

Resilience and Organizations: A State of the Art

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How to cite this paper: Arteaga, A.S.,
Arteaga, D.B.S., Mayo, A.R.P. and Trujillo,
L.S.V. (2018) Resilience and Organizations:
A State of the Art. *Journal of Human Re-
source and Sustainability Studies*, 6,
194-209.

<https://doi.org/10.4236/jhrss.2018.62037>

Received: March 13, 2018

Accepted: June 16, 2018

Published: June 19, 2018

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Abstract

The article reviews the discourses in relation to the concept of resilience and its link with the productivity of subjects in organizations. It is based on two conceptual orders. On one hand, from the view of Kotliarenco, Cáceres and Fontecilla, resilient people arise from extremely insane environments, either physically or mentally. Therefore Flores proposes that it is from the initial phase of the recruitment and selection of personnel, to be able to identify the resilience capacity of human resources, since in the work environment they must face a variety of adverse situations. The second conceptual order refers to the personnel employed, in relation to which preventive or corrective measures should be implemented focused on developing resilient capacity, taking into consideration that all people who interact in working environments face situations that put their health at risk according to Gil-Monte, Unda-Rojas, Marrau and Sandoval; which are reflected in indicators such as accidents at work, disabilities, absenteeism and low productivity according to the International Labor Organization (ILO).

Keywords

Resilience, Human Resources, Stress, Health, Organizations

1. Introduction

The voices regarding resilience in Mexico are relatively recent; the pioneer is Doctor Dagoberto Flores Olvera, who in 2006 focused his studies on resilience and business agility applied to educational institutions; finding that resilience is directly related to performance, which indicates a high result even in the presence of turbulent and changing environments. For reasons such as this, it is the organizations that have been interested in developing the coping capacity in

their collaborators, since they gain a competitive advantage over their competitors. Thus resilience has been studied under different approaches or disciplines such as sociology, administration, social psychology, neurosciences, anthropology and genetics; including some international organizations interested in deepening the issue of resilience such as the United Nations Children's Fund (UNICEF), the Economic Commission for Latin America and the Caribbean (ECLAC), the World Bank, among others [1]. This is the case of Rutter [2] cited by Flores [1], who studies resilience in the 80's, from the point of view of the processes and mechanisms that cause it; in this respect, he says that resilience must be understood as the interaction that occurs naturally and actively or dynamically, between a person and his daily environment.

2. Revised Literature

2.1. What Is Resilience?

It is important to understand resilience from different perspectives; One of Kotliarenco, Cáceres and Fontecilla [3] who express that resilience is interesting to observe those conditions that enable or impel people to initiate a healthier and positive development despite being born or living under Difficult circumstances, precariousness or even in an insane environment from the psychological point of view or even in environments of high risk for their physical and mental health; Rather than typecasting themselves in trying to understand why they are in any of these situations.

From the conceptualization of Flores in relation to resilience: the potential capacity that an individual must face adversity and get strengthened from it, where the characteristics necessary for a person to be called resilient gnomonic would be: self-esteem, autonomy, Coping skills, awareness, hope, responsibility, sociability, and tolerance for frustration [1].

In addition to defining the concept of resilience, it is important to know some other concepts that are related to resilience in the workplace, either directly or indirectly, such as: stress and health.

In relation to stress, this is conceptualized as the physical and/or emotional response to damage caused by an imbalance between the demands of the environment and the resources and capabilities that an individual must meet those requirements.

By relating stress to work, it is possible to appreciate that according to the Work Organization, it is determined by: the design of work and labor relations, and occurs when the demands of the work do not correspond or exceed the capacities, resources or needs of the worker, or when the knowledge and skills of a worker or a group do not match the expectations of the organizational culture of which they are part [4].

It is important to mention that there is another type of stress called burnout or chronic work stress, which is characterized by being more acute or more prolonged, causing cognitive deterioration, loss of illusion due to work or low per-

sonal fulfillment, emotional and physical exhaustion; which is sometimes accompanied by feelings of guilt [5] [6].

In terms of health, it is defined by the specialized agency that coordinates global action against diseases such as: a state of complete physical, mental and social well-being and not only the absence of disease or illness [7].

2.2. Resilience and Stressors in Work Contexts

According to the bibliographic review, in **Chart 1**, a compilation of international, national and local investigations is made that addresses resilience and its relationship with stress and health; where besides the authors the object of study, method, and instrument of evaluation and location of the study are exposed.

Resilience and stress. According to the research papers reviewed, it follows that resilience is positively related to work stress and the latter in turn is related to perceived health. Most contemporary studies focus on resilience by relating it to stress, perceived health, and psychosocial variables; Which have significance in the international field, with a quantitative approach and descriptive scope, such as: Molina, [8]; Ríos, Carrillo and Sabuco, [9]; Pérez-Fuentes, Molero, Mercader, Soler Flores, Barragán, Calzadilla, and Gázquez, [10] and Esnaola, Infante, Rodríguez and Goñi [11]. Magaña Medina [12], states that in the last three decades, chronic burnout has attracted interest, giving rise to several studies focused on valuing medical professionals [13], teaching [14] and organizations in general [15].

To respond to the causes of this stress phenomenon, a variety of models have been employed. A series of studies emerge over time that emphasize the theme: in the decade of the 70's, the psychoanalytic perspective arises, which evaluates the individual variables and the personality traits; In the decade of the 80's, social models emerge, that analyze the cognitive variables and in the decade of the 90's, arise the organizational models focused on determining the contextual stressors as the organizational structure, roles, social support or organizational climate [16]. Later, contemporary models emerge, such as Maslach's model of intervention [13], the interaction model with different variables from Gil-Monte [5] and the non-characteristic population studies of the depersonalization from Bernhard [17] and Gonzalez, Landero and Moral [18].

It is important to mention that burnout syndrome has different denominations, such as "work burn-out syndrome" [6], "occupational burnout" [19] or chronic labor stress [4]. In this regard, Juárez-García, Idrovo, Camacho-Ávila and Placencia-Reyes [20] point out that what is important in relation to the study of burnout is to focus the studies on expanding the occupations under study as well as the geographical areas and propose to employ qualitative and quantitative studies broadening the scope of the research, since most of the studies carried out to date are quantitative, observational, cross-sectional or transactional design. Thus, it is important to have clarity in the conceptualization of stress, as in **Chart 2**, a collection of concepts of stress is carried out over time.

Chart 1. Research on resilience and stressors of human resources at work.

| Year | Author/Year | Subject | Key concept | Object of study | Method | Instrument | Result | Place of study |
|------|--|--|---|---|--|--|--|--------------------------|
| 2005 | Mikulic and Fernández | Psychological strength in children and adolescents | Resilience | Intentional sample 44 participants between 10 and 18 years. | Quali-Quantitative: empirical and exploratory descriptive. | Quality of Life Inventory for children and adolescents (ICV-INFANTO JUVENIL) (Mikulic and Fernández, 2006). Coping Responses Inventory (CRI-Y) (Moos, 1993; Translated and adapted by Mikulic, (2006). | When evaluating the family and school context of the participants, they conclude that counting on “other” stimulates affectively | Buenos Aires, Argentina. |
| 2006 | Arias-Galicia, Bilbao, Juárez-García, González-Zermeño, Benítez-Plascencia, Zúñiga-Hernández, Fernández-Sánchez, Rivera-Gutiérrez, Arizmendi Terrazas-Meráz. | Exhaustion in Health Personnel | Professional exhaustion | It shows 142 health workers. | Quantitative | Burnout Inventory, designed by Maslach, Jackson and Leiter (1996). Q-LABORS. (Casas, Repullo, Lorenzo and Cañas, 2002) quality of life and sociodemographic data. | Variables, emotional exhaustion and stress, depersonalization, lack of achievement and search for another job reported positive correlations. Likewise, the greater the emotional exhaustion, the lower the organizational commitment, the perceived organizational support, the satisfaction with the work, the immediate superior, the schedule, the peers and the salary. | Cuernavaca, Morelos. |
| 2007 | Rodríguez, Oramas and Rodríguez | Stress in teachers of basic education | Teaching stress, Pressure, Working conditions | Sample: 1150 preschool (15), primary (598) and secondary (402) teachers from rural and urban areas. | Cross-sectional exploratory study Quantitative | Adapted version of the Stress Inventory of Travers and Cooper (1997)-75 items. Resilience Questionnaire (Strength and Personal Security) developed by González-Arratia and Valdez-Medina (2005) | It was found that the sources of pressure in the teaching work, have a cumulative and permanent effect, with implications in the health of the teaching staff. | Guanajuato, México. |

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|------|--|---|--|---|---|--|--|------------------------|
| 2008 | Ver-loisse-Herrera | Emotional sensitivity, stress and perceived health in naval cadets. | Personality, Psychological Stress, Marine, Psychological Aspects | Participants: 130 cadets (31 women and 99 men). | Descriptive-correlational, and transverse | Scale of stress situations (The Hassles Scale-Kanner, Coyne, Shafaer and Lazares 1981) adapted and validated by Castillo and Guarino (1998). Coping Style Questionnaire (CSQ), version adapted and validated by Guarino, Sojo and Bethelmy (2007). Health Status Checklist (HSC, Meadows, 1989), version adapted and validated in Spanish by Guarino (2005). | Positive relationship of stress and deterioration in the perceived health of cadets; Significant relationship between negative egocentric sensitivity (NES) and stress dimensions, with greater perception of stressful situations; And greater deterioration in health when using styles as coping adapted. | Caracas, Venezuela. |
| 2008 | Ríos Rísquez, Peñalver Hernández and Godoy Fernández | Burnout and perceived health care professionals in intensive care nursing | Burnout, MBI, Nursing, Health, Intensive Care Unit. | It shows 56 people. | Transversal description | Survey of socio-demographic and labor variables Ad-hoc. Maslach Burnout Inventory Questionnaire (MBI). General Health Questionnaire (GHQ-28) by Goldberg. | The levels of burnout and health found indicate a high vulnerability in the sample studied, recommending the implementation of prevention programs and labor intervention. | Murcia, España. |
| 2008 | González Arratia, Valdéz Medina, and Zavala Borja | Resilience in Mexican adolescents | Resilience, Resilience Questionnaire | It shows 200 youth of Mexican secondary and preparatory of both genders between 14 and 18 years of age. | Quantitative | Resilience Questionnaire (Strength and Personal Security) developed by González-Arratia and Valdez-Medina (2005) | There is greater resilience in men with independent traits; For their part women need external support to be resilient. | Tepic, Nayarit. México |

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|------|---|---|-----------------------------|---|--|---|---|------------------------------|
| 2008 | Arias-Galicia and González-Zermeño. | Professional exhaustion and quality of working life in educational communities in the public and private sectors. | Burnout | Sample of 374 workers from 21 schools in the State of Morelos, 51.3% public institutions and 48.7% private. | Quantitative with significance level of 0.05. Student t was used for statistical analysis. | The Burnout Inventory (MBI Educators Survey), designed by Maslach, Jackson and Leiter (1996) for teaching staff. The Q-LABORS (Casas, Repullo, Lorenzo y Cañas, 2002). It was modified by adding demographic variables. | Those who belonged to public institutions presented greater depersonalization and feelings of lack of achievement in their work and vice versa, which indicated higher levels of satisfaction with their immediate superior, with colleagues and working hours, as well as fewer health problems. | Morelos, México. |
| 2008 | Arias-Galicia and Fernández-Sánchez. | Burnout associated with organizational factors in the nursing workforce | Burnout, Work Area, Nursing | Sample of 176 nurses from three second level health care institutions (164 women and 12 men). | Transversal/Correlational. | Burnout Inventory of Maslach, Jackson and Leiter (1996). Q-LABORS. (Casas, Repullo, Lorenzo and Cañas, 2002)-quality of working life in hospitals and sociodemographic data. | Professional exhaustion is related to professional factors. | Morelos, México. |
| 2008 | Lima-Anzures and Juárez-García. | Labor stressors in public transport drivers. | Work Stressors | Unit of Analysis 191 men conducting public transport between 19 and 67 years. | Qualitative-Quantitative Exploratory, descriptive and transversal. | Semi-structured interview with integration of sociodemographic data and stressors perceived by drivers. | There were 15 stressors among public transport drivers (traffic, time pressure and economic pressure to deliver the daily bill). | Cuernavaca, Morelos, México. |
| 2009 | González-Arratia, Valdéz-Medina, Maya Pasaflores and González-Escobar | Resilience in children living in poverty in a rural community | Resilience, Children | It shows 100 children of both sexes between 11 and 12 years old belonging to a rural community in Mexico (50 men and 50 women). | Quantitative: descriptive Student's t-tests. Non-probabilistic sampling of intentional type. | Resilience Questionnaire (González Arratia, Valdez and Salazar, 2006) of 32 items. | High levels of resilience in the three dimensions of the instrument (internal protective factors, external protective factors and empathy). | Estado de México. |

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|------|---|--|---|---|---|--|--|---------------------------|
| 2010 | León-Prados, Fuentes, González-Jurado, Fernández, Costa y Ramos | Physical activity and perceived health in a sector of the population. | Physical activity, perceived health, Questionnaires | Voluntary participation of 310 people between 20 and 60 years. | Descriptive, transverse and synchronous design | SF-36 Health Questionnaire (Spanish version). International Questionnaire on Physical Activity (IPAQ)-27 items. | Multiple relationships suggest that subjects who engage in greater Physical Activity Recreation, Sport and Leisure Time (PALT) and a greater number of Weekly Minutes of Physical Activity (WMPA) self-perceive a better overall health status. | Sevilla, España |
| 2011 | Esnaola, Infante, Rodríguez and Goñi | Relationship between psychosocial variables and perceived health | Perceived health, Physical self-concept | Sample of 518 people (301 women and 217 men). | Quantitative: descriptive study through survey. | Record of perceived health: An introductory questionnaire is used in which the participants are asked about life habits, consumption and/or perception of food, drug use, sleep quality, physical activity, etc. | Physical self-concept is significantly related to the perception of health in both women and men. Also, in the female sample two subdomains have appeared significantly related to the perception of health, physical condition and physical attractiveness. | Palma de Mallorca, España |
| 2012 | Ríos, Carrillo and Sabuco | Resilience and Burnout Syndrome in nursing students and its relationship with sociodemographic and interpersonal relationship variables. | Resilience, Burnout | 218 nursing students from the University of Murcia | Quantitative: Transversal/ Descriptive/ Correlational | Ad hoc questionnaire-sociodemographic variables. Spanish adaptation of the Maslach Burnout Inventory (MBI-GS). Connor-Davidson Resilience Scale (CD-RISC). | Those who had greater resilience had less emotional exhaustion and more personal fulfillment. In terms of burnout, 28% of the sample had emotional exhaustion and 19% cynicism. | Murcia, España |
| 2012 | Gaxiola, González and Contreras | Influence of resilience, goals and social context on the academic performance of high school students. | Resilience, Academic Performance, High School | Random sample of 96 upper secondary students (55 males and 41 females). | Quantitative, Transversal. | Resilience Inventory (IRES) (Gaxiola, Frías, Hurtado, Salcido and Figueroa (2011). | Academic achievement through academic goals is predictable by resilience. | Hermosillo, Sonora. |

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|------|---|---|--------------------------|---|--|--|---|--|
| 2012 | Escobedo, Camacho-Ávila and Plascencia Reyes. | CESQT as a predictor of mental health in workers. | Mental Health | It shows 114 participants who develop operational activities (58 men and 55 women). | Quantitative, transverse, descriptive-correlational. | CESQT-20 ítems. JCQ-27 ítems. GHQ-28 ítems. | Psychic attrition is a statistical predictor of somatic symptoms. This confirms that the CESQT and the JCQ are predictors of workers' mental health. | Morelos, México. |
| 2012 | Flores-Jiménez and Juárez-García. | Burnout syndrome and work stressors in community trainers in Morelos, Mexico, from a mixed analysis approach. | Burnout, Labor stressors | Population 220 instructors and the sample were 159 instructors. | Descriptive-correlational. The design was non-experimental, cross-sectional. | "Maslach Burnout Inventory-General Survey" (MBI-GS) adapted and translated by Juárez-García, <i>et al.</i> (2011)-16 items. Frequent aspects of stress were added at work on a Likert scale. | Low levels of burnout and dealing with students is the source that generates more stress on instructors. | Morelos, México. |
| 2013 | Molina | Psychosocial risk and personal protective factors of health in health workers | Resilience, Burnout | 160 workers from the Emergency Service of the Rawson Hospital. | Cross. Descriptive survey study | Ad-hoc socio-demographic questionnaire. Connor-Davidson Resilience Scale Test (CD-RISC, 2003). Maslach Burnout Inventory-health services survey | There is a risk in the health workforce, more than half of the staff suffer from high depersonalization and emotional fatigue and low self-realization. There are high levels of resilience as shown by two-thirds of respondents. And doctors and nurses are those who suffer from burnout syndrome. | San Juan, Argentina |
| 2013 | Palomar, Matus and Victorio | Resilience in people in extreme poverty of Mexico | Resilience | It shows 913 adults (602 women and 311 men). The average age was 43.71 years. | Quantitative, Transversal, Explanatory, non-experimental field study based on surveys. Dependent variable: resilience. Independent Variable: Individual, school, family and social area. | Ad-hoc closed questionnaire: sociodemographic, economic and educational. Design of instruments to measure sociodemographic, economic, educational and resilience variables. | They registered locus of internal control, motivation to the achievement and direct confrontation as main strengths. | Urban areas near the Federal District. |

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|------|--|--|--|--|---|--|---|-------------------|
| 2013 | Littlewood-Zimmerman. | Occupational wear (BURNOUT) in a manufacturing company | Burnout, Boss, Psychosomatic and Sleep Disorders | It shows 635 employees (436 men and 199 women) between the ages of 20 and 40. | Quantitative and correlational | Mexican Scale of Occupational Wear (EMEDO) by Uribe (2008). | High level of wear on 18% of staff. A negatively correlated quality of leadership and that factors of exhaustion, depersonalization and dissatisfaction of achievement and positive correlation with psychosomatic and sleep disorders. | México |
| 2014 | Chau and Saravia | University Adaptation and its relation with the perceived health in Young people. | University Adaptation, Perceived Health, University Students, Wellbeing, | Sample of 281 university students. | Quantitative and descriptive. Informed consent. | Questionnaire of Academic Experiences (Questionnaire of Academic Experiences) in its reduced version (QVA-R; Almeida <i>et al.</i> , 2001). Health Questionnaire (SF-36; Ware, Snow, Kosinski, and Gandek, 1993). University Adaptation Questionnaire (Qva-R). | Positive relationship between perceived health and the five areas that measure university adaptation. | Lima, Perú. |
| 2015 | Londoño | Influence of Psychosocial Factors on Perceived Health, Burnout, and Staff Engagement | Psychosocial risk factors, Burnout, Engagement, Perceived symptomatology | Sample of 9,090 employees of 13 Colombian companies. | Quantitative. Non-probabilistic sampling for availability and informed consent. | Battery for the Evaluation of the Psychosocial Factors of Cincel (Toro <i>et al.</i> , 2009). | The effects related to psychosocial risk factors arise from the interaction of intra-labor, individual and extra-labor conditions. | Barcelona, España |
| 2015 | Pérez-Fuentes Molero, Mercader, Soler Flores, Barragán, Calzadilla and Gázquez | Real health and perceived health in people of 60 years. | Perceived health, Real health, adult | Random sample by clusters by geographical area: 1220 people over 60 years old. | Descriptive, cross-sectional, prevalence | Questionnaire of Needs and Demands of Social Services Users for Seniors-69 items | Men have a better perception of their health and among the most common health problems are found in joints and bones. The perceived health variable can be used in the planning of public policies. | Almeria, España |

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|------|--|---|--|---|--|---|--|------------------|
| 2015 | Brito Ortiz, Nava Gómez and Juárez García. | A structural model of the relationships between social support, perceived stress and burnout in Mexican nurses. | Social support, Perceived stress, Burnout, Nurses. | Sample: 181 nursing professionals working in health centers. | Study with non-experimental cross-sectional design. Inclusion Criteria: Morelos Health Services Staff. | Perceived Stress Scale (PSS14), by Cohen <i>et al.</i> (1983) adapted by González and Landero (2007). Job Content Questionnaire (JCQ, v. 1.0), by Karasek <i>et al.</i> (1998) validated by Brito (2014). Questionnaire for the Evaluation of Work-Burn Syndrome for Health Personnel (CESQT-PS). | High levels of social support, a moderate degree of psychological stress, high levels of illusion from work, and low levels of psychic attrition, indolence and guilt. | Morelos, México. |
| 2016 | Cozzo and Reich | Perceived stress and health-related quality of life in health care personnel. | Perceived stress, quality of life, health personnel, prevention. | It shows 56 health professionals (45 women and 11 men) with socio-demographic differences (12 physicians, 13 physiotherapists, 19 nursing professionals and 12 nursing assistants). | Descriptive and comparative cross-sectional | Questionnaire of Sociodemographic and Labor Data Ad hoc. Perceived Stress Scale-Perceived Stress Scale (PSS), Spanish version adapted by Remor (2006). The MOS-SF-12 Health Questionnaire Version 2.0. | A general level of perceived moderate stress, without reflecting differences or relationships according to sociodemographic and labor variables. Thus, this study has not been able to identify a group of greater vulnerability, nor risk factors or protection for stress. | Uruguay |

Source: Own elaboration based on the bibliography consulted.

For the study of stress, some theories can be approached as: The Psychological Theory, which speaks of the relation between the environment and the individual; The Biological Theory, which deals with the threatening situations that generate stress; The Social Theory, which deals with the experiences that the individual knows when interacting with the environment and this generates stress and negative changes in his health and industrial theory, which evaluates how technological changes are stressors of the individual.

Instruments used to measure resilience. It is important to note that a significant number of instruments are available that make it possible to measure resilience in any area; for that reason in **Chart 3**, some of the most outstanding instruments to measure it are mentioned.

Instruments used to measure chronic work stress. According to Medina [12], among the instruments most used to measure this phenomenon are.

The Maslach and Jackson scale questionnaire [13], known as MBI Survey; Which consists of 25 items and is the most used in investigations of emotional exhaustion syndrome; Analyzes the phenomenon from three dimensions: emotional exhaustion, depersonalization and low personal fulfillment.

Chart 2. Definitions of the concept of emotional wear syndrome.

| Year | Author | Definition |
|--------------|--|---|
| 1974 | Freudenberger | Feeling of failure and exhausted or worn existence, as a result of the overload due to the demands of energies, personal resources or spiritual strength of the worker. |
| 1978 | Pines and Kafry | It is characterized by feelings of depression, emotional and physical emptying with a negative attitude towards life, the environment and towards itself, the product of a traumatic, sudden and abrupt life event, or as a result of a slow and gradual daily process. |
| 1980 | Edelwich and Brodsky | Progressive loss of idealism, energy and motives lived by people as a result of working conditions. |
| 1990 | Starrin, Larsson and Styborn | Stress can be experienced positively or negatively by the individual, burnout is an exclusively negative phenomenon. They relate in the sense that burnout could be similar to a negative stress. |
| 1999 | Gil-Monte and Peiro | Process involving cognitive-aptitudinal components (low personal fulfillment at work), emotional (emotional exhaustion) and attitudinal (depersonalization). |
| 2002 | Oplatka | It is a phenomenon related to professional experience. Its components are interconnected with variables such as commitment and job satisfaction, attitude towards staff and management oriented towards innovation. |
| 2004 | Vinaccia and Alvaran | The response to chronic stress is composed of negative attitudes and feelings towards the people with whom they work and their own professional role; As well as being emotionally exhausted. |
| 2005 2010 | Gil-Monte; Gil-Monte and Zuñiga. | It is characterized by a cognitive deterioration, consisting in the loss of the illusion by the work or the low personal realization in it; By an affective deterioration characterized by emotional and physical exhaustion; And by the appearance of negative attitudes and behaviors towards clients and towards the organization in the form of indifferent, cold, distant and even harmful behaviors. Occasionally, these symptoms are accompanied by feelings of guilt. |

Source: Magaña Medina, D. E. and Sánchez Escobedo, P. A. [21] and Ceballos Giles, Pérez Mayo and Hernández Aguilar [22].

Chart 3. Instruments to measure resilience.

| Author | Instruments | Dimensions |
|-----------------------------|---|--|
| Sandín and Chorot (2003) | Stress Coping Questionnaire (CAE) | Search for social support, Open emotional expression, Religion, Solution to the problem, Avoidance, Negative auto focalization, Positive reevaluation. |
| González and Landero (2007) | Stress Coping Questionnaire (CAE) in Mexicans | Search for social support, Open emotional expression, Religion, Solution to the problem, Avoidance, Negative auto focalization, Positive reevaluation. |

Source: Own elaboration based on Sandín and Chorot [23] and González y Landero [18].

The Oldenburg Burnout Inventory (OLBI) questionnaire from Demerouti *et al.* [15]; which can be used in any field of work, and was designed to adapt to the language of the MBI in the German language, although the study was carried out with a Greek sample.

The questionnaire for the evaluation of Burn-for-Work Syndrome (CESQT) by Gil-Monte, Rojas and Sandoval [24]; Is made up of four dimensions of illusion for work (desire to achieve work goals, generating a source of personal pleasure), psychological wear and tear (emotional and physical exhaustion derived from daily work with people who present or cause problems), indolence (negative attitudes Of cynicism and indifference towards the clients of the organization) and guilt (feelings about negative attitudes and behaviors developed at work, and toward people with whom there are working relationships).

The Barraza Student Burnout Validation Questionnaire [14]; Instrument that contemplates two sub dimensions related to the indicators of attitude and behavior of burnout in students.

2.3. Consequences of Work Stress in Personal and Organizational Health

Consequences of chronic work stress on health. Pedrero, Puerta, Lagares, Saéz and Garcia [25], affirm that several studies have identified the existence of repercussions of chronic health work stress, mainly in:

- 1) Physical symptoms: chronic fatigue, headache, gastrointestinal problems, insomnia, asthma, sexual dysfunctions, dysmenorrhea, myalgia and cardiovascular alterations.
- 2) Behavioral alterations: smoking, eating disorders, reckless driving, gambling and substance abuse such as drugs, alcohol and drugs.
- 3) Emotional disturbances: self-esteem, depression, difficulty concentrating, demotivation, frustration, emotional distancing, anxiety and irritability.

It should be noted that organizations also have repercussions for this syndrome, such as: high costs due to absenteeism, loss of intellectual capital, complexity in decision making (due to alterations of emotions), lack of quality in the work done, loss of credibility, disrepute in the environment (behavioral alterations) and even abandonment of employees [16]. To analyze these phenomena, it is possible to approach it from the theory of well-being from the study of perceived health. In Mexico, there are several instruments that can be used, such as the SF-36 Health Survey [26] and the WHOQOL-BREF Quality of Life Scale [27], as detailed in **Chart 4**.

3. Final Comments

The study of resilience is definitely an issue of interest to all organizations, given the turbulent conditions and constant dynamism experienced in the work environment.

It is essential to pay attention to human resources from the recruitment and selection process, since it is convenient for the organization to identify in advance the behavior of the people that it wishes to recruit, in such a way that they can predict the behavior of members to future adverse situations and how they will deal with them.

Studying the phenomenon in the human resources that currently work in the

Chart 4. Instruments for measuring health in Mexico.

| Author | Instruments | Dimensions |
|--|--------------------------------------|--|
| Zúñiga, Carrillo-Jiménez, Peter, Gandek and Medina Moreno (1999) | Health Survey SF-36 | Physical function, Physical Role, Body ache, Body Health, Vitality, Social function, Emotional role, Mental health, Transition of health notified. Physical Health, Psychological Health, Social relationships, Environment. |
| World Health Organization (WHO, 2004) | Quality of Life Scale WHOQOL-BREF | |

Source: Own elaboration based on data from Zúñiga *et al.* [26] and the World Health Organization [27].

organizations, will allow them to remain in the working world, since it is possible to identify the competences to be developed and feedback in relation to the resilience. If attention is not paid to the development and permanence of this resilient ability, human resources may tend to present some stress crises even at low levels, but when that work stress becomes chronic and protracted the employee can be burned and there will be a Serious problem for the organization, because once it reaches this point it is more complex than human resources can recover quickly and its performance is affected and thus the organization itself.

On the other hand, if organizations want to raise their levels of productivity, the human resource is the primary source to reach that goal, so it is necessary to pay attention to their physical and emotional health.

Although work accidents are indeed inevitable, but if we add human resources emotionally stressed and tired, the situation is aggravated, bringing considerable consequences for both the employee and the organization. In the case of the worker can be reflected in a minor accident to more serious levels such as: disabilities, injuries, absenteeism, rotation and even death. In the case of the organization, low levels of productivity, loss of intellectual level and high costs of dismissals, absenteeism, turnover, injuries and compensation for employee deaths resulting from such work risk could be generated.

Although the study of resilience is a relatively new issue in the organizational context, it has been sufficiently addressed; however, today it is sought to expand the horizons of possible research where resilience is studied from an organizational perspective and not as it is commonly studied in terms of psychological health.

The International Labor Organization [4] in 2010 reported 313 million non-fatal work-related accidents, which resulted in four days of absence from work; For the year 2014, noted that the records increased to 2.3 million annual

deaths from occupational accidents and diseases, of which 350 thousand were for work accidents and 2 million for occupational diseases; Records that are alarming for organizations.

According to the World Bank, in 2010 there were 6.924 billion people in the world, and by 2014 there were 7261 billion people in the world; When crossing the population figures with the previous figures of occupational accidents, it turns out that by the year 2010 4.5% of the world population suffered some type of accidents at work. This is why companies must pay attention to this phenomenon called resilience, in such a way that it can prevent and reduce the level of accidents of work accidents from the resilient development of their equipment and that can also raise their levels of Productivity and at the same time preserve the intellectuality of their human resources ensuring their permanence in organizations.

4. Recommendations

The documentary review discussed above suggests the need to make some new research proposals, which can significantly enrich the contributions and findings obtained so far in relation to resilience.

The studies that have been carried out so far in Mexico have focused on education, vulnerable groups (women, adolescents and children), people living in extreme poverty and young students; However, it is necessary to expand the studies of the issue of resilience in labor contexts focused as: studies on the influence of resilience in the organizational culture and how this in turn influences the individual resilience of employees; The resilience and its relationship with the quality of life in employees from different perspectives (in the public and private sector) according to specific organizations problematic (rotation, productivity, performance, health, etc.); Resilience as a new form of coping with alcohol and drugs, smoking, unhealthy diet, poor sleep quality, diabetes, economic stress, burnout, violence, physical activity, financial well-being, HIV And nutrition [4]; Resilience and its influence on health in diverse work contexts; resilience as a key element in coping with stress in adverse situations at work, community and family; Implementation and longitudinal measurement of an Organizational Culture focused on the resilience of employees to raise their quality of life at work and the achievement of organizational objectives; Propose resilient intervention models to raise the quality of life of people and the productivity of companies; Resilience as an organizational strategy to raise employee productivity in the short, medium and long term (with longitudinal measurements).

Based on the analysis of the research review, it is also suggested to study resilience through practical applications in working environments, as well as to reinforce the SOLVE methodology proposed by the International Labor Organization [4] and even propose new variables Research focused on raising the quality of life in these working environments.

The above proposals show new perspectives in the field of research, open to

quantitative methods where the scope of research is longitudinal to have reinforced bases of work and as well as find new findings that enrich the existing studies so far.

Acknowledgements

We thank the Program for Strengthening Educational Quality. Reprogramming 2017 (P/PFCE 2017) for the support granted for the publication of this article and that has to do with improving the academic productivity of students and PTC of the FCAel PE.

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