


Integrative theoretical model: Differentiating the processes of health and illness between civil, military and forensic police officers

 <https://doi.org/10.56238/sevened2024.018-046>

Marizangela Lissandra de Oliveira¹, Chiara Lubich Medeiros de Figueiredo², Kariza Lopes Barreto³, Tamires Feitosa de Lima⁴, Letícia de Souza Oliveira⁵, Gabrielle Prudente e Silva⁶, Luan dos Santos Mendes Costa⁷, Francisco Thiago Carneiro Sena⁸, Wanderley Pinheiro de Holanda Júnior⁹, Renato Evando Moreira Filho¹⁰, Caroline Mary Gurgel Dias Florêncio¹¹ and Raimunda Hermelinda Maia Macena¹²

ABSTRACT

Objective: To describe the concepts and stages of the construction of an integrative theoretical model and to systematize an integrative model differentiating the processes of health and illness between civil, military and forensic police officers. **Methods:** Integrative literature review with a search carried out in free virtual databases. **Results:** Development of a model based on the combination of elements from 15 theoretical models, offering a holistic view of the health and illness processes among civil, military and forensic police officers. This model takes into account three key elements, namely: Violence and Health; Illness at Work; Risk Work and Experiences with Violence. For each element of the model, 5 theories are described and their applications in the context of civil, military and forensic police work. **Conclusion:** An effective theoretical model must contain a holistic view of the health-illness processes and must integrate biological, psychological, social, and organizational factors that directly influence the well-being and mental health of these individuals.

Keywords: Police, Health, Illness, Theoretical model.

¹ Master's Degree, State University of Ceará

² Master's Degree Federal University of Ceará

³ Master's Degree - Universidad del Pacific.

⁴ Master's Degree Federal University of Ceará

⁵ Graduation Federal University of Ceará

⁶ Graduation Federal University of Ceará

⁷ Graduation Federal University of Ceará

⁸ Master's Degree Federal University of Ceará

⁹ Master's Degree Federal University of Ceará

¹⁰ Doctor Federal University of Ceará

¹¹ Doctor Federal University of Ceará

¹² Post-Doctorate Federal University of Ceará



INTRODUCTION

An integrative theoretical model is a powerful tool that allows for deep and comprehensive understanding of complex phenomena by combining multiple theories into a unified framework. This approach not only enriches theoretical analysis, but also has great potential for practical applications, helping to solve real problems more effectively and holistically. By considering different dimensions and variables, integrative models offer a complete and detailed view, facilitating the creation of more effective and comprehensive intervention strategies (Bronfenbrenner, 1979; Galtung, 1969).

The flexibility and adaptability of integrative models allow them to evolve as new information and theories become available, ensuring their continued relevance in dynamic research fields. In addition, internal coherence and the ability to integrate multiple perspectives make these models valuable tools for practitioners and policymakers seeking to understand and address complex problems (Lazarus & Folkman, 1984; Karasek, 1979).

The multidisciplinary nature of integrative models is one of its greatest strengths, allowing a rich and detailed analysis of phenomena that cross various areas of knowledge. This is particularly useful in contexts where complex problems require varied and interdisciplinary approaches to be understood and solved effectively (Herman, 1992; Maslach & Jackson, 1981).

Finally, the ability to apply these models in real-world situations makes them extremely useful for policy creation and practical interventions. By providing a solid and comprehensive theoretical basis, integrative models help guide actions and decisions in varied contexts, from public health to education and security (Slovic, 1987; Wilkinson, 2001).

Therefore, an integrative theoretical model is essential for any field that deals with complex and multifaceted phenomena. By combining multiple theories into a unified framework, these models offer a deep and comprehensive understanding, enriching both theoretical research and practical application (Bakker & Demerouti, 2007; Wickens, 1992).

We will present below the key concepts, the steps for the elaboration of an integrative theoretical model and the proposition of an integrative theoretical model differentiating the processes of health and illness between civil, military and forensic police.

KEY CONCEPTS ABOUT INTEGRATIVE THEORETICAL MODEL

Integrative theoretical models are fundamental to face the complexity of the phenomena studied in contemporary scientific research. By bringing together diverse perspectives and disciplines, these models provide richer insights and more effective solutions, reflecting the multifaceted nature of real problems (Lazarus & Folkman, 1984; Karasek, 1979).

An integrative theoretical model is an approach that combines multiple theories or models into a coherent framework to offer a more comprehensive and holistic understanding of a complex



phenomenon. This methodology is particularly useful in areas where a single theoretical model is insufficient to explain all the nuances and variables involved (Slovic, 1987; Wilkinson, 2001).

CHARACTERISTICS OF AN INTEGRATIVE THEORETICAL MODEL

One of the main benefits of integrative theoretical models is their ability to incorporate perspectives from various disciplines, which allows for richer and more detailed analysis. These are characteristics of an integrative theoretical model (Slovic, 1987; Wilkinson, 2001; Bronfenbrenner, 1979; Lazarus & Folkman, 1984; Slovic, 1987; Masten, 2001):

- **Multidisciplinarity:** An integrative theoretical model often incorporates perspectives from multiple disciplines, allowing for richer and more detailed analysis.
- **Comprehensiveness:** By bringing together several theories, the integrative model seeks to cover all relevant aspects of the phenomenon in question. It offers a more complete view, contemplating different dimensions and variables that may be interrelated.
- **Holism:** Focuses on a global view, considering multiple factors and their interactions, rather than isolating specific variables.
- **Flexibility:** Integrative models are flexible and adaptable. They can be adjusted and expanded as new information and theories become available, allowing a continuous evolution of the understanding of the phenomenon studied.
- **Coherence:** Despite combining multiple theories, an integrative model must maintain internal coherence. The different parts of the model should complement each other and not contradict each other, creating a logical and cohesive structure.
- **Complexity:** Confronts the complexity of real phenomena, recognizing that many issues cannot be satisfactorily explained through a single theory.
- **Interactivity:** Encourages interaction between different fields of study, promoting interdisciplinary collaborations and knowledge exchanges.
- **Practical Applicability:** By integrating multiple perspectives, these models are often more applicable to real-world situations. They can provide practical guidelines for intervention, public policy, and management strategies in complex contexts.

This multidisciplinary approach allows for a more complete view of the phenomenon studied, considering different angles and interrelated factors (Bronfenbrenner, 1979; Lazarus & Folkman, 1984). In addition to being comprehensive, integrative theoretical models are designed to be flexible and adaptable. They can be adjusted and expanded as new information and theories become available, allowing for a continuous evolution of understanding of the phenomenon studied. This characteristic is fundamental in areas of dynamic research, where new discoveries can rapidly change the theoretical landscape (Herman, 1992; Galtung, 1969).



Another important aspect is the internal coherence of the model. Despite combining multiple theories, an integrative model must maintain a logical and cohesive structure, where the different parts of the model complement each other and do not contradict each other. This ensures that the approach is robust and reliable, providing a solid foundation for analysis and practical application (Karasek, 1979; Maslach & Jackson, 1981).

The practical applicability of integrative models is one of their greatest strengths. By integrating multiple perspectives, these models are often more applicable to real-world situations. They can provide practical guidelines for intervention, public policy, and management strategies in complex contexts, becoming valuable tools for practitioners and policymakers (Slovic, 1987; Masten, 2001).

Finally, the comprehensiveness of integrative theoretical models allows them to cover all relevant aspects of the phenomenon in question. By considering different dimensions and variables that may be interrelated, these models offer a complete and detailed view, allowing a deep and comprehensive understanding of the phenomenon studied (Wilkinson, 2001; Wickens, 1992).

In public health, integrative approaches are essential to address complex issues such as obesity. An integrative theoretical model can combine theories about eating behavior, genetics, socioeconomic environment, and health policies. This facilitates the creation of more comprehensive and effective strategies for the prevention and treatment of obesity, approaching the problem from multiple perspectives (Galtung, 1969; Wilkinson, 2001). In the area of mental health, integrative theoretical models can be particularly useful for understanding the mental health of individuals exposed to high levels of stress, such as police officers. An integrative model can combine theories of psychological trauma, occupational stress, resilience, and social support, allowing for a more complete understanding of the causes, consequences, and potential interventions for mental health problems (Herman, 1992; Karasek, 1979).

STEPS TO CREATE AN INTEGRATIVE THEORETICAL MODEL

In summary, 6 steps are needed to create an integrative theoretical model (Slovic, 1987; Wilkinson, 2001; Bronfenbrenner, 1979; Lazarus & Folkman, 1984; Slovic, 1987; Masten, 2001):

- 1) **Identification of the Phenomenon:** Clearly define the phenomenon or problem that will be studied.
- 2) **Literature Review:** Conduct an extensive literature review to identify existing theories that apply to the phenomenon.
- 3) **Theory Selection:** Choose the most relevant and complementary theories that together can provide a complete picture of the phenomenon.



- 4) **Integration of Theories:** Develop a model that integrates the concepts and hypotheses of the various selected theories. Make sure that the theories complement each other and do not contradict each other.
- 5) **Validation and Fit:** Validate the model through empirical research and adjust it as needed to improve its coherence and applicability.
- 6) **Practical Application:** Use the model to guide practical interventions, policies, and strategies in the context studied.

We will detail each of the steps below. The first step in creating an integrative theoretical model is to clearly identify the phenomenon or problem that will be studied. Defining the scope and objectives of the study is crucial to direct the literature review and the selection of theories to be integrated. For example, when studying the impact of violence on the mental health of police officers, it is necessary to delimit which aspects of violence and mental health will be focused on (Herman, 1992; Karasek, 1979).

Next, an extensive review of the literature should be conducted to identify the existing theories that apply to the phenomenon. This stage involves searching for academic articles, books, and other relevant materials that offer different perspectives on the topic. The literature review helps to map the theoretical terrain and identify the gaps that the integrative model intends to fill (Lazarus & Folkman, 1984; Maslach & Jackson, 1981).

The selection of the most relevant and complementary theories is the next step. It is important to choose theories that, together, can provide a complete and coherent view of the phenomenon. The selection must be judicious, considering the ability of theories to complement each other and to offer comprehensive explanations for different aspects of the problem (Bronfenbrenner, 1979; Galtung, 1969). After the selection of the theories, the model must be developed in order to integrate the concepts and hypotheses of the various selected theories. It is essential to ensure that theories complement each other and do not contradict each other, creating a logical and cohesive structure. This phase involves the construction of diagrams, schemes, and detailed descriptions that show how the different theories interrelate (Karasek, 1979; Slovic, 1987).

Finally, the model should be validated through empirical research and adjusted as necessary to improve its coherence and applicability. Empirical validation is key to ensuring that the model is robust and applicable to real-world situations. The model must also be continually revised and updated as new information and theories become available (Herman, 1992; Bakker & Demerouti, 2007).



THEORETICAL MODELS USEFUL IN THE ANALYSIS OF HEALTH AND ILLNESS PROCESSES AMONG CIVIL, MILITARY AND FORENSIC POLICE OFFICERS

Civil, military, and forensic police officers face different types of violence and risks in their daily activities, which significantly impacts their health and well-being. This integrative model differentiates these impacts, using 15 explanatory theoretical models grouped into three categories: violence and health, illness at work, and risk work and experiences with violence.

THEORETICAL MODELS ON VIOLENCE AND HEALTH

Theoretical models on violence and health aim to understand the complex interactions between individual, social, and environmental factors that contribute to the occurrence of violence and its impacts on health. These models often take an ecological approach, considering multiple levels of influence, from personal characteristics to community dynamics and public policies.

According to Krug et al. (2002), the World Health Organization (WHO) Ecological Model for the Prevention of Violence identifies four levels of risk: individual, relational, community and societal. Each level represents different factors that can contribute to violence, such as childhood trauma, conflicting interpersonal relationships, conditions of poverty, and cultural norms that legitimize violent behavior. By integrating these different dimensions, theoretical models allow for a more comprehensive analysis and facilitate the development of multisectoral interventions.

In addition to understanding the causes of violence, theoretical models also explore its effects on physical and mental health. Violence is recognized as a social determinant of health, contributing to a wide range of problems, from physical injuries and chronic illnesses to mental disorders such as depression and anxiety (Dahlberg & Krug, 2002).

Theoretical models, such as the Cycle of Violence Model, help explain how continued exposure to violence can perpetuate a cycle of trauma and violent behavior, exacerbating health problems over time. This model illustrates how violence experienced in childhood can lead to violent behaviors in adulthood, perpetuating an intergenerational cycle of violence and associated health problems.

Theoretical models on violence and health also emphasize the importance of early intervention and prevention. According to Heise (1998), interventions that address multiple levels of influence, from the promotion of individual coping skills to the implementation of effective public policies, are essential to reduce the incidence of violence and improve the health of the population. For example, community-based programs that promote safe environments and social supports can reduce risk factors associated with violence, while policies that aim to reduce economic inequality and improve access to basic resources can have significant impacts on violence prevention.



Finally, the integration of different disciplines in the elaboration of theoretical models on violence and health is crucial for a holistic understanding of the phenomenon. Collaboration between psychology, sociology, criminology, and public health allows for the creation of more effective and comprehensive intervention strategies. As noted by Wilkins et al. (2014), the multidisciplinary approach facilitates the identification of risk and protective factors in different contexts, promoting innovative and sustainable solutions to combat violence and its health impacts. The practical application of these theoretical models can, therefore, guide public health policies and intervention programs aimed at both preventing violence and mitigating its negative effects on the health of populations.

We will present below the theories that supported the construction of the integrative theoretical model, differentiating the processes of health and illness between civil, military and forensic police officers.

Psychological Trauma Theory (Herman, 1992) - Key concepts: Trauma, post-traumatic stress, resilience

Judith Herman (1992) proposed that exposure to violent events can result in profound psychological trauma, manifesting as post-traumatic stress disorder (PTSD) and other emotional disturbances. Trauma, according to Herman, fragments a person's sense of security and identity, resulting in emotional disorganization and difficulties with daily functioning.

The theory highlights the importance of proper recognition and treatment of PTSD to prevent the deterioration of the mental health of affected individuals. In addition, Herman points out that resilience can be a crucial protective factor, allowing some individuals to recover and adapt better after traumatic experiences. Resilience can be strengthened through social support, appropriate therapies, and interventions focused on rebuilding a sense of security and control.

○ **Applications:**

1. Civil police officers who participate in operations against organized crime often develop symptoms of PTSD due to exposure to armed confrontations and extreme violence.
2. Military police officers in riot control units, often involved in riot control, may suffer flashbacks and nightmares stemming from intense confrontations.
3. Forensic police officers who analyze brutally violent crime scenes and victims may develop severe anxiety and insomnia due to constant exposure to disturbing images and situations.



Theory of Ecological Violence (Bronfenbrenner, 1979) - Key concepts: Microsystem, mesosystem, exosystem, macrosystem

Urie Bronfenbrenner (1979) developed the ecological theory of development, applicable to understanding violence at different levels of ecological interaction. Violence is seen as a phenomenon influenced by individual, relational, community and societal factors. Bronfenbrenner suggests that the environments in which people live and work have a significant impact on their development and mental health.

The ecological model highlights the complexity of violence and its ramifications on several levels. In the microsystem, domestic or interpersonal violence directly affects individuals, while in the exosystem, public security policies and working conditions indirectly influence levels of violence and stress. The macrosystem encompasses broader cultural and social factors that perpetuate structural violence.

- **Applications:**

1. Civil police officers in high-crime areas face the constant influence of community violence, impacting their mental health.
2. Military police officers in specialized units operating in urban conflict zones deal with multiple systems of violence, ranging from direct conflicts to broader social tensions.
3. Forensic police officers working in environments with high crime rates can be affected by the structural violence present in the community, exacerbating stress and anxiety.

Occupational Health and Stress Model (Karasek, 1979) - Key concepts: Work demand, work control, social support

Robert Karasek (1979) suggests that high levels of work demand combined with poor social control and support result in occupational stress and ill health. He argues that the relationship between these variables is crucial to understanding the well-being of workers.

Karasek's model proposes that workers with high demand and low control face a higher risk of stress and work-related illnesses. The theory highlights the importance of social support in the workplace, suggesting that colleagues and supervisors can play a significant role in mitigating stress. Additionally, Karasek emphasizes the need to increase workers' control over their tasks and decisions, which can lead to a better balance between demand and responsiveness.

- **Applications:**

1. Civil police officers in investigative units face high work demands and pressure to solve complex cases, often with little control over available resources.
2. Military police officers in tactical operations have high physical and emotional demands, with little control over operating conditions.



3. Forensic police officers who work with tight deadlines for evidence review can experience extreme stress due to the constant pressure and lack of adequate support.

Broken Window Theory (Wilson & Kelling, 1982) - Key concepts: Urban disorder, criminality, maintenance of order

James Q. Wilson and George Kelling (1982) have proposed that visible signs of disorder and abandonment, such as broken windows, encourage criminal behaviors and increase violence. They argue that maintaining public order can reduce crime and improve the sense of security. The theory suggests that rapid interventions to correct signs of disorder can prevent crime from escalating.

The broken window theory has significant practical implications for community policing policies and crime prevention strategies. The approach proposes that the visible presence of the police and the application of measures to maintain public order can create an environment perceived as safer, deterring criminal activity.

- **Applications:**
 1. Civil police officers on urban patrols face high levels of stress when trying to maintain order in run-down areas.
 2. Military police officers responsible for controlling riots in urban environments have noticed an increase in violence with the physical deterioration of the areas.
 3. Forensic police officers investigating crimes in areas of high urban disorder may experience frustration and stress when dealing with ongoing violence and a lack of resources to restore order.

Theory of Structural Violence (Galtung, 1969) - Key concepts: Structural violence, social inequality, oppression

Johan Galtung (1969) developed the theory of structural violence, which describes how unjust social and economic structures perpetuate violence and negatively affect the health of populations. It suggests that violence does not only manifest itself physically, but also through structural inequalities that impede development and well-being.

Structural violence is perpetuated by systems and institutions that create and maintain inequalities. Galtung argues that true peace can only be achieved by addressing these underlying inequalities, proposing changes in social and economic structures to promote justice and equity.

- **Applications:**
 1. Civil police officers working in marginalized communities face structural violence, which affects their well-being due to constant exposure to social injustices.



2. Military police officers in pacification operations deal with structural violence by trying to impose order in economically disadvantaged areas.
3. Forensic police officers investigating crimes in areas with high social oppression may suffer from chronic stress due to continued exposure to structural inequalities.

THEORETICAL MODELS ON ILLNESS AT WORK

The theoretical models on illness at work seek to understand how occupational, organizational and personal factors contribute to the development of health problems among workers. These models often use a multifaceted approach, taking into account the work environment, work demands, interpersonal relationships, and available resources.

According to Karasek (1979), the Demand-Control Model is one of the most widely used to explain stress at work. This model suggests that high levels of work demands, combined with low levels of control over work, can lead to high levels of stress and, consequently, to illness.

Another significant model is the Effort-Reward Model, proposed by Siegrist (1996). This model emphasizes the imbalance between the efforts made by workers and the rewards received in terms of wages, recognition, and opportunities for growth. A prolonged imbalance between effort and reward can lead to feelings of injustice and worthlessness, contributing to physical and mental health problems such as hypertension and depression. The theory highlights the importance of appropriate rewards in the workplace to maintain the health and well-being of employees.

In addition, House's (1981) Social Support Model highlights the importance of support networks in the workplace. According to this model, social support from colleagues and superiors can act as a *buffer*, mitigating the negative effects of occupational stress on health. Studies have shown that workers who perceive high levels of social support tend to have better mental health and a lower incidence of stress-related illnesses. This demonstrates the importance of a collaborative and supportive work environment for workers' health.

The integration of different disciplines in the elaboration of theoretical models on illness at work is crucial for a holistic understanding of the phenomenon. Collaboration between psychology, sociology, occupational medicine, and organizational management allows for the creation of more effective intervention strategies. As observed by Ganster and Rosen (2013), multidisciplinary approaches facilitate the identification of risk and protective factors in different contexts, promoting innovative and sustainable solutions to combat illness at work. The practical application of these theoretical models can guide occupational health policies and intervention programs aimed at both preventing and mitigating the negative effects of working conditions on workers' health.



We will present below the theories that supported the construction of the integrative theoretical model, differentiating the processes of health and illness between civil, military and forensic police officers.

Theory of Stress at Work (Lazarus & Folkman, 1984) - Key concepts: Stress, coping, cognitive assessment

Richard Lazarus and Susan Folkman (1984) proposed that job stress is a result of the interaction between job demands and the individual's ability to cope with them. The cognitive assessment of stress and the coping strategies adopted directly influence the health of workers. Lazarus and Folkman highlight the importance of how individuals perceive and interpret stressful situations.

The theory suggests that stress is a dynamic process, where demands and resources are constantly evaluated. Coping is the way individuals try to manage stressful demands, which can be adaptive or maladaptive. Effective coping strategies include problem-solving, seeking social support, and emotional management.

- **Applications:**

1. Civil police officers investigating violent crimes may develop inappropriate coping strategies, leading to burnout and mental health issues.
2. Military police officers on high-risk missions who fail to properly assess and manage stress may suffer from depression.
3. Forensic police officers who deal with graphic details of crimes may experience high levels of stress and difficulties in coping with the emotional demands of the job.

Burnout Theory (Maslach & Jackson, 1981) - Key concepts: Emotional exhaustion, depersonalization, low personal fulfillment.

Christina Maslach and Susan Jackson (1981) developed the theory of burnout, describing it as a state of physical, emotional, and mental exhaustion caused by prolonged involvement in emotionally demanding situations.

Burnout is characterized by emotional exhaustion, depersonalization, and a decrease in personal fulfillment. Emotional exhaustion refers to the depletion of emotional resources, while depersonalization involves a cynical and impersonal attitude towards customers or coworkers. Low personal fulfillment is a perception of ineffectiveness and lack of success at work.

- **Applications:**

1. Civil police officers dealing with victims of violent crime can experience emotional exhaustion and depersonalization.



2. Military police officers in rapid response units may experience a decrease in personal fulfillment due to constant stress.
3. Forensic police officers who work long hours analyzing evidence can feel emotionally drained and depersonalized due to the intensive nature of the job.

Demand-Control Model (Karasek, 1979) - Key concepts: Labor demand, control, social support

Robert Karasek's (1979) model suggests that the combination of high work demands and low control over work activities can lead to stress and illness. The presence of adequate social support can mitigate these negative effects. Karasek proposes that workers with high demand and low control face a higher risk of developing occupational diseases.

The theory emphasizes that social support at work, whether from colleagues or supervisors, can help reduce the impact of stress. Additionally, increasing control over tasks and decisions can improve workers' well-being.

- **Applications:**
 1. Civil police officers in narcotics units face high demands and often little control over operations, resulting in stress.
 2. Military police officers on combat missions with little autonomy can experience high levels of stress.
 3. Forensic police officers with strict deadlines and little control over their working methods can feel overwhelmed and sick.

Labor Equity Theory (Adams, 1963) - Key concepts: Equity, rewards, justice

John Stacey Adams (1963) proposed that the perception of unfairness in the workplace can lead to stress and dissatisfaction, impacting the health of workers. The theory suggests that individuals compare their contributions and rewards with those of others, and perceptions of inequality generate tension and demotivation.

Equity theory highlights the importance of distributive and procedural justice in the workplace. When workers realize that they are treated fairly and that their contributions are recognized, they tend to have greater satisfaction and better mental health.

- **Applications:**
 1. Civil police officers who feel they are not adequately compensated for their work face stress and dissatisfaction.
 2. Military police officers who perceive a lack of equity in promotions may experience demotivation and mental health problems.



3. Forensic police officers who feel that their contributions are not recognized can develop symptoms of stress and burnout.

Demands and Resources Model (Bakker & Demerouti, 2007) - Key concepts: Job demands, job resources, well-being

Arnold Bakker and Evangelia Demerouti (2007) suggest that the presence of adequate resources at work can mitigate the negative effects of high labor demands. The model highlights the importance of balancing demands and resources to promote workers' well-being.

Job demands refer to the physical, psychological, social, or organizational aspects of work that require continuous effort and are associated with physiological and psychological costs. Work resources are aspects that help achieve goals, reduce demands, and stimulate personal growth.

- **Applications:**
 1. Civil police officers with access to psychological support can better cope with the demands of their job.
 2. Military police officers who receive adequate training for high-risk situations may experience lower stress.
 3. Forensic police officers with advanced technological resources can reduce the impact of the intense demands of the job on their health.

THEORETICAL MODELS ON HIGH-RISK WORK AND EXPERIENCES WITH VIOLENCE

Theoretical models on high-risk work and experiences with violence seek to understand how certain work environments expose workers to high-risk situations and violence, significantly impacting their physical and mental health. These models use a multifaceted approach, considering individual, organizational, and contextual factors.

According to Karasek's (1979) Demand-Control Model, high-risk jobs often combine high work demands with low levels of control over work, creating an environment conducive to stress and illness. When associated with experiences of violence, these factors can further exacerbate the negative impacts on workers' health.

Siegrist's (1996) Effort-Reward Model is also relevant to understanding how risky jobs and experiences of violence affect workers' health. This model suggests that an imbalance between the efforts made by workers and the rewards received can lead to an increase in stress and the risk of illness. In work environments where violence is a constant reality, such as in emergency services and security forces, the perception of inappropriate rewards can intensify the negative effects of occupational stress. This highlights the importance of providing appropriate rewards and recognition to mitigate the impacts of violence at work.



In addition, House's (1981) Social Support Model emphasizes the importance of social support in the workplace. According to this model, the support of colleagues and supervisors can act as a buffer against the negative effects of stress and violence at work. Studies have shown that workers who perceive high levels of social support have better mental health and a lower incidence of stress- and violence-related illnesses. This model suggests that creating a collaborative and supportive work environment is crucial to protecting the health of workers in high-risk occupations.

Finally, Chappell and Di Martino's (2006) Workplace Violence Exposure Model provides a specific framework for understanding the impacts of violence in the workplace. This model considers factors such as the frequency and severity of experiences of violence, as well as the coping strategies available to workers. Continued exposure to violence can lead to a range of health problems, including post-traumatic stress disorder (PTSD), depression, and anxiety. The practical application of this model can guide interventions aimed at reducing exposure to violence and providing psychological support resources for workers.

We will present below the theories that supported the construction of the integrative theoretical model, differentiating the processes of health and illness between civil, military and forensic police officers.

Risk Theory (Slovic, 1987) - Key concepts: Risk perception, risk acceptability, risk communication

Paul Slovic (1987) developed the theory of risk perception, exploring how people assess and respond to risks, especially in hazardous work contexts. It suggests that risk perception is influenced by cognitive, emotional, and social factors.

Slovic argues that the way risks are perceived and communicated can significantly influence individuals' response. Factors such as prior experience, cultural background, and media play crucial roles in risk perception and acceptance.

○ Applications:

1. Civil police officers who underestimate daily risks can put themselves in frequent danger situations.
2. Military police officers in high-risk operations may develop a distorted perception of danger due to constant exposure.
3. Forensic police officers who deal with evidence of violent crime may underestimate the risks associated with prolonged exposure.



Resilience Model (Masten, 2001) - Key concepts: Resilience, adversity, recovery

Ann Masten (2001) proposed that resilience is an individual's ability to bounce back from adversity and continue functioning well. This model suggests that resilience is a dynamic process influenced by individual and contextual factors.

Resilience involves positive adaptation in the face of significant adversity and is influenced by factors such as social support, self-efficacy, and coping strategies. Masten describes resilience as an "ordinary process of human adaptation" that can be developed and strengthened.

- **Applications:**

1. Civil police officers who develop resilience can better cope with the stress that comes from violent situations.
2. Military police officers who demonstrate high resilience can recover more quickly from combat trauma.
3. Forensic police officers who are resilient can continue to work effectively after analyzing brutal crime scenes while maintaining stable mental health.

Risk Exposure Theory (Wilkinson, 2001) - Key concepts: Risk exposure, vulnerability, protection

Richard Wilkinson (2001) explored how continuous exposure to hazards can increase the vulnerability of workers and highlighted the importance of effective protective measures.

The theory suggests that prolonged exposure to risky situations can lead to increased physical and psychological vulnerability. Wilkinson argues that social inequality and a lack of adequate protection exacerbate the vulnerability of individuals in risky jobs. Protective measures, such as safety equipment and proper training, are crucial to mitigate the negative effects of risk exposure.

- **Applications:**

1. Civil police officers in high-crime areas need specific protection strategies to reduce vulnerability.
2. Military police officers on dangerous missions need protective equipment and specialized training to minimize risks.
3. Forensic police officers who work with hazardous materials must follow strict protocols to avoid contamination and injury.

Coping Theory (Lazarus & Folkman, 1984) - Key concepts: Coping, stressors, coping strategies

Lazarus and Folkman (1984) focus on how people use different strategies to cope with stressors at work, especially in high-risk environments. They suggest that the effectiveness of the coping strategies adopted directly influences the well-being and health of the individual.



Coping theory highlights that stressors are an inevitable part of life, but how individuals cope with them can vary significantly. Effective coping strategies can include problem-solving, cognitive reappraisal, and seeking social support.

- **Applications:**

1. Civil police officers can use coping strategies, such as physical exercise, to deal with the stress of urban violence.
2. Military police officers can adopt *mindfulness* techniques to reduce the psychological impact of combat operations.
3. Forensic police officers can utilize social support and regular supervision to cope with the stress of analyzing violent crime scenes.

Workload Theory (Wickens, 1992) - Key concepts: Workload, performance, fatigue

Christopher Wickens (1992) examined how workload influences the performance and health of workers, especially in high-risk contexts. It suggests that an excessive workload can lead to fatigue and decrease performance, increasing the risk of errors and accidents.

The theory highlights the need to manage workload to maintain the effectiveness and health of workers. The balance between demand and capacity is crucial to prevent fatigue and ensure safe and efficient performance.

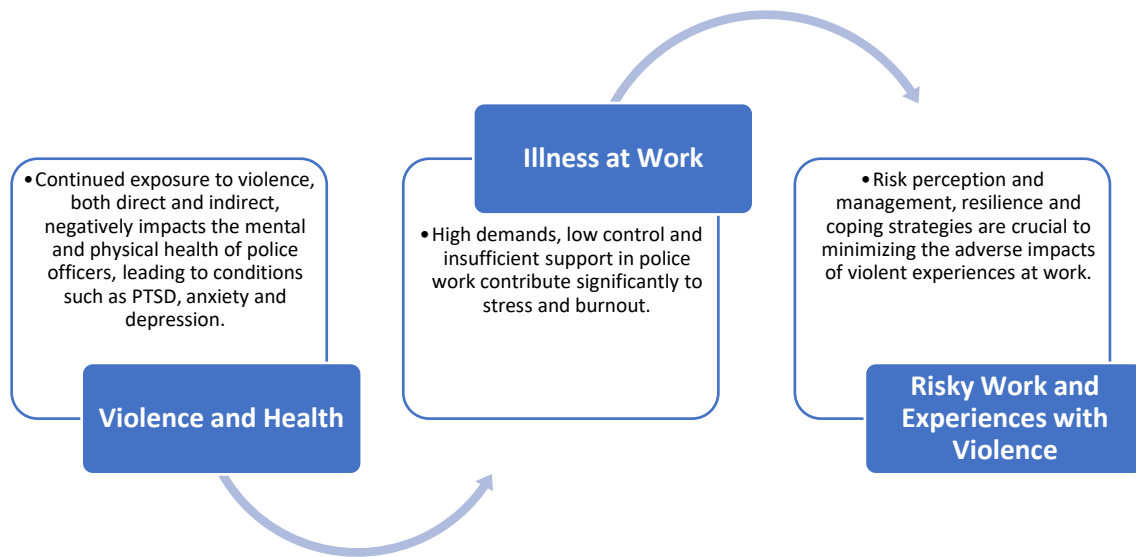
- **Applications:**

1. Civil police officers with excessive workloads may experience fatigue and decreased performance.
2. Military police officers under constant pressure can have a drop in performance and increase the risk of accidents.
3. Forensic police officers overloaded with complex cases can make critical errors in analyzing evidence due to work overload.

INTEGRATIVE MODEL DIFFERENTIATING THE PROCESSES OF HEALTH AND ILLNESS BETWEEN CIVIL, MILITARY AND FORENSIC POLICE OFFICERS

The proposed integrative model combines elements of all 15 theoretical models presented, offering a holistic view of the health and illness processes among civil, military, and forensic police officers. This model takes into account three key elements, namely: Violence and Health; Illness at Work; Risk Work and Experiences with Violence (FIGURE 01).

FIGURE 01 - Integrative Model Differentiating the Health and Illness Processes between Civil, Military and Forensic Police Officers.



Understanding the processes of health and illness among civil, military, and forensic police officers requires a holistic approach that takes into account the multiple factors that influence the well-being of these professionals.

The theoretical model integrates biopsychosocial aspects, recognizing that health is not only the absence of disease, but a state of complete physical, mental and social well-being (World Health Organization, 1946). The physical and emotional demands of the functions performed by these professionals can result in a series of health problems, from physical illnesses to mental disorders, such as post-traumatic stress disorder (PTSD), anxiety, and depression (Garbarino et al., 2011).

In addition to psychological factors, it is essential to consider the social and family aspects that affect the health of police officers. The pressure to maintain a work-life balance can be particularly intense due to the unpredictable and often dangerous nature of police work. Social support, both from co-workers and family members, plays a crucial role in mitigating the negative effects of occupational stress. Psychological support and counseling programs within corporations can help provide the necessary support to address these challenges.

Occupational factors are crucial determinants in the health and illness process of these professionals. Constant exposure to risky situations, extensive hours, and irregular shift work can lead to physical and mental exhaustion. In addition, the lack of institutional and social support can exacerbate these problems. Studies indicate that police officers often face barriers to seeking psychological help due to the stigma associated with mental health within police culture (Houdmont



et al., 2020). Therefore, a theoretical model must consider interventions that not only promote physical health, but also offer psychological and social support.

In addition to occupational factors, individual and family aspects also play a significant role. Personal resilience, coping strategies, and family support are essential elements that can mediate the negative effects of occupational stress. Police officers who have robust social support networks and effective coping strategies tend to cope better with the challenges of the profession (Violanti et al., 2017). Thus, occupational health policies should include programs that strengthen these individual and family resources, promoting a healthier and more balanced work environment.

From an organizational point of view, the culture and internal policies of police forces have a significant impact on the health of their members. A work environment that promotes mental health, with clear policies on stress management, psychological support, and burnout prevention, can considerably reduce the risks of illness. In addition, regular training in stress management and emotional resilience is essential to prepare police officers to handle high-pressure situations in a healthy manner.

Finally, it is important to include continuous assessment and early intervention in the theoretical model as fundamental strategies to maintain the health of police officers. Physical and mental health monitoring programs can help identify signs of illness early, allowing for quick and effective interventions. A holistic approach that encompasses prevention, ongoing support, and appropriate treatment is crucial to ensure that civil, military, and forensic police officers can perform their duties in a healthy and effective manner.

FINAL CONSIDERATIONS

An effective theoretical model must contain a holistic view of the health and illness processes among civil, military, and forensic police officers and must consider the complexity of the psychological and physical demands faced by these professionals. This model needs to integrate biological, psychological, social, and organizational factors that directly influence the well-being and mental health of these individuals.

It is crucial to include a public health perspective that recognizes the interdependence between police officers' health and public safety. Healthy police officers are better able to perform their duties effectively, which contributes to the safety and well-being of the community. Interventions should be multidimensional, involving training in resilience skills, access to mental health services, and family support programs.

Only through a holistic approach, which considers the multiple levels of influence on health, will it be possible to promote the integral well-being of civil, military and forensic police officers.



REFERENCES

1. Adams, J. S. (1963). Toward an understanding of inequity.
2. Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art.
3. Bronfenbrenner, U. (1979). **The ecology of human development**. Harvard University Press.
4. Chappell, D., & Di Martino, V. (2006). **Violence at work**. Geneva: International Labour Office.
5. Dahlberg, L. L., & Krug, E. G. (2002). Violence: A global public health problem. In E. G. Krug, L. L. Dahlberg, J. A. Mercy, A. B. Zwi, & R. Lozano (Eds.), **World report on violence and health** (pp. 1–21). Geneva, Switzerland: World Health Organization.
6. Galtung, J. (1969). Violence, peace, and peace research.
7. Ganster, D. C., & Rosen, C. C. (2013). Work stress and employee health: A multidisciplinary review. **Journal of Management, 39*(5), 1085–1122.*
8. Garbarino, S., Magnavita, N., Elovainio, M., Heponiemi, T., Ciprani, F., & Cuomo, G. (2011). Stress and mental health in the workplace. **International Archives of Occupational and Environmental Health, 84*(8), 883–892.* <https://doi.org/10.1007/s00420-011-0654-1>
9. Heise, L. L. (1998). Violence against women: An integrated, ecological framework. **Violence against Women, 4*(3), 262–290.*
10. Herman, J. L. (1992). **Trauma and recovery**. Basic Books.
11. Houdmont, J., Elliott-Davies, M., & Donnelly, J. (2020). Understanding the mental health and wellbeing needs of police officers and staff in British policing. **Globalization and Health, 16**, 39. <https://doi.org/10.1186/s12992-020-00605-3>
12. House, J. S. (1981). **Work stress and social support**. Reading, MA: Addison-Wesley.
13. Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. **Administrative Science Quarterly, 24*(2), 285–308.*
14. Krug, E. G., Dahlberg, L. L., Mercy, J. A., Zwi, A. B., & Lozano, R. (Eds.). (2002). **World report on violence and health**. Geneva, Switzerland: World Health Organization.
15. Lazarus, R. S., & Folkman, S. (1984). **Stress, appraisal, and coping**. Springer.
16. Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout.
17. Masten, A. S. (2001). Ordinary magic: Resilience processes in development.
18. Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. **Journal of Occupational Health Psychology, 1*(1), 27–41.*
19. Slovic, P. (1987). Perception of risk.



20. Violanti, J. M., Robinson, C. F., & Shen, R. (2017). Law enforcement suicide: A national analysis. *International Journal of Emergency Mental Health and Human Resilience, 14*(2), 1–11. <https://doi.org/10.3390/ijerph14060614>
21. Wickens, C. D. (1992). *Engineering psychology and human performance*. HarperCollins.
22. Wilkins, N., Tsao, B., Hertz, M., Davis, R., & Klevens, J. (2014). *Connecting the dots: An overview of the links among multiple forms of violence*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
23. Wilkinson, R. G. (2001). *Mind the gap: Hierarchies, health, and human evolution*. Yale University Press.
24. Wilson, J. Q., & Kelling, G. L. (1982). Broken windows.
25. World Health Organization. (1946). *Constitution of the World Health Organization*. World Health Organization. <https://www.who.int/about/governance/constitution>