

Integrated Health and Personality Adaptation Model (IHPAM) for Men Amidst Russia-Ukraine Conflict: Navigating Psychosomatic Health

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In the midst of the Russia-Ukraine war and the ongoing challenges of the post-COVID era, this study presents the Integrated Health and Personality Adaptation Model (IHPAM), focusing on the critical examination of psychosomatic health determinants in Ukrainian men.

Materials and methods. Conducted on a sample of 708 men from the Kyiv region, the research applies a comprehensive set of assessment tools to probe the complex interactions between physical health, psychological stress, personality dynamics, and adaptive coping mechanisms. We used the I-structural test of Ammon, Lifestyle Index (LSI), Short Form-36 (SF-36), Assessment of the level of health by the main functional systems, Clinical questionnaire for the identification and assessment of neurotic conditions and rigorous factor analysis with SPSS-28.

Results. The study identifies five key factors within the IHPAM: Physical Functioning Nexus, Destructive Functions of the Personality, The Psychological Stress Nexus, The Constructive Personality Matrix, and The Adaptive Defense Mechanisms. The IHPAM model underscores the multifaceted impact of the Russia-Ukraine war and the COVID-19 pandemic on men's health, revealing significant psychosomatic disturbances. The study highlights the necessity for healthcare systems to adopt a holistic view, recognizing the pivotal role of psychological support, alongside physical health care, in mitigating the adverse effects of such unprecedented global and local stressors.

Conclusions. IHPAM advocates for an integrated healthcare approach to the complex interdependencies between physical health, psychological wellbeing, and the socio-political environment, urging for targeted interventions that address the comprehensive health needs of men during times of crisis.

Keywords: Integrated Health and Personality Adaptation Model, IHPAM, Psychosomatic Disorders, Men's Health, Post-COVID Syndrome, Psychological Stress, Adaptation Mechanisms, Russia-Ukraine War, War Impact.

Інтегрована модель здоров'я та особистісної адаптації (ІМЗОА) для чоловіків в умовах російсько-українського конфлікту: виміри психосоматичного здоров'я В. Є. Луньов, М. М. Матяш, Ц. Б. Абдряхімова, А. І. Павлов, Н. О. Дзеружинська

Проведено дослідження інтегрованої моделі здоров'я та особистісної адаптації (ІМЗОА), зосередженої на критичному аналізі психосоматичних детермінант здоров'я українських чоловіків у зв'язку з російсько-українською війною та постійними викликами постковідної епохи.

Матеріали та методи. Проведено дослідження на вибірці із 708 чоловіків, що проживають у Київській області, яке ґрунтується на інструментах оцінювання взаємозв'язку між фізичним здоров'ям, психологічним стресом, особистісною динамікою та адаптивними механізмами подолання труднощів. Використано методики: Я-структурний тест Аммона, Індекс життєвого стилю (LSI), Short Form-36 (SF-36), Шкала оцінки рівня здоров'я за основними функціональними системами, Клінічний опитувальник для виявлення та оцінювання невротичних станів та факторний аналіз (SPSS-28).

Результати. У дослідженні визначено п'ять ключових факторів ІМЗОА: «Виміри фізичного функціонування», «Деструктивні функції особистості», «Мережа психологічного стресу», «Конструктивна особистісна матриця» та «Адаптивні захисні механізми». Результати дослідження підкреслюють глибокий вплив паралельних криз – COVID-19 та військової агресії – на здоров'я чоловіків і закликають до комплексного підходу до охорони здоров'я, який враховує як психологічні, так і фізіологічні аспекти благополуччя чоловіків у суспільстві, зруйнованому війною.

Висновки. Інтегрована модель здоров'я та адаптації особистості (ІМЗОА) визначає комплексний підхід до охорони здоров'я, який враховує складні взаємозв'язки між фізичним здоров'ям, психологічним благополуччям і соціально-політичним середовищем, закликаючи до цілеспрямованих втручань, спрямованих на задоволення комплексних потреб чоловіків у сфері охорони здоров'я в кризові часи.

Ключові слова: інтегрована модель здоров'я та адаптації особистості, психосоматичні розлади, чоловіче здоров'я, постковідний синдром, психологічний стрес, адаптаційні механізми, російсько-українська війна, вплив війни.

The interplay between global health crises, such as the COVID-19 pandemic, and socio-political turmoil, notably the ongoing war in Ukraine initiated by Russia, emphasizes a pressing need to focus on the health and

wellbeing of men within these contexts. This article seeks to explore the psychological determinants and patterns influencing the maintenance and functioning of psychosomatic disorders in men, with a particular focus on the

Ukrainian society during these challenging times. The relevance of men's health, especially considering prolonged COVID-19 and post-COVID syndromes, combined with the stresses of war, cannot be overstated.

The importance of addressing men's health within the Ukrainian context is accentuated by the era of war that coincided with the COVID-19 pandemic, marking an epoch where the psychological state of men and its impact on health becomes critically important. The field of men's health psychology has emphasized the significance of examining health through a gendered lens, recognizing that societal, environmental, and psychological factors uniquely affect men's health outcomes [1, 2]. Research has consistently demonstrated a link between psychological distress and physical health, suggesting that the psychological wellbeing of men is intricately connected to their overall health [3, 4].

The global perspective on men's health emphasizes the necessity of a comprehensive approach, integrating physical, psychological, and social dimensions to address health disparities faced by men across different cultures and societies [5–7]. This is particularly relevant in the Ukrainian context, where men have been disproportionately affected by the dual crises of the pandemic and the war. Studies from various countries, including Turkey [8] and the broader international community [9], highlight the psychological aspects of men's health as a growing area of concern, further validating the urgency of this research focus.

The stigma surrounding mental health, coupled with gender norms, presents additional barriers to seeking help and accessing support for psychological issues, making the examination of men's mental health in Ukraine even more pertinent [10]. The war in Ukraine, led by Russia, has not only heightened the psychological strain on men but has also introduced unique stressors associated with combat, displacement, and the loss of normalcy [11, 12].

Research on the psychological consequences of the war in Ukraine and the distress caused by the COVID-19 pandemic indicates significant medical and psychological repercussions, necessitating a nuanced understanding and tailored approaches to healthcare provision [13, 14]. Moreover, the gendered differences in attitudes and behaviors towards COVID-19 further emphasize the need for gender-sensitive strategies in addressing the pandemic's aftermath [15, 16].

The intricate relationship between psychological factors and health outcomes has long fascinated researchers and practitioners alike, especially within the realm of men's health. Recent advancements in psychological research have enabled a deeper exploration into how specific psychological determinants influence men's understanding of and attitudes toward health, particularly among individuals experiencing somatogenic and psychosomatic disorders [17].

This article aims to contribute to the burgeoning field of men's health psychology by examining the psychological determinants of health among men in Ukraine, amidst the backdrop of the COVID-19 pandemic and ongoing war. By doing so, it aspires to shed light on the complex interplay of factors affecting men's health and to underscore the importance of targeted interventions that address the unique challenges faced by men in this era.

MATERIALS AND METHODS

This study was conducted in the Kyiv region of Ukraine, utilizing a sample of 708 men. The participants were recruited from the clinical bases of the Department of General and Medical Psychology at Bogomolets National Medical University between September and December 2023. The research aimed to investigate the psychological determinants of health among men, especially considering the context of prolonged COVID-19 effects, post-COVID syndromes, and the ongoing war in Ukraine.

Through rigorous factorial analysis, a comprehensive five-factor model has been constructed, shedding light on the complex psychological underpinnings that govern health-related behaviors and perceptions in men.

This model encompasses five distinct factors: "Physical Functioning Nexus", "Destructive Functions of the Personality", "The Psychological Stress Nexus", "The Constructive Personality Matrix", and "The Adaptive Defense Mechanisms" (fig. 1). Each factor represents a unique aspect of psychological functioning, offering insights into how various psychological dynamics interact with health outcomes. The identification of these factors marks a significant step forward in understanding the multifaceted psychological landscape that influences men's health behaviors and attitudes.

As we delve into the substantive analysis of these factors, it is crucial to recognize the value of this model in highlighting the psychological dimensions that contribute to health perceptions and behaviors among men. By exploring the characteristics and implications of each factor, we aim to provide a nuanced understanding of the psychological determinants that shape men's health experiences. This analysis not only contributes to the field of health psychology but also offers practical implications for developing targeted interventions that address the psychological aspects of health in men, particularly those related to somatogenic and psychosomatic challenges.

In the following sections, we will undertake a detailed examination of each factor within the model. This exploration will elucidate the intricate psychological mechanisms at play, offering a comprehensive perspective on the psychological determinants of health among men. By understanding these factors, we can better appreciate the complex interplay between psychological functioning and health outcomes, paving the way for more effective strategies in promoting health and wellbeing in the male population. Through rigorous factor analysis, our study has unearthed a pivotal construct that encapsulates a wide array of health-related psychological dimensions. This construct, centered around "Physical Functioning", has been aptly named "Physical Functioning Nexus", highlighting its foundational role in men's health and wellbeing.

Participant Selection and Sampling

The study targeted a specific cohort of men who were identified with psychosomatic disorders. Recruitment was executed through clinical settings, ensuring a diverse representation of the demographic characteristics of the Kyiv region's male population. Participation in the study was entirely voluntary, with all participants providing informed consent for the use of their data for research

purposes. Ethical principles of research were rigorously adhered to throughout the study, under the guidelines approved by the ethical review board of Bogomolets National Medical University.

Research Instruments

A comprehensive set of diagnostic tools was used to assess the psychological and physical health of the participants:

- I-structural test of Ammon. Utilized to evaluate personality structure and dynamics [18].
- Life Style Index (LSI): Applied to assess stress coping mechanisms and lifestyle-related health risks [18].
- SF-36 (Medical Outcomes Study – Short Form Health Survey). A widely recognized tool for measuring health-related quality of life [19].
- Assessment of the level of health by the main functional systems (Voynov, Bugayev, Kulba et al.). This methodology was used to evaluate the health status across various functional systems of the body [20].
- Clinical questionnaire for the identification and assessment of neurotic conditions (Yakhin, Mendelevich). It was used to diagnose and evaluate the severity of neurotic conditions among participants [20].

Ethical Considerations

Ethical compliance was a cornerstone of this study, ensuring that the dignity, rights, and welfare of all participants were protected. The research protocol, including the informed consent procedure, was reviewed, and approved by the institutional review board (IRB) of Bogomolets National Medical University. Participants were informed about the study's purpose, methods, potential risks, and benefits, and confidentiality was strictly maintained. Consent was documented in writing, reaffirming the participants' voluntary participation and their right to withdraw from the study at any time without any consequences.

Data Collection and Analysis

Data collection was systematically carried out within the stipulated timeframe, adhering to the predefined methodological guidelines. The collected data were subjected to rigorous statistical analysis to identify patterns, correlations, and outcomes relevant to the research objectives. The analysis aimed to contribute valuable insights into the psychological health determinants among men in the context of Ukraine's current challenges, including the ongoing conflict and the aftermath of the COVID-19 pandemic.

This methodological approach, grounded on ethical principles and employing a comprehensive set of diagnostic tools, aims to clarify the complex interplay between psychological factors and health among men in Ukraine, providing a basis for informed interventions and policy-making.

In the analytical phase of the study, Factor Analysis was applied as a pivotal method to decipher the complex psychological constructs influencing health outcomes among the sampled men. This statistical technique was executed using the SPSS software package, version 28, which is renowned for its robustness in handling large datasets and its efficacy in uncovering underlying variables (factors) that explain the pattern of correlations within the data.

The decision on the number of factors to retain was based on eigenvalues greater than 1.0 (Kaiser criterion), the scree plot examination, and the interpretability of the factors. Each factor was carefully interpreted by examining the variables that loaded highly on it. These factors were then named according to the psychological and health constructs they represented, providing insights into the underlying dimensions of health determinants among the men in the study.

RESULTS AND DISCUSSION

The factor analysis results delineate *the first factor* “*The Physical Functioning Nexus*” as a central construct, reflecting the complex interplay between physical capabilities and various psychological health aspects. The loading values for each component within this factor reveal their significance:

- Physical Functioning (0.897) emerges as a paramount component, demonstrating a strong positive correlation with the nexus, signifying its critical role in defining overall health and wellness.
- Emotional Wellbeing (-0.884) with its negative loading illustrates the inverse relationship between emotional distress and the health nexus, underscoring the importance of psychological wellbeing in the context of physical health.
- Asthenic Syndrome (-0.881), ENT Syndrome (-0.830), Pain (-0.828), along with Projection (-0.677) and Gastrointestinal Syndrome (-0.649) exhibit negative correlations, indicating that the presence of these symptoms detracts from the nexus, affecting men's health perception negatively.
- Social Functioning (0.878), Mental Health or Emotional Wellbeing (0.844), and General Health Perceptions (0.700) with their positive loadings emphasize the significance of social and mental health in enhancing the physical functioning nexus.
- Vascular Dystonia (0.765), Neurotic Syndrome (0.713), Psychasthenic Syndrome (0.706), and Immune-allergic Syndrome (0.629) also contribute positively, albeit with a complex relationship, reflecting the nuanced interconnections between these syndromes and overall health perception.
- Obsessive-phobic Disorders (-0.606), which has negative loading, further highlights the psychological barriers that can impair the physical functioning nexus and, by extension, overall health.

The “Physical Functioning Nexus” unravels the intricate web of psychological and physical determinants of health among men. This construct brings to the forefront the paramount importance of physical functioning as the linchpin in men's health, around which other psychological and health-related dimensions orbit.

The analysis suggests a dual-path strategy for enhancing men's health: bolstering physical functioning as a direct approach while simultaneously addressing the psychological and emotional factors that influence or are influenced by physical health. This holistic approach underscores the need for integrated health promotion and intervention strategies that cater to both the physical and psychological facets of health.

Physical Functioning Nexus	Destructive Functions of the Personality	The Psychological Stress Nexus	The Constructive Personality Matrix	The Adaptive Defense Mechanisms
Physical functioning (0.897)	Deficit functions of the personality (0.965)	Asthenia (0.971)	Constructive functions of the personality (0.916)	Negation (0.704)
Emotional well-being (-0.884)	Destructive functions of the personality (0.954)	Anxiety (0.968)	External self-delimitation Constructive (0.728)	Regression (0.663)
Asthenic syndrome (-0.881)	Narcissism Destructive (0.88)	Neurotic depression (0.962)	Anxiety (or fear) Constructive (0.726)	Compensation (0.611)
Social functioning (0.878)	Internal self-delineation Deficit (0.833)	Vegetative disorders (0.953)	Narcissism Constructive (0.668)	
Physical health or emotional well-being (0.844)	External self-delimitation Deficit (0.822)		Internal self-delineation Constructive (0.636)	
ENT syndrome (-0.83)	Aggression Deficit (0.794)		Sexuality Constructive (0.601)	
Pain (-0.828)	Internal self-delineation Destructive (0.775)			
Vascular dystonia (0.765)	Sexuality Deficit (0.728)			
Neurotic syndrome (0.713)	External self-delimitation Destructive (0.724)			
Psychasthenic syndrome (0.706)	Narcissism Deficit (0.702)			
General health perceptions (0.7)	Anxiety (or fear) Destructive (0.666)			
Projection (-0.677)	Aggression Destructive (0.661)			
Physical functioning (duplicate) (0.671)				
Gastrointestinal syndrome (-0.649)				
Immune-allergic syndrome (0.629)				
Obsessive-phobic disorders (-0.606)				

The Integrated Health and Personality Adaptation Model (IHPAM) by factor analysis

Moreover, the findings advocate for a nuanced understanding of how psychological syndromes and disorders, along with social and mental health perceptions, interact with physical health. Such insights pave the way for targeted interventions that aim not only to improve physical functioning but also to mitigate the negative psychological factors that can hinder men's health.

Conclusively, the "Physical Functioning Nexus" provides a comprehensive framework for understanding and addressing the complexities of men's health. By prioritizing physical functioning and recognizing its interconnectedness with psychological health, this study lays the groundwork for more effective health promotion strategies that aim to enhance men's wellbeing holistically.

Second factor, dominated by "Deficit Functions of the Personality" and "Destructive Functions of the Personality", has been designated as "**The Personality Dysfunction Matrix**" spotlighting the profound impact of these personality dimensions on health and wellbeing.

The "Personality Dysfunction Matrix" emerges from our analysis as a pivotal factor delineating the negative spectrums of personality traits and their correlations with health. The loading values of each component within this factor delineate their significance:

- Deficit Functions of the Personality (0.965) and Destructive Functions of the Personality (0.954) stand out with the highest loadings, indicating their paramount importance in this matrix. These components underscore the detrimental impact of personality deficits and destructive tendencies on one's health.
- Narcissism Destructive (0.880), Internal Self-Delineation Deficit (0.833), and External Self-Delimitation Deficit (0.822) highlight specific areas where personality dysfunction can manifest, affecting both the internal sense of self and the boundary-setting with the external environment.
- Aggression Deficit (0.794) and Internal Self-Delineation Destructive (0.775) reveal the complex roles of aggression and self-concept in personality dysfunction, with both deficits and destructive tendencies playing a role.
- Sexuality Deficit (0.728), External Self-Delimitation Destructive (0.724), and Narcissism Deficit (0.702) further elucidate the multifaceted nature of personality dysfunctions, including aspects of sexuality and narcissism, and their impact on health.
- Anxiety (or Fear) Destructive (0.666) and Aggression Destructive (0.661), though lower in loading,

still significantly contribute to the matrix, indicating the negative effects of unmanaged anxiety and unchecked aggression on overall wellbeing.

The “Personality Dysfunction Matrix” offers a nuanced understanding of how deficits and destructive tendencies within the personality spectrum influence men’s health. This matrix highlights the critical need to address both the overtly destructive behaviors and the more subtle personality deficits that can significantly impact health outcomes.

The high loadings of deficit and destructive functions of the personality suggest that interventions aimed at improving men’s health must consider psychological wellbeing and personality adjustment. Addressing these aspects can lead to more holistic health outcomes, emphasizing the importance of psychological resilience and adaptive coping strategies.

Furthermore, the detailed components of the matrix—ranging from narcissism to aggression, and from self-delineation to sexuality deficits—underscore the complexity of personality’s role in health. These findings suggest that targeted therapeutic interventions, which focus on enhancing self-awareness, improving interpersonal relationships, and developing healthier self-concepts, could be particularly beneficial.

“Personality Dysfunction Matrix” provides a comprehensive framework for understanding the intricate connections between personality dysfunctions and men’s health. By shedding light on the critical roles played by both deficit and destructive personality functions, this research paves the way for more effective, personalized approaches to health promotion and disease prevention among men, ultimately aiming to enhance both physical and psychological wellbeing.

Our factor analysis has revealed a critical factor that encapsulates key psychological stressors: Asthenia, Anxiety, Neurotic Depression, and Vegetative Disorders. **Third factor**, prominently led by “Asthenia”, has been aptly named “**The Psychological Stress Nexus**”, highlighting its centrality in the context of men’s health challenges.

The “Psychological Stress Nexus” stands in as a cornerstone in our analysis, shedding light on the profound impact of psychological stressors on health. The component loadings within this factor are indicative of their relative importance and interconnectedness:

- Asthenia (0.971), with the highest loading, underscores the critical role of physical and mental weakness or lack of energy in this nexus. It serves as a central indicator of the burden of psychological stress on men’s health.
- Anxiety (0.968), closely following, highlights the pervasive impact of anxiety disorders, encompassing generalized anxiety, panic disorders, and phobia-related disorders, as major contributors to the stress nexus.
- Neurotic Depression (0.962), signaling severe but often temporary depressive episodes characterized by neurotic behaviors, further emphasizes the depth of psychological stress affecting men’s mental health.
- Vegetative Disorders (0.953), encompassing a range of autonomic nervous system dysfunctions, illustrate how psychological stress manifests through physical symptoms, affecting overall health and wellbeing.

The “Psychological Stress Nexus” delineates the complex interplay between various forms of psychological stress and their cumulative impact on men’s health. This nexus not only underscores the prevalence of these stressors but also their intertwined nature, where one can exacerbate the presence or effects of another, creating a compounded impact on health.

The predominance of Asthenia in this factor suggests that interventions aimed at enhancing both physical and mental energy levels could serve as pivotal strategies in mitigating the effects of psychological stress. This finding points towards the necessity for holistic approaches that address the physical manifestations of psychological stress, alongside cognitive and emotional aspects.

Moreover, the close association of Anxiety and Neurotic Depression within this nexus indicates the need for targeted mental health interventions. These interventions could range from cognitive-behavioral therapies aimed at reducing anxiety and depressive symptoms to lifestyle modifications that reduce stress and improve overall wellbeing.

The significant loading of the Vegetative Disorders within this factor further highlights the body-mind connection, suggesting that addressing psychological stress can have tangible benefits in alleviating physical symptoms associated with autonomic dysfunction. This calls for integrated care models that consider the psychological underpinnings of physical health conditions.

“The Psychological Stress Nexus” offers a comprehensive framework for understanding the multifaceted impact of psychological stressors on men’s health. By elucidating the central roles of Asthenia, Anxiety, Neurotic Depression, and Vegetative Disorders, this research advocates for a multi-pronged approach to health interventions. These should not only focus on alleviating psychological stressors but also on strengthening resilience and promoting holistic wellbeing among men, thereby addressing both the causes and the manifestations of psychological stress in the realm of health.

Factor analysis has identified a pivotal factor that encapsulates essential constructive aspects of personality functioning. **Fourth factor**, led by “Constructive Functions of the Personality”, is termed “**The Constructive Personality Matrix**”. This designation highlights the essential role these positive personality traits play in fostering resilience, wellbeing, and overall health among men.

The “Constructive Personality Matrix” is a testament to the power of positive personality functions in enhancing men’s health. The loading values for each component within this factor not only indicate their relative importance but also their potential in promoting health and wellbeing:

- Constructive Functions of the Personality (0.916) stands at the forefront, emphasizing the overarching importance of positive personality traits and their direct correlation with improved health outcomes.
- External Self-Delimitation Constructive (0.728) and Anxiety (or Fear) Constructive (0.726) follow closely, highlighting the significance of healthy boundary setting and the adaptive management of anxiety, respectively, in contributing to a constructive personality profile.

- Narcissism Constructive (0.668), representing a healthy level of self-esteem and self-value, further underscores the positive aspects of self-regard that contribute to mental health and interpersonal relationships.
- Internal Self-Delineation Constructive (0.636) points to the importance of a well-defined self-concept and inner coherence, illustrating how a clear sense of self can serve as a foundation for psychological resilience.
- Sexuality Constructive (0.601), although with the lowest loading in this factor, still signifies the role of a healthy and positive sexual self-concept in the broader context of men's health and wellbeing.

The "Constructive Personality Matrix" offers insightful revelations into how constructive personality traits significantly impact men's health. This matrix not only highlights the importance of these positive traits but also underscores the potential for psychological interventions and strategies aimed at bolstering these aspects of personality.

The prominence of constructive functions within this matrix suggests that fostering positive personality traits can serve as a powerful avenue for health promotion and disease prevention among men. This includes developing interventions that enhance self-esteem, encourage positive self-concept, and teach adaptive coping mechanisms for anxiety.

Moreover, the detailed components of the matrix, ranging from external self-delimitation to sexuality, suggest that a holistic approach to health interventions, one that encompasses various dimensions of personality, could yield substantial benefits. For instance, programs that focus on improving interpersonal relationships, enhancing self-awareness, and promoting positive sexual health are likely to contribute significantly to overall health and wellbeing.

"The Constructive Personality Matrix" provides a compelling framework for understanding the positive dimensions of personality and their crucial role in men's health. By focusing on the enhancement of constructive personality functions, this research advocates for a more nuanced and positive approach to health psychology. This approach not only aims to mitigate the negative but also to actively promote the positive, offering a pathway to a more resilient and healthier life for men.

The factor analysis has uncovered a significant factor encompassing three critical defense mechanisms: Negation, Regression, and Compensation. **This fifth factor**, termed "**The Adaptive Defense Mechanisms**" elucidates the nuanced roles these mechanisms play in the psychological health and wellbeing of men.

The components within "The Adaptive Defense Mechanisms" factor reveal a fascinating interplay between different coping strategies. The loadings of each component not only reflect their significance but also their potential adaptive (or maladaptive) impact on health:

- Negation (0.704), as the leading component, highlights the psychological process of denying or negating reality as a temporary measure to manage overwhelming emotions or situations. This mechanism, while potentially protective in the short term, underscores the need for awareness and alternative coping strategies in the long term.

- Regression (0.663) follows, indicating a retreat to earlier stages of development when faced with stress or threat. This mechanism can manifest in adult behaviors that are deemed childish or immature, serving as a temporary refuge from distress.
- Compensation (0.611), though with the lowest loading, remains crucial. It involves overachieving in one area to counter perceived deficiencies or failures in another, illustrating an attempt to maintain self-esteem and personal value.

"The Adaptive Defense Mechanisms" factor provides a window into the complex psychological strategies used by men to navigate life stressors. Understanding these mechanisms is vital for developing interventions that promote healthier coping strategies.

Negation, while serving as a defense mechanism against immediate psychological pain, calls for interventions that encourage emotional processing and acceptance. Therapeutic approaches that foster mindfulness and acceptance can help individuals face reality more constructively, reducing reliance on negation.

Regression indicates a need for strategies that bolster adult coping skills and resilience. Psychological interventions might focus on strengthening emotional regulation and problem-solving skills, ensuring that individuals do not feel the need to revert to less mature behaviors under stress.

Compensation, meanwhile, suggests the importance of addressing issues of self-worth and perceived inadequacies. Building a more positive self-concept and encouraging a balanced view of one's abilities and achievements can mitigate the need for compensatory behaviors.

"The Adaptive Defense Mechanisms" factor sheds light on the significance of negation, regression, and compensation in the context of men's psychological health. By exploring these mechanisms, this research underscores the potential for targeted interventions aimed at promoting more adaptive coping strategies. Addressing these mechanisms directly can lead to improved psychological resilience, better emotional wellbeing, and, ultimately, enhanced health outcomes for men.

The five-factor model of psychological determinants provides a comprehensive framework for understanding the complex interplay between psychological factors and psychosomatic disorders in men. By examining the "Physical Functioning Nexus", "Destructive Functions of the Personality", "The Psychological Stress Nexus", "The Constructive Personality Matrix", and "The Adaptive Defense Mechanisms", we can identify key psychological patterns that contribute to the onset, maintenance, and exacerbation of psychosomatic disorders. This discussion delves into how these determinants influence men's health and offers insights into potential intervention strategies.

Here's a table 1 that outlines the core contents of each factor identified in the five-factor model.

Physical Functioning Nexus and Psychosomatic Disorders

The "Physical Functioning Nexus" emphasizes the critical role of physical health perceptions and their psychological counterparts in men. A strong sense of physical functioning can bolster resilience against stress and

Summarizing the integrated health and personality adaptation model (IHPAM)

Factor	Core Contents
Physical Functioning Nexus	Focuses on the perceptions and realities of physical health and its impact on psychological wellbeing. Emphasizes the importance of physical capacity and its psychological interpretations.
Destructive Functions of the Personality	Encompasses negative personality traits such as narcissism and aggression, highlighting their contribution to stress, interpersonal difficulties, and maladaptive coping mechanisms.
The Psychological Stress Nexus	Captures the psychological and physiological impacts of stress on health, including the role of unhealthy coping strategies in exacerbating psychosomatic conditions.
The Constructive Personality Matrix	Highlights positive personality traits and coping mechanisms that foster resilience against psychosomatic disorders. Focuses on adaptive psychological functions and healthy self-perception.
The Adaptive Defense Mechanisms	Discusses the use of psychological defenses in managing emotional distress, pointing out both adaptive and maladaptive mechanisms and their effects on mental health.

mitigate the psychological distress that often accompanies physical ailments. Conversely, negative perceptions of physical health can exacerbate psychosomatic symptoms, creating a vicious cycle of worsening physical and mental health. This nexus highlights the importance of interventions aimed at improving physical self-efficacy and promoting positive health behaviors, which can in turn alleviate psychosomatic symptoms.

Destructive Functions of the Personality

The “Destructive Functions of the Personality” factor reveals how negative personality traits, such as narcissism and aggression, contribute to psychosomatic disorders. These traits can lead to maladaptive coping mechanisms, increased stress, and interpersonal difficulties, all of which can aggravate psychosomatic conditions. Addressing these destructive functions through psychotherapy and behavioral interventions is crucial for reducing their impact on health. Techniques such as cognitive-behavioral therapy (CBT) can help individuals recognize and modify destructive patterns, promoting healthier interactions with themselves and others.

The Psychological Stress Nexus

Stress is a well-known trigger for psychosomatic disorders, and the “The Psychological Stress Nexus” factor encompasses the psychological mechanisms through which stress impacts health. This includes the direct physiological effects of stress on the body and the indirect effects mediated through unhealthy coping strategies, such as substance abuse or avoidance behaviors. Stress management interventions, mindfulness-based stress reduction (MBSR), and resilience training can help men develop healthier coping strategies, reducing the likelihood of stress-induced psychosomatic symptoms.

The Constructive Personality Matrix

In contrast to the destructive functions, the “The Constructive Personality Matrix” highlights positive personality traits and coping mechanisms that protect against psychosomatic disorders. Traits such as constructive self-delineation and healthy narcissism can enhance self-esteem and promote adaptive coping strategies. Encouraging the development of these constructive functions through positive psychology interventions and strengths-based therapies can bolster psychological resilience and mitigate the effects of psychosomatic disorders.

The Adaptive Defense Mechanisms

Finally, the “The Adaptive Defense Mechanisms” factor points to the role of psychological defenses in managing emotional distress. While mechanisms such as negation and regression can provide short-term relief, they may contribute to the long-term maintenance of psychosomatic disorders. Psychoeducational approaches that teach individuals to recognize and adjust their use of these mechanisms can be beneficial. Developing more adaptive coping strategies, such as problem-solving and emotional regulation skills, can help individuals confront and manage stressors more effectively, reducing their reliance on maladaptive defenses.

The intricate relationship between psychological determinants and psychosomatic disorders in men calls for a multifaceted approach to treatment and intervention. By addressing the physical, psychological, and behavioral aspects of health, interventions can be tailored to meet the unique needs of individuals, promoting holistic wellbeing and reducing the burden of psychosomatic disorders. Future research should continue to explore these relationships, providing further insights into the psychological patterns that influence men’s health and offering new avenues for effective interventions.

Interrelationships Among the Factors

The interplay between the five factors identified through factor analysis reveals a complex system of psychological determinants that collectively influence men’s health, particularly in the context of somatogenic and psychosomatic disorders. Understanding how these factors interact and influence each other is crucial for developing a holistic approach to treatment and prevention. Below, we delve into the dynamics of these interrelationships and their cumulative effect on men’s health.

Influence and Interaction

Between Physical Functioning Nexus and The Constructive Personality Matrix

The Physical Functioning Nexus, emphasizing the individual’s perceptions and capacities for physical health, interacts closely with The Constructive Personality Matrix, which encompasses positive coping mechanisms and adaptive personality traits. Men with a strong sense of physical functioning are more likely to engage in constructive health behaviors and exhibit resilience, facilitated by positive personality traits. This synergy enhances overall wellbeing and mitigates the impact of psychosomatic disorders.

Destructive Functions of the Personality and The Psychological Stress Nexus

Destructive Functions of the Personality, including negative traits such as narcissism and aggression, exacerbate the effects of The Psychological Stress Nexus. High levels of stress, when coupled with maladaptive personality traits, can lead to a detrimental cycle, worsening psychosomatic symptoms and impeding effective coping strategies. This destructive interplay highlights the need for targeted interventions that address both stress management and personality-driven behaviors.

The Adaptive Defense Mechanisms and Its Role Across Factors

The Adaptive Defense Mechanisms serve as a bridge across the factors, modulating responses to stress, influencing perceptions of physical and mental health, and mitigating the negative impact of destructive personality traits. Effective use of adaptive mechanisms can enhance the positive aspects of The Constructive Personality Matrix, while also diminishing the adverse effects of stress and destructive personality functions on health.

Understanding these interactions not only clarifies the complexity of psychological influences on health but also emphasizes the importance of comprehensive approaches in treatment and prevention strategies. Addressing these factors in an integrated manner can lead to more effective interventions, promoting resilience, and enhancing overall wellbeing among men facing somatogenic and psychosomatic challenges.

CONCLUSIONS

The “Integrated Health and Personality Adaptation Model” (IHPAM) presented in this study offers a novel and comprehensive framework for understanding the complex interplay between psychological determinants and health outcomes in men, particularly within the challenging contexts of post-COVID syndrome and the ongoing war in Ukraine. By meticulously analyzing data from 708 men in the Kyiv region, this research clarifies the multifaceted influences of physical functioning, personality traits, psychological stress, constructive behaviors, and adaptive defense mechanisms on men’s health.

Our findings emphasize the paramount importance of physical functioning perceptions and their profound impact on psychological wellbeing. The Physical Functioning Nexus emerged as a cornerstone, emphasizing that interventions aiming to enhance physical self-efficacy could play a crucial role in mitigating psychosomatic symptoms. Concurrently, the Destructive Functions of the Personality and The Psychological Stress Nexus highlight the detrimental effects of negative personality traits and stress, respectively, calling for targeted psychological interventions to address these aspects.

Conversely, The Constructive Personality Matrix and The Adaptive Defense Mechanisms factors shed light on the protective and mitigative potential of positive personality traits and coping strategies. These elements emphasize the resilience factors that can safeguard against the exacerbation of psychosomatic disorders, suggesting a critical area for health promotion efforts and therapeutic interventions.

The application of Factor Analysis using SPSS-28 facilitated a nuanced understanding of these complex relationships, reinforcing the model’s validity and applicability. Ethical adherence throughout the study ensured the integrity and reliability of our findings, contributing valuable insights into the psychological health determinants among men facing the dual challenges of a global pandemic and socio-political conflict.

In conclusion, the “Integrated Health and Personality Adaptation Model” (IHPAM) provides a crucial lens through which healthcare professionals, policymakers, and researchers can better understand and address the psychological aspects of men’s health. The model highlights the need for a holistic approach to health interventions, one that incorporates physical, psychological, and social dimensions to effectively combat the rise of psychosomatic disorders and promote wellbeing among men in contemporary society. Future research should build on these findings, exploring intervention strategies and policy implications to support men’s health in Ukraine and beyond, amidst the complexities of modern-day challenges.

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REFERENCES

- Gough B. The psychology of men's health: maximizing masculine capital. *Health Psychol.* 2013;32(1):1-4. doi: 10.1037/a0030424.
- Courtenay W. A global perspective on the field of men's health: an editorial. *International J Mens Health.* 2002;1:1-14.
- Tan HM, Tong SF, Ho CC. Men's health: sexual dysfunction, physical, and psychological health--is there a link? *J Sex Med.* 2012;9(3):663-71. doi: 10.1111/j.1743-6109.2011.02582.x.
- Otten D, Tibubos AN, Schomerus G, Brähler E, Binder H, Kruse J, et al. Similarities and differences of mental health in women and men: a systematic review of findings in three large German cohorts. *Front Publ Health.* 2021;9:553071.
- Griffith DM. An intersectional approach to men's health. *Journal of Men's Health.* 2012;9(2):106-12.
- Simon RW. Gender, emotions, and mental health in the United States: Patterns, explanations, and new directions. *Society and Mental Health.* 2020;10(2):97-111.
- Kose T. Gender, income and mental health: The Turkish case. *PLoS One.* 2020;15(4):e0232344.
- Nielsen MW, Stefanick ML, Peragine D, Neilands TB, Ioannidis JPA, Pilote L, et al. Gender-related variables for health research. *Biol Sex Differ.* 2021;12(1):23. doi: 10.1186/s13293-021-00366-3.
- Chatmon BN. Males and mental health stigma. *Am J Men's Health.* 2020;14(4):1557988320949322.
- Lee HY, Hwang J, Ball JG, Lee J, Yu Y, Albright DL. Mental Health Literacy Affects Mental Health Attitude: Is There a Gender Difference? *Am J Health Behav.* 2020;44(3):282-291. doi: 10.5993/AJHB.44.3.1.
- Chaban OS, Bezshcheyko VH, Khaustova OO, Burlaka OV, Ryvak TB, Kyrylyuk SS. Gender-related differences of stress reactions in Ukrainian combatants. *Farm.* 2018;65(2):3-10.
- Lunov V, Lytvynenko O, Maltsev O, Zlatova L. The impact of Russian military aggression on the psychological health of Ukrainian youth. *Am Behav Sci.* 2022;67(3):426-48. doi: 10.1177/00027642221144846.
- Chaban OS, Haustova OO. Medical and psychological consequences of war distress in Ukraine: what we expect and what needs to be taken into account when providing medical care. *Ukr Med J.* 2022;4:150.
- Melnichuk T, Grubi T, Lunov V. Peculiarities of psychological assistance in overcoming the consequences of COVID-19: a resilience approach. *Neuropsych & Neuropsychol.* 2022;17(1-2):95-107. doi: 10.5114/nan.2022.117960.
- Galasso V, Pons V, Profeta P, Becher M, Brouard S, Foucault M. Gender differences in COVID-19 attitudes and behavior: Panel evidence from eight countries. *Proc Natl Acad Sci U S A.* 2020;117(44):27285-91. doi: 10.1073/pnas.2012520117.
- Comacchio C, Antolini G, Ruggeri M, Colizzi M. Gender-Oriented Mental Health Prevention: A Reappraisal. *Int J Environ Res Public Health.* 2022;19(3):1493. doi: 10.3390/ijerph19031493.
- Lunov V, Maltsev O, Matyash M, Mosichuk V, Tkach B. Psychological Underpinnings of Terror Awareness: A Comprehensive Dive into Ukrainians' Perception of Terrorist Threats Amidst War Tensions. *Am Behav Sci.* 2023;0(0). doi: 10.1177/00027642231214083.
- Voytovych GV. Depth-psychological determinants of the individual's resourcefulness in the continuum of his psychological health [dissertation]. Odesa: ONMedU; 2021. 380 c.
- Goodkin LM. Attributive-stylistic determination of the internal picture of health [dissertation]. Odesa: ONMedU; 2021. 254.
- Lunov VE, Aïmedov KV, Koroshnichenko DM. Psychodiagnostic models in the practice of a clinical psychologist: training manual for students, masters of psychology special and areas of training. students of higher education courses. qualifications Odesa: ONMedU; 2015. 295 p.

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