4. Lambertini M. et al. Reproductive potential in cancer patients. Lancet Oncol. 2020;21(10):e518–e529.
5. ASCO. Fertility preservation clinical practice guideline. J Clin Oncol. 2018.
6. ESHRE. Guideline on fertility preservation. Hum Reprod Open. 2020.
7. Loren A.W. et al. Fertility preservation for patients with cancer. J Clin Oncol. 2013;31(19):2500–2510.
8. Ethics Committee of ASRM. Fertility preservation and reproduction. Fertil Steril. 2018;110(3):380–386.
9. Rodriguez-Wallberg K.A., Oktay K. Fertility preservation in women with cancer. Clin Obstet Gynecol. 2010;53(4):753–762.
10. Peccatori F.A. et al. Cancer, pregnancy and fertility. ESMO Handbook; 2021.

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PSYCHOLOGICAL ASPECTS IN THE TREATMENT OF HYPERTENSION AMONG ACTIVE-DUTY SERVICE MEMBERS

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Abstract.

Hypertension in active-duty military personnel is influenced not only by biomedical risk factors but also by operational stressors, mental health conditions, sleep disruption, and military-specific barriers to care. This conference thesis analyzes psychological mechanisms that affect blood pressure control and treatment outcomes in service members with stage I–II hypertension, with particular attention to chronic stress exposure, anxiety and depressive symptoms, post-traumatic stress disorder (PTSD), insomnia/circadian misalignment, and health behaviors under high-demand conditions. Evidence indicates that combat-related stressors are associated with increased risk of newly reported hypertension, while PTSD-related hyperarousal can exacerbate blood pressure elevation and complicate long-term management. The paper outlines clinically actionable integration strategies: systematic screening for psychological distress, stigma-informed communication, patient-centered shared decision-making, and implementation of brief evidence-based behavioral interventions (e.g., CBT-informed stress management and sleep-focused care) alongside guideline-concordant antihypertensive therapy. A biopsychosocial approach tailored to the realities of military service can strengthen adherence, improve blood pressure control, and reduce long-term cardiovascular risk.

Keywords: active-duty military, hypertension, psychological stress, PTSD, sleep disturbance, stigma, adherence, biopsychosocial care.

Hypertension remains a leading modifiable risk factor for cardiovascular morbidity, yet in active-duty populations its detection and effective control are complicated by the specific ecology of military life: high operational tempo, unpredictable schedules, deployment cycles, intense physical demands, and repeated exposure to traumatic events. While service members may demonstrate a "healthy worker" selection effect, deployment and combat exposures can act as unique stressors associated with incident hypertension. In a large population-based military cohort, deployers reporting multiple stressful combat exposures were more likely to newly report hypertension compared with noncombat deployers, highlighting combat stress as a clinically relevant risk signal rather than a background variable [1].

From a psychological standpoint, stress-related pathways can influence both the development and the clinical course of hypertension. Sustained sympathetic activation, heightened vigilance, and dysregulated hypothalamic–pituitary–adrenal axis responses represent plausible psychophysiological mechanisms linking chronic stress to elevated blood pressure. These processes often coexist with behavioral changes that become more prevalent under chronic stress—irregular sleep, increased alcohol use, inconsistent self-monitoring, and disrupted routines—each of which can undermine blood pressure control and adherence. Thus, stress affects not only physiology but also the behavioral "operating system" through which long-term treatment must be implemented.

PTSD merits special emphasis in military settings because it can function as both a direct and an indirect contributor to hypertension. PTSD is characterized by persistent hyperarousal, intrusive recollections, avoidance, and negative alterations in mood and cognition; these features may maintain physiological stress activation and promote maladaptive coping. Prospective evidence in a very large veteran cohort indicates that PTSD is associated with increased risk of incident hypertension, and importantly, that engagement in PTSD treatment may attenuate this risk, supporting the clinical value of integrated care rather than parallel, disconnected pathways [2]. Clinically, PTSD-related hypervigilance can also distort symptom interpretation (e.g., perceiving normal blood pressure variability as imminent danger), intensifying anxiety and reinforcing a cycle of fluctuating readings and distress—patterns that are particularly relevant when readiness concerns and fear of medical downgrading amplify threat appraisal.

Sleep disruption is another military-salient psychological and behavioral determinant of blood pressure control. Insufficient sleep, circadian rhythm disruption, shift work, night duty, and deployment environments may promote persistent fatigue and impaired self-regulation, weakening adherence to medication schedules and lifestyle recommendations. Reviews focused on U.S. military populations describe a high prevalence of sleep deficiency and emphasize its broad health consequences, including cardiovascular risk implications [3]. For clinicians, this means that antihypertensive management in service members should routinely include sleep assessment (insomnia symptoms, sleep duration, circadian misalignment, and screening for sleep apnea risk), because optimizing pharmacotherapy alone may yield suboptimal results if the sleep–stress axis remains unaddressed.

A further barrier in this population involves stigma and perceived career consequences associated with seeking psychological support. Qualitative and mixed-method evidence indicates that perceived stigma and career concerns can reduce engagement with mental health services in armed forces settings [4]. This has direct relevance to hypertension care because psychological distress—when undisclosed and untreated—can worsen blood pressure control and reduce adherence. Therefore, effective treatment models must be stigma-informed and operationally realistic, ensuring that psychological support is framed as performance- and readiness-enhancing, while clearly explaining confidentiality boundaries within applicable regulations.

Because stage I–II hypertension is often asymptomatic, adherence is particularly vulnerable to cognitive and motivational factors. Service members may downplay long-term risk ("I feel fine"), prioritize mission requirements over self-care, or discontinue medication intermittently due to side effect concerns. In this context, patient-centered communication becomes a therapeutic tool. Clinical guidance supports shared decision-making and individualized treatment planning, which is especially important for aligning therapy with duty schedules, field conditions, and access limitations [5]. For active-duty personnel, "individualization" includes practical adherence engineering: medication timing during night duty, contingency plans during deployment, side-effect management compatible with operational demands, and feasible monitoring strategies.

A pragmatic biopsychosocial approach to treating hypertension in active-duty service members may be conceptualized through three parallel clinical tracks. First, accurate diagnosis and monitoring should be emphasized to distinguish persistent hypertension from stress-reactive elevations; structured home blood pressure monitoring can reduce misclassification and support insight into patterns. Second, systematic screening for psychological distress should be embedded in hypertension care pathways, using brief validated tools for anxiety/depression, PTSD symptom burden, alcohol misuse, and insomnia. Third, brief evidence-based behavioral interventions should be offered as integrated components of treatment: CBT-informed stress management, skills-based coping training, psychoeducation addressing symptom interpretation, and sleep-focused interventions adapted to duty schedules. This approach does not replace pharmacotherapy; it strengthens the treatment context in which medications must work over the long term.

In conclusion, psychological factors are central to effective hypertension treatment in active-duty service members. Combat stress exposures can be associated with newly reported hypertension [1], PTSD and hyperarousal may complicate blood pressure regulation while treatable psychological pathways can modify risk [2], and sleep disruption can undermine adherence and self-regulation [3]. Stigma-related barriers further limit engagement unless care is explicitly designed to address them [4]. Integrating psychological screening and brief behavioral interventions into guideline-concordant hypertension management and shared decision-making is likely to enhance adherence, stabilize blood pressure control, and reduce downstream cardiovascular risk in this high-demand population [5].

References

1. Granado NS, Smith TC, Swanson GM, Harris RB, Shahar E, Smith B, et al. Newly reported hypertension after military combat deployment in a large population-based study. Hypertension. 2009;54(5):966–973. doi:10.1161/HYPERTENSIONAHA.109.132555.
2. Burg MM, Brandt C, Buta E, Schwartz J, Bathulapalli H, Dziura J, Edmondson DE, Haskell S. Risk for incident hypertension associated with posttraumatic stress disorder in military veterans and the effect of posttraumatic stress disorder treatment. Psychosom Med. 2017;79(2):181–188. doi:10.1097/PSY.0000000000000376.
3. Good CH, Brager AJ, Capaldi VF, Mysliwiec V. Sleep in the United States Military. Neuropsychopharmacology. 2020;45(1):176–191. doi:10.1038/s41386-019-0431-7.
4. Coleman SJ, Stevelink SAM, Hatch SL, Denny JA, Greenberg N. Stigma-related barriers and facilitators to help seeking for mental health issues in the armed forces: a systematic review and thematic synthesis of qualitative literature. Psychol Med. 2017;47(11):1880–1892. doi:10.1017/S0033291717000356.
5. U.S. Department of Veterans Affairs; U.S. Department of Defense. VA/DoD Clinical Practice Guideline for the Diagnosis and Management of Hypertension in the Primary Care Setting (Provider Summary). Version 4.0. March 2020.
6. World Health Organization. Adherence to Long-Term Therapies: Evidence for Action. Geneva: WHO Press; 2003.

ОРГАНИЗАЦИОННЫЕ АСПЕКТЫ ЗАОЧНОГО ОСВИДЕТЕЛЬСТВОВАНИЯ ЛИЦ С ИНВАЛИДНОСТЬЮ В СИСТЕМЕ МЕДИКО-СОЦИАЛЬНОЙ ЭКСПЕРТИЗЫ

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Аннотация. Медико-социальная экспертиза (МСЭ) является ключевым механизмом оценки стойких нарушений функций организма, определения инвалидности и объёма мер социальной защиты. В условиях цифровизации здравоохранения и социальной сферы заочное освидетельствование приобретает особую значимость как инструмент повышения доступности и оперативности экспертных услуг.