and nonproductive coping. The goal of the research was to test the cultural and predictive validity of the SCCI among Arab adolescents in Israel. A new (fifteenth) coping strategy – spiritual coping – was added to the model following in-depth interviews. The two-wave longitudinal study examined which coping strategies predict a decrease in career decision-making difficulties and progression toward making a career decision among 257 12th grade Arab students. The results showed that less use of nonproductive coping strategies at the beginning of the year predicted greater progress in career decision status and a decrease in decision-making difficulties toward the year’s end. Although students frequently use spiritual coping strategies, these strategies do not predict decision-making progress or a decrease in decision-making difficulties. The participants were divided into four groups according to the change in the decision status during the year. It was found that 45% of participants advanced in their decision; 25% remained undecided, reporting no change in their decision status; 24% withdrew their initial decision; and 6% retained their initial decision and remained decided. A greater use of productive coping strategies was reported among those who had progressed in their decision status. The use of nonproductive coping strategies increased and the use of productive coping strategies decreased among those who withdrew their decision and those who remained undecided. Finally, no change in the coping strategies was reported among those who retained their initial career decision. This study has implications for facilitating career decision making among Arab adolescents in Israel. The results highlight the importance of educational interventions to enhance the coping skills of young Arabs, thus facilitating their school-to-work transition. Moreover, this culturally adapted tool may be useful in testing the effectiveness of career counseling interventions.

Key words: Career assessment, Career indecision, Coping strategies, Ethnic minority, Spiritual coping

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Adolescence is a transitional period defined by major psychosocial changes. The ways in which adolescents cope with these stressors have an important impact on their psychological adjustment. Facing these challenges, youth typically prefer to face them alone or turn to informal help. Nonetheless, many of the traditional barriers to seeking help are reduced in computer-mediated settings, so that online help seeking has become increasingly common. Furthermore, there is a growing tendency of adolescents to provide help online, which accords psychosocial benefits for both the recipient and the provider. Previous research has not paid sufficient attention to the phenomenon of help-providing by adolescents. In addition, only little research was conducted regarding online support behaviors among Arab adolescents in Israel. Studying the specific help-seeking and help-providing behaviors of adolescents from various cultural groups is important, as it is highly affected by cultural context and norms.

The present research investigates online help-seeking and help-providing behaviors (e.g., topics, platforms, support sources, help type, considerations and obstacles), among Arab adolescents in Israel. In particular, gender and religious (Christian vs. Muslim) differences were examined among 662 Arab adolescents (61% female, 58% Muslim).

Results showed that 54% of the participants sought help online and 70% provided help online, with 60% of the latter comprising familiar others. A high frequency of providing help was found among those seeking help online. Girls were more likely to seek help online than were boys; however, no gender differences were found in the prevalence of providing help online. Girls turn to family members more than do boys, whereas boys turn to unfamiliar peers more than do girls. In addition, girls seek and provide more emotional and informational help than do boys. Muslim Arabs turn to family members and familiar professionals more than do Christian Arabs. Muslims also seek and provide more instrumental and informational help than do Christians, and they are more satisfied with the help they receive.

The results of the present study have practical implications for mental health providers. These findings may be used to develop Internet-based interventions that better meet the unique needs and preferences of ethnic minority adolescents.

Key words: Coping strategies, Cyberspace, Ethnic minority, Social support

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DYSFUNCTIONAL METACOGNITIONS, RUMINATION AND MALADAPTIVE COPING STRATEGIES. ANALYSIS OF ASSOCIATIONS

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In the metacognitive model of psychological vulnerability to stress dysfunctional metacognitions are central determinants of distress (Wells, 2013). Maladaptive behaviours such as avoidance, assurance seeking or substance use are seen as a consequence of holding these metacognitions, but also as factors that prevent change. Among maladaptive coping strategies is also rumination, which is repetitive and passive self-focused thoughts about one’s negative states (Nolen-Hoeksema, Larson & Grayson, 1999). In the metacognitive model, rumination is a central cognitive strategy responsible for maintaining symptoms of emotional disorder. The main goal of this study was to examine the associations between dysfunctional metacognitions, rumination and maladaptive coping strategies in a large group of participants. It was hypothesised that higher levels of metacognitive beliefs and rumination would be associated with more frequent use of maladaptive coping strategies, and that the relationship between metacognitions and coping strategies would be mediated by rumination. The study was conducted through an internet survey panel and included 1225 participants. Participants were gathered in quotas mirroring population of Warsaw in respect of gender, age and education. They completed a set of self-report questionnaires concerning dysfunctional metacognitive beliefs, tendency to rumination and maladaptive coping strategies. Both dysfunctional metacognitions and rumination turned out to be independent, significant predictors of maladaptive strategies. Analysis of mediation revealed that rumination is a significant, however partial, mediator of association between metacognition and coping strategies, as it was reduced ($\beta = .42$ versus $\beta = .16$) by the inclusion of maladaptive rumination in the model (and significant after inclusion of Sobel test). Higher levels of dysfunctional metacognitive beliefs and rumination turned out to be predictors of more frequent use of maladaptive coping strategies such as avoidance or assurance seeking. Rumination turned out to be a mediator of relationship between metacognitions and coping strategies, which confirms the assumptions of the metacognitive model that this is an important cognitive strategy related to maladaptive coping.

Key words: Maladaptive Coping, Metacognition, Rumination

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TIME AND COPING WITH AFFECT DEPENDING ON THE LEVEL OF EXTRAVERSION

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The aim of the study was to examine correlations between the extraversion, abilities to cope with bad mood and thinking about time in the ego-moving and time-moving categories. The aim of the experiment was to determine how thinking about time in the ego-moving and time-moving categories impacted belief in coping. The extraversion was measured using the Extraversion with NEO-FFI scale, coping with negative moods was measured using questions about predictions on coping and by measuring the affective state following bad mood induction. The way of thinking about time was measured by the Wednesday question and a selection of sentences about an exam and summertime. Research results show that extroverts coped better with negative mood when they thought of time in the ego-moving rather than the time-moving category. In the case of introverts, no significant relations were observed between how they perceived time and how well they coped with negative mood. The results of the presented research indicate that the way of thinking about time is important in coping with negative moods in extraverts. As far as introverts are concerned, there are no significant dependencies between thinking about time and dealing with negative moods.

Key words: Active coping, Affect regulation

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This study has explored how ultra-Orthodox individuals cope when facing secular norms and values in their work environment. The study was conducted in Israel, where 614 ultra-Orthodox adults answered questions regarding demographic characteristics, identities, openness to the workplace, social environment, Brief COPE, community sense of coherence (CSOC) and Employee Satisfaction Inventory. Individuals in the main sectors of the ultra-Orthodox society reported higher CSOC and stronger religiosity while individuals from the minor sectors reported greater openness to the job's social environment. Demographics, coping strategies and CSOC were significant in explaining job satisfaction. The results will be discussed based on stress and coping theories and on the salutogenic theory.

Methods. Participants. Six hundred and fourteen ultra-Orthodox adults, aged 21–55 (M = 29.70 SD = 6.12) participated in this study. Women accounted for 64% (393 participants). As for education, 520 (84.7%) had earned a bachelor’s degree and 94 (15.3%) had completed an MA. Four hundred and three (65.6%) reported that they work fully in the profession for which they had studied, 128 (20.8%) partially worked in their professions and 83 (13.5%) did not work in the profession they had studied. Three hundred and eleven participants (50.7%) reported that they work mostly in a secular environment, 164 (26.7%) in a mixed environment and 139 (22.6%) work within the ultra-Orthodox enclave. With regard to socio-economic status, 214 (34.9%) reported lower than average incomes, 165 (26.9%) reported average incomes and 216 (35.2%) reported higher than average incomes. The participants reported having 0–11 children (M = 3.09 SD = 1.79) and they have worked for 0–30 years (M = 3.63 SD = 3.73). Procedure After receiving ethics approval from the university depart-ent's IRB committee, participants filled out anonymous self-report questionnaires (via the internet) during July–October 2015. The sample was recruited using the academic institutions where participants had studied, in addition to the snowball method. Participation was voluntary and the participants were informed that the researcher was interested in their experiences of going out to work after their academic studies. Participants were free to withdraw their participation for any reason and at any time during the questionnaire procedure.

Measures. Demographic background data included gender, age, level of education, socio-economic status, and working in the profession for which one studied. Additionally, participants reported if they worked mostly in secular environments, in mixed environments, or in the ultra-Orthodox enclave. Level of religiosity was assessed by one question—To what extent do you define yourself as religious? Answers ranged from not at all (1) to very much (5). Identity was evaluated by a question asking participants to relate to different types of identities on a 5 point Likert scale (1-very little or not at all to 5-a lot). The possibilities were—Lithuanian, Hasidic, Mizrahi, Modern, Outsider. Each par-icipant had to relate to all possibilities. The participants were granted the identity for which they scored the highest. Participants who had no significant identity (all identities were below 3) was assigned—no significant identity’. Sense of community coherence (Braun-Lewensohn and Sagy 2011). The questionnaire included 12-items on a seven-point Likert-type scale with anchoring phrases at each end. It translates the major themes of Antonovsky’s personal SOC—comprehensibility, manageability and meaningfulness—into community resources. Examples of the items are “To what extent do you feel that you have influence in your community”, “I intend to live in this community in the future”. Cronbach alpha for the present study was α = .88. Brief COPE (Carver et al. 1989). This is a 28-item tool measuring coping strategies, using a four point Likert scale ranging from 1-usually do it a lot to all at 4-usually do it a lot. The questionnaire is designed to fit different situations. The opening statement of this questionnaire is: "When you think about last summer when your husband served in the military operation...". The Brief COPE items are divided into 14 subscales, with two items each. The mean of each two items was used to create the subscales: self-distraction, active coping, denial, substance use, emotional social support, instrumental social support, behavioral disengagement, venting emotions, positive reframing, planning, humor, acceptance, turning to religion, self-blame. Based on previ-ous research (Dolphin et al. 2015), we created two global coping scales: adaptive coping which included the items of acceptance, active coping, denial, substance use, emotional social sup-port, instrumental social support, and maladaptive coping which included the items of behavioral disengagement, denial, self-blame, self-distraction and venting. Cronbach alpha reliabilities of the scales were adequate: adaptive coping: α = .76; maladaptive coping: α = .64. Employee satisfaction inventory (ESI) (Kousta-lios and Bagi tias 1997). The employee satisfaction inventory is a 24 item inventory on 5 point Likert scale ranging from 1-strongly agree to 5-strongly disagree. Six subscales emerged: working conditions, supervisors, pay, the job itself, the organization as a whole and promotion. The global ESI scale is derived from the mean score of all items. The psychometrics of the scale's proved to be good, with adequate reliability (Koustalios and Bagi tias 1997). Cronbach alpha for the global scale in the present study was α = .90. Openness to the job’s social environment questionnaire was formed especially for the present study. The questionnaire included 5 questions on a 5 point Likert scale with higher scores indicating more openness. The questionnaire assessed the level of social openness towards the job envi-ronment. Examples of questions were: Do you participate in secular workers' celebrations? Do you speak with workers on issues that are not related to your job? How important is it for you to have separation between men and women in the job environment? The global scale was computed as the mean score of all items.

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Cronbach alpha was α = .74. First, a preliminary analysis examined the frequencies of the different study variables. We found that the most frequently reported identity was Lithuanian (40.2%) followed by ‘no significant identity’ (23%), Mizrahi (15.3%), Hassidic (11.3%), Modern (7.2%) and Outsider (3.1%). Most of the other variables, [community SOC (M = 4.95 SD = 1.21); sat-isfaction from work (M = 3.68 SD = .68); adaptive coping (M = 2.90 SD = .57); level of religiosity (M = 4.25 SD = .82); and openness to the job’s social environment (M = 3.44 SD = .90)] were on the higher end of the scales. The only variable that was reported as weak was maladaptive coping (M = 1.92 SD = .47). To answer the first question, a t test for independent groups was calculated. Results are presented in Table 1. The first hypothesis was partially confirmed. Indeed, women reported using a wider variety of coping strategies. It should be noted that they used both more adaptive and mala-daptive coping. Contrary to our hypothesis, women reported higher community coherence compared to men. With regard to the variables for which we did not form specific hypotheses, men reported higher openness to the job’s social environment, while no differences were observed on level of religiosity and satisfaction from work, where both women and men reported high levels of satisfaction and high levels of religiosity (above the mean score of the scale). To examine the second question, we ran a one-way Anova and the results are presented in Table 2. Results show that significant differences were observed between the main sectors of ultra-Orthodox society and the minor sectors, ‘outsiders’ and ‘moderns’, as well as those individuals who were not assigned a significant identity. While individuals from the main sectors (Lithuanian, Hassidic, Mizrahi) reported higher community SOC and stronger religiosity, individuals from the minor sectors (Moderns and Outsiders), as well as those with no significant identity, reported greater openness to the job’s social environment. Thus, for the next steps of the study, and in order to allow more generality, we grouped the individuals into three main sectors—the main sector which included Lithuanian, Hassidic and Mizrahi, the minor sectors—Moderns and Outsiders, and ‘no significant identity’. The third question related to differences between groups that worked in different environments—one group worked mostly with secular people, one with both secular and ultra-Orthodox and the last group worked within the ultra-Orthodox enclave and only with other ultra-Orthodox people. A one way Anova was run and findings are presented in Table 3. Results show no significant differences between these three groups on all variables except openness to the job’s social environment where those who work within the enclave reported being the least open to a secular environment and norms. The last question was assessed by linear regression analy-sis. As a dependent variable we entered satisfaction with work. The different steps introduced the different independent explanatory variables. The first step included the different socio-demographic variables of the study (socio-econo-mic status, degree, gender, number of children, age, work with and identity). In the second step, we entered the main variables of the study, namely, community SOC, adaptive and maladaptive coping, openness to the job’s social environment and level of religiousness. The last step included the different interactions of gender with the main variables, and identities with the main variables. Since none of the interactions were significant, the last step was dropped from the table presented in the manuscript. These results mean that all the main variables explain job satisfaction similarly for both genders and for the variety of identities. Table 4 presents the regression analysis. Examining the factors which explain job satisfaction shows that some of the different demographic characteris-tics as well as the main variables explained job satisfaction with 25% of the variance. The main demographic variables which explained job satisfactions were: economic status with 11.4%, i.e., the higher the economic status was, the more the individual was satisfied with his/her work; degree level (BA/MA) explained 1.7% of the variance in job satisfaction, i.e., individuals with their MAs were more satisfied than those with BAs; lastly, age explained 1.6% of the variance in job satisfaction and the older the individuals were, the less satis-fied they were. As for the main variables, all made a significant contribu-tion to the explained variance except level of religiousness. Maladaptive and adaptive coping were the most meaningful variables with explanations of 4% and 3.4% of the variable in job satisfaction. Community SOC and social openness to the job environment added 1% and 1.6% to the explained variance. To conclude, ultra-Orthodox society is in transition and more and more individuals are choosing to gain an academic education leading to integration into an unsegregated work environment. This study has explored how individuals who have started to work outside the ultra-Orthodox enclave encounter the new social environment. We found that indi-viduals from the main ultra-Orthodox sectors reported higher community SOC and stronger religiosity, while those from the minor sectors reported greater openness to the job’s social environment. Moreover, openness to the job’s secular social environment was reported as higher among those who work outside the ultra-Orthodox enclave. Like studies from around the world in different contexts, our results showed that maladaptive and adaptive coping as well as commu-nity SOC were meaningful variables in explaining of job satisfaction. Practical implications of such results could be the design of programs within the higher education system enhancing community SOC and providing meaningful coping strategies for ultra-Orthodox who study in institutions of higher education. Future research should more deeply examine the differences and similarities among the different sectors of ultra-Orthodox society. Further, employers should also be studied in order to clarify their perception of the ultra-Orthodox workers and their integration into different job environments.

Key words: Community sense of coherence, Job satisfaction, Ultra-Orthodox

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A WALK ON THE WILD SIDE: HOW INTERACTIONS WITH NON-COMPANION ANIMALS MIGHT HELP REDUCE STRESS

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The literature addressing the potential for nature and natural environments to reduce stress and improve health outcomes has a relative paucity of work regarding interactions with animals, particularly those that are not domestic pets. The present study sought to understand whether an acute interaction with non-domestic animals might reduce stress and improve wellbeing.

On two separate days, participants (N=86) took part in a brief wildlife encounter at a UK safari park, completing measures associated with wellbeing, perceived stress, and nature relatedness. They took part in a walk for approximately 12 minutes around a wooded enclosure with free-roaming Lemurs. Heart rate, cortisol (N=46), and measures of mood (Profile of Mood States) were taken before and after the encounter to understand whether a wild animal interaction could reduce biological levels of stress and improve psychological wellbeing.

Participants showed a significant decrease in salivary cortisol after their animal encounter, measured 15 minutes afterward. No significant changes in heart rate were recorded. Measures of mood showed significant improvement immediately after the encounter on a variety of subscales. Cortisol change was not related to baseline levels of perceived stress or wellbeing, and did not differ according to day of visit, number of Lemurs seen, nor rating of Lemur interaction. In multivariate analysis, the nature-relatedness concepts of “self”, “perspective”, and “experience” were significantly associated with changes in cortisol when controlling for baseline, but in different ways.

The present pilot study provides new information on how encounters with nature, particularly those involving animals, may be beneficial for health and wellbeing. The ability for individuals to feel an improvement in mood, as well as experience decreased levels of biological stress in an encounter where the animals are kept respectfully provides mutual benefit, and may potentially be used therapeutically in social prescribing methodologies.

Key words: Biophilia, Cortisol, Green space, Nature, Wellbeing

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STRESSFUL LIFE EVENTS AND ADOLESCENT WELL-BEING: 
THE ROLE OF PARENT AND PEER RELATIONSHIPS IN A 
NATIONAL COHORT STUDY

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Stressful life events can have a damaging effect on psychological well-being, particularly during the transitional stage of adolescent development. Indeed, the importance of social relationships for alleviating the adverse effects of stressful events on well-being, is widely noted. Much of the previous literature has focused on social support, the tangible and emotional support provided by these relationships, however, less attention has been focused on the relationship quality. Thus, the overall aim of this research is examining relationship quality as a mechanism for explaining the association between stressful events and psychological well-being among adolescents.

Secondary data analyses were carried out on the Growing Up in Ireland survey, a population-based national study of 13-year-old Irish adolescents (N = 7525; 51.1% female). Our independent variable was stressful life events (e.g. death of a parent), and the dependent variable was psychological well-being, measured by the Piers-Harris Self-Concept Scale. Measures of parental and peer relationship quality (Inventory of Parent and Peer Attachment) were included as mediators.

As expected, results showed that stressful life events negatively impacted the psychological well-being of adolescents. Parallel mediation analyses indicated that both parent peer relationship quality, mediated this association. Interestingly, this effect was only evident for adolescent girls.

Overall, these findings suggest that more stressful life events can have a negative impact on the quality of adolescents' relationships with both their parents and peers independently, which then in turn leads to poorer psychological well-being. For boys however, stressors were not associated with well-being, or the quality of their parent or peer relationships. However, for girls, the association between stressful events and well-being can be explained in part by the quality of their relationships with their peers. Indeed, psychosocial interventions aimed to promote positive well-being can benefit from the knowledge that relationship quality plays a significant role; developing appropriate strategies for adolescents to improve or maintain high-quality relationships rather than solely focusing on tangible support may help counteract the damaging effects of life stressors.

Key words: Parents, Peers, Psychological well-being, Relationship quality, Stressful life events

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NEGATIVE SOCIAL RELATIONSHIPS MEDIATE THE ASSOCIATION BETWEEN TYPE D PERSONALITY AND PERCEIVED LIFE EVENTS STRESS

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Life events stress has recently been suggested to be one mechanism facilitating the relationship between Type D personality and adverse health. Social support and negative social relationships are well established psychosocial factors influencing perceptions of stressful life events. As Type D individuals have been noted to report lower levels of social support and greater perceptions of negativity in social interactions, the current study examined if the relationship between Type D personality and life events stress is mediated by social support (instrumental and emotional support) and perceptions of negative social relationships (perceived hostility and rejection).

The present study employed a correlational design in order to investigate if the relationship between Type D personality and life events stress was mediated by social support and perceptions of negative social relationships. The sample consisted of 196 undergraduate students, who completed self-reported questionnaires assessing Type D personality, social support (instrumental and emotional support), perceptions of negative social relationships (perceived hostility and rejection) and number of perceptions of stressful life events.

Type D personality was associated with a greater perception of stressful life events. Further, Type D personality was associated with greater perceptions of hostility and rejection from others, as well as lower levels of social support. Finally, the relationship between Type D personality and life events stress was significantly mediated by perceptions of hostile relationships.

Type D individuals have a greater perception of hostile social relationships, which appear to engender a greater perception of stressful life events, indicating a potential mechanism putting Type Ds at increased risk of adverse health outcomes.

Key words: Perceived stress, Social relationships, Social support, Type D Personality

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MORE THANKFUL, LESS STRESSED?: IMPACT OF GRATITUDE ON CARDIOVASCULAR REACTIVITY TO ACUTE STRESS

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Although we cannot avoid stress, how we react to stress can have a detrimental impact on physical health and wellbeing. Specifically, atypical psychophysiological reactivity to stress (if prolonged or exaggerated) have been associated with irregular blood pressure and increased risk of CVD morbidity and mortality. Previous research has identified stable characteristics (age, gender, personality, and epigenetics) that render certain people more susceptible to the deleterious effects of stress than others. Similarly, scholars have explored the role of psychosocial factors, such as social support, in buffering against pathogenic effects of stressful events. However, none of these works have addressed the central question of how positive psychological constructs, such as gratitude, may serve a protective role in how stress is perceived and affects the physiological systems that regulate stress. This research aims to explore how gratitude influences cardiovascular reactivity to acute stress. This study employed an experimental within-subjects design. Sixty eight adults completed psychometric measures of state and trait gratitude and participated in a standardised cardiovascular stress-testing protocol. Physiological responses (blood pressure and pulse) were recorded throughout a baseline, standard stress-task (mental arithmetic task) and recovery period using a GE Dinamap Pro 400 V2. The primary predictor variables were state and trait gratitude, with cardiovascular reactivity (systolic blood pressure (SBP), diastolic blood pressure, and heart rate) serving as outcomes. Hierarchical linear regression revealed that higher levels of state gratitude predicted lower SBP reactivity to the stress task while controlling for baseline SBP, gender and trait gratitude. This provides novel, preliminary evidence that gratitude may serve novel buffer to cardiovascular reactivity following a psychological stressor. In this instance how grateful, thankful, and appreciative participants felt prior to the stress task, rather than their dispositional levels of gratitude in general, appeared to reduce cardiovascular reactivity to stress. Research shows that gratitude can be fostered and is susceptible to change through simple interventions, therefore, this first step is critical in understanding how gratitude impacts psychophysiological stress reactivity and may serve as a coping mechanism in the face of daily stressors.

Key words: Acute stress, Cardiovascular reactivity, Gratitude

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DENTAL ANXIETY AND PSYCHOLOGICAL DEFENSE IN TERMS OF FUNCTION-ACTION APPROACH

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Dental fear is a serious and widespread form of medical stress related to the dental situation. The aim of the presentation is to present a model of psychological defense F-CZMOP, stressing the functionality and the totality of forms of defense activity - in the application to the interpretation of complex problems associated with dental anxiety. The presentation contains the results of a study conducted using KSS, STAI, IPIP 20 and the Dental Anxiety Scale. The presentation contains the results of a study conducted using KSS, STAI, IPIP 20 and the Dental Anxiety Scale. The group of participants consisted of 508 subjects, aged 25-45. The results suggest that the most common source of dental anxiety is threats from the category of "material problems" and "accidents". The perspective of further research and their applicability, related to the development of therapeutic interventions for patients with dental phobia, taking into account the specificity of their dental anxiety sources and applied defenses, were stressed.

Key words: Active coping, Affect, Anxiety

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THE EFFECT OF MELATONIN ON BODY MASS AND BEHAVIOUR OF RATS DURING AN EXPOSURE TO MICROWAVE RADIATION FROM MOBILE PHONE

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Microwave radiation (MW) produced by wireless telecommunications and a number of electrical devices used in households or in healthcare institutions may cause various disorders in the human organism. Melatonin, a neurohormone, is a potent antioxidant agent, immunostimulator and modulator, which is known to affect the function of the central nervous system. The aim of this study was to determine the changes in body mass and behaviour of rats occurring after chronic microwave exposure, as well as to determine the effects of melatonin on irradiated rats.

Wistar rats were divided into four equal experimental groups: I group (control) – rats treated with 0.9 % saline, II group (Mel) – rats treated with melatonin (2 mg/kg), III group (MW) – rats exposed to MW radiation (4 h/day), IV group (MW+Mel) – rats, which were both exposed to MW radiation and received melatonin as a pre-treatment (2 mg/kg).

A significant reduction in body mass was noted in animals exposed to MW radiation when compared to controls after 20, 40 and 60 days (p<0.001). Furthermore, body weight was significantly increased (p<0.05) in irradiated rats, which received melatonin as a pretreatment (MW+Mel) in comparison to irradiated group (MW) after 20 days. Microwave radiation exposed animals showed an anxiety related behaviour (agitation, irritability) after 10 days of exposure, where the occurrence of these symptoms only intensified during 60 days of study. Rats exposed to MWs tended to move away from the source of radiation, which was placed in the centre of the plastic cage, which manifested as grouping in outer quadrants of the cage. Locomotor activity of MW exposed rats (group III and IV) was slightly reduced when compared to unexposed animals (group I and II). After the radiation source removal, changes in behaviour were less noticeable. Melatonin administration to irradiated rats caused a decrease in stress related behaviour during the entire study.

Microwave radiation causes body mass decrease and anxiety related behaviour in rats, however melatonin causes a reverse of those effects on both body weight and behaviour changes induced by irradiation of animals.

Key words: Behaviour, Body mass, Melatonin, Microwave radiation, Mobile phone

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EFFECTS OF SHORT-TERM INHALATION OF LEMON BALM (MELISSA OFFICINALIS L.) ESSENTIAL OIL ON HEALTHY HUMANS’ COGNITIVE FUNCTIONS

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Different types of Melissa officinalis L. (Lamiaceae) extracts were historically and are contemporarily used as mood and cognitive function modulators. Although previous studies pinpointed rosmarinic acid as the main active principle, the essential oil, for which lemon balm is renowned for, is poorly investigated in this sense. In this study aimed to evaluate the effects of a short-term inhalation of M. officinalis essential oil on cognitive functions of young healthy volunteers. Twenty subjects (mean age 21.4), divided into two equal groups, participated in this study and were tested in laboratory settings on two occasions (firstly - a training session and secondly – an inhalation session). On both occasions the subjects were instructed to follow the PEBL test battery, constructed for this experiment, which evaluated the memory span and reaction time of the subjects. During the second session, the subjects (blinded to the experiment) were instructed to inhale, at a normal respiratory rate, vapors emitted from a vial containing either distilled water or a measured amount of the essential oil for the duration of one minute. Before and after the inhalation the subjects were given a visual analog scale (VAS) in order to evaluate their awakeness, tension and restfulness; and afterwards to estimate odor intensity and its characteristics. All of the obtained data were compared using ANCOVA and ANOVA (SPSS 20.0). No statistically significant effects (p>0.05) of the inhaled vapors of the essential oil on the subject memory span or reaction time were ascertained. After the statistical treatment of the data obtained from VAS, the only statistically significant difference between the two groups was found for the inhaled odor intensity (p=0.001). The obtained results suggest that short-term inhalation of M. officinalis essential oil does not alter the cognitive function of young healthy subjects.

Key words: Cognitive function, Essential oil, Lemon balm, Short term memmory
THE IMPACT OF TRAUMA EXPOSURE WITH AND WITHOUT LIFE THREAT ON ATTENTIONAL NETWORKS: ALTERATIONS OF EXECUTIVE CONTROL AND ORIENTATION NETWORK

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Being confronted to a traumatic event is known to be a serious risk factor for the development of post-traumatic stress disorder (PTSD) or other mental health issues. However, it remains unclear how a previous history of trauma fragilize individuals on the long term, even in the absence of clinical symptoms. When examining this question, a recent meta-analysis highlighted a differential impact of PTSD and trauma exposure per se on attentional processing of threat. This study aims at further examining this distinction on the basic attentional networks: alerting (involved in establishing vigilance), orienting (referring to the ability to prioritize specific information) and executive control (responsible of detecting and resolving conflict between information or cognitive processes).

455 participants (mean age = 38.37) completed the Attentional Network Task. Three groups were composed according to previous trauma exposure: Trauma Naïve (TN, no previous trauma reported : N = 152), Not-Threatening Event (NTE, a previous trauma had been reported but did not meet the Criterion A : N = 60) and the Trauma Exposed (TE, a history of trauma that meet the Criterion A was reported : N = 235). A repeated measures ANOVA highlighted group differences on (1) the Executive Index (EI, F(1,445) = 4.78, p = .009), the TN group presenting a smaller EI than both the TE (p = .030), and the NTE group (p = .028) and (2) the Orienting Index (OI) with NTE presenting higher OI than the TE (t(292)=2.072, p=.039). Two hierarchical regressions were conducted in which (1) Criteria A predicted the Alerting Index (AI, DR2 = .011, F(1, 444) = 5.15, p=0.24) and (2) age and peritraumatic dissociations predicted EI (DR2 = .082, F(1, 443) = 19.14, p < .000). These results confirm the idea of an impact of trauma per se on basic attentional network. Specifically, we hypothesize that (1) the confrontation to a trauma put the individual in a state of hypervigilance, which could impair all networks and (2) peritraumatic dissociations have a long lasting influence on the executive control. Closer evaluation of reaction times will allow to specify those results.

Key words: Attentional networks, Dissociation, Exposure to trauma, Posttraumatic stress disorder, Risk-factors

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TOWARDS A THEORY OF TRANSCENDENT RESOURCE ALLOCATION (TRA): THE RELATIONSHIP BETWEEN SELF-ACCEPTANCE AND PREVENTIVE COPING

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Theories such as the transactional model of stress and coping (Lazarus & Folkman, 1984), the salutogenesis model by Antonovsky (1996), and the conservation of resources (COR) theory by Hobfoll (1989) have been well studied for many years. These theories address different kinds of stressors. There is a need for a unifying theory that brings those models together and focuses on the universal aspects of coping with stress that are applicable to all kinds of stressful situations. The Transcendent Resource Allocation (TRA) theory addresses meta resources that transcend situationally specific coping strategies. The outcome of a person who is sustaining the ability for TRA is more resilience and hope. According to Snyder (2002) hope is a personal coping resource which can be developed. Both hope and sense of coherence (SOC) have been demonstrated to be important resilience factors in stressful situations (Davidson, Feldman, & Margalit, 2012). In previous research (Lambert, et al., 2017), Self-Acceptance (SAC) was found to be the strongest predictor of burnout among various predictors. The purpose of this study was to present quantitative evidence for Self-Acceptance serving as a pivotal meta-resource that enhances capacity for various coping strategies. The relationship between Self-Acceptance (SAC) and other measures of coping was investigated in survey data from three samples, 1) sample 1 consisted of 248 undergraduate students from a large university in Texas, 2) sample 2 consisted of 406 undergraduate social work students from two Universities of Applied Sciences in Germany, and 3) sample 3 was collected from 184 undergraduate social work students from a large university in Singapore. Across those three samples from three different countries SAC was moderately to highly correlated with a range of different coping resources measured by different instruments. These results support the prediction that SAC functions as a meta-resource and enhances capacity for a variety of stress prevention and coping strategies. It can be considered as higher order factor for various capacities responsible for stress prevention. The results of this study contribute to the development of TRA theory as a beginning step toward a unified theory of stress and coping.

Key words: Coping strategies, Theory of Transcendent Resource Allocation (TRA)

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