

**PERSONALIZED STEPPED-CARE PSYCHOLOGICAL
REHABILITATION FOR SERVICE MEMBERS
AND VETERANS AFFECTED BY COMBAT-RELATED TRAUMA:
INTEGRATING EVIDENCE-BASED INTERVENTIONS,
MORAL INJURY-INFORMED CARE, AND DIGITAL SUPPORT
INTO REINTEGRATION**

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INTRODUCTION

In the context of the full-scale war in Ukraine, the psychological rehabilitation of service members and veterans has become a critical component of preserving human potential, national defence capacity, and societal resilience. Combat experience may combine repeated threats, injury, loss, sleep disruption, pain, guilt, shame, helplessness, or betrayal. After discharge or demobilization, these consequences intersect with the need to resume family and occupational roles. Rehabilitation should therefore be understood as a continuous, person-centered process aimed at restoring functioning, autonomy, relationships, and a meaningful future perspective. Throughout the chapter, evidence derived specifically from veteran samples is identified as such; recommendations refer to both active service members and veterans unless the context requires a narrower population.

The scale of potential need is unprecedented. As of 1 July 2025, more than 1.28 million people in Ukraine were officially recognized as combat veterans, and the Ministry of Veterans Affairs projected that the number of veterans could reach 5–6 million by the end of the war¹. The 2026 RDNA5 emphasizes that veteran reintegration, together with refugee return and women’s labor-force participation, will shape Ukraine’s economic recovery². These projections make continuity between clinical recovery and social reintegration a system-level requirement rather than an optional extension of treatment.

Combat-related distress does not automatically constitute a mental disorder. Many service members recover functioning, whereas cumulative exposure increases the likelihood of clinically significant conditions. The World Health Organization estimates that mental disorders affect approximately one in five people who have experienced war or armed conflict during the previous 10 years, while psychological distress is more common and may decline without becoming persistent³. In the WHO national household survey conducted in April 2025, more than 70% of respondents reported symptoms of anxiety, depression, or

¹ National Institute for Strategic Studies. Pilot Project “Veteran Care Space”: Initial Implementation Results. 17 September 2025. URL: <https://niss.gov.ua/en/news/niss-news/pilot-project-veteran-care-space-initial-implementation-results>.

² World Bank. Ukraine – Fifth Rapid Damage and Needs Assessment (RDNA5): February 2022 – December 2025. Washington, D.C. : World Bank Group, 2026. URL: <http://documents.worldbank.org/curated/en/099022026094036395>.

³ World Health Organization. Mental health in emergencies. 6 May 2025. URL: <https://www.who.int/news-room/fact-sheets/detail/mental-health-in-emergencies>.

severe stress during the preceding year, yet only one in five sought professional help⁴. These population-level findings should not be interpreted as prevalence estimates for service members, but they demonstrate a substantial treatment gap and reinforce the need for accessible, differentiated care.

The 2025 Portrait of a Veteran study further illustrates the multidimensional character of reintegration needs. Its veteran component comprised face-to-face interviews with 240 veterans conducted in December 2025. Among those interviewed, 28% identified psychological support as a current need; 85% regarded “psycho-emotional instability” as a likely challenge in civilian life, 79% identified the risk of alcohol or drug dependence, and 75% pointed to insufficient understanding by society⁵. Because the veteran sample was relatively modest, these percentages are descriptive findings from the surveyed group rather than national prevalence estimates. Nevertheless, they demonstrate that rehabilitation should address psychological symptoms alongside family functioning, substance-related risks, social understanding, employment, physical rehabilitation, and pain management.

Combat-related consequences are clinically and functionally heterogeneous. PTSD may coexist with depression, anxiety, sleep disturbance, grief, substance use, traumatic brain injury, chronic pain, family conflict, and occupational impairment. Moral injury may overlap with PTSD while focusing on guilt, shame, betrayal, loss of trust, and disrupted meaning. Trauma-focused psychotherapy is first-line treatment for PTSD, but intervention selection must also account for safety, comorbidity, functioning, readiness, and informed preferences⁶.

Digital technologies can support secure telepsychotherapy, referral, navigation, psychoeducation, monitoring, and continuity, but they should not replace professional assessment or clinical responsibility. Resolution No. 1338 of the Cabinet of Ministers of Ukraine establishes three levels of psychological assistance for war veterans, members of their families, and other specified categories of persons⁷. During 2025, the Ministry of Veterans Affairs reported that the number of veterans and members of their families receiving psychological care through the state program increased from 669 in January to 1,109 in December, representing a 65.8% rise⁸. This expansion is important, but growth in service volume does not by itself demonstrate that care is sufficiently personalized, continuous, or matched to clinical and functional need.

This chapter substantiates a personalized, stratified, stepped-care, and adaptive model that integrates international evidence, Ukrainian regulation, moral injury-informed care, digital support, outcome monitoring, and reintegration within a coherent rehabilitation pathway.

⁴ World Health Organization. Regional Office for Europe. Health needs assessment of the adult population in Ukraine: survey report: April 2025. Copenhagen : WHO Regional Office for Europe, 2025. 50 p.

⁵ Портрет ветерана 2025 : звіт / Український ветеранський фонд Міністерства у справах ветеранів України, Соціологічна група «Рейтинг». Київ, 2025.

⁶ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

⁷ Деякі питання надання психологічної допомоги ветеранам війни, членам їх сімей та деяким іншим категоріям осіб : постанова Кабінету Міністрів України від 29.11.2022 № 1338.

⁸ Мінвeterанів змінює систему психологічної підтримки ветеранів й ветеранок: за рік кількість отримувачів допомоги зросла на 65,8 % / Міністерство у справах ветеранів України. 2026.

1. Theoretical, Methodological, and Regulatory Foundations of Personalized Stepped-Care Psychological Rehabilitation for Service Members and Veterans

Psychological rehabilitation should be distinguished from related forms of assistance. Psychological support primarily preserves resources, reduces situational distress, provides psychoeducation, and prevents deterioration. Psychological care may include assessment, counseling, crisis intervention, structured psychological interventions, and psychotherapy. Psychotherapy has defined clinical targets and uses scientifically supported methods to treat mental disorders or persistent psychological difficulties. Rehabilitation integrates these measures into a broader process of restoring functioning, whereas reintegration refers to renewed participation in family, occupational, and community life.

This understanding corresponds to the functional paradigm of the International Classification of Functioning, Disability and Health⁹. Functioning emerges through interactions among body functions and structures, activities, participation, health conditions, and environmental factors. The same diagnosis therefore does not imply identical rehabilitation needs: service members with comparable post-traumatic symptoms may differ in autonomy, physical injury, comorbidity, family support, occupational prospects, personal resources, and readiness for treatment.

The biopsychosocial model translates this principle into clinical practice. Biological factors include injury, traumatic brain injury, chronic or phantom pain, sensory impairment, sleep disturbance, and medication effects. Psychological factors include post-traumatic, depressive, anxiety, cognitive, identity-related, and meaning-related changes. Social factors include military culture, unit relationships, family functioning, access to services, employment, community attitudes, and opportunities for participation. Because these domains interact, intervention focused on only one domain is often insufficient. Immediate suicide risk, psychosis, or medical instability requires safety and specialized care; stable mental status combined with impaired family or occupational functioning requires restoration of routines, skills, relationships, and participation.

Contemporary combat exposure is heterogeneous in duration, intensity, recurrence, and subjective meaning. It may involve direct threat, injury, shelling, losses, witnessing mass violence, responsibility for others, decisions under severe constraints, and events that conflict with fundamental moral beliefs. I. Frankova, V. Klochkov, M. Pyvovarenko, O. Hukovskyy, J. Zohar, and E. Vernetten¹⁰ conceptualize resilience in prolonged warfare as a dynamic process operating at the individual, group, and unit levels. This perspective requires attention to service history, leadership, cohesion, support from fellow service members, and preservation of a meaningful military identity during recovery.

Clinical studies of Ukrainian service members demonstrate the need for such differentiation. In a medical-rehabilitation sample of 590 active-duty personnel with combat experience, P. Hyland and colleagues found high rates of ICD-11 PTSD or complex PTSD; because the sample was clinical, the result must not be generalized to all Ukrainian service

⁹ World Health Organization. International Classification of Functioning, Disability and Health: ICF. Geneva : World Health Organization, 2001. 299 p.

¹⁰ Frankova I., Klochkov V., Pyvovarenko M. et al. Psychological resilience in trench warfare: Leveraging mental health frameworks for Ukrainian soldiers. *Neuroscience Applied*. 2025. Vol. 4. Art. 105528. DOI: <https://doi.org/10.1016/j.nsa.2025.105528>.

members¹¹. A retrospective study published in 2025 by O. Druz, O. Chaban, I. Frankova, and colleagues analyzed 9,109 military psychiatric inpatient admissions recorded between January 2014 and December 2018 and identified substantial diagnostic heterogeneity, including depressive, anxiety, adjustment-related, substance-related, somatoform, and other disorders¹².

Expected responses to extreme stress and clinically significant disorders must be distinguished. Heightened vigilance, irritability, sleep disruption, intrusive memories, impaired concentration, or temporary avoidance may decrease after safety, rest, support, and restoration of control. Persistence, escalation, marked impairment, or risk indicates the need for specialized assessment. The Ukrainian Unified Clinical Protocol¹³ differentiates acute stress reaction, PTSD, and adjustment disorders and provides a clinical basis for referral and treatment.

Both over-pathologization of expected stress responses and their minimization under assumptions of military resilience are clinically and methodologically problematic. The first can intensify self-stigma and obscure resources; the second can delay recognition of severe conditions, substance-related problems, family dysfunction, and suicidal behavior. Rehabilitation must therefore be based on systematic assessment of the individual's safety, symptoms, functioning, needs, goals, and resources rather than on assumptions that every service member is either inevitably traumatized or expected to cope without assistance.

Personalization refers to the evidence-informed selection of intervention content, intensity, sequence, duration, and format according to an individual profile. It should be distinguished from person-centeredness, stratification, stepped care, and adaptability. Person-centeredness establishes participation in decisions; stratification determines the appropriate starting level; stepped care organizes services by intensity and specialization; adaptability allows the care pathway to change in response to outcomes. These principles are complementary rather than interchangeable.

Person-centered care treats the service member as an active participant in defining problems, priorities, and criteria for success. Shared decision-making combines clinical evidence with needs, values, preferences, practical circumstances, and acceptable risk¹⁴. This is particularly important when combat, injury, evacuation, or captivity has involved prolonged loss of control. Clear information, jointly established goals, and meaningful choice can support autonomy without transferring professional responsibility for safety and clinical standards to the recipient of care.

¹¹ Hyland P., Shevlin M., Karatzias T. et al. Clinician Assessed Rates of PTSD and Complex PTSD in a Medical-Rehabilitation Sample of Active-Duty Military Personnel in the Armed Forces of Ukraine. *Acta Psychiatrica Scandinavica*. 2026. Vol. 153, no. 2. P. 133–139. DOI: <https://doi.org/10.1111/acps.70050>.

¹² Druz O., Chaban O., Frankova I. et al. Prevalence and Distribution of Mental Disorders at Inpatient Psychiatry Service of a Large Military Hospital in Ukraine. *Psychiatry and Clinical Psychopharmacology*. 2025. Vol. 35, suppl. 1. P. S47–S56. DOI: <https://doi.org/10.5152/pcp.2025.24871>.

¹³ Про затвердження Уніфікованого клінічного протоколу первинної та спеціалізованої медичної допомоги «Гостра реакція на стрес. Посттравматичний стресовий розлад. Порушення адаптації»: наказ Міністерства охорони здоров'я України від 19.07.2024 № 1265.

¹⁴ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

A functional orientation prevents recovery from being reduced to diagnostic remission. A person may no longer meet formal PTSD criteria yet continue to experience severe problems with sleep, parenting, intimacy, work, or public spaces. Conversely, some symptoms may remain while meaningful activity and social participation improve. In a qualitative study, M. Weber and colleagues¹⁵ found that veterans valued well-being, coping, relationships, everyday activity, and progress toward personal goals in addition to symptom change.

Trauma-informed care concerns the organization and ethics of assistance rather than a specific psychotherapeutic technique. It requires predictability, informed consent, transparent explanation, respect for boundaries, confidentiality, and attention to overload, dissociation, hyperarousal, or emotional shutdown. Trauma-informed care should not replace trauma-focused treatment: detailed processing of combat events is indicated only when clinically appropriate, safe, acceptable to the individual, and delivered by a suitably trained professional¹⁶.

Evidence-based practice integrates the best available research, professional competence, case formulation, and informed preferences. Personalization does not justify arbitrary combinations of unvalidated methods, while fidelity does not mean rigid application without regard to health status, cognitive capacity, military culture, or social context. The PATH study described by T. Galovski and colleagues¹⁷ illustrates an effort to personalize Cognitive Processing Therapy through case formulation while preserving its core components; its protocol should not be interpreted as completed proof of superiority.

A systemic orientation locates recovery within relationships among the military unit, health care services, the family, social protection, employers, veteran organizations, and the community. Transitions between military and civilian services or between inpatient and outpatient care are especially vulnerable to loss of continuity. A qualitative assessment by L. Lawry and colleagues identified fragmentation, workforce shortages, insufficient equipment, and limited integration of mental health care within Ukraine's rehabilitation system¹⁸.

The organizational expression of these principles is stepped care. In its classical form, an individual receives the least intensive intervention likely to be sufficient and moves to more specialized care when improvement is inadequate. Evidence is heterogeneous: a PTSD-

¹⁵ Weber M. C., Jendro A. M., Fischer E. P. et al. Veterans' Experiences of and Preferences for Patient-Centered, Measurement-Based PTSD Care. *Medical Care*. 2024. Vol. 62, no. 12, suppl. 1. P. S84–S90. DOI: <https://doi.org/10.1097/MLR.0000000000002070>.

¹⁶ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

¹⁷ Galovski T. E., McSweeney L. B., Nixon R. D. V. et al. Personalizing cognitive processing therapy with a case formulation approach to intentionally target impairment in psychosocial functioning associated with PTSD. *Contemporary Clinical Trials Communications*. 2024. Vol. 42. Art. 101385. DOI: <https://doi.org/10.1016/j.conctc.2024.101385>.

¹⁸ Lawry L. L., Korona-Bailey J., Hamm T. E. et al. A qualitative assessment of war-related rehabilitation needs and gaps in Ukraine. *Journal of Health, Population and Nutrition*. 2025. Vol. 44. Art. 175. DOI: <https://doi.org/10.1186/s41043-025-00912-4>.

specific review found no consistent advantage across all outcomes¹⁹, while a broader 2026 review similarly emphasized variation among populations, models, and implementation conditions²⁰. Stepped care is therefore an organizational framework, not an intervention whose effectiveness is guaranteed independently of treatment quality and routing decisions.

For military populations, stepped care must be combined with initial stratification. High suicide risk, psychosis, severe depression, marked dissociation, acute intoxication or withdrawal, medical instability, or complex combinations of physical and mental health conditions require direct access to specialized care rather than mandatory progression through low-intensity services. Movement may also be horizontal, for example to another evidence-based intervention at the same level, and downward after stabilization to maintenance support.

The starting point is multidimensional assessment of combat exposure, post-traumatic, depressive, and anxiety symptoms, sleep, suicide risk, substance use, cognition, traumatic brain injury, pain, dissociation, grief, moral injury, interpersonal and occupational functioning, physical health, family circumstances, access to care, resources, and readiness²¹. Assessment should lead to an individualized clinical case formulation that explains maintaining mechanisms and sets priorities, intervention sequence, safety indicators, and criteria for changing the pathway.

Adaptability requires measurement-based care. Repeated assessment should address at least clinical symptoms, everyday and occupational functioning, family and social participation, safety, treatment engagement, and progress toward individual goals. A transition should not depend solely on a symptom score; it may also be required because of worsening risk, newly identified comorbidity, renewed trauma exposure, loss of support, adverse effects, practical barriers, or a discrepancy between clinical change and personally meaningful outcomes²².

Ukraine's regulatory framework already contains several elements of this model. The Law of Ukraine 'On Rehabilitation in the Field of Health Care'²³ establishes functioning, quality of life, an individual rehabilitation plan, and multidisciplinary teamwork as core elements of rehabilitation. It provides a broad legal foundation for functional orientation and interdisciplinarity but does not specify psychological stratification algorithms for service members affected by combat-related trauma.

Multidimensional assessment should lead to an individualized clinical case formulation rather than to a list of disconnected diagnoses. The formulation should explain which factors

¹⁹ Roberts L. N., Nixon R. D. V. Systematic Review and Meta-Analysis of Stepped Care Psychological Prevention and Treatment Approaches for Posttraumatic Stress Disorder. *Behavior Therapy*. 2023. Vol. 54, no. 3. P. 476–495. DOI: <https://doi.org/10.1016/j.beth.2022.11.005>.

²⁰ Ohms R., Svetlic J., Ross M. H. et al. Effectiveness of stepped versus usual care for mental health service delivery: a systematic review and meta-analysis. *International Journal of Mental Health Systems*. 2026. Advance online publication, 15 July 2026. DOI: <https://doi.org/10.1186/s13033-026-00717-w>.

²¹ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

²² Weber M. C., Jendro A. M., Fischer E. P. et al. Veterans' Experiences of and Preferences for Patient-Centered, Measurement-Based PTSD Care. *Medical Care*. 2024. Vol. 62, no. 12, suppl. 1. P. S84–S90. DOI: <https://doi.org/10.1097/MLR.0000000000002070>.

²³ Про реабілітацію у сфері охорони здоров'я : Закон України від 03.12.2020 № 1053-IX.

precipitated or maintain current difficulties, how post-traumatic symptoms interact with pain, sleep, cognition, family relationships, occupational demands, and social circumstances, and which barriers may interfere with recovery. It links assessment findings to intervention priorities, sequencing, intensity, safety indicators, and criteria for modifying the pathway. Because symptoms, resources, and life circumstances change over time, the formulation should be reviewed throughout rehabilitation rather than treated as a fixed initial conclusion²⁴.

The Unified Clinical Protocol²⁵ defines the clinical responsibilities of primary and specialized care, while Resolution No. 1338 of the Cabinet of Ministers²⁶ establishes three levels of psychological assistance for veterans and specified family members: social and psychological support and social services; psychological assistance; and comprehensive medical and psychological assistance. At the third level, assistance is delivered by a multidisciplinary team.

Changes in the level of care should not depend solely on whether scores on a symptom measure decrease. Escalation may also be required when safety deteriorates, functional limitations increase, previously unrecognized comorbidity emerges, new trauma occurs, social support is lost, or the selected format becomes inaccessible. Conversely, completion of an intensive phase should not be defined only by the number of sessions delivered. It requires evidence that gains are sufficiently stable, that the service member can use acquired skills independently, that a plan exists for responding to deterioration, and that maintenance and rapid re-entry arrangements are available.

These levels require operational criteria. The first level should provide accessible psychoeducation, early identification, adaptation support, and referral without attempting to treat severe disorders. The second provides structured assessment and psychological intervention when intensive medical and psychological care is not required. The third integrates psychological, psychotherapeutic, medical, and rehabilitation measures in complex cases. Without criteria for initial allocation, escalation, horizontal transfer, and completion, the system may remain a formal distribution of providers rather than an adaptive pathway²⁷.

The Ministry of Defence procedure adopted in 2025²⁸ recognizes psychological recovery during active service and establishes a distinct regulatory pathway within the military system. The Law of Ukraine 'On the Mental Health Care System in Ukraine'²⁹ establishes evidence-based assistance, rights, intersectoral cooperation, professional responsibility, and

²⁴ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

²⁵ Про затвердження Уніфікованого клінічного протоколу первинної та спеціалізованої медичної допомоги «Гостра реакція на стрес. Посттравматичний стресовий розлад. Порушення адаптації»: наказ Міністерства охорони здоров'я України від 19.07.2024 № 1265.

²⁶ Деякі питання надання психологічної допомоги ветеранам війни, членам їх сімей та деяким іншим категоріям осіб: постанова Кабінету Міністрів України від 29.11.2022 № 1338.

²⁷ Деякі питання надання психологічної допомоги ветеранам війни, членам їх сімей та деяким іншим категоріям осіб: постанова Кабінету Міністрів України від 29.11.2022 № 1338.

²⁸ Про затвердження Порядку організації психологічної допомоги в системі Міністерства оборони України: наказ Міністерства оборони України від 11.11.2025 № 768.

²⁹ Про систему охорони психічного здоров'я в Україні: Закон України від 15.01.2025 № 4223-IX.

supervision. The Strategy for Veteran Policy until 2030³⁰ links health with family well-being, education, employment, social protection, and community participation.

Personalized stepped-care psychological rehabilitation can therefore be defined as a continuous, person-centered, functionally oriented, evidence-based, and interdisciplinary process of assessment, planning, intervention, monitoring, and adjustment. Its starting level and subsequent intensity are determined by safety, the nature of combat experience, symptom configuration, comorbidity, functional limitations, resources, goals, and social context. The model connects rather than merely lists services and evaluates success through sustainable restoration of autonomy, functioning, relationships, and participation.

The conceptual distinction between treatment and rehabilitation becomes especially important when combat-related conditions are chronic, fluctuating, or accompanied by physical injury. Treatment usually defines a disorder-specific therapeutic target, whereas rehabilitation asks how the person can regain stable functioning despite the interaction of symptoms, bodily limitations, environmental barriers, and changing social roles. A service member may therefore require trauma-focused psychotherapy, pain management, sleep treatment, cognitive rehabilitation, occupational adaptation, and family support within the same period, without any single intervention being sufficient to describe the rehabilitation process. The ICF perspective supports this broader interpretation because it locates disability and recovery in the interaction between health conditions, activities, participation, and context rather than in diagnosis alone.

The temporal organization of care also matters. Combat-related difficulties can change substantially across evacuation, acute medical treatment, convalescence, return to a unit, discharge, demobilization, prosthetic fitting, vocational retraining, and transition to community living. A static plan developed at one stage may become inappropriate at the next. Personalized rehabilitation therefore requires planned reassessment at transition points and an explicit distinction between temporary stabilization goals and longer-term recovery goals. In practical terms, an intervention may be clinically effective while the overall pathway still fails if the person loses contact with services during transfer, cannot obtain the next component of care, or repeatedly undergoes assessment without a responsible professional coordinating subsequent decisions.

Safety is a cross-cutting dimension rather than a separate level that can be assessed once at entry. Suicide-related thoughts and behavior may fluctuate with acute losses, pain exacerbation, intoxication or withdrawal, relationship breakdown, disciplinary or legal stress, unemployment, renewed trauma exposure, or changes in treatment. The 2024 VA/DoD guideline structures suicide-risk care around identification of acute risk, comprehensive assessment, and management, and explicitly cautions against relying on a single screening instrument in place of clinical evaluation³¹. For a stepped-care model, this means that safety status can override the usual sequence of interventions and require immediate escalation even when symptom severity on a PTSD scale has not changed substantially.

³⁰ Про схвалення Стратегії ветеранської політики на період до 2030 року та затвердження операційного плану заходів з її реалізації у 2024–2027 роках : розпорядження Кабінету Міністрів України від 29.11.2024 № 1209-р.

³¹ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Assessment and Management of Patients at Risk for Suicide. Version 3.0. Washington, DC, 2024. URL: <https://www.healthquality.va.gov/guidelines/MH/srb/>.

The same logic applies to sleep. Insomnia is not merely a secondary symptom that will necessarily resolve when PTSD improves. Chronic insomnia may persist independently, intensify fatigue and irritability, reduce concentration, and diminish the capacity to complete demanding trauma-focused homework. The 2025 VA/DoD guideline for chronic insomnia and obstructive sleep apnea separates screening, insomnia management, and sleep-apnea management into distinct clinical pathways, reinforcing the need to assess sleep as a treatment target in its own right³². In rehabilitation planning, sleep status should therefore influence treatment timing, session structure, driving and occupational safety, and the interpretation of cognitive complaints.

Substance use requires similarly differentiated reasoning. Alcohol or other psychoactive substances may be used to suppress arousal, facilitate sleep, reduce intrusive memories, manage pain, or avoid moral and interpersonal distress. Such short-term effects can reinforce use while worsening sleep architecture, mood instability, family conflict, treatment adherence, and safety. The VA/DoD substance-use guideline supports systematic assessment and evidence-based management rather than excluding people with substance-use disorders from mental health treatment solely because comorbidity is present³³. A personalized pathway should distinguish acute intoxication or withdrawal, which may require medical stabilization, from stable comorbidity in which concurrent treatment of PTSD and substance use may be appropriate.

Traumatic brain injury further illustrates why symptom attribution should remain provisional. Headache, dizziness, sleep disruption, irritability, fatigue, slowed processing, memory complaints, and concentration difficulties can arise from post-concussive processes, PTSD, depression, pain, medication effects, or combinations of these factors. The VA/DoD post-acute mild traumatic brain injury guideline recommends a symptom-focused, function-oriented approach for most persistent presentations rather than assuming that every complaint is caused by structural brain damage³⁴. For psychological rehabilitation, this supports practical adaptations such as shorter segments of complex sessions, written summaries, repetition, reduced cognitive load, and coordination with medical or neuropsychological assessment when indicated.

Pain is another mechanism that can organize the entire rehabilitation trajectory. Persistent nociceptive, neuropathic, residual-limb, or phantom-limb pain may increase avoidance, sleep disturbance, anger, helplessness, and reliance on sedating medication, while trauma-related hypervigilance can amplify attention to bodily threat. Pain should therefore be assessed as both a medical condition and a functional context for psychological work. The VA/DoD opioid guideline emphasizes patient-centered risk assessment and ongoing monitoring when opioid therapy is considered, rather than treating medication exposure as a purely

³² Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for the Management of Chronic Insomnia Disorder and Obstructive Sleep Apnea. Version 3.0. Washington, DC, 2025. URL: <https://www.healthquality.va.gov/guidelines/CD/insomnia/>.

³³ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for the Management of Substance Use Disorders. Version 4.0. Washington, DC, 2021. URL: <https://www.healthquality.va.gov/guidelines/MH/sud/>.

³⁴ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for the Management and Rehabilitation of Post-Acute Mild Traumatic Brain Injury. Version 3.0. Washington, DC, 2021. URL: <https://www.healthquality.va.gov/guidelines/Rehab/mtbi/>.

pharmacological issue³⁵. This is particularly relevant when PTSD, hazardous substance use, sleep-disordered breathing, or suicide risk coexist.

For service members with limb loss, rehabilitation planning must additionally integrate body image, mobility, prosthetic use, participation, pain, confidence in public environments, family role changes, and return to work. The 2025 VA/DoD lower-limb amputation guideline is explicitly multidisciplinary and spans pre-amputation, post-amputation, and ongoing care³⁶. Psychological interventions are most useful when coordinated with the timing of physical rehabilitation and prosthetic training, because anxiety, avoidance, grief, pain, and expectations about function can influence participation in rehabilitation without implying that the physical problem is psychogenic.

A further methodological requirement is to distinguish severity from complexity. A person can have severe symptoms within a relatively coherent PTSD presentation and respond well to a focused first-line therapy. Another person may show only moderate scores on individual symptom scales but have a highly complex profile involving TBI, chronic pain, alcohol misuse, family conflict, occupational loss, and unstable housing. Complexity therefore concerns the number and interaction of maintaining mechanisms, safety factors, and service interfaces, not simply the maximum value on one measure. This distinction helps prevent inappropriate routing in which clinically complex cases remain at a low level because no single questionnaire crosses a predetermined threshold.

Initial stratification should accordingly combine categorical and dimensional information. Diagnostic formulation identifies syndromes that have evidence-based treatments; dimensional assessment establishes severity and change; functional assessment determines the extent to which daily life is restricted; risk assessment identifies conditions that cannot safely wait; and contextual assessment clarifies barriers and resources. The result should be a reasoned starting-level decision rather than a score-based administrative category. The stepped model remains useful only when these forms of information are integrated and the reasons for routing are transparent to both the professional team and the service member.

The clinical formulation should also identify treatment-interfering mechanisms that are modifiable without being mistaken for contraindications. Examples include severe sleep deprivation, practical barriers to weekly attendance, fear of stigma within a unit, difficulty concentrating after TBI, lack of privacy for telepsychotherapy, or a belief that discussing trauma represents disloyalty to deceased comrades. Such factors may require preparatory or parallel interventions, but they do not automatically justify indefinite postponement of evidence-based PTSD treatment. The distinction between a temporary barrier and a true safety contraindication should be documented explicitly and reviewed at predetermined intervals.

Collaborative-care research provides a useful organizational precedent for this logic. RESPECT-Mil demonstrated the feasibility of a systems-level collaborative-care approach for depression and PTSD in military primary care, addressing conditions that often remain underdetected or undertreated when access depends on self-referral to specialty mental health

³⁵ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for the Use of Opioids in the Management of Chronic Pain. Version 4.0. Washington, DC, 2022. URL: <https://www.healthquality.va.gov/guidelines/Pain/cot/>.

³⁶ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Rehabilitation of Individuals with Lower Limb Amputation. Version 3.0. Washington, DC, 2024. URL: <https://www.healthquality.va.gov/guidelines/Rehab/amp/>.

services³⁷. The model is relevant not because it can be transferred mechanically to Ukraine, but because it illustrates how screening, care management, primary care, specialist consultation, and systematic follow-up can be combined around a defined pathway rather than functioning as disconnected services.

The STEPS-UP randomized clinical trial extended this systems perspective by testing centrally assisted collaborative telecare for PTSD and depression among military personnel in primary care. The trial involved multiple military installations and combined centrally supported care management with stepped psychosocial and pharmacological options; outcomes showed modest but meaningful advantages for PTSD and depression compared with usual integrated care³⁸. Its practical implication for a personalized model is that stepped care requires active management, treatment adjustment, and specialist support; simply offering a menu of services without follow-up is not equivalent to a stepped-care intervention.

Within Ukraine, the legal architecture increasingly supports a similar shift from isolated interventions toward coordinated care. The Law of Ukraine on the mental health care system entered into operation on 7 February 2026 and establishes an intersectoral framework for mental health services, including principles relevant to comprehensive care, professional responsibility, and case management. This creates a legal basis for conceptualizing continuity as an organized function rather than an informal expectation placed on the patient. Because the law is system-wide, implementation still requires operational protocols defining who assumes responsibility for coordination at different stages and how information is transferred across military, health, veteran, and community services.

The 2026 experimental project on medical and psychological support for defenders with disorders related to psychoactive substance use, including alcohol, is particularly relevant to integrated routing. It establishes a dedicated mechanism for assessment and individualized medical-psychological support for eligible defenders and requires monitoring of service outcomes³⁹. This development is important because substance-related disorders are often managed in a separate treatment sector, creating a risk that trauma, pain, family, and reintegration needs will be addressed sequentially rather than concurrently. A personalized pathway should instead clarify which problems require parallel treatment and which require temporary sequencing for safety.

System capacity must be considered alongside clinical design. WHO's 2025 assessment of rehabilitation financing in Ukraine, although focused primarily on physical rehabilitation within the publicly financed Programme of Medical Guarantees, identified broader system-capacity constraints, including workforce shortages, the absence of some national protocols,

³⁷ Engel C. C., Oxman T., Yamamoto C. et al. RESPECT-Mil: Feasibility of a Systems-Level Collaborative Care Approach to Depression and Post-Traumatic Stress Disorder in Military Primary Care. *Military Medicine*. 2008. Vol. 173, no. 10. P. 935–940. DOI: <https://doi.org/10.7205/MILMED.173.10.935>.

³⁸ Engel C. C., Jaycox L. H., Freed M. C. et al. Centrally Assisted Collaborative Telecare for Posttraumatic Stress Disorder and Depression Among Military Personnel Attending Primary Care: A Randomized Clinical Trial. *JAMA Internal Medicine*. 2016. Vol. 176, no. 7. P. 948–956. DOI: <https://doi.org/10.1001/jamainternmed.2016.2402>.

³⁹ Деякі питання реалізації експериментального проекту щодо надання послуг із медико-психологічного супроводу окремим категоріям осіб, які захищали незалежність, суверенітет та територіальну цілісність України і мають розлади, що виникли внаслідок вживання психоактивних речовин, включаючи алкоголь : постанова Кабінету Міністрів України від 11.02.2026 № 195. URL: <https://zakon.rada.gov.ua/go/195-2026-%D0%BF>.

and the need to better synchronize service delivery and financing as demand increases⁴⁰. These constraints mean that personalization cannot be defined as unlimited choice or unrestricted specialist intensity. It should be understood as the best evidence-based match that can be delivered safely and continuously within available resources, with transparent escalation criteria and deliberate use of lower-intensity, remote, group, or community supports when these are clinically appropriate.

The broader health-system environment also remains exposed to wartime disruption. WHO reported in February 2026 that attacks on health care had increased during 2025 and highlighted restricted availability of inpatient rehabilitation and assistive technologies in surveyed facilities⁴¹. For psychological rehabilitation, this has a direct methodological consequence: service plans must include contingency arrangements for interrupted transport, relocation, loss of a provider, air-raid alerts, and temporary changes in the location or modality of care. Continuity under wartime conditions is therefore not merely a convenience but part of clinical risk management.

Community entry points can reduce fragmentation when they are linked to clinical governance. The VETERAN PRO initiative was designed as an inclusive network of multifunctional veteran spaces offering a single point of access to psychological, legal, rehabilitation, educational, and entrepreneurship-related support, with veteran-support specialists involved in navigation⁴². Such spaces can strengthen engagement and reduce the burden of searching for services, but they should not blur professional boundaries: navigation, peer support, clinical assessment, psychotherapy, medical treatment, and social case management remain distinct functions that require appropriate competence and accountability.

Taken together, these developments support a model in which personalization is produced by a sequence of explicit decisions: identification of urgent risk; multidimensional assessment; formulation of interacting mechanisms; selection of the appropriate starting intensity; agreement on outcomes that matter to the service member; delivery of an evidence-based intervention; measurement of change; and modification of the pathway when the expected response is not achieved. This sequence also clarifies why stepped care should not be interpreted as a fixed ladder. A person may enter at a specialized level, move horizontally to another treatment, receive several coordinated interventions in parallel, or step down to maintenance support when safety and functioning have stabilized.

⁴⁰ World Health Organization. Regional Office for Europe. Financing rehabilitation services in Ukraine: a situation assessment and policy options. Copenhagen : WHO Regional Office for Europe, 2025. 62 p. URL: <https://www.who.int/ukraine/publications/i/item/WHO-EURO-2025-12703-52477-81012>.

⁴¹ World Health Organization. Regional Office for Europe. Attacks on Ukraine's health care increased by 20% in 2025. 23 February 2026. URL: <https://www.who.int/europe/news/item/23-02-2026-attacks-on-ukraine-s-health-care-increased-by-20--in-2025>.

⁴² Мінветеранів запускає масштабний проєкт ветеранських просторів VETERAN PRO / Міністерство у справах ветеранів України. 28 серпня 2024. URL: <https://mva.gov.ua/prescenter/category/86-novini/minveteraniv-zapuskae-masshtabnyi-proekt-veteranskih-prostoriv-veteran-pro>.

2. Differentiating Evidence-Based Psychological Interventions and Ensuring Digital and Organizational Continuity of Rehabilitation for Service Members and Veterans Affected by Combat-Related Trauma and Moral Injury

The differentiation of evidence-based interventions means selecting the content, intensity, sequence, and delivery format of care according to the mechanisms maintaining the condition, level of risk, functional limitations, resources, stage of recovery, and individual goals. Evidence defines the boundaries of professionally defensible choices, while personalization identifies the most appropriate option within those boundaries. Flexibility may concern pacing, sequencing, format, and duration, but should not remove active therapeutic components or replace a structured intervention with nonspecific supportive conversation.

Individual psychotherapies have the strongest guideline support for PTSD. The 2023 VA/DoD guideline⁴³ provides strong recommendations for Cognitive Processing Therapy, Prolonged Exposure, and Eye Movement Desensitization and Reprocessing (EMDR), with additional recommendations for Cognitive Therapy for PTSD, Present-Centered Therapy, and Written Exposure Therapy. The Ministry of Health of Ukraine likewise directs clinicians toward evidence-based approaches and has approved a regulatory list of psychotherapeutic methods with demonstrated effectiveness⁴⁴.

In the early period after a combat-related event, priorities are physical safety, medical stabilization, sleep, orientation, basic resources, contact with family members, fellow service members, or the military unit, psychoeducation, and repeated assessment. Intense reactions do not necessarily indicate an established disorder. Universal detailed recounting immediately after trauma should not be imposed, and single-session individual psychological debriefing is not recommended as PTSD prevention. Trauma-focused cognitive behavioral therapy may be appropriate for acute stress disorder when clinically indicated⁴⁵.

When fear, re-experiencing, avoidance, and a persistent sense of current threat predominate, interventions should enable controlled processing of traumatic memory and gradual reduction of avoidance. Prolonged Exposure supports discrimination between past danger and current conditions; EMDR combines structured engagement with traumatic memories, bilateral stimulation, and reprocessing of associated cognitions, emotions, and bodily responses. Written Exposure Therapy provides a briefer structured option when treatment duration or extensive oral narration is a barrier. In a randomized clinical trial, D. Sloan, B. Marx, R. Aciermo, and colleagues⁴⁶ found Written Exposure Therapy noninferior to Prolonged Exposure, with lower dropout.

⁴³ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

⁴⁴ Перелік методів психотерапії з доведеною ефективністю : затверджено наказом Міністерства охорони здоров'я України від 13.12.2023 № 2118.

⁴⁵ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

⁴⁶ Sloan D. M., Marx B. P., Aciermo R. et al. Written Exposure Therapy vs Prolonged Exposure Therapy in the Treatment of Posttraumatic Stress Disorder: A Randomized Clinical Trial. *JAMA Psychiatry*. 2023. Vol. 80, no. 11. P. 1093–1100. DOI: <https://doi.org/10.1001/jamapsychiatry.2023.2810>.

When persistent negative beliefs, exaggerated responsibility, self-blame, shame, and loss of trust predominate, Cognitive Processing Therapy or another structured cognitive therapy for PTSD may be appropriate. The task is not to deny moral complexity but to evaluate the context, information available at the time, intention, coercion, control, and actual consequences. Clinically warranted responsibility must be distinguished from trauma-amplified overresponsibility and from global conclusions that the person is irreparably damaged. Comorbid depression or substance use does not automatically justify indefinite postponement of PTSD treatment once safety and treatment participation are possible⁴⁷.

Moral injury requires separate assessment. It is not a psychiatric diagnosis and cannot be inferred solely from exposure to a morally complex event. Potentially morally injurious experiences may involve one's own action or omission, inability to prevent suffering, responsibility for death, witnessing violence, or betrayal by trusted people or institutions. Moral-injury-related distress becomes clinically significant and functionally impairing when persistent guilt, shame, anger, self-condemnation, loss of trust or meaning, relationship disruption, and functional restrictions are present. A systematic evidence overview⁴⁸ found associations with greater PTSD, depression, and anxiety symptoms, while emphasizing major methodological heterogeneity.

For formulation, four overlapping profiles are clinically useful: perceived transgression through one's own action or omission; betrayal by commanders, institutions, or significant others; helpless witnessing, inability to protect, or survivor guilt; and consequences associated with killing or perceived responsibility for death. The distinction is analytical rather than diagnostic. Several mechanisms can coexist, and the morally salient event may also function as a traumatic memory that maintains PTSD.

Leading trauma-focused therapies can reduce PTSD symptoms when moral events are embedded in traumatic memories, but reductions in fear and avoidance do not always resolve persistent self-condemnation or the need for moral repair. Adaptive Disclosure-Enhanced⁴⁹ combines trauma-memory processing with strategies for moral transgression and traumatic loss. Trauma-Informed Guilt Reduction Therapy⁵⁰ is a brief cognitive behavioral intervention targeting guilt and values-consistent action. Controlled trials provide encouraging evidence, while replication across military cultures and careful attention to indications remain necessary.

⁴⁷ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

⁴⁸ Beech E. H., Mackey K. M., Parr N. J. et al. Moral Injury and Mental Health Among US Military Service Members and Veterans: A Systematic Review and Evidence Overview. Washington, DC : Evidence Synthesis Program, Health Systems Research, Office of Research and Development, Department of Veterans Affairs. VA ESP Project #09-199; 2024.

⁴⁹ Litz B. T., Yeterian J., Berke D. et al. A controlled trial of adaptive disclosure-enhanced to improve functioning and treat posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*. 2024. Vol. 92, no. 3. P. 150–164. DOI: <https://doi.org/10.1037/ccp0000873>.

⁵⁰ Norman S. B., Capone C., Panza K. E. et al. A clinical trial comparing trauma-informed guilt reduction therapy (TrIGR), a brief intervention for trauma-related guilt, to supportive care therapy. *Depression and Anxiety*. 2022. Vol. 39, no. 4. P. 262–273. DOI: <https://doi.org/10.1002/da.23244>.

Evidence for Impact of Killing remains preliminary. A randomized controlled pilot trial⁵¹ indicated feasibility and potential clinical benefit, while a 2026 qualitative study⁵² found that veterans generally regarded the intervention as acceptable and relevant. These findings do not establish superiority over first-line PTSD treatment and should not be generalized to Ukrainian service members without cultural adaptation and independent evaluation.

Moral injury-informed work should avoid premature forgiveness, imposed spiritual explanations, or denial of genuine responsibility. It should distinguish intention, information, coercion, control, consequences, and retrospective judgment. Where responsibility is real, therapy can support acknowledgment, self-compassion, proportionate reparation, reconnection, and renewed values-consistent action without erasing ethical awareness. Assessment should address guilt, shame, anger, self-condemnation, trust, alienation, meaning, suicide-related thoughts, and social avoidance. The Moral Injury and Distress Scale (MIDS)⁵³ may support assessment and case formulation but does not replace clinical interviewing; the Ukrainian psychometric study cited below did not validate the MIDS.

Ukrainian measurement requires validated instruments and population-specific interpretation. A cross-sectional survey of 5,523 Ukrainian adults conducted in May-July 2025 by M. Mezhenka, A. Contractor, and T. Nazarenko⁵⁴ supported the structural validity and reliability of Ukrainian versions of the PCL-5 and Part 2 of the Moral Injury Outcome Scale. Because 66.6% of participants were civilians, these findings provide an important psychometric foundation but should not be treated as military-specific clinical norms or as validation of the MIDS.

In clinical practice, moral injury measures should support case formulation rather than function as stand-alone diagnostic instruments. Assessment should establish whether guilt, shame, anger, self-condemnation, loss of trust, alienation, disruption of meaning, suicide-related thoughts, or avoidance of relationships are persistent and functionally significant. The MIDS can help characterize clinically meaningful moral distress, whereas the Ukrainian-language psychometric evidence reported by M. Mezhenka, A. A. Contractor, and T. Nazarenko concerns the PCL-5 and Part 2 of the Moral Injury Outcome Scale (MIOS). These instruments address different constructs and should not be treated as interchangeable; neither standardized measurement nor local psychometric evidence replaces clinical

⁵¹ Maguen S., Burkman K., Madden E. et al. Impact of Killing in War: A Randomized, Controlled Pilot Trial. *Journal of Clinical Psychology*. 2017. Vol. 73, no. 9. P. 997–1012. DOI: <https://doi.org/10.1002/jclp.22471>.

⁵² Purcell N., Usman H., Mehlman H. et al. The Impact of Killing (IOK) mental health treatment for moral injury: U.S. military veteran perspectives on acceptability, fit, and impact. *Psychological Services*. 2026. Published online 9 March 2026. DOI: <https://doi.org/10.1037/ser0001035>.

⁵³ Maguen S., Griffin B. J., Pietrzak R. H. et al. Using the Moral Injury and Distress Scale to identify clinically meaningful moral injury. *Journal of Traumatic Stress*. 2024. Vol. 37, no. 4. P. 685–696. DOI: <https://doi.org/10.1002/jts.23050>.

⁵⁴ Mezhenka M., Contractor A. A., Nazarenko T. Moral injury and PTSD among Ukrainians exposed to full-scale war. *European Journal of Psychotraumatology*. 2026. Vol. 17, no. 1. Art. 2685934. DOI: <https://doi.org/10.1080/20008066.2026.2685934>.

interviewing, risk assessment, differential diagnosis, or population-specific interpretation^{55,56}.

Intervention planning must also address conditions that maintain distress or reduce capacity to participate in therapy. Persistent insomnia may sustain irritability and cognitive exhaustion. Chronic or phantom limb pain requires integration with medical care, physical therapy, occupational therapy, and prosthetic care, while avoiding psychogenic reductionism. Suspected traumatic brain injury requires medical and neuropsychological assessment and may justify shorter sessions, repetition, written reminders, and coordination with cognitive rehabilitation.

Table 1

Differentiation of Psychological Interventions and Digital and Organizational Support Across the Rehabilitation Pathway

Clinical and functional profile	Primary targets	Priority interventions	Digital/organizational support and route-change criteria
Acute stress or subclinical distress with preserved functioning	Safety, sleep, orientation, support, symptom trajectory, suicide risk	Psychoeducation, practical support, brief counseling, active monitoring; trauma-focused CBT for acute stress disorder when indicated	Secure contact, reminders, repeat screening, navigation; escalate if risk, symptoms, or functional loss increase
PTSD dominated by fear, re-experiencing, and avoidance	Traumatic memory, avoidance, current-threat appraisals, behavioral restriction	Prolonged Exposure, EMDR, or Written Exposure Therapy according to indications and preferences; clinician-guided VRET in selected cases	Secure video, digital homework, symptom monitoring; modify the pathway for safety deterioration, marked dissociation, nonresponse, or participation barriers
PTSD with negative beliefs, guilt, and self-blame	Responsibility appraisals, global negative beliefs, shame, trust, social avoidance	Cognitive Processing Therapy or another structured cognitive therapy for PTSD	Electronic worksheets and video consultations; assess moral injury if self-condemnation persists

⁵⁵ Maguen S., Griffin B. J., Pietrzak R. H. et al. Using the Moral Injury and Distress Scale to identify clinically meaningful moral injury. *Journal of Traumatic Stress*. 2024. Vol. 37, no. 4. P. 685–696. DOI: <https://doi.org/10.1002/jts.23050>.

⁵⁶ Mezhska M., Contractor A. A., Nazarenko T. Moral injury and PTSD among Ukrainians exposed to full-scale war. *European Journal of Psychotraumatology*. 2026. Vol. 17, no. 1. Art. 2685934. DOI: <https://doi.org/10.1080/20008066.2026.2685934>.

Moral injury related to action, omission, or killing	Guilt, shame, responsibility, self-punishment, disrupted meaning and belonging	Cognitive Processing Therapy; TrIGR, Adaptive Disclosure-Enhanced, or Impact of Killing when clearly indicated and evidence level is considered	Structured reflection and coordinated support; escalate for suicidality, dependence, social breakdown, or persistent functional deterioration
Moral injury related to betrayal or inability to protect	Anger, mistrust, alienation, grief, survivor guilt, loss of meaning	Structured cognitive work, Adaptive Disclosure-Enhanced, grief-focused and values-based components	Secure remote care when privacy is adequate; mobilize family/social resources; modify the pathway for isolation, aggression, risk, or persistent avoidance
PTSD with insomnia, pain, TBI sequelae, or substance use	Interaction of post-traumatic, somatic, cognitive, and behavioral mechanisms; treatment capacity	Parallel or integrated care; comorbidity does not automatically exclude evidence-based PTSD treatment; HRV biofeedback only as an adjunct	Sleep/pain diaries, reminders, professional coordination; urgent escalation for medical instability, withdrawal, uncontrolled pain, or cognitive deterioration
Maintenance and reintegration	Relapse prevention, family and occupational roles, autonomy, participation, new goals	Maintenance consultations, family work, relapse-prevention planning, coordination of social/vocational services	Self-management plan, rapid re-entry, digital navigation; return to higher intensity for recurrence, new trauma, or major crisis

Note. The table presents an indicative framework for clinical decision-making and does not replace individualized assessment.⁵⁷

This framework is not a diagnostic algorithm. Safety assessment precedes treatment selection, and the functional profile and maintaining mechanisms carry greater weight than a symptom count. When response is insufficient, clinicians should review case formulation, therapeutic alliance, protocol fidelity, comorbidity, adverse effects, organizational barriers, and fit between the delivery format and the service member's preferences before increasing intensity, changing method, or involving a multidisciplinary team.

Digitalization should be understood as a system of tools that modifies access, delivery, monitoring, coordination, and maintenance rather than as an autonomous alternative to professional care. Secure videoconferencing can deliver a complete psychotherapy; mobile applications can provide psychoeducation or homework support; virtual reality can mediate exposure; wearable devices can provide supplementary physiological data; and case-management systems can support navigation. Their value depends on therapeutic function, evidence, risk, and integration into the rehabilitation plan.

⁵⁷ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

Synchronous telepsychotherapy has the most established evidence among digital formats. A randomized trial by R. Acierno, D. Gros, K. Ruggiero, and colleagues⁵⁸ found home-based telehealth delivery of a structured exposure-based PTSD treatment noninferior to in-person delivery, while L. Liu and colleagues⁵⁹ reported noninferiority for Cognitive Processing Therapy delivered by videoconference. Remote work nevertheless requires confirmation of location, privacy, connection quality, crisis contacts, emergency access, and procedures for dissociation, suicide risk, and loss of connection. In the Ukrainian wartime context, the safety protocol should additionally specify how a session will be managed if an air-raid alert or another security-related disruption occurs.

Before telepsychotherapy begins, the practitioner should establish the service member's current location, available privacy, connection stability, access to emergency services, and a crisis contact. Trauma-focused sessions require a pre-agreed procedure for dissociation, sudden escalation of suicidal intent, loss of connection, or inability to complete the session safely; Ukrainian services should also define procedures for interruption by air-raid alerts and other security events. When private and stable communication cannot be ensured, hybrid care or access to an equipped clinical room is preferable. These precautions are part of treatment delivery rather than optional technical arrangements⁶⁰.

Unguided internet programs and mobile applications have a weaker and more heterogeneous evidence base. Systematic reviews indicate generally small or uncertain effects, with better engagement and outcomes when professional support is present^{61,62}. Such tools are most defensible as adjuncts for verified psychoeducation, self-monitoring, reminders, homework, and repeated assessment, not as substitutes for diagnosis or first-line treatment.

The clinical usefulness of self-guided digital tools depends on their integration into a professional care plan. Appropriate functions include verified psychoeducation, structured homework, symptom or sleep diaries, brief self-regulation exercises, reminders, and support for repeated assessment. These tools should be linked to explicit escalation rules and clinician

⁵⁸ Acierno R., Gros D. F., Ruggiero K. J. et al. Behavioral Activation and Therapeutic Exposure for Posttraumatic Stress Disorder: A Noninferiority Trial of Treatment Delivered in Person Versus Home-Based Telehealth. *Depression and Anxiety*. 2016. Vol. 33, no. 5. P. 415–423. DOI: <https://doi.org/10.1002/da.22476>.

⁵⁹ Liu L., Thorp S. R., Moreno L. et al. Videoconferencing psychotherapy for veterans with PTSD: Results from a randomized controlled non-inferiority trial. *Journal of Telemedicine and Telecare*. 2020. Vol. 26, no. 9. P. 507–519. DOI: <https://doi.org/10.1177/1357633X19853947>.

⁶⁰ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

⁶¹ Belsher B. E., Beech E. H., Anderson J. K., Parr N. J. Internet and Mobile Interventions for Adults with PTSD and Their Family Members: A Systematic Review. Washington, DC : Evidence Synthesis Program, Health Services Research and Development Service, Office of Research and Development, Department of Veterans Affairs. VA ESP Project #09-199; 2024.

⁶² Metts A., Harris E., Martinez N., Pearson R., Creech S. K. Digital interventions targeting the impact of stress on stress-related mental health outcomes in military personnel and veterans: a systematic review. *Journal of Behavioral Medicine*. 2026. Published online 22 March 2026. DOI: <https://doi.org/10.1007/s10865-026-00653-7>.

review when deterioration occurs, with clear communication that they cannot establish a diagnosis, select treatment intensity, or manage acute risk autonomously^{63,64}.

Virtual Reality Exposure Therapy (VRET) uses a controlled virtual environment in which a trained therapist gradually presents trauma-related sensory and situational stimuli. Its mechanism remains exposure-based processing, reduction of avoidance, and new safety learning; virtual reality is a delivery environment rather than an independent school of psychotherapy. Individualized case formulation should determine stimulus selection because technological realism and sensory intensity do not in themselves improve outcomes and may increase distress or cybersickness⁶⁵.

A systematic review and meta-analysis of 11 studies found VRET superior to waitlist control but not to other active psychotherapies⁶⁶. A 2026 veteran-focused meta-analysis of nine randomized trials likewise found substantial pre-post improvement but no stable superiority over active comparisons⁶⁷. VRET should therefore be considered a clinician-guided alternative or adjunct for carefully selected cases, including marked avoidance or difficulty engaging in imaginal exposure, rather than a universally preferred treatment.

VRET requires assessment of suicide risk, dissociation, psychosis, traumatic brain injury sequelae, seizure history, vestibular problems, migraine, flicker sensitivity, nausea, and prior cybersickness. A technical failure must not leave the person highly activated without a structured conclusion. In moral injury, virtual exposure may process memory but cannot by itself resolve responsibility, betrayal, shame, or loss of meaning and should be embedded in broader cognitive, emotional, relational, and values-based work.

An experimental approach combines virtual reality exposure with transcranial direct current stimulation. A double-blind randomized trial of 54 U.S. veterans found greater improvement in selected outcomes with active stimulation than with sham, but the sample and experimental protocol do not support routine use⁶⁸. Heart rate variability biofeedback has

⁶³ Belsher B. E., Beech E. H., Anderson J. K., Parr N. J. Internet and Mobile Interventions for Adults with PTSD and Their Family Members: A Systematic Review. Washington, DC : Evidence Synthesis Program, Health Services Research and Development Service, Office of Research and Development, Department of Veterans Affairs. VA ESP Project #09-199; 2024.

⁶⁴ Metts A., Harris E., Martinez N., Pearson R., Creech S. K. Digital interventions targeting the impact of stress on stress-related mental health outcomes in military personnel and veterans: a systematic review. *Journal of Behavioral Medicine*. 2026. Published online 22 March 2026. DOI: <https://doi.org/10.1007/s10865-026-00653-7>.

⁶⁵ Eshuis L. V., van Gelderen M. J., van Zuiden M. et al. Efficacy of immersive PTSD treatments: A systematic review of virtual and augmented reality exposure therapy and a meta-analysis of virtual reality exposure therapy. *Journal of Psychiatric Research*. 2021. Vol. 143. P. 516–527. DOI: <https://doi.org/10.1016/j.jpsychires.2020.11.030>.

⁶⁶ Eshuis L. V., van Gelderen M. J., van Zuiden M. et al. Efficacy of immersive PTSD treatments: A systematic review of virtual and augmented reality exposure therapy and a meta-analysis of virtual reality exposure therapy. *Journal of Psychiatric Research*. 2021. Vol. 143. P. 516–527. DOI: <https://doi.org/10.1016/j.jpsychires.2020.11.030>.

⁶⁷ Felemban R. G., Alzahrani R. R., Alrefaei N. F. et al. Efficacy of Virtual Reality-Based Exposure Therapy for Post-Traumatic Stress Disorder in Military Veterans: A Systematic Review and Meta-Analysis. *Frontiers in Psychiatry*. 2026. Vol. 17. Art. 1857109. DOI: <https://doi.org/10.3389/fpsy.2026.1857109>.

⁶⁸ van 't Wout-Frank M., Arulpragasam A. R., Faucher C. et al. Virtual Reality and Transcranial Direct Current Stimulation for Posttraumatic Stress Disorder: A Randomized Clinical Trial. *JAMA Psychiatry*. 2024. Vol. 81, no. 5. P. 437–446. DOI: <https://doi.org/10.1001/jamapsychiatry.2023.5661>.

shown a moderate pooled effect in a small military evidence base and may support breathing and autonomic regulation, but it should remain adjunctive to first-line psychotherapy⁶⁹.

Digital infrastructure can support measurement-based care through questionnaires, diaries, and dashboards that track symptoms, sleep, pain, functioning, engagement, adverse effects, and personal goals. Automated alerts may accelerate contact but should not replace clinical assessment. Within the proposed rehabilitation model, artificial intelligence should be restricted to bounded informational, administrative, and clinician-supervised decision-support functions, such as organizing verified information, navigation, reminders, accessible-language support, documentation, and structured review of data. It should not independently diagnose PTSD, determine suicide risk, allocate a level of care, or conduct unsupervised trauma-focused therapy. WHO guidance on large multi-modal models emphasizes defined tasks, transparency, human oversight, accountability, data protection, and context-specific validation; these are governance and safety boundaries rather than evidence that autonomous AI has been clinically validated for these high-stakes functions⁷⁰.

Data governance is a clinical and ethical requirement. Administrative status data, clinical notes, psychodiagnostic results, and suicide-risk information have different levels of sensitivity and should not be merged into an unrestricted profile. Access should be role-based and limited to what is necessary. Digitally supported pathways must also preserve non-digital alternatives for people affected by unstable internet, sensory impairment, traumatic brain injury, low digital literacy, lack of a device, or lack of privacy⁷¹.

Digital accessibility should be treated as a rehabilitation-routing variable rather than as a prerequisite for receiving care. Device availability, connection stability, visual or hearing impairment, cognitive consequences of traumatic brain injury, digital literacy, and the ability to secure privacy may determine whether remote, hybrid, telephone, or in-person delivery is appropriate. A digitally supported pathway is equitable only when it preserves non-digital alternatives and prevents technological barriers from delaying clinically indicated assistance.

Digital support must remain subordinate to clinical logic. Technology should be selected after the therapeutic target, risk level, functional needs, accessibility constraints, and acceptable format have been determined. Secure videoconferencing has the strongest evidence as a delivery format; VRET, mobile applications, biofeedback, wearables, monitoring systems, and AI tools perform specialized, adjunctive, or organizational functions⁷².

⁶⁹ Kenemore J., Benham G., Charak R., Hernandez Rodriguez J. Heart Rate Variability Biofeedback as a Treatment for Military PTSD: A Meta-Analysis. *Military Medicine*. 2024. Vol. 189, no. 9–10. P. e1903–e1909. DOI: <https://doi.org/10.1093/milmed/usae003>.

⁷⁰ World Health Organization. Ethics and governance of artificial intelligence for health: guidance on large multi-modal models. Geneva : World Health Organization, 2024. 98 p.

⁷¹ World Health Organization. Ethics and governance of artificial intelligence for health: guidance on large multi-modal models. Geneva : World Health Organization, 2024. 98 p.

⁷² Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

Table 2

Clinical Status and the Role of Digital Technologies in the Psychological Rehabilitation of Service Members and Veterans

Digital technology	Primary function	Evidence status	Appropriate place in pathway	Key limitations and safety conditions
Secure video telepsychotherapy	Real-time delivery of validated psychotherapy	Strongest evidence among digital formats; noninferiority supported for selected PTSD therapies	Second level, post-discharge continuation, remote access, hybrid programs	Secure connection, privacy, location confirmation, crisis plan, emergency access, digital-access assessment
Guided internet programs and mobile applications	Psychoeducation, homework, brief skills, diaries, engagement	Limited and heterogeneous; effects usually modest and stronger with professional involvement	First-level support, adjunct to therapy, maintenance, repeat screening	Do not replace diagnosis or first-line therapy; verified content, crisis procedure, confidentiality, engagement monitoring
VRET	Clinician-guided exposure in a virtual environment	Promising symptom reduction but no consistent superiority over active treatments	Specialized second or third level; marked avoidance, imaginal-exposure difficulty, or insufficient previous response	Trained therapist, stimulus titration, dissociation/cybersickness monitoring, technical contingency, data protection
VRET with tDCS	Experimental enhancement of exposure learning	One small RCT reported positive outcomes; insufficient for standard recommendation	Research protocols or highly specialized services	Medical contraindications, specialized equipment, uncertain long-term effects, no unsupervised use
HRV biofeedback	Training in respiratory and autonomic regulation	Small evidence base with a moderate pooled effect	Adjunct to stabilization, preparation, or maintenance	Does not replace trauma processing; interpretation depends on device, breathing, health, and medication
Wearables and remote monitoring	Supplementary monitoring of sleep, activity, heart rate, adherence	Indicators are nonspecific and not independent diagnostic markers	Measurement-based care for sleep, pain, activity, and deterioration prevention	False conclusions, excessive self-monitoring, data overload; voluntary use and clinical contextualization
Electronic questionnaires and dashboards	Repeated measurement of symptoms, functioning, risk, engagement, goals	Consistent with measurement-based care; technology does not replace interpretation	All levels, stratification, review, transition criteria	Validated Ukrainian instruments, proportionate frequency, shared review, response algorithm for critical results

AI assistants and predictive tools	Information navigation, regulatory retrieval, technical support, data organization	Insufficient for autonomous diagnosis, treatment selection, or suicide-risk assessment	Administrative adjunct under human oversight	Error, bias, opacity, confidentiality, cultural/linguistic validation, assigned professional responsibility
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Note. Technological complexity is not an indicator of clinical superiority. Every decision requires professional assessment, informed consent, data protection, and safety monitoring⁷³.

At the end of the intervention-selection stage, clinical, digital, and organizational decisions should be integrated into a single provisional rehabilitation plan rather than treated as separate service streams. The plan should state the current therapeutic targets; safety and functional priorities; the selected evidence-based intervention; delivery format; concurrent medical, social, family, or vocational supports; responsible professionals; outcome measures; and explicit criteria for continuation, horizontal transfer, escalation, or reduction of intensity. This synthesis converts assessment data into a testable pathway and preserves a direct link between case formulation, the individual rehabilitation plan, and subsequent routing⁷⁴.

Digital infrastructure should then be evaluated by the pathway function it performs: maintaining access during relocation, supporting homework and repeated measurement, enabling secure handover, or facilitating timely human review when deterioration is detected. Technology should support, rather than define, the clinical sequence. Case coordination likewise remains an organizational function: a coordinator may connect services and track transitions, but diagnostic, psychotherapeutic, medical, rehabilitation, and social-work responsibilities remain with appropriately qualified professionals. Quality should therefore be evaluated through both individual outcomes and pathway reliability, including waiting time, treatment initiation and completion, protocol fidelity, supervision, justified transitions, territorial access, continuity between military and civilian services, workforce capacity, and data protection⁷⁵.

For implementation, the rehabilitation plan should specify a limited set of decision points that are understandable to both the service member and the professionals involved. These include the expected interval for reassessment, indicators requiring urgent escalation, criteria for continuing the current intervention, conditions for a horizontal transition to another evidence-based method, and criteria for reducing intensity after stabilization. Outcome review should combine symptom measures with functioning, safety, treatment engagement, family and occupational participation, and progress toward personally defined goals. This approach prevents measurement-based care from becoming a purely administrative exercise and links repeated assessment directly to shared clinical decisions⁷⁶.

⁷³ World Health Organization. Ethics and governance of artificial intelligence for health: guidance on large multi-modal models. Geneva : World Health Organization, 2024. 98 p.

⁷⁴ Про реабілітацію у сфері охорони здоров'я : Закон України від 03.12.2020 № 1053-IX.

⁷⁵ Lawry L. L., Korona-Bailey J., Hamm T. E. et al. A qualitative assessment of war-related rehabilitation needs and gaps in Ukraine. Journal of Health, Population and Nutrition. 2025. Vol. 44. Art. 175. DOI: <https://doi.org/10.1186/s41043-025-00912-4>.

⁷⁶ Weber M. C., Jendro A. M., Fischer E. P. et al. Veterans' Experiences of and Preferences for Patient-Centered, Measurement-Based PTSD Care. Medical Care. 2024. Vol. 62, no. 12, suppl. 1. P. S84–S90. DOI: <https://doi.org/10.1097/MLR.0000000000002070>.

An additional requirement for an adaptive pathway is to calibrate the frequency of monitoring to the volatility of the clinical and functional profile. Reassessment should be more frequent during periods of elevated suicide risk, recent treatment change, renewed trauma exposure, early discharge from inpatient care, or transition between institutions. When improvement becomes stable, monitoring can be reduced without terminating access to support. This makes the pathway genuinely adaptive: not only the intensity of psychotherapy, but also the intensity of observation, coordination, and follow-up should change in response to current need. Re-entry criteria should be agreed in advance so that symptom recurrence, a new injury, a family or occupational crisis, or renewed trauma exposure leads to rapid clinical review rather than restarting the referral process from the beginning^{77,78}.

At the system level, continuity should be treated as a measurable rehabilitation outcome rather than as an administrative assumption. Relevant indicators include time from referral to first contact, the proportion of planned handovers successfully completed, treatment discontinuation during transfer, duplication of assessments, availability of a named responsible professional, and time required for rapid re-entry after deterioration. These indicators complement symptom and functioning measures by identifying failures that arise at organizational boundaries rather than within a particular psychotherapy. Such monitoring is especially important in Ukraine, where service members may move among military health care, civilian rehabilitation facilities, veterans' services, and community-based providers⁷⁹.

Differentiation of evidence-based interventions and digital and organizational support therefore constitute a single rehabilitation process. Clinical and functional profiles determine therapeutic targets; safety and impairment determine the required intensity of care; repeated measurement determines whether the current plan should be maintained, modified, or escalated; and digital infrastructure supports access, coordination, and continuity. This logic converts isolated consultations into a managed pathway oriented toward restoration of values, relationships, occupational capacity, autonomy, and participation in civilian and community life.

The quality of such a pathway depends not only on the availability of individual services but also on the reliability of transitions between them. A clinically coherent system should identify the professional responsible for coordination, specify referral criteria and expected response times, preserve essential information when a service member moves between military, medical, rehabilitation, veterans' and community services, and minimize repeated assessment when existing data remain clinically valid. These organizational requirements are

⁷⁷ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

⁷⁸ Weber M. C., Jendro A. M., Fischer E. P. et al. Veterans' Experiences of and Preferences for Patient-Centered, Measurement-Based PTSD Care. *Medical Care*. 2024. Vol. 62, no. 12, suppl. 1. P. S84–S90. DOI: <https://doi.org/10.1097/MLR.0000000000002070>.

⁷⁹ Lawry L. L., Korona-Bailey J., Hamm T. E. et al. A qualitative assessment of war-related rehabilitation needs and gaps in Ukraine. *Journal of Health, Population and Nutrition*. 2025. Vol. 44. Art. 175. DOI: <https://doi.org/10.1186/s41043-025-00912-4>.

particularly important after inpatient treatment, changes in service status, relocation, or return to civilian life, when discontinuity may result in delayed care or loss of therapeutic gains⁸⁰.

Outcome evaluation should therefore combine symptom measures with indicators of functioning and service continuity. In addition to changes in PTSD, depression, anxiety, sleep, pain, or moral distress, monitoring should consider participation in family and occupational roles, progress toward personally defined goals, treatment engagement, adverse effects, missed transitions, and the ability to re-enter care promptly after deterioration. The resulting information should be reviewed jointly with the service member and used to support shared decisions rather than functioning as an administrative reporting exercise⁸¹.

Implementation quality also depends on distinguishing personalization from uncontrolled protocol modification. Individualization may appropriately affect pacing, sequencing, mode of delivery, explanatory language, and the management of barriers identified in the case formulation, but it should preserve the active therapeutic components on which evidence of effectiveness rests. T. Galovski and colleagues emphasize this combination of protocol fidelity and individualized case formulation in PTSD care⁸². Services should therefore document why clinically meaningful adaptations were made, whether the clinician had relevant training and supervision, and whether change was observed in both symptoms and functioning. This provides a transparent basis for deciding whether a limited response reflects insufficient treatment exposure, a mismatch between the intervention and the principal maintaining mechanisms, comorbidity, implementation failure, or the need for a different level of care. Cultural and linguistic fit should be evaluated with the same discipline. The 2026 study by M. Mezhska, A. Contractor, and T. Nazarenko supports the structural validity and reliability of the Ukrainian PCL-5 and MIOS Part 2 in adults living in Ukraine during the full-scale war; however, because most participants were civilians, these findings should not be treated as military-specific clinical norms⁸³. Standardized measures should therefore inform, rather than replace, clinical interview, functional assessment, risk evaluation, and contextualized case formulation.

Sleep disturbance warrants an explicit treatment pathway because it can be both a symptom of PTSD and an independent disorder. Clinically, the assessment should distinguish difficulty initiating sleep, frequent awakenings, trauma-related nightmares, circadian disruption, sleep-disordered breathing, medication effects, pain-related awakening, and behavioral patterns that perpetuate insomnia. The 2025 VA/DoD insomnia/OSA guideline places structured behavioral treatment within an evidence-based management pathway and

⁸⁰ Lawry L. L., Korona-Bailey J., Hamm T. E. et al. A qualitative assessment of war-related rehabilitation needs and gaps in Ukraine. *Journal of Health, Population and Nutrition*. 2025. Vol. 44. Art. 175. DOI: <https://doi.org/10.1186/s41043-025-00912-4>.

⁸¹ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

⁸² Galovski T. E., McSweeney L. B., Nixon R. D. V. et al. Personalizing cognitive processing therapy with a case formulation approach to intentionally target impairment in psychosocial functioning associated with PTSD. *Contemporary Clinical Trials Communications*. 2024. Vol. 42. Art. 101385. DOI: <https://doi.org/10.1016/j.conctc.2024.101385>.

⁸³ Mezhska M., Contractor A. A., Nazarenko T. Moral injury and PTSD among Ukrainians exposed to full-scale war. *European Journal of Psychotraumatology*. 2026. Vol. 17, no. 1. Art. 2685934. DOI: <https://doi.org/10.1080/2008066.2026.2685934>.

also emphasizes screening for obstructive sleep apnea⁸⁴. In service members with injury, weight change, sedating medication, or alcohol use, failure to recognize sleep apnea can complicate fatigue and cognitive complaints and may create safety risks in driving, weapons-related duties, or return-to-work planning.

Cognitive Behavioral Therapy for Insomnia (CBT-I) is therefore best conceptualized as a targeted intervention that can be delivered before, during, or after trauma-focused treatment depending on the formulation. A randomized controlled trial in PTSD demonstrated that CBT-I can improve sleep outcomes and supports the view that insomnia should not simply be expected to remit when trauma symptoms improve⁸⁵. For stepped care, clinically significant insomnia with preserved overall safety may justify parallel CBT-I, whereas severe sleep deprivation that prevents sustained attention during trauma processing may justify a brief period of sleep-focused stabilization before intensive trauma work.

More recent evidence addresses sequencing directly. In a 2025 randomized trial involving 94 veterans with PTSD and insomnia, P. Colvonen and colleagues compared an integrated CBT-I plus Prolonged Exposure sequence with sleep-hygiene education plus Prolonged Exposure⁸⁶. The study supports the clinical importance of treating insomnia but does not justify assuming that adding CBT-I will necessarily produce superior PTSD outcomes for every patient. The appropriate interpretation is functional: sleep treatment can be used to reduce an independent source of impairment and to improve treatment capacity, while PTSD outcomes should continue to be monitored separately.

Nightmares require similarly careful formulation. Trauma-related dreams may improve with trauma-focused psychotherapy, but persistent nightmares can continue to disrupt sleep even when daytime avoidance decreases. Their assessment should consider frequency, awakening, fear of sleep, safety behaviors, alcohol or sedative use, and the degree to which the person delays bedtime to avoid dreaming. The rehabilitation plan should define whether nightmare-related distress is being addressed within the trauma-focused protocol, through a separate sleep intervention, or through medication under medical supervision. The key methodological point is to avoid equating one sleep symptom with the entire sleep problem.

Sleep outcomes should also be linked to participation outcomes. Improvement can be clinically meaningful when the service member becomes able to maintain a predictable sleep-wake schedule, attend morning appointments, drive more safely, participate in physical rehabilitation, or resume parenting and employment routines, even if occasional nightmares remain. Conversely, a reduction in self-rated PTSD symptoms without restoration of sleep may leave substantial functional risk. This illustrates why measurement-based rehabilitation

⁸⁴ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for the Management of Chronic Insomnia Disorder and Obstructive Sleep Apnea. Version 3.0. Washington, DC, 2025. URL: <https://www.healthquality.va.gov/guidelines/CD/insomnia/>.

⁸⁵ Talbot L. S., Maguen S., Metzler T. J., Schmitz M., McCaslin S. E., Richards A., Perlis M. L., Posner D. A., Weiss B., Ruoff L., Varbel J., Neylan T. C. Cognitive Behavioral Therapy for Insomnia in Posttraumatic Stress Disorder: A Randomized Controlled Trial. *Sleep*. 2014. Vol. 37, no. 2. P. 327–341. DOI: <https://doi.org/10.5665/sleep.3408>.

⁸⁶ Colvonen P. J., Hunt C., Park J., Angkaw A. C., Gehrman P., Clare K., Norman S. B. Cognitive Behavioral Therapy for Insomnia With Prolonged Exposure Compared to Sleep Hygiene and Prolonged Exposure: A Randomized Controlled Trial. *Journal of Clinical Psychiatry*. 2025. Vol. 86, no. 3. Art. 24m15584. DOI: <https://doi.org/10.4088/JCP.24m15584>.

requires parallel tracking of disorder-specific symptoms and everyday functioning rather than a single global score.

Substance use represents another domain in which sequential treatment assumptions have historically created barriers. When PTSD and alcohol or drug problems coexist, clinicians may fear that trauma-focused therapy will destabilize substance use or that ongoing use makes trauma work impossible. The VA/DoD substance-use guideline instead supports evidence-based assessment and treatment based on current severity, withdrawal risk, and individual clinical circumstances⁸⁷. Acute intoxication, severe withdrawal, or inability to participate safely requires stabilization, but stable substance-use comorbidity is not equivalent to a universal contraindication to trauma-focused psychotherapy.

The COPE randomized clinical trial provides direct evidence for concurrent treatment in military veterans. S. Back and colleagues compared an integrated intervention combining Prolonged Exposure with substance-use treatment against relapse-prevention treatment and found greater reductions in PTSD severity in the integrated condition while substance-use outcomes improved across conditions⁸⁸. The study does not imply that every veteran with substance use should receive COPE, but it demonstrates that trauma-focused exposure can be incorporated into concurrent care when safety, readiness, and monitoring are adequate.

A personalized formulation should identify the function of substance use rather than documenting quantity alone. Alcohol may be used to initiate sleep, reduce social anxiety, suppress guilt, disengage from intrusive memories, or cope with pain; stimulants may be used to overcome exhaustion; sedatives may be used to manage hyperarousal. These functions point to different treatment targets and relapse risks. If the same maintaining function is addressed only by prohibiting substance use without providing an alternative strategy, the rehabilitation plan may be clinically fragile. Functional analysis should therefore connect substance use to sleep, trauma cues, pain, relationships, and daily routines.

Ukraine's 2026 experimental project for defenders with disorders related to psychoactive substance use provides an opportunity to operationalize such integrated care. The project establishes medical-psychological support rather than limiting the intervention to administrative referral, and its design includes assessment and monitoring of outcomes⁸⁹. Within a stepped model, this pathway can be coordinated with PTSD, pain, and family interventions so that the presence of an addiction-related diagnosis does not result in fragmented treatment across unrelated services.

Substance-related risk also intersects with suicide prevention. Intoxication can increase impulsivity and reduce the reliability of previously agreed safety plans, while withdrawal and abrupt changes in use may intensify anxiety, sleep disturbance, and dysphoria. The

⁸⁷ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for the Management of Substance Use Disorders. Version 4.0. Washington, DC, 2021. URL: <https://www.healthquality.va.gov/guidelines/MH/sud/>.

⁸⁸ Back S. E., Killeen T., Badour C. L. et al. Concurrent treatment of substance use disorders and PTSD using Prolonged Exposure: A randomized clinical trial in military veterans. *Addictive Behaviors*. 2019. Vol. 90. P. 369–377. DOI: <https://doi.org/10.1016/j.addbeh.2018.11.032>.

⁸⁹ Деякі питання реалізації експериментального проекту щодо надання послуг із медико-психологічного супроводу окремим категоріям осіб, які захищали незалежність, суверенітет та територіальну цілісність України і мають розлади, що виникли внаслідок вживання психоактивних речовин, включаючи алкоголь : постанова Кабінету Міністрів України від 11.02.2026 № 195. URL: <https://zakon.rada.gov.ua/go/195-2026-%D0%BF>.

rehabilitation pathway should therefore specify who responds to an acute change, how after-hours risk is managed, when medical assessment is required, and what information must be shared across the treatment team. These procedures are especially important when psychological and addiction services are delivered by different organizations.

Traumatic brain injury requires comparable integration. Persistent post-concussive complaints should be assessed without assuming either that all symptoms are neurologically determined or that they are merely psychological. The VA/DoD post-acute mTBI guideline supports a symptom-focused approach and emphasizes functional management⁹⁰. For psychotherapy, the most relevant questions are whether the person can encode and recall session material, sustain attention, tolerate emotional activation, complete homework, and use new skills independently between sessions.

Evidence indicates that a history of TBI does not automatically preclude trauma-focused treatment. In veterans and active-duty service members with PTSD and TBI histories, G. Wolf and colleagues found that Prolonged Exposure outcomes generalized to improvements in several postconcussive and functional domains⁹¹. The study should not be interpreted as evidence that psychotherapy treats structural brain injury; rather, it demonstrates that PTSD treatment can remain clinically useful when postconcussive symptoms coexist and that symptom overlap should not become a reason for therapeutic exclusion.

Practical adaptation for cognitive difficulties should preserve active treatment components while reducing unnecessary cognitive burden. Useful modifications can include shorter information segments, written or electronic summaries, repetition of the rationale, external reminders, review of homework at the beginning and end of sessions, slower progression when memory consolidation is poor, and coordination with occupational or cognitive rehabilitation. Such adaptations differ from diluting the trauma-focused intervention: the therapeutic mechanism remains intact, while delivery is adjusted to the service member's cognitive capacity.

The interpretation of concentration and memory complaints should be revisited over time. Severe insomnia, depression, pain, medication effects, and hyperarousal can produce cognitive inefficiency that resembles persistent post-concussive impairment. If cognitive complaints improve after sleep or PTSD treatment, the formulation should be updated rather than retaining a fixed attribution to TBI. Conversely, persistent neurological signs, marked decline, or functional deterioration require medical reassessment. Adaptive care therefore depends on willingness to revise causal hypotheses as new outcome data become available.

Chronic pain requires an equally non-reductionist approach. Pain can be a consequence of injury, surgery, nerve damage, musculoskeletal changes, or amputation and should never be presumed to be psychogenic because PTSD is present. At the same time, avoidance, catastrophic interpretation, inactivity, sleep disruption, and trauma-related arousal can

⁹⁰ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for the Management and Rehabilitation of Post-Acute Mild Traumatic Brain Injury. Version 3.0. Washington, DC, 2021. URL: <https://www.healthquality.va.gov/guidelines/Rehab/mtbi/>.

⁹¹ Wolf G. K., Mauntel G. J., Kretzmer T., Crawford E., Thors C., Strom T. Q., Vanderploeg R. D. Comorbid Posttraumatic Stress Disorder and Traumatic Brain Injury: Generalization of Prolonged-Exposure PTSD Treatment Outcomes to Postconcussive Symptoms, Cognition, and Self-Efficacy in Veterans and Active Duty Service Members. *Journal of Head Trauma Rehabilitation*. 2018. Vol. 33, no. 2. P. E53–E63. DOI: <https://doi.org/10.1097/HTR.0000000000000344>.

intensify disability. An early integrated-treatment pilot by J. Otis and colleagues demonstrated the feasibility of combining cognitive-behavioral pain and PTSD elements for veterans, although the sample was very small and the findings should be treated as preliminary⁹².

Larger clinical experience also supports integrated rather than mutually exclusive pathways. A veteran chronic-pain management program evaluated by J. Van Der Merwe and colleagues included veterans with and without PTSD and addressed the practical problem that people with both conditions may otherwise be passed between services when each condition is treated as a contraindication to the other⁹³. This organizational lesson is particularly relevant for rehabilitation systems: the presence of pain should prompt coordination and adaptation, not automatic deferral of trauma treatment.

Opioid exposure adds a further layer of risk. The 2022 VA/DoD opioid guideline emphasizes patient-centered assessment, risk mitigation, and careful management across initiation, maintenance, tapering, and discontinuation⁹⁴. In a rehabilitation context, abrupt changes in analgesia may destabilize sleep, mood, function, and treatment participation; conversely, hazardous use can increase overdose and safety risks. Psychological rehabilitation should not independently direct medication changes but must communicate clinically relevant information to the prescribing team and incorporate pain-related functioning into outcome monitoring.

A randomized controlled pilot trial by K. Vowles and colleagues tested an integrated behavioral treatment for veterans with chronic pain and hazardous opioid use and provided preliminary support for the feasibility of addressing pain interference and unsafe opioid behavior together⁹⁵. The modest scale of the study limits generalization, but it reinforces a broader principle: when two problems mutually maintain disability, a coordinated plan may be more rational than requiring complete resolution of one before the other is addressed.

For limb loss, the psychological task extends beyond symptom reduction to adaptation to altered embodiment and participation. The 2025 VA/DoD lower-limb amputation guideline organizes rehabilitation across phases and explicitly places multidisciplinary care at the center of recovery⁹⁶. Psychological support may be needed around traumatic memory, grief for lost function, body image, fear of falling, public self-consciousness, changes in intimacy,

⁹² Otis J. D., Keane T. M., Kerns R. D., Monson C., Scioli E. The Development of an Integrated Treatment for Veterans with Comorbid Chronic Pain and Posttraumatic Stress Disorder. *Pain Medicine*. 2009. Vol. 10, no. 7. P. 1300–1311. DOI: <https://doi.org/10.1111/j.1526-4637.2009.00715.x>.

⁹³ Van Der Merwe J., Brook S., Fear C., Benjamin M. J., Libby G., Williams A. C. de C., Baranowski A. P. Military veterans with and without post-traumatic stress disorder: results from a chronic pain management programme. *Scandinavian Journal of Pain*. 2021. Vol. 21, no. 3. P. 560–568. DOI: <https://doi.org/10.1515/sjpain-2019-0182>.

⁹⁴ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for the Use of Opioids in the Management of Chronic Pain. Version 4.0. Washington, DC, 2022. URL: <https://www.healthquality.va.gov/guidelines/Pain/cot/>.

⁹⁵ Vowles K. E., Witkiewitz K., Cusack K. J. et al. Integrated Behavioral Treatment for Veterans With Co-Morbid Chronic Pain and Hazardous Opioid Use: A Randomized Controlled Pilot Trial. *Journal of Pain*. 2020. Vol. 21, no. 7–8. P. 798–807. DOI: <https://doi.org/10.1016/j.jpain.2019.11.007>.

⁹⁶ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Rehabilitation of Individuals with Lower Limb Amputation. Version 3.0. Washington, DC, 2024. URL: <https://www.healthquality.va.gov/guidelines/Rehab/amp/>.

chronic or phantom pain, and uncertainty about return to work. These domains should be addressed without implying that successful adjustment requires the absence of grief or that distress necessarily represents a psychiatric disorder.

The timing of psychological work around prosthetic rehabilitation should be individualized. During early recovery, the priority may be orientation, pain coping, sleep, and tolerating repeated medical procedures. Later, exposure-based principles may be useful for avoiding public settings, vehicles, or locations associated with injury; values-based work may support return to meaningful roles; and family sessions may address overprotection or redistribution of responsibilities. The goal is to align psychological intervention with the actual tasks of physical and social rehabilitation rather than delivering a generic trauma program in parallel.

Suicide risk must remain a standing decision variable across all of these profiles. The 2024 VA/DoD suicide-risk guideline organizes care around identification, comprehensive assessment, and management, and stresses that a validated tool cannot substitute for clinical interview and assessment of risk and protective factors⁹⁷. In a stepped pathway, suicide risk should therefore influence level of care, frequency of contact, involvement of supports, access to emergency services, and the appropriateness of remote delivery.

Risk assessment should be dynamic and contextual. A service member who denies suicidal intent during a stable outpatient visit may require rapid reassessment after a new death, relationship rupture, legal or financial crisis, severe pain exacerbation, intoxication, or loss of a military role. Conversely, chronic passive thoughts without acute intent do not automatically require hospitalization if a comprehensive assessment supports outpatient management. The stepped-care model should avoid both underreaction and automatic escalation by defining observable criteria and documenting the rationale for the selected level of monitoring.

Moral injury is especially relevant to suicide-related formulation because global self-condemnation, perceived unforgivability, betrayal, and loss of belonging can intensify hopelessness even when fear-based PTSD symptoms are not dominant. The appropriate response is not to treat moral injury as a direct proxy for suicide risk, but to include moral emotions and belonging within a comprehensive assessment. The safety plan should identify triggers related to anniversaries, legal investigations, media reports, unit losses, or family conflict when these are relevant to the individual's moral narrative.

Bereavement also requires differentiation from PTSD and depression. Grief after the death of fellow service members or civilians can involve yearning, sadness, anger, guilt, intrusive images, and avoidance, but most grief does not constitute a mental disorder. A nationally representative study of U.S. veterans found clinically significant prolonged-grief symptoms in a minority of participants and showed substantial psychiatric burden and association with suicidal thoughts and attempts among those screening positive⁹⁸. These

⁹⁷ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Assessment and Management of Patients at Risk for Suicide. Version 3.0. Washington, DC, 2024. URL: <https://www.healthquality.va.gov/guidelines/MH/srb/>.

⁹⁸ Na P. J., Fischer I. C., Shear K. M., Pietrzak R. H. Prevalence, Correlates, and Psychiatric Burden of Prolonged Grief Disorder in U.S. Military Veterans: Results From a Nationally Representative Study. *American Journal of Geriatric Psychiatry*. 2023. Vol. 31, no. 7. P. 543–548. DOI: <https://doi.org/10.1016/j.jagp.2023.02.007>.

findings cannot be transferred as prevalence estimates to Ukrainian personnel, but they support routine attention to persistent grief when loss remains functionally disabling.

In formulation, prolonged grief is distinguished from PTSD by the centrality of separation distress and difficulty adapting to the reality of loss, although both can coexist when death occurred violently. Treatment planning should therefore identify whether the primary maintaining process is fear and threat, guilt and moral conflict, persistent yearning and avoidance of the finality of loss, depression, or a combination. This distinction prevents the automatic use of exposure solely because intrusive images are present and allows grief-focused work to be integrated when the clinical profile warrants it.

Military bereavement also has relational and identity dimensions. The deceased may have been a commander, subordinate, close friend, or member of a tightly bonded unit, and recovery can evoke concerns about loyalty, remembrance, and the meaning of surviving. Psychological rehabilitation should permit continuing bonds and commemoration while addressing forms of avoidance or self-punishment that restrict life. Reintegration goals can include finding ways to carry the significance of the deceased into values-consistent civilian action rather than framing recovery as detachment from the relationship.

Family functioning is a major determinant of whether clinical gains translate into everyday recovery. Partners and relatives may have adapted for months or years to the service member's absence, injury, or emotional unavailability and may have developed new roles that cannot simply be reversed on return. Symptoms such as irritability, avoidance, sleep disruption, alcohol use, and hypervigilance can affect the entire household. Family assessment should therefore identify communication patterns, safety concerns, caregiving burden, parenting responsibilities, intimacy, finances, and the degree to which relatives are becoming overprotective or withdrawing.

Evidence supports the possibility of directly treating PTSD and relationship functioning within a conjoint format in selected cases. In a randomized controlled trial, C. Monson and colleagues found that cognitive-behavioral couple therapy improved PTSD symptoms and relationship satisfaction compared with a wait-list condition⁹⁹. This does not mean that couple treatment should replace individual trauma-focused therapy when the latter is indicated, but it provides an evidence-based option when relationship processes are central to impairment and both partners can participate safely.

Family involvement must be bounded by confidentiality and clinical appropriateness. Relatives can contribute observations about sleep, alcohol use, anger, cognition, or functional change, but the service member remains an autonomous participant in care. In cases of interpersonal violence, coercive control, or severe relationship instability, conjoint treatment may be inappropriate until safety is established. A personalized model should therefore distinguish supportive family participation, psychoeducation, caregiver support, and formal couple therapy as separate interventions with different indications.

Occupational functioning should be treated as a rehabilitation outcome rather than deferred until symptoms have completely resolved. Work can provide structure, social contact, financial security, competence, and renewed identity, but an unsuccessful return can also amplify shame and avoidance. Assessment should consider cognitive and physical

⁹⁹ Monson C. M., Fredman S. J., Macdonald A., Pukay-Martin N. D., Resick P. A., Schnurr P. P. Effect of Cognitive-Behavioral Couple Therapy for PTSD: A Randomized Controlled Trial. *JAMA*. 2012. Vol. 308, no. 7. P. 700–709. DOI: <https://doi.org/10.1001/jama.2012.9307>.

requirements, travel, sleep schedule, sensory triggers, interpersonal demands, disability accommodation, and whether the service member's previous military competencies can be translated into civilian terms.

Individual Placement and Support provides one evidence-based vocational model. In a randomized trial of veterans with PTSD, L. Davis and colleagues found substantially better competitive-employment outcomes for supported employment than for a traditional vocational rehabilitation program¹⁰⁰. The implication for a psychological rehabilitation pathway is that employment support can be integrated while clinical treatment continues, rather than waiting for complete symptom remission before vocational goals are addressed.

Economic evaluation also matters when designing national pathways. N. Jordan and colleagues reported that Individual Placement and Support involved higher annual health-service costs than usual vocational services, driven by greater use of vocational support, while patterns of high-intensity health-care use did not differ¹⁰¹. Such findings underscore that effective reintegration may require investment outside narrowly defined psychotherapy budgets. Cost should therefore be assessed against functional outcomes and social participation rather than only the number of clinical sessions delivered.

The process by which treatment options are explained can itself affect access to evidence-based care. A qualitative study by K. Hooyer and colleagues of real-world PTSD treatment-planning sessions found that clinicians used rich descriptions, questions, prior success examples, inviting language, and tailoring to communicate evidence-based options¹⁰². For shared decision-making, this suggests that presenting CPT, PE, EMDR, WET, or other options as unexplained labels is insufficient. The service member needs a clear description of what treatment involves, why it is recommended, what discomfort is expected, and what alternatives remain available.

Digital delivery can reduce some access barriers but should not be used to conceal service shortages. The evidence for synchronous videoconferencing is strongest when it reproduces a validated psychotherapy with an appropriately trained clinician. More experimental models can extend reach but require explicit evidence boundaries. A 2024 pilot randomized trial by C. McLean, N. Malek, and C. Straud evaluated peer-coached online exposure for veterans. Half of randomized participants did not initiate treatment; among treatment starters, clinically meaningful improvements were observed, while equivalence between written and verbal exposure conditions remained inconclusive¹⁰³. The findings therefore support cautious

¹⁰⁰ Davis L. L., Leon A. C., Toscano R., Drebing C. E., Ward L. C., Parker P. E., Kashner T. M., Drake R. E. A Randomized Controlled Trial of Supported Employment Among Veterans With Posttraumatic Stress Disorder. *Psychiatric Services*. 2012. Vol. 63, no. 5. P. 464–470. DOI: <https://doi.org/10.1176/appi.ps.201100340>.

¹⁰¹ Jordan N., Stroupe K. T., Richman J. et al. Comparing Service Use and Costs of Individual Placement and Support With Usual Vocational Services for Veterans With PTSD. *Psychiatric Services*. 2022. Vol. 73, no. 10. P. 1109–1116. DOI: <https://doi.org/10.1176/appi.ps.202100197>.

¹⁰² Hooyer K., Hamblen J., Kehle-Forbes S. M., Larsen S. E. “Pitching” posttraumatic stress disorder treatment: A qualitative study of how providers discuss evidence-based psychotherapies with patients. *Journal of Traumatic Stress*. 2024. Vol. 37, no. 6. P. 901–912. DOI: <https://doi.org/10.1002/jts.23058>.

¹⁰³ McLean C. P., Malek N., Straud C. L. A pilot randomized controlled trial of online written exposure therapy delivered by peer coaches to veterans with posttraumatic stress disorder. *Journal of Traumatic Stress*. 2024. Vol. 37, no. 3. P. 471–482. DOI: <https://doi.org/10.1002/jts.23020>.

investigation of digitally supported delivery rather than claims of established feasibility or unsupervised substitution for specialist care.

Collaborative telecare offers a different digital function: it supports a system rather than replacing the clinician. The STEPS-UP trial combined centralized assistance, care management, monitoring, and stepped treatment in military primary care¹⁰⁴. This model is particularly relevant to geographically dispersed or relocated service members because specialist expertise can support local providers while responsibility for follow-up remains explicit. Digitalization therefore has greatest strategic value when it connects levels of care, not when it merely adds another standalone application.

For Ukraine, the design of digital support should be integrated with physical veteran spaces and specialist navigation rather than positioned as a separate ecosystem. VETERAN PRO was developed as a network of inclusive multifunctional spaces offering a single point of entry for multiple types of assistance and involving veteran-support specialists¹⁰⁵. Digital tools can complement such entry points through appointment coordination, information, reminders, and referral tracking, while face-to-face alternatives remain essential for people with sensory, cognitive, connectivity, or privacy barriers.

Across these comorbid and functional domains, the principle of treatment fidelity remains critical. Personalization may change the order, pace, setting, format, and supportive adaptations around an evidence-based intervention, but it should not remove the active components that define the intervention without documenting a clinically justified reason. When outcomes are poor, the first response should be to review attendance, therapeutic alliance, fidelity, dose, formulation, barriers, and comorbidity before concluding that the evidence-based method itself has failed. This protects personalization from becoming an unstructured accumulation of techniques¹⁰⁶.

¹⁰⁴ Engel C. C., Jaycox L. H., Freed M. C. et al. Centrally Assisted Collaborative Telecare for Posttraumatic Stress Disorder and Depression Among Military Personnel Attending Primary Care: A Randomized Clinical Trial. *JAMA Internal Medicine*. 2016. Vol. 176, no. 7. P. 948–956. DOI: <https://doi.org/10.1001/jamainternmed.2016.2402>.

¹⁰⁵ Мінвeterанів запускає масштабний проєкт ветеранських просторів VETERAN PRO / Міністерство у справах ветеранів України. 28 серпня 2024. URL: <https://mva.gov.ua/prescenter/category/86-novini/minveteraniv-zapuskae-masshtabnyi-proekt-veteranskih-prostoriv-veteran-pro>.

¹⁰⁶ Galovski T. E., McSweeney L. B., Nixon R. D. V. et al. Personalizing cognitive processing therapy with a case formulation approach to intentionally target impairment in psychosocial functioning associated with PTSD. *Contemporary Clinical Trials Communications*. 2024. Vol. 42. Art. 101385. DOI: <https://doi.org/10.1016/j.conctc.2024.101385>.

Table 3

**Comorbidity-Informed Adaptation of Evidence-Based Psychological
Rehabilitation**

Co-occurring domain	Key assessment questions	Implications for intervention	Route-change indicators
Chronic insomnia / sleep apnea	Is insomnia independent of PTSD? Are there apnea indicators, sedating medications, or occupational safety risks?	CBT-I and medical sleep assessment can run in parallel with trauma-focused care; adapt timing when sleep loss impairs participation.	Escalate for severe daytime impairment, suspected untreated apnea, safety-critical fatigue, or inability to engage in treatment.
Substance use	Is use hazardous, dependent, or associated with intoxication/withdrawal? What function does it serve?	Medical stabilization when required; otherwise integrate or closely coordinate SUD treatment and evidence-based PTSD treatment.	Urgent medical care for severe withdrawal/intoxication; increase intensity for recurrent risk, overdose, or treatment disengagement.
Traumatic brain injury	Which symptoms are neurological, overlapping, or modifiable by sleep/pain/PTSD treatment?	Preserve core psychotherapy components with shorter segments, repetition, written supports, and medical/neuropsychological coordination.	Reassess for progressive neurological change, marked cognitive deterioration, or inability to retain treatment material.
Chronic / phantom pain	What is the pain mechanism, functional interference, medication exposure, and relationship to avoidance or sleep?	Integrate psychological rehabilitation with medical, physical, occupational, and pain care; avoid psychogenic reductionism.	Escalate for uncontrolled pain, medication-related risk, rapid functional decline, or significant opioid-related safety concerns.
Limb loss	How do mobility, body image, prosthetic training, pain, grief, intimacy, and public participation interact?	Coordinate psychological work with prosthetic and physical rehabilitation; target trauma, avoidance, grief, and role restoration as indicated.	Increase multidisciplinary intensity for persistent nonparticipation, severe depression, suicidality, or complex pain and prosthetic problems.
Prolonged grief / moral injury	Is the principal process separation distress, threat, responsibility, betrayal, self-condemnation, or a combination?	Use diagnosis-specific trauma treatment when indicated and add grief- or moral injury-informed components according to formulation.	Escalate for worsening suicide risk, pervasive self-punishment, profound isolation, or sustained functional deterioration.
Family / occupational disruption	Are relationship patterns or work barriers maintaining symptoms and disability?	Consider conjoint/family interventions, supported employment, accommodation, and coordinated social services alongside clinical care.	Modify route when violence, housing/financial crisis, employment failure, or loss of support materially changes clinical risk.

Note. The table is an implementation framework and does not replace individualized clinical assessment^{107,108,109}.

¹⁰⁷ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Assessment and Management of Patients at Risk for Suicide. Version 3.0. Washington, DC, 2024.

¹⁰⁸ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for the Management of Chronic Insomnia Disorder and Obstructive Sleep Apnea. Version 3.0. Washington, DC, 2025.

¹⁰⁹ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for the Management and Rehabilitation of Post-Acute Mild Traumatic Brain Injury. Version 3.0. Washington, DC, 2021.

3. Operationalizing a Continuous Personalized Rehabilitation Pathway: Routing, Multidisciplinary Coordination, Reintegration, and Quality Assurance

A personalized stepped-care model becomes operational only when its decision rules can be applied consistently across services. The pathway therefore requires explicit criteria for entry, assessment, allocation, coordination, monitoring, transition, and completion, together with named responsibility for each decision. These rules should support clinical judgement rather than replace it and should remain understandable to service members, families, and professionals.

The first operational component is an accessible point of entry. Entry should not depend on the individual already knowing which professional or institution is appropriate, because uncertainty about the system is itself a barrier to care. A single-entry-point or navigation model is especially relevant after discharge, relocation, or change in legal status, when the person may simultaneously need psychological care, documentation, rehabilitation, employment support, and family services. The VETERAN PRO concept is consistent with this principle by positioning multifunctional veteran spaces as points at which different needs can be identified and routed¹¹⁰.

At first contact, services should collect only the minimum information required for safe routing: current location and contact details, immediate medical concerns, suicide and violence risk, intoxication or withdrawal, acute neurological change, severe functional disruption, and urgent social needs. Comprehensive diagnostic assessment can follow once safety and an appropriate level of care have been established.

Urgent routing criteria should be explicit. Acute suicide risk, severe withdrawal, psychosis, delirium, major neurological change, uncontrolled medical instability, severe violence risk, or inability to maintain basic safety requires direct access to emergency or highly specialized care. The 2024 VA/DoD suicide guideline provides a useful model by separating identification, comprehensive assessment, and acute-risk management¹¹¹. The principle is transferable even where specific institutional procedures differ: high-risk conditions bypass routine low-intensity steps.

The second operational component is a multidimensional assessment that produces decisions rather than merely data. Assessment should include diagnosis when appropriate, but its main function in rehabilitation is to determine the current combination of therapeutic targets, functional restrictions, risks, resources, and barriers. A long battery of questionnaires is not inherently more personalized than a short one. The relevant question is whether each measure contributes to a decision about treatment selection, intensity, monitoring, or transition.

A practical assessment architecture can be organized into six domains: safety; clinical symptoms and diagnoses; physical and cognitive health; functioning and participation; social and family context; and personal goals and resources. Within each domain, the team should

¹¹⁰ Мінвeterанів запускає масштабний проєкт ветеранських просторів VETERAN PRO / Міністерство у справах ветеранів України. 28 серпня 2024. URL: <https://mva.gov.ua/presenter/category/86-novini/minveteraniv-zapuskae-masshtabnyi-proekt-veteranskih-prostoriv-veteran-pro>.

¹¹¹ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Assessment and Management of Patients at Risk for Suicide. Version 3.0. Washington, DC, 2024. URL: <https://www.healthquality.va.gov/guidelines/MH/srb/>.

identify both problems and protective factors. For example, severe intrusive memories may coexist with strong family support and intact occupational competence, while moderate PTSD symptoms may coexist with unstable housing and hazardous alcohol use. The latter profile may require more organizational intensity despite lower symptom severity.

The third component is case formulation. Formulation should describe how the current problems are connected and which mechanisms are most likely to maintain disability. It can distinguish trauma-memory avoidance, negative beliefs, moral self-condemnation, prolonged grief, sleep dysregulation, pain-related fear, substance reinforcement, cognitive overload, family conflict, or social disconnection. The formulation should also state what evidence would lead the team to revise its assumptions. This makes the plan testable and supports adaptive changes rather than impressionistic switching between interventions.

Shared decision-making should occur after the professional has established the boundaries of safe and evidence-based options. The service member should receive understandable explanations of the expected process, duration, benefits, burdens, and uncertainties of each reasonable alternative. Real-world qualitative evidence suggests that the way clinicians explain trauma-focused therapies affects whether veterans view them as acceptable choices¹¹². A shared decision is therefore not simply a signature of consent but a structured conversation that links evidence with the person's goals and concerns.

The fourth component is allocation to a starting level. Low-intensity support is appropriate when safety is stable, functioning is largely preserved, distress is mild or subclinical, and the main needs concern psychoeducation, normalization, practical support, and monitoring. Professional psychological treatment is indicated when symptoms or maladaptive patterns are persistent and functionally significant but medical complexity does not require intensive multidisciplinary management. Comprehensive medical-psychological rehabilitation is indicated when severe symptoms, substantial functional impairment, significant comorbidity, injury, cognitive problems, or risk require coordinated specialist input.

Starting-level allocation should be documented in a short rationale. For example, 'Level 2 because PTSD symptoms are clinically significant, suicide risk is currently low, physical status is stable, and the service member can participate in weekly trauma-focused therapy' is more useful than a label alone. Documentation should also specify conditions that would trigger escalation, such as emerging suicidal intent, repeated intoxication, inability to attend, worsening pain, or progressive cognitive difficulty. This transforms stepped care from an administrative classification into a prospective clinical plan.

Measurement-based care provides the data needed for these transitions. At minimum, outcome monitoring should include the primary target of the intervention, safety, functioning, and progress toward the person's own goals. Additional measures can address sleep, pain, substance use, grief, moral distress, or relationship functioning when they are part of the formulation. The frequency of measurement should reflect volatility: high-risk periods require closer monitoring, whereas stable maintenance can use longer intervals.

Outcome data should be reviewed jointly rather than stored only for reporting. A clinically meaningful review asks whether the observed change is large enough to matter,

¹¹² Hooyer K., Hamblen J., Kehle-Forbes S. M., Larsen S. E. "Pitching" posttraumatic stress disorder treatment: A qualitative study of how providers discuss evidence-based psychotherapies with patients. *Journal of Traumatic Stress*. 2024. Vol. 37, no. 6. P. 901–912. DOI: <https://doi.org/10.1002/jts.23058>.

whether it is consistent with the service member's experience, whether functioning has changed in parallel, and whether there are new problems that the original measure does not capture. If symptoms improve while employment or family functioning deteriorates, the pathway should not be considered successful simply because a PTSD score is lower. This principle is consistent with veterans' expressed preferences for patient-centered measurement that includes outcomes beyond symptoms¹¹³.

The fifth component is multidisciplinary coordination. A multidisciplinary team is not merely a group of professionals who treat the same person. Coordination requires a shared formulation, clarity about roles, agreed priorities, and a method for resolving conflicting recommendations. The psychologist or psychotherapist may lead trauma-focused treatment; the psychiatrist may manage medication or severe mental disorder; the rehabilitation physician may coordinate physical rehabilitation; the physical and occupational therapists may address mobility and function; the social worker may address benefits and housing; and a veteran-support specialist may navigate community services. The lead clinical responsibility and the navigation responsibility should be named separately when they are held by different professionals.

For service members with TBI, amputation, chronic pain, or other significant injury, the interface between physical and psychological rehabilitation is especially important. The 2025 lower-limb amputation guideline emphasizes multidisciplinary rehabilitation across phases of care¹¹⁴. Psychological work should be scheduled in a way that does not undermine intensive physical therapy or exhaust the person, while rehabilitation teams should recognize when avoidance, traumatic reminders, sleep, or depression are reducing participation. Mutual communication prevents physical and psychological explanations from becoming competing narratives.

Pain management requires similar shared planning. The objective is neither to interpret pain as a psychological symptom nor to separate it completely from behavior and function. Interdisciplinary communication should address analgesia, sleep, activity, fear of movement, prosthetic use, pacing, opioid risk, and trauma treatment. The VA/DoD opioid guideline offers a structured framework for patient-centered risk management when opioids are used¹¹⁵. Psychological providers should contribute observations about functioning and risk while respecting medical prescribing boundaries.

Sleep care can be embedded in the pathway using parallel treatment rules. If chronic insomnia is a major independent source of impairment, CBT-I can be delivered alongside or in planned sequence with trauma-focused therapy. The 2025 insomnia/OSA guideline provides current evidence-based decision pathways, while trials in PTSD populations demonstrate that targeted insomnia treatment can improve sleep even when trauma symptoms

¹¹³ Weber M. C., Jendro A. M., Fischer E. P. et al. Veterans' Experiences of and Preferences for Patient-Centered, Measurement-Based PTSD Care. *Medical Care*. 2024. Vol. 62, no. 12, suppl. 1. P. S84–S90. DOI: <https://doi.org/10.1097/MLR.0000000000002070>.

¹¹⁴ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Rehabilitation of Individuals with Lower Limb Amputation. Version 3.0. Washington, DC, 2024. URL: <https://www.healthquality.va.gov/guidelines/Rehab/amp/>.

¹¹⁵ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for the Use of Opioids in the Management of Chronic Pain. Version 4.0. Washington, DC, 2022. URL: <https://www.healthquality.va.gov/guidelines/Pain/cot/>.

require separate treatment^{116,117}. The routing plan should specify which clinician monitors sleep and how possible sleep apnea or medication-related sedation is communicated to medical providers.

Substance-related care should also have predefined interfaces. The 2026 Ukrainian experimental project on medical-psychological support for defenders with disorders related to psychoactive substances creates a current national mechanism that can be connected with trauma rehabilitation¹¹⁸. A clinically coherent pathway should allow concurrent or closely coordinated PTSD treatment when safe, rather than requiring prolonged abstinence as a universal prerequisite. The COPE trial in military veterans supports the feasibility of integrated trauma-focused and substance-use treatment in selected patients¹¹⁹.

The sixth component is continuity across institutional transitions. Discharge from a military hospital, transfer to a civilian rehabilitation facility, return to a unit, demobilization, or relocation should trigger a planned handover rather than a new search for care. A minimum handover should include the current formulation, safety status, active treatments, medication information where appropriate, functional restrictions, agreed goals, pending referrals, and the name of a responsible professional. Repeating traumatic histories simply because information was not transferred should be minimized when clinically valid records already exist.

WHO system analyses identify rehabilitation-capacity constraints and the need to synchronize service delivery and resource allocation, while wartime attacks on health care create additional continuity risks. These conditions make continuity a quality indicator rather than an abstract value. Services should be able to report waiting time between referral and first contact, successful completion of planned handovers, unplanned treatment interruption, duplication of assessments, and time to rapid re-entry into care after deterioration^{120,121}.

Collaborative-care models provide practical mechanisms for maintaining continuity when specialist resources are scarce. RESPECT-Mil and STEPS-UP illustrate how care

¹¹⁶ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for the Management of Chronic Insomnia Disorder and Obstructive Sleep Apnea. Version 3.0. Washington, DC, 2025. URL: <https://www.healthquality.va.gov/guidelines/CD/insomnia/>.

¹¹⁷ Colvonen P. J., Hunt C., Park J., Angkaw A. C., Gehrman P., Clare K., Norman S. B. Cognitive Behavioral Therapy for Insomnia With Prolonged Exposure Compared to Sleep Hygiene and Prolonged Exposure: A Randomized Controlled Trial. *Journal of Clinical Psychiatry*. 2025. Vol. 86, no. 3. Art. 24m15584. DOI: <https://doi.org/10.4088/JCP.24m15584>.

¹¹⁸ Деякі питання реалізації експериментального проекту щодо надання послуг із медико-психологічного супроводу окремим категоріям осіб, які захищали незалежність, суверенітет та територіальну цілісність України і мають розлади, що виникли внаслідок вживання психоактивних речовин, включаючи алкоголь : постанова Кабінету Міністрів України від 11.02.2026 № 195. URL: <https://zakon.rada.gov.ua/go/195-2026-%D0%BF>.

¹¹⁹ Back S. E., Killeen T., Badour C. L. et al. Concurrent treatment of substance use disorders and PTSD using Prolonged Exposure: A randomized clinical trial in military veterans. *Addictive Behaviors*. 2019. Vol. 90. P. 369–377. DOI: <https://doi.org/10.1016/j.addbeh.2018.11.032>.

¹²⁰ World Health Organization. Regional Office for Europe. Financing rehabilitation services in Ukraine: a situation assessment and policy options. Copenhagen : WHO Regional Office for Europe, 2025. 62 p. URL: <https://www.who.int/ukraine/publications/i/item/WHO-EURO-2025-12703-52477-81012>.

¹²¹ World Health Organization. Regional Office for Europe. Attacks on Ukraine's health care increased by 20% in 2025. 23 February 2026. URL: <https://www.who.int/europe/news/item/23-02-2026-attacks-on-ukraine-s-health-care-increased-by-20--in-2025>.

managers, primary care, specialist consultation, and systematic outcome monitoring can be connected within military settings^{122,123}. Their relevance to Ukraine is conceptual rather than prescriptive: centralized expertise can support distributed local care, but accountability for follow-up must remain visible and referral pathways must be adapted to national regulation and local capacity.

The seventh component is digital support designed around the pathway. Digital tools should answer specific operational questions: Can the person find the correct service? Can a referral be tracked? Can a clinician review outcomes between visits? Can treatment continue during relocation? Can a high-risk result trigger human review? Can records be transferred securely? These functions differ from autonomous therapy and should be evaluated separately. A sophisticated application that does not improve any of these pathway functions may add complexity without improving rehabilitation.

Secure videoconferencing is most defensible when it delivers an established psychotherapy and when safety procedures are explicit. The existing evidence summarized earlier supports remote delivery of selected PTSD treatments. Emerging models, such as peer-coached online Written Exposure Therapy, may extend reach but should retain clear supervision and escalation mechanisms because the evidence remains preliminary¹²⁴. The pathway should also preserve telephone and in-person alternatives for people who cannot use video safely or privately.

Digital equity should be measured rather than assumed. Device ownership does not guarantee reliable broadband, private space, adequate vision or hearing, cognitive ability to navigate an application, or confidence in data security. Service members with TBI, sensory impairment, limited digital literacy, or temporary displacement may require simplified interfaces or non-digital alternatives. Failure to accommodate these factors can make a formally available service functionally inaccessible and can create systematic disparities in who is able to receive evidence-based care.

Data governance should follow the principle of minimum necessary access. Clinical notes, suicide-risk assessments, psychometric results, disability information, veteran status, and administrative documentation do not need to be visible to every professional involved in the broader support network. Role-based access, informed consent, logging of sensitive data use, and clear responsibility for automated alerts are essential. WHO guidance on artificial intelligence in health emphasizes human oversight, transparency, accountability, and protection of health data; these principles are especially important when military and health information intersect¹²⁵.

¹²² Engel C. C., Oxman T., Yamamoto C. et al. RESPECT-Mil: Feasibility of a Systems-Level Collaborative Care Approach to Depression and Post-Traumatic Stress Disorder in Military Primary Care. *Military Medicine*. 2008. Vol. 173, no. 10. P. 935–940. DOI: <https://doi.org/10.7205/MILMED.173.10.935>.

¹²³ Engel C. C., Jaycox L. H., Freed M. C. et al. Centrally Assisted Collaborative Telecare for Posttraumatic Stress Disorder and Depression Among Military Personnel Attending Primary Care: A Randomized Clinical Trial. *JAMA Internal Medicine*. 2016. Vol. 176, no. 7. P. 948–956. DOI: <https://doi.org/10.1001/jamainternmed.2016.2402>.

¹²⁴ McLean C. P., Malek N., Straud C. L. A pilot randomized controlled trial of online written exposure therapy delivered by peer coaches to veterans with posttraumatic stress disorder. *Journal of Traumatic Stress*. 2024. Vol. 37, no. 3. P. 471–482. DOI: <https://doi.org/10.1002/jts.23020>.

¹²⁵ World Health Organization. Ethics and governance of artificial intelligence for health: guidance on large multi-modal models. Geneva : World Health Organization, 2024. 98 p.

Artificial intelligence should therefore be assigned bounded functions. It can help organize verified information, support navigation, translate plain-language instructions, structure documentation, or assist clinicians in reviewing large datasets, but it should not independently diagnose PTSD, determine suicide risk, select a level of care, or conduct unsupervised trauma-focused therapy. The clinically responsible professional must remain able to understand, challenge, and override algorithmic output. A model that cannot explain why a person was escalated or excluded from care is incompatible with transparent shared decision-making.

The eighth component is family and social reintegration. Reintegration begins before the formal end of treatment because the service member's roles, routines, and relationships are part of recovery. Family goals may include restoring communication, renegotiating responsibilities, addressing overprotection, rebuilding intimacy, and supporting parenting. Couple-based PTSD treatment has randomized evidence for improving both symptoms and relationship satisfaction in selected cases¹²⁶. This supports inclusion of family interventions within the rehabilitation menu when relationship functioning is a central target and safety permits conjoint work.

The transition from military to civilian culture adds an identity dimension that cannot be reduced to psychiatric symptoms. A systematic meta-synthesis by S. Sachdev and S. Dixit identified recurring themes of military institutionalization, cultural contrast, stereotypes, skills and support, identity loss, reconnection with family and civilians, and facilitators of transition¹²⁷. These findings suggest that a successful pathway should help service members translate military competencies, preserve valued aspects of military identity, and develop civilian belonging rather than treating reintegration as simple removal of military habits.

Vocational rehabilitation should be activated according to readiness for work, not after complete clinical remission. Individual Placement and Support has randomized evidence in veterans with PTSD for improving competitive employment compared with traditional vocational rehabilitation¹²⁸. Its principle of rapid engagement with real employment is compatible with recovery-oriented rehabilitation because work becomes part of functional restoration rather than a final reward for symptom elimination.

Vocational goals should nevertheless be individualized around injury, cognitive capacity, sleep, transport, family responsibilities, and the emotional meaning of work. Some service members may seek a role closely related to previous military expertise; others may need retraining because the former role is physically impossible or psychologically unacceptable. Supported employment, educational guidance, entrepreneurship support, and gradual return-to-work arrangements should therefore be available as different pathways rather than a single vocational endpoint.

¹²⁶ Monson C. M., Fredman S. J., Macdonald A., Pukay-Martin N. D., Resick P. A., Schnurr P. P. Effect of Cognitive-Behavioral Couple Therapy for PTSD: A Randomized Controlled Trial. *JAMA*. 2012. Vol. 308, no. 7. P. 700–709. DOI: <https://doi.org/10.1001/jama.2012.9307>.

¹²⁷ Sachdev S., Dixit S. Military to civilian cultural transition experiences of retired military personnel: A systematic meta-synthesis. *Military Psychology*. 2024. Vol. 36, no. 6. P. 579–592. DOI: <https://doi.org/10.1080/08995605.2023.2237835>.

¹²⁸ Davis L. L., Leon A. C., Toscano R., Drebing C. E., Ward L. C., Parker P. E., Kashner T. M., Drake R. E. A Randomized Controlled Trial of Supported Employment Among Veterans With Posttraumatic Stress Disorder. *Psychiatric Services*. 2012. Vol. 63, no. 5. P. 464–470. DOI: <https://doi.org/10.1176/appi.ps.201100340>.

Community veteran spaces can support this broader reintegration when clinical and nonclinical roles are clearly differentiated. VETERAN PRO was designed to combine psychological and legal help, rehabilitation-related support, education, entrepreneurship, and veteran navigation within inclusive spaces¹²⁹. Such centers can serve as stable community anchors after formal psychotherapy ends, but they should retain referral links to specialist mental health and medical services for problems that exceed the scope of navigation or peer support.

The ninth component is workforce competence. Expanding the number of contacts is not sufficient if providers lack training in evidence-based trauma treatment, suicide-risk management, TBI-aware adaptation, substance-use comorbidity, moral injury formulation, or telehealth safety. Workforce planning should distinguish competencies required at each level of care and define when consultation or supervision is mandatory. The WHO financing assessment for rehabilitation in Ukraine specifically identifies workforce shortages as a continuing system constraint¹³⁰.

Supervision should be treated as part of service quality rather than optional professional development. Trauma-focused therapies require skill in managing avoidance without coercion, maintaining protocol fidelity, recognizing dissociation, and responding to risk. Moral injury work requires the ability to engage guilt and responsibility without moralizing or offering premature absolution. Telepsychotherapy requires competence in crisis procedures and privacy. Regular supervision can identify drift from evidence-based practice before poor outcomes become attributed to patient 'resistance.'

Fidelity monitoring should be proportional to risk and intervention complexity. It can include training records, structured supervision, session checklists, review of selected recordings with consent, or periodic competency assessment. Fidelity data should not be used punitively but should help distinguish treatment failure from implementation failure. If a service reports poor outcomes for CPT or PE but clinicians routinely omit core components, the appropriate system response is training and supervision rather than concluding that the therapy is ineffective for the population.

Cultural adaptation requires the same discipline. Adaptation can improve understandable language, examples, metaphors, military relevance, and sensitivity to Ukrainian social and moral contexts, but it should preserve the mechanism of an evidence-based treatment unless there is evidence for a modified protocol. Ukrainian-language validation of measures such as the PCL-5 and MIOS Part 2 provides an important foundation, yet civilian psychometric performance cannot automatically be treated as military clinical norms. Adaptation should

¹²⁹ Мінвeterанів запускає масштабний проєкт ветеранських просторів VETERAN PRO / Міністерство у справах ветеранів України. 28 серпня 2024. URL: <https://mva.gov.ua/prescenter/category/86-novini/minveteraniv-zapuskae-masshtabniy-proekt-veteranskih-prostoriv-veteran-pro>.

¹³⁰ World Health Organization. Regional Office for Europe. Financing rehabilitation services in Ukraine: a situation assessment and policy options. Copenhagen : WHO Regional Office for Europe, 2025. 62 p. URL: <https://www.who.int/ukraine/publications/i/item/WHO-EURO-2025-12703-52477-81012>.

therefore be documented and evaluated rather than assumed to be beneficial because it appears culturally intuitive¹³¹.

The tenth component is a quality framework that combines clinical, functional, organizational, and experiential outcomes. Clinical indicators include change in PTSD, depression, anxiety, sleep, substance use, pain interference, grief, or moral distress when these are treatment targets. Functional indicators include self-care, mobility, family roles, work or education, social participation, and goal attainment. Organizational indicators include waiting times, treatment initiation, completion, planned transitions, continuity, and rapid re-entry. Experience indicators include perceived respect, clarity of information, involvement in decisions, and trust in confidentiality.

Waiting time deserves particular attention because delay changes clinical need. A person referred with moderate symptoms may deteriorate during several weeks without treatment, while someone referred urgently may improve with stabilization and no longer require the originally planned intensity. Triage should therefore be repeated when waiting periods are clinically significant. Services should monitor not only average waiting time but also whether risk was reassessed and interim support was available during the wait.

Treatment engagement is another process indicator that should prompt clinical review rather than blame. Missed sessions may reflect avoidance, cognitive problems, transport disruption, unit duties, pain flares, alcohol use, caregiving, relocation, stigma, or dissatisfaction with the treatment explanation. The response should be guided by formulation. Evidence on treatment-planning conversations suggests that clear, tailored explanations can increase openness to first-line PTSD therapies¹³². Engagement work should therefore include communication quality as well as logistical reminders.

Rapid re-entry is essential in a chronic-risk environment. A service member who previously completed effective treatment should not need to restart the entire referral and assessment process after a new trauma, symptom recurrence, relationship crisis, or major change in physical health. The maintenance plan should identify warning signs, designated contact points, what prior information remains valid, and which conditions require full reassessment. Rapid re-entry reduces the clinical cost of fragmentation and supports the idea that rehabilitation is a longitudinal pathway rather than a single episode.

The eleventh component is implementation under resource constraints. A national model should distinguish essential functions from ideal resources. Essential functions include risk identification, an accountable professional, evidence-based treatment access, monitoring, referral, and continuity. Advanced technologies, specialized virtual-reality systems, or extensive multidisciplinary facilities can enhance care but should not become prerequisites for basic evidence-based treatment. This protects against a technology-driven model in which innovation is concentrated in a few centers while routine access remains limited.

Resource allocation should also consider opportunity cost. WHO's analysis, which focuses primarily on physical rehabilitation financing within the Programme of Medical

¹³¹ Mezhenka M., Contractor A. A., Nazarenko T. Moral injury and PTSD among Ukrainians exposed to full-scale war. *European Journal of Psychotraumatology*. 2026. Vol. 17, no. 1. Art. 2685934. DOI: <https://doi.org/10.1080/20008066.2026.2685934>.

¹³² Hooyer K., Hamblen J., Kehle-Forbes S. M., Larsen S. E. "Pitching" posttraumatic stress disorder treatment: A qualitative study of how providers discuss evidence-based psychotherapies with patients. *Journal of Traumatic Stress*. 2024. Vol. 37, no. 6. P. 901–912. DOI: <https://doi.org/10.1002/jts.23058>.

Guarantees, emphasizes that growth in spending must be aligned with population need and service priorities rather than equated with effectiveness¹³³. In psychological rehabilitation, this implies prioritizing interventions with established benefit, supervision that protects fidelity, and navigation that reduces loss to follow-up before investing heavily in technologies whose comparative advantage remains uncertain.

Implementation should proceed iteratively. A service can begin with a standardized assessment core, defined routing criteria, named case responsibility, access to first-line psychotherapies, and a basic measurement set. Subsequent phases can add integrated sleep, substance-use, pain, TBI, family, vocational, and digital components as workforce and coordination mature. Each expansion should be evaluated for whether it shortens delays, improves outcomes, reduces dropout, or increases continuity rather than being judged only by the number of new services introduced.

Research priorities follow directly from implementation gaps. Ukrainian military populations require more prospective evidence on PTSD and complex PTSD treatment outcomes, moral injury trajectories, grief, TBI and pain comorbidity, family interventions, digital delivery, vocational recovery, and the effectiveness of current levels of psychological care. Measurement studies should establish clinically meaningful change and functional thresholds in military samples rather than importing cut-offs without validation. Comparative implementation research is also needed to determine which combinations of centralized expertise, community navigation, and digital support are sustainable across regions.

Particular caution is required when transferring evidence from U.S., Canadian, or other veteran systems to Ukraine. The mechanisms of PTSD treatment may generalize, but military organization, duration and intensity of combat, legal status, family displacement, health care infrastructure, cultural meanings of responsibility, and ongoing exposure to war differ. International evidence should therefore define the range of defensible interventions while Ukrainian data determine how those interventions are organized, communicated, monitored, and integrated with local rehabilitation and veteran policy¹³⁴.

The operational model can finally be summarized as a closed learning cycle. Assessment generates a formulation; formulation determines the starting level and pathway; treatment produces outcome data; outcome data test the formulation; and the revised formulation determines whether care is continued, adapted, stepped up, shifted horizontally, or stepped down. Reintegration outcomes feed back into the same cycle because family, work, pain, sleep, or social participation may reveal needs that were not visible during acute treatment. A service becomes genuinely personalized when this cycle is routine rather than exceptional¹³⁵.

¹³³ World Health Organization. Regional Office for Europe. Financing rehabilitation services in Ukraine: a situation assessment and policy options. Copenhagen : WHO Regional Office for Europe, 2025. 62 p. URL: <https://www.who.int/ukraine/publications/i/item/WHO-EURO-2025-12703-52477-81012>.

¹³⁴ Lawry L. L., Korona-Bailey J., Hamm T. E. et al. A qualitative assessment of war-related rehabilitation needs and gaps in Ukraine. *Journal of Health, Population and Nutrition*. 2025. Vol. 44. Art. 175. DOI: <https://doi.org/10.1186/s41043-025-00912-4>.

¹³⁵ Weber M. C., Jendro A. M., Fischer E. P. et al. Veterans' Experiences of and Preferences for Patient-Centered, Measurement-Based PTSD Care. *Medical Care*. 2024. Vol. 62, no. 12, suppl. 1. P. S84–S90. DOI: <https://doi.org/10.1097/MLR.0000000000002070>.

This model guards against both therapeutic minimalism and unnecessary escalation. Complex needs should not be reduced to nonspecific support when impairment persists, but treatment intensity should not increase without evidence of need. The appropriate response is proportionate, evidence-based care reviewed against safety, functioning, engagement, and personally meaningful outcomes.

For Ukrainian service members and veterans, the principal outcome is sustainable participation under conditions that may remain difficult for years. Depending on health status, personal goals, and life circumstances, this may involve return to military duties, civilian employment or education, family roles, community participation, or combinations of these domains. The pathway should preserve clinically meaningful choice while defining success through functioning, autonomy, relationships, and participation rather than a single normative endpoint.

A continuous personalized pathway therefore links evidence-based psychotherapy with medical rehabilitation, suicide prevention, sleep and substance-use treatment, family and vocational support, navigation, digital access, and quality assurance. Its central feature is not the number of available interventions but the quality of the decisions connecting them. When those decisions are explicit, measurable, revisable, and shared with the service member, stepped care becomes a clinically governed system of rehabilitation rather than a hierarchy of service providers¹³⁶.

Table 4

Outcome Domains and Decision Rules in a Personalized Stepped-Care Pathway

Outcome domain	Minimum monitoring content	Clinical interpretation	Possible response
Safety	Suicidal thoughts/behavior, violence risk, intoxication/withdrawal, acute medical or neurological instability	Safety can override symptom-based stepping and requires contextual clinical assessment.	Urgent escalation, crisis response, medical assessment, increased monitoring, or protective support.
Primary clinical target	Validated measure relevant to PTSD, depression, insomnia, SUD, grief, pain interference, or other principal target	Evaluate trajectory, clinically meaningful change, residual mechanisms, and adverse effects.	Continue, adapt, switch evidence-based method, add parallel treatment, or step intensity up/down.
Functioning	Self-care, mobility, family roles, work/education, social participation, personally meaningful activities	Symptom improvement without functional recovery may indicate residual barriers or an incomplete pathway.	Add rehabilitation, vocational, family, social, or accessibility interventions; revise goals.

¹³⁶ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

Engagement	Attendance, homework/skills use, reasons for missed contact, treatment preference, therapeutic alliance	Nonparticipation may reflect avoidance, practical barriers, poor explanation, cognitive load, or treatment mismatch.	Problem-solve barriers, improve treatment explanation, adapt delivery, reconsider fit before labeling nonresponse.
Continuity	Waiting time, referral completion, handover success, named responsible professional, rapid re-entry time	Organizational failure can cause deterioration even when individual therapies are effective.	Case coordination, direct handover, interim support, escalation of unresolved referral barriers.
Experience of care	Understanding of plan, involvement in decisions, perceived respect, trust in confidentiality and data use	Poor experience can reduce disclosure and engagement and may signal trauma-uninformed delivery.	Clarify plan, revise communication, address privacy, change provider or modality when justified.

Note. Outcome review should support shared clinical decisions rather than function solely as administrative reporting^{137,138}.

CONCLUSIONS

The theoretical, empirical, clinical, and regulatory synthesis supports a personalized, stratified, stepped-care, and adaptive model of psychological rehabilitation for service members and veterans affected by combat-related trauma. The model integrates multidimensional assessment, allocation to an appropriate starting level, shared goal-setting, evidence-based intervention, measurement-based monitoring, case coordination, and adaptive transitions. Decisions should reflect safety, symptom configuration, maintaining mechanisms, comorbidity, functioning, readiness, context, and informed preferences rather than diagnosis alone. Trauma-focused psychotherapies, including EMDR, remain first-line for PTSD, while persistent guilt, shame, self-condemnation, betrayal, loss of trust, and disruption of meaning warrant moral injury-informed assessment and targeted care. Comorbidity should not automatically delay evidence-based PTSD treatment once safety and participation are established. Digital technologies should be selected according to clinical function and evidence: secure videoconferencing has the strongest support, while VRET, biofeedback, wearables, mobile tools, monitoring systems, and artificial intelligence have selective adjunctive or organizational roles under professional oversight. A coherent pathway requires criteria for escalation, transfer, step-down, and rapid re-entry across relevant

¹³⁷ Hooyer K., Hamblen J., Kehle-Forbes S. M., Larsen S. E. “Pitching” posttraumatic stress disorder treatment: A qualitative study of how providers discuss evidence-based psychotherapies with patients. *Journal of Traumatic Stress*. 2024. Vol. 37, no. 6. P. 901–912. DOI: <https://doi.org/10.1002/jts.23058>.

¹³⁸ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Assessment and Management of Patients at Risk for Suicide. Version 3.0. Washington, DC, 2024. URL: <https://www.healthquality.va.gov/guidelines/MH/srb/>.

services, with sustainable autonomy, functioning, relationships, and participation as its ultimate outcomes¹³⁹.

SUMMARY

This chapter presents a personalized stepped-care model for service members and veterans affected by combat-related trauma. It integrates person-centered stratification, measurement-based monitoring, evidence-based PTSD treatment, moral injury-informed care, management of key comorbidities, and clinically governed digital support. Success is defined by sustainable functioning and meaningful participation rather than symptom reduction alone¹⁴⁰.

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¹³⁹ Department of Veterans Affairs; Department of Defense. VA/DoD Clinical Practice Guideline for Management of Posttraumatic Stress Disorder and Acute Stress Disorder. Version 4.0. Washington, DC, 2023.

¹⁴⁰ Roberts L. N., Nixon R. D. V. Systematic Review and Meta-Analysis of Stepped Care Psychological Prevention and Treatment Approaches for Posttraumatic Stress Disorder. Behavior Therapy. 2023. Vol. 54, no. 3. P. 476–495. DOI: <https://doi.org/10.1016/j.beth.2022.11.005>.

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