

Stress, coping strategies, and locus of control in undocumented immigrants facing the covid-19 Pandemic

Hanae Touzani *

Department of Psychology, Faculty of Letters and Human Sciences - Sidi Mohamed Ben Abdellah University, Fez, Morocco.

World Journal of Advanced Research and Reviews, 2025, 26(02), 2535-2543

Publication history: Received on 03 April 2025; revised on 11 May 2025; accepted on 13 May 2025

Article DOI: <https://doi.org/10.30574/wjarr.2025.26.2.1846>

Abstract

This article examines the psychological dynamics of undocumented immigrants during the COVID-19 pandemic, focusing on the relationship between stress, coping strategies, and locus of control. As a highly vulnerable and often marginalized group, undocumented immigrants faced compounded hardships during the pandemic, including uncertainty, instability, and strict public health measures. The study aims to understand how this population adapted to the pandemic and how their beliefs about control influenced the ways they managed stress.

Keywords: COVID-19 pandemic; Stress; Coping strategies; Locus of control

1. Introduction

The history of humanity has been marked by numerous health crises. However, from the beginning of time, humans have had to confront both their vulnerabilities and their adaptive capacities. The emergence of the global COVID-19 pandemic marked a decisive turning point in modern history, leading to significant social transformations, disrupting previously established structures, and resulting in tragic human losses. On March 11, 2020, the world was shaken by grim news: the spread of a previously unknown zoonotic disease, SARS-CoV-2, known as COVID-19 (WHO, 2020c). In response to this calamity, governments rushed to implement a range of preventive and intervention measures aimed at stopping and limiting the spread of the disease, in an effort to understand the virus's virulence and pathogenicity in order to save humanity from a potential extinction. The global health crisis not only exposed remarkable vulnerabilities among populations—particularly undocumented Sub-Saharan immigrants who often face precarious living conditions and limited access to healthcare and support resources—but also caused devastating economic, social, and health consequences. Faced with an event that was, to say the least, undeniably constraining, it is only natural to question the relationship between locus of control and coping strategies in individuals attempting to manage the stress induced by the COVID-19 pandemic. By exploring this topic, we aim to shed light on the psychological dynamics at play and understand how they impact the well-being of these populations.

2. Undocumented Immigrants: Psychosocial Challenges During the Covid-19 Crisis

Irregular migration is considered a phenomenon that constitutes a universal issue, gaining significant importance with the onset of the 21st century, as Morocco shifted from a transit country to a destination and host country for thousands of undocumented migrants, particularly from Sub-Saharan Africa (MCMREAM, 2020).

The migration issue has become both a matter of foreign policy on one side and domestic policy on the other. In 2013, there were 240 million international migrants worldwide, representing 3.2% of the global population (OCDE, 2013). It should be noted that Morocco is the only country in the southern Mediterranean that has moved towards a paradigm

* Corresponding author: Touzani Hanae

shift in migration by adopting a new policy, represented by the National Immigration and Asylum Strategy (SNIA) in 2013 (MCMREAM, 2018), based on a humanist perspective rooted in solidarity, respect, and the protection of human rights, including those of migrants.

Undocumented immigrants faced a range of particular challenges even before the emergence of Covid-19. The zoonotic disease exacerbated these difficulties significantly. This marginalized population was generally exposed to precarious living conditions, which worsened pre-existing challenges such as stigmatization, limited access to jobs, social isolation, and lack of access to healthcare. However, the pandemic had major repercussions on populations, particularly undocumented Sub-Saharan migrants.

This unprecedented health crisis in contemporary times revealed the vulnerability of healthcare systems worldwide, as well as the structural inequalities and gaps in social protection. This was evidenced by the closure of specialized services, the reduction of healthcare benefits, the decline in their quality, and the suspension of various health programs aimed at combating and intervening. These measures led to an exacerbation of corresponding pathologies (Chippaux, 2023), exposing one of the key pillars of a system meant to ensure health and human survival. However, the World Health Organization (WHO) defines health as: "a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity" (WHO, 2020a). The global epidemic highlighted the importance of adequate access to healthcare. Undocumented migrants, often reluctant to seek medical attention due to their status, were particularly exposed to the risk of the virus. Moreover, the lack of information in their native languages further amplified their difficulty accessing healthcare.

Indeed, the health crisis affected sectors beyond healthcare. The global economy was also severely impacted, resulting in enormous resource losses for both states and households. Many migrants working in sectors (both formal and informal) affected by lockdown measures, travel restrictions, and the closure of numerous factories—as preventive measures taken by governments to slow or even prevent the virus's spread—faced delays in deliveries, shortages of raw materials, and a halt to many commercial activities. This led to a decrease in demand and, of course, production in many sectors, causing major disruptions in supply chains and a generalized economic slowdown (Baldwin & Tomiura, 2020). There was a significant loss of jobs within this population. Deprived of social protection, many found themselves in dire financial situations, unable to meet their basic needs. The pandemic imposed preventive measures such as social distancing and confinement, while humans are inherently social beings based on physical and direct interaction. These measures forced distancing, disrupting the quantity, diversity, and quality of social relationships, thus causing a disrupted social life (Verdoux et al., 2021). Good social health plays a significant role in physical and mental health, as well as in longevity. Studies show that a happy and healthy person is not necessarily the wealthiest, but rather the one who maintains healthy social relationships (Holt-Lunstad et al., 2010). This includes both social contacts and the quality of social support, assessed based on the number, quality, and diversity of interactions with one's social environment (family, friends, neighbors, colleagues, acquaintances, etc.). Social support must ensure emotional stability and meet the individual's emotional and security needs to guarantee their well-being, which is essential for overall health (Question Santé, 2020). Additionally, the speed of the virus's spread, its mode of transmission, and the tyranny of the situation were factors that contributed to the birth of widespread panic, social anxiety, and global stress (WHO, 2020b).

It must be said that the impact of the zoonotic disease is variable, and the repercussions can change depending on the countries and their immigration policies. Moreover, the role of Non-Governmental Organizations (NGOs) and civil society cannot be denied, both as a defensive line and in providing aid and resources to undocumented migrants during the calamity. This reflects the obligation to support, protect, and defend the rights of every human being, regardless of their ethnic, religious, demographic origins, convictions, or political orientations (Lahlimi, 2020). It is crucial to take into account the lessons learned from this crisis to guide our future actions. Adopting inclusive policies is key, as it allows for the recognition of this population's remarkable contributions to society. By offering them equal access to healthcare services, labor protections, and social assistance, we can ensure their integration and improve their health and well-being. In parallel, it is essential to implement awareness, training, and education initiatives for both migrants and the general public, which can help reduce stigmatization and promote their integration into society. Thus, Cyrulnik (2021) believes that this pandemic, which has served as a grim reminder of numerous dysfunctions, should push states to establish "a new hierarchy of values" (Cyrulnik, 2021). In sum, collaboration between different stakeholders (governments, NGOs, local communities, etc.) is fundamental. To build a more inclusive future, it is important to adopt a humanitarian and collective approach, allowing every individual to live with dignity, regardless of their migratory status.

3. The Influence of Locus of Control on Stress Management: A Psychological Perspective

The pandemic context forces individuals to confront particular conditions. Being in a vulnerable situation and facing a challenging scenario, undocumented Sub-Saharan migrants reconsider their control beliefs.

As mentioned in the literature, locus of control refers to an individual's belief about their ability to control their life and the responsibility for events, distinguishing between an internal perception (control over one's own destiny) and an external perception (influenced by outside forces) (Ettouzani, 2024). The belief in control plays a crucial role in how individuals confront stress and implement appropriate adjustment strategies (Carey & Seedat, 2004; Sommer & Ehlert, 2004). These strategies refer to the psychological and behavioral mechanisms deployed to manage stress (Landen & Wang, 2010), and they vary considerably depending on individuals' perceptions of control and their life circumstances.

It is important to place locus of control in its true theoretical context to ensure a clear understanding of the concept. The locus of control (LOC) is part of the social learning theory developed by Julian Rotter in his work *Social Learning and Clinical Psychology* (Rotter, 1954). The goal of Rotter's social learning theory (SLT) is to "describe the complexity of human behaviors" with a "predictive" goal, aiming to predict a behavior that can be chosen from a range of possible behaviors for a specific purpose (Dubois, 1987a).

The SLT is based on four fundamental aspects that determine behavior: behavior strength, reinforcement, psychological situation, and expectation (Rotter et al., 1972). A person may adopt one or more behaviors depending on the situations they face. The probability of reproducing or not reproducing a behavior X depends on what happens in a given situation; this is called "behavior strength" (Rotter, 1982). Regarding reinforcement, this concept emerged with the rise of behaviorism in the early 20th century in the United States, initiated by Edward Thorndike's "Law of Effect" (1911) and further developed by B.F. Skinner in his theory of "operant conditioning," based on the idea that learning results from a "stimulus-response" process. According to this theory, a person's behavior is a response to an event or stimulus from the environment, aiming to discover which types of stimuli provoke which types of responses, allowing for the prediction and control of a person's behavior. The behavior is then the direct result of reinforcement, driven by the person's expectations since their actions lead to a specific reward. There are two types of reinforcement: "positive" reinforcement by reward and "negative" reinforcement by punishment. This process aims to either increase or decrease a future behavior. According to Dubois, "It's anything that impacts the production or type of behavior" (Dubois, 1987b).

On the other hand, the psychological situation represents one of the aspects that characterize an individual's behavior. Knowing their inner states and personality traits is not enough; the overall situation they face must be considered. This psychological situation includes all the perceived and interpreted characteristics of the environment as experienced by the individual (Weiner, 1985). The individual learns to perceive information from their surroundings through lived experiences and identifies indicators that have a direct influence on their expectations and values related to reinforcers. No one can benefit from a certain level of control over their life if they have not gone through the process of evaluating their psychological situation, which differs from the objective situation where the same event can be experienced, perceived, and interpreted differently by a group of people. Expectation is presented by Rotter (1957) as the perceived probability that a specific reinforcement will occur in response to a particular behavior exhibited by an individual in one or more specific situations (Rotter, 1975). If a person chooses one behavior over another, it means they expect to achieve a specific goal. Expectation is, therefore, the probability that a specific reinforcement will be the result of a particular behavior.

Rotter examines the relationship between reinforcement, which increases the likelihood of repeating a behavior, and what the person thinks about it. He clarified the concept of "locus of control" through a continuum on which each person can be categorized, presenting two main dimensions (Rotter, 1966a):

- **Internal locus of control:** At one end of the continuum, individuals with an internal locus of control see events as consequences of their own actions. They believe their fate is in their own hands and consider the outcome of their actions a personal choice that directly influences the course of their lives (Lefcourt, 2014). These individuals are able to establish a link between reinforcement and behavior, attributing their successes or failures to their own efforts, skills, and decisions (Rotter, 1966a).
- **External locus of control:** At the other end of the continuum, there are individuals who do not establish a link between reinforcement and their behaviors. They perceive events as unrelated to what they are or do, believing that what they go through is the result of external factors beyond their control and influence. These individuals attribute causality to external events. Everything that happens to them is tied to uncontrollable factors, leading them to deploy an external locus of control (Rotter, 1966b, 1966a). Adjustment to reality lies somewhere between the extremes of the external/internal continuum, as presented by Rotter in a curvilinear form (Rotter,

1966a). Levenson (1972) added to this concept by distinguishing, within the external locus of control, an externality associated with "chance" and another with the "power of others" (Levenson, 1972). This latter is interpreted according to the social environment in which the person was raised. The "Powerful Others" dimension is divided based on the influence exerted on the individual. If it is a positive influence (a source of encouragement), it is referred to as a "favorable other," while if it is a negative influence (a source of stress), it is referred to as an "unfavorable other" (Paquet et al., 2014).

In general, locus of control has other implications for stress management beyond perceived responsibility. Indeed, people are often inclined to deploy positive adaptive strategies, such as problem-solving or seeking social support, in an attempt to manage the stress experienced in response to a challenging situation or event. It cannot be denied that internal control beliefs favor individual resilience. Strong resilience strengthens the belief in one's ability to overcome challenges and obstacles, thus enabling recovery after stressful events. In contrast, those with an external locus of control may experience an inability to manage difficult situations and feel helpless in the face of stress. This can lead to anxiety and avoidance behaviors.

However, an internal locus of control can also increase self-esteem, allowing for better management of stressful events. These individuals feel more capable of tackling challenges and making decisions that positively impact their lives. That said, individuals with an internal control belief believe they can influence events and may adopt preventive behaviors such as planning and managing time and goals, which can help avoid stressful situations.

In conclusion, an internal locus of control influences both the perception of stress and how undocumented migrants cope with it, thereby affecting their mental and physical well-being.

4. Coping of undocumented immigrants facing stress: analysis of typologies and explanatory factors in a pandemic context

Throughout their existence, human beings have been confronted with various events, some simple and without major repercussions, while others have been so significant that they could have a profound impact on their psychoaffective balance, or even their health. To face these events, individuals deploy certain strategies that help them manage the situation and alleviate its impact. These are the 'coping strategies', which are responses to internal and/or external threats (Lazarus & Folkman, 1984b). There are multiple definitions for this concept, each offering a distinct perspective on how individuals manage stress and life challenges.

The complexity of conceptualizing coping emerges when we examine the wide range of possible responses. Over time, research on coping has focused on identifying and classifying divergent behaviors into categories that group similar types of reactions.

Today, there are several definitions of coping that stem from the English verb "to cope." While it does not have a direct translation in French, it is often translated as "strategies of adaptation" (Paulhan et al., 1994) or "adjustment strategies" (Dantchev, 1989). It is a term that literally means "to face" something, someone, or a situation.

Alker (1968) initially undertook a syncretic approach to complex psychological (cognitive-behavioral) processes in response to adversity. This concept later evolved into a singular entity, now referred to as "coping," to describe the conscious strategies used to cope with distress (Alker, 1968; Endler & Parker, 1990).

Subsequently, the transactional stress model of Lazarus and Folkman (1984) was widely adopted. This approach emerged from early research on coping strategies, and the concept, as it is currently understood, was formed as early as 1978 (Lazarus & Launier, 1978). According to these researchers, coping encompasses affective, cognitive, and behavioral aspects (Steptoe, 1991; Steptoe & Marmot, 2003). Lazarus and Folkman (1984) define coping as "the cognitive and behavioral efforts to master, reduce, or tolerate internal or external demands that threaten or exceed the resources of an individual" (Lazarus & Folkman, 1984a).

The transactional model of stress and coping developed by Lazarus and Folkman in 1984 aims to understand, grasp, and explain individual adaptation behaviors in response to challenging or problematic situations. This model focuses on the psychological processes implemented by the individual (Rolland, 2004). According to this perspective, stress is conceptualized as "... taxing or exceeding one's resources and threatening one's well-being" (Lazarus & Folkman, 1984a).

This approach posits that stress is not just the result of a situation or the individuals themselves, but primarily arises from interactions between the individual and their environment, where each has an impact and influence on the other. This perspective highlights the existence of two key mediating processes that affect the “individual-environment” exchange (Folkman et al., 1986; Folkman & Lazarus, 1988). This can be interpreted as an adaptation and adjustment of the conventional models of Cannon (1928, 1935) and Selye (1956) to the context of psychological stress (Cannon, 1928b, 1935; Selye, 1956, 1974b). It is an approach that asserts that there is no objective judgment of the situation, stressor, or the person’s resources, but rather a subjective perception of the severe demands and adjustment abilities of the individual. Thus, we witness an evolution from the concept of an objective stressor to the concept of perceived stress (Amirkhan, 1998; J. Cohen, 2013).

Therefore, migration itself, whether voluntary or forced, brings about psychological and emotional difficulties for immigrants. In the face of these challenges, the crucial role of coping strategies in managing stress and adapting to a new situation or environment becomes clear. These strategies can be grouped into various typologies, such as problem-focused coping, which tends to adopt concrete actions to overcome the challenges faced. This approach aims to identify sources of stress and directly intervene to resolve them. Undocumented immigrants who deploy this strategy often seek to improve their situation by actively engaging in their new community. Emotion-focused coping, on the other hand, involves managing negative feelings resulting from stressful situations; this approach is suited for immigrants who experience losses, such as individuals who lost loved ones during their migratory journey or those separated from their original social network.

Most synthetic studies on this subject generally recognize two main categories of general coping strategies: problem-focused coping and emotion-focused coping. However, few studies mention the existence of an additional meta-strategy (Cousson-Gélie et al., 1996).

Nevertheless, Endler and Parker consider avoidance as a distinct strategy, a perspective also supported by a more in-depth study by Suls and Fletcher, which recognized two main categories of coping, including avoidance and vigilance strategies. For the latter, vigilance strategies refer essentially to alertness, involvement, sensitivity, attention, re-evaluation, and a non-defensive attitude. On the other hand, avoidance strategies encompass a range of responses such as diversion, distraction, denial, repression, low vigilance, escape, resignation, fatalism, and defensive attitudes (Suls & Fletcher, 1985a).

According to Callahan and Chabrol, avoidance coping is based on shifting attention away from the source of stress. Its goal is to alleviate and minimize negative emotions by replacing them with more positive ones, such as well-being (resulting from relaxation, physical activity, leisure, and meditation) (Callahan & Chabrol, 2004). They present the negative side of this strategy, such as turning to various forms of addiction (substance abuse, smoking, alcoholism, etc.) to avoid emotional distress (Callahan & Chabrol, 2004). Although this strategy may provide temporary relief, its excessive use can also lead to long-term problems.

The choice of coping strategies by undocumented immigrants is influenced by several factors, such as personal resources (self-esteem and resilience), the level of social support, and of course, prior experiences related to illegal migration. Additionally, cultural differences play a crucial role. However, individuals’ perceptions and beliefs can affect how they approach and manage stress. Indeed, some cultures value community support, while others emphasize independence and autonomy.

In conclusion, the typology of coping strategies among undocumented immigrants is eclectic and shaped by various factors. Understanding these dynamics is essential to providing tailored support for this population’s conditions, and helping them learn how to better manage the challenges they encounter.

5. Locus of Control and Adaptation Mechanisms: A Theoretical Perspective on Coping Strategies

The following highlights that, in specific situations related to the global Covid-19 epidemic, undocumented immigrants are faced with the challenges posed by the event, developing adjustment strategies that allow them to better adapt to the various constraints linked to these circumstances. Furthermore, modes of perception, beliefs, thoughts, and convictions are mobilized by these individuals to understand this situation and the demands it entails. This analysis aims to examine the potential interactions between the dimensions of locus of control and adjustment strategies among immigrants during the pandemic period.

Lazarus considers that stress must be interpreted as a transactional process involving individual-environment interactions, coping, and changes that occur during the evaluation process. This model highlights how an individual

cognitively develops the perception of a stressful situation (perceived stress), analyzes and evaluates their ability to cope with it (perceived control), and constructs and deploys adjustment strategies (coping strategies) (Lazarus, 1990; Lazarus et al., 1985b).

The perception of control over a situation has a significant impact on the level of stress felt. The migrant has the opportunity to reduce or modify their stress as long as they believe they can control the situation by using the adjustment strategy they deem appropriate. In general, situations perceived as the most distressing are those where the individual has no control, as they cannot influence the outcome (such as the Covid-19 pandemic). Controllability is recognized by its ability to influence people's behavior, particularly with regard to adjustment strategies in response to stress (Skinner, 1986).

The perception of control is often stable. According to McCrae (1984), social norms play an important role in the perception of the controllability of a specific event, and this perception tends to be generally consistent within a given population (McCrae, 1984).

Thus, it is conceivable that certain situations are universally perceived as "uncontrollable" (such as natural disasters or pandemics), while others are perceived as "controllable" (such as stress from studies or work). However, it is important to note that a mistaken perception of control can lead to emotional and behavioral difficulties (Schwarzer & Locke, 2000a, 2000b).

However, modern approaches to cognitive-behavioral therapy, particularly mindfulness, require a certain level of acceptance, at least to some extent, of the impossibility of fully controlling certain situations or events. This acceptance of non-control is associated with adaptive psychological functioning, or even optimal functioning (Hartmann, 2008; Hassija & Gray, 2010).

Two aspects of control deserve to be differentiated: behavioral control, which refers to the ability to act concretely on a situation (for example, a sick person can take medication to relieve their suffering), and cognitive control, which allows individuals to modulate the impact of an event by using mental strategies (such as distracting themselves mentally when faced with a stressful situation). Both forms of control come into play in different adjustment strategies. Similarly, recognizing one's inability to control the situation in some cases is part of adaptive coping in mindfulness theory.

Choosing an appropriate strategy according to the situation is crucial for effective stress management, and it is essential to recognize the variability and evolution in the use of these strategies by an individual. Studies have already highlighted that the nature of the situation and the feeling of control are often determining factors in the choice between different strategies.

Using problem-focused coping strategies is advantageous for reducing stress when the situation is perceived as controllable, but its effect would be the opposite in cases of uncontrollable stressors (Marx & Schulze, 1991). In contrast, using emotion-focused coping strategies appears to be effective in situations perceived as "uncontrollable," but less suited for situations where direct action can provide a solution (Baum & Posluszny, 1999; Holmes & Stevenson, 1990). However, some studies suggest that emotion-focused coping offers a variety of sub-strategies and remains effective even in situations where control is more feasible (Fauerbach, Richter, et al., 2002).

Researchers argue that paying attention to emotions experienced during a stressful situation can serve as support for the individual (Stanton et al., 2000, 2002). Other researchers emphasize that in the relationship between the perceived controllability of the event and the feeling of distress, what matters most is the stability in the choice of coping strategy, rather than its relevance (whether problem-focused or emotion-focused coping, each proving effective depending on the context) (Fauerbach, Lawrence, et al., 2002; Fauerbach, Richter, et al., 2002).

In the pandemic context, undocumented immigrants, who are generally faced with precarious conditions, may experience an external locus of control. The fear of deportation, financial loss due to job losses, limited access to healthcare services, etc., all exacerbate this feeling of helplessness. Many may feel trapped in a situation over which they have little control. This leads them to deploy avoidance-centered adjustment strategies, such as underestimating their health problems or choosing to isolate themselves from others.

The link between locus of control and adjustment strategies is critical for the development of effective coping strategies. A belief in internal control promotes a proactive attitude in response to stress induced by the pandemic. Such an attitude allows the person to perceive this stress as a challenge to overcome, rather than a problem or threat. This can contribute to more effective stress management, enhance self-esteem, and increase resilience. For undocumented immigrants,

increasing the belief in internal control is crucial. Immigrants who manage to establish support networks, even informal ones, or who engage in community activities, can develop a sense of agency, which allows for better stress management.

6. Conclusion

The study of undocumented immigrants during the global COVID-19 pandemic highlights specific challenges to their well-being. The belief in control plays a crucial role in how these individuals perceive and manage stress, which in turn impacts their coping strategies. The various coping typologies, adapted to their circumstances, are decisive in overcoming this challenging period. The relationship between beliefs in control and coping strategies underscores the importance of individual perception in stress management. For undocumented immigrants, particularly in the context of the pandemic, fostering an internal locus of control can contribute to the adoption of more adaptive and effective coping strategies. Interventions should be implemented to help this vulnerable population strengthen their belief in internal control, develop more adaptive coping skills, and enhance resilience, especially when facing events and situations as demanding as a global pandemic

References

- [1] Alker, H. A. (1968). Coping, defense and socially desirable responses. *Psychological Reports*, 22(3), 985–988.
- [2] Amirkhan, J. H. (1998). Attributions as predictors of coping and distress. *Personality and Social Psychology Bulletin*, 24(9), 1006–1018.
- [3] Baldwin, R. E., & Tomiura, E. (2020). *Thinking ahead about the trade impact of COVID-19*.
- [4] Baum, A., & Posluszny, D. M. (1999). Health psychology: mapping biobehavioral contributions to health and illness. *Annual Review of Psychology*, 50(1), 137–163.
- [5] Callahan, S., & Chabrol, H. (2004). Relationship between defense and coping: study of Defense Style Questionnaire and Brief COPE in a non-clinical sample of young adults. *L'encéphale*, 30(1), 92–93.
- [6] OCDE. (2013). *Perspectives des migrations internationales 2013*. OECD. https://doi.org/10.1787/migr_outlook-2013-fr
- [7] Cannon, W. B. (1928). The mechanism of emotional disturbance of bodily functions. *New England Journal of Medicine*, 198(17), 877–884.
- [8] Cannon, W. B. (1935). Stresses and strains of homeostasis. *The American Journal of the Medical Sciences*, 189(1), 13–14. <https://doi.org/10.1097/00000441-193501000-00001>
- [9] Carey, P., & Seedat, S. (2004). Adjustment to trauma exposure in mountain guides. *Journal of Psychosomatic Research*, 57(4), 337–338.
- [10] Chippaux, J.-P. (2023). Impact de la COVID-19 sur la santé publique en Afrique subsaharienne. *Bulletin de l'Académie Nationale de Médecine*, 207(2), 150–164.
- [11] Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*. Routledge.
- [12] Cousson-Gélie, F., Bruchon-Schweitzer, M., Quintard, B., Nuissier, J., & Rascle, N. (1996). Analyse multidimensionnelle d'une échelle de coping : validation française de la WCC (Ways of Coping Checklist). *Psychologie Française*.
- [13] Cyrulnik, B. (2021). Le virus est moins un phénomène biologique que de civilisation. *L'Écho*.
- [14] Dantchev, N. (1989). Stratégies de coping et pattern A coronarogène. *Revue de Médecine Psychosomatique*, 17(18), 21–30.
- [15] Dubois, N. (1987a). *La psychologie du contrôle : les croyances internes et externes*. Presses universitaires de Grenoble.
- [16] Dubois, N. (1987b). *La psychologie du contrôle : les croyances internes et externes*. Presses universitaires de Grenoble.
- [17] Endler, N. S., & Parker, J. D. (1990). Multidimensional assessment of coping: a critical evaluation. *Journal of Personality and Social Psychology*, 58(5), 844.
- [18] Ettouzani, A. (2024). Pour un accompagnement psychologique préventif des personnes atteintes du cancer au Maroc. *Horizons Sociologiques*, 1(8). <https://doi.org/https://doi.org/10.34874/horizons-socio.v1i8.49453>

- [19] Fauerbach, J. A., Lawrence, J. W., Bryant, A. G., & Smith, J. H. (2002). The relationship of ambivalent coping to depression symptoms and adjustment. *Rehabilitation Psychology*, 47(4), 387.
- [20] Fauerbach, J. A., Richter, L., & Lawrence, J. W. (2002). Regulating acute posttrauma distress. *The Journal of Burn Care & Rehabilitation*, 23(4), 249–257.
- [21] Folkman, S., & Lazarus, R. S. (1988). The relationship between coping and emotion: Implications for theory and research. *Social Science & Medicine*, 26(3), 309–317.
- [22] Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. J. (1986). Dynamics of a stressful encounter: cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology*, 50(5), 992.
- [23] Hartmann, A. (2008). Les orientations nouvelles dans le champ du coping. *Pratiques Psychologiques*, 14(2), 285–299.
- [24] Hassija, C. M., & Gray, M. J. (2010). Are cognitive techniques and interventions necessary? A case for the utility of cognitive approaches in the treatment of PTSD. *Clinical Psychology: Science and Practice*, 17(2), 112.
- [25] Holmes, J. A., & Stevenson, C. A. (1990). Differential effects of avoidant and attentional coping strategies on adaptation to chronic and recent-onset pain. *Health Psychology*, 9(5), 577.
- [26] Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social Relationships and Mortality Risk: A Meta-analytic Review. *PLoS Medicine*, 7(7), e1000316. <https://doi.org/10.1371/journal.pmed.1000316>
- [27] Lahlimi, Alami. A. (2020). Pandémie COVID-19 dans le contexte national : Situation et scénarios. *HCP*.
- [28] Landen, S. M., & Wang, C.-C. D. C. (2010). Adult attachment, work cohesion, coping, and psychological well-being of firefighters. *Counselling Psychology Quarterly*, 23(2), 143–162.
- [29] Lazarus, R. S. (1990). Theory-based stress measurement. *Psychological Inquiry*, 1(1), 3–13.
- [30] Lazarus, R. S., DeLongis, A., Folkman, S., & Gruen, R. (1985). *Stress and adaptational outcomes: The problem of confounded measures*.
- [31] Lazarus, R. S., & Folkman, S. (1984a). Coping and adaptation. *The Handbook of Behavioral Medicine*, 282325, 282–325.
- [32] Lazarus, R. S., & Folkman, S. (1984b). *Stress, appraisal, and coping*. Springer publishing company.
- [33] Lazarus, R. S., & Launier, R. (1978). Stress-related transactions between person and environment. In *Perspectives in interactional psychology* (pp. 287–327). Springer.
- [34] Lefcourt, H. M. (2014). *Locus of control: Current trends in theory & research*. Psychology Press.
- [35] Levenson, H. (1972). Distinctions within the concept of internal-external control: Development of a new scale. *Proceedings of the Annual Convention of the American Psychological Association*.
- [36] Marx, E. M., & Schulze, C. C. (1991). Interpersonal problem-solving in depressed students. *Journal of Clinical Psychology*, 47(3), 361–367.
- [37] McCrae, R. R. (1984). Situational determinants of coping responses: loss, threat, and challenge. *Journal of Personality and Social Psychology*, 46(4), 919.
- [38] MCMREAM. (2018). Stratégie Nationale d’Immigration et d’Asile. In *Ministère chargé des Marocains Résidant à l’étranger et des Affaires de la Migration*.
- [39] MCMREAM. (2020). *Politique Nationale d’Immigration et d’Asile*. <https://marocainsdumonde.gov.ma/>
- [40] Paquet, Y., Lavigne, G. L., & Vallerand, R. J. (2014). Validation d’une échelle courte et multidimensionnelle de locus de contrôle spécifique au travail (MLCST). *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, 46(1), 60.
- [41] Parker, J. D. A., & Endler, N. S. (1996). *Coping and defense: A historical overview*.
- [42] Paulhan, I., Nuissier, J., Quintard, B., Cousson, F., & Bourgeois, M. (1994). La mesure du coping : traduction et validation françaises de l’échelle de Vitaliano (Vitaliano et al. 1985). *Annales Médico-Psychologiques*, 152(5), 292–299.
- [43] Rolland, J. P. (2004). L’évaluation de la personnalité : Le modèle en cinq facteurs (Mardaga.). *Sprimont, Belgique*.

- [44] Rotter, J. B. (1954). *Social learning and clinical psychology*.
- [45] Rotter, J. B. (1966a). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1.
- [46] Rotter, J. B. (1966b). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1.
- [47] Rotter, J. B. (1975). Some problems and misconceptions related to the construct of internal versus external control of reinforcement. *Journal of Consulting and Clinical Psychology*, 43(1), 56.
- [48] Rotter, J. B. (1982). The development and applications of social learning theory: Selected papers. (*No Title*).
- [49] Rotter, J. B., Chance, J. E., & Phares, E. J. (1972). *Applications of a social learning theory of personality*.
- [50] Schwarzer, R., & Locke, E. A. (2000a). *Manage stress at work through preventive and proactive coping*. London: Oxford.
- [51] Schwarzer, R., & Locke, E. A. (2000b). *Manage stress at work through preventive and proactive coping*. London: Oxford.
- [52] Selye, H. (1956). *The stress of life* (McGraw Hill).
- [53] Selye, H. (1974). *Stress without Distress* (Toronto: McClelland and Stewart Ltd.).
- [54] Skinner, B. F. (1986). What is wrong with daily life in the western world? *American Psychologist*, 41(5), 568.
- [55] Sommer, I., & Ehlert, U. (2004). Adjustment to trauma exposure: prevalence and predictors of posttraumatic stress disorder symptoms in mountain guides. *Journal of Psychosomatic Research*, 57(4), 329–335.
- [56] Stanton, A. L., Kirk, S. B., Cameron, C. L., & Danoff-Burg, S. (2000). Coping through emotional approach: scale construction and validation. *Journal of Personality and Social Psychology*, 78(6), 1150.
- [57] Stanton, A. L., Parsa, A., & Austenfeld, J. L. (2002). The adaptive potential of coping through emotional approach. *Handbook of Positive Psychology*, 148–158.
- [58] Steptoe, A. (1991). Adaptation à l'environnement: Psychologie de la réaction au stress. *Collections Scientifiques Stablon*, 4.
- [59] Steptoe, A., & Marmot, M. (2003). Burden of psychosocial adversity and vulnerability in middle age: associations with biobehavioral risk factors and quality of life. *Psychosomatic Medicine*, 65(6), 1029–1037.
- [60] Suls, J., & Fletcher, B. (1985). The relative efficacy of avoidant and nonavoidant coping strategies: a meta-analysis. *Health Psychology*, 4(3), 249.
- [61] Verdoux, H., Quiles, C., Bon, L., Chéreau-Boudet, I., Dubreucq, J., Fiegi, L., Guillard-Bouhet, N., Massoubre, C., Plasse, J., & Franck, N. (2021). Impact of anticholinergic load on functioning and cognitive performances of persons with psychosis referred to psychosocial rehabilitation centers. *Psychological Medicine*, 51(16), 2789–2797. <https://doi.org/10.1017/S0033291720001403>
- [62] Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92(4), 548.