

Tetrachoric model of theoretical approach to the construct of resilience.

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Abstract

Every day humans do in various levels, fulfilling various roles and face constant challenges of all kinds, the period that is lived as a student during the individual life cycle does not constitute an exception to these facts and it requires the appropriate use of all the powers which he has. However, the occasions in which the student reflects that it does not have the necessary tools to have a triumphant result cannot be ruled out or are weakened, taking into account that the conditions for the achievement of the goals are not always the best and there are various obstacles that go beyond the individual, either personally, the interpersonal. That is why, the ability of people to develop psychologically normal, despite living in contexts of risk, refers both to individuals in particular as to the groups that are able to minimize and overcome the adverse effects of adversities and disadvantaged contexts. The purpose was to establish a theoretical approach to the resilience construct. **Methodology:** It was made a quantitative, correlational, cross-sectional research. The sample was non-probabilistic, the survey technique and the instruments SODEMEM-Cardozo, Graffar scale and the Connors-Davidson Resilience Scale, Spanish version. **Findings:** Resilience is more than the absence of pathological symptoms or disorders in the event of a traumatic event in life; it should be looked for in everyday stressful situations away from psychopathology, being a relevant theoretical and practical issue. **Conclusion:** Resilience is an attribute of personal health, characterized by difficult situations from continuous contact with sick people and conditions not suitable work. The students must assume themselves as positive beings capable of entering to build from their conscious individuality the change of reality, starting from the fact that it does not depend on the other but of each and turn together.

Keywords: Resilience, Quality of life, Motivation, Medical students.

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Introduction

Since the formulation by the World Health Organization (WHO) [1], in its Magna or Constitutional Letter, of the classic definition of health as "the complete state of physical, mental and social well-being, and not just the absence of conditions and diseases", the efforts of many researchers have been directed to the search for tools to evaluate these three interrelated aspects of human life.

Thus, the concept of Quality of Life (QOL) arises as an attempt to quantify the state of health, thus remaining both as poorly defined concepts, given the complexity of reality that they intend to encompass, measure and reflect.

In recent years, multiple initiatives have been presented to achieve a clear concept of the term Quality of Life, reaching an agreement only in its multidimensional (bio-psycho-social) nature seen, thus, covering aspects of life related to disease and its treatments, but also with the satisfactory development of aspirations in all its orders [2].

In this sense Nussbaum and Sen [3] state that quality of life involves the level of human flourishing existing in a society,

and in considering it is necessary not only to identify the amount of money that people have, but also to know their life expectancy at all levels.

For this reason Cely [4] pointed out that quality of life has to do with conditions that favor ways of life that favor being over having-more, since it is intimately related to the meaning of it and a feeling of existential realization.

Following this same order of ideas; the concept of resilience, alludes to the ability of the human being to face, overcome, and be transformed by the adversities of life. Wolin and Wolin in 1993 used the Resilience Mandala theory to call the set of protective characteristics or qualities that all successful survivors have to deal with adversity [5-7].

Even though for education the term resilience implies, as in physics, a positive dynamic, an ability to go back forward; human resilience is not limited to resisting, it allows reconstruction and in educational terms is conceived as a moral spring, and a quality of a person who is not discouraged, who is not allowed to be knocked down, who is able to overcome himself despite adversity.

The concept of resilience also includes the ability of a person or social system to adequately address difficulties, and in addition to a socially acceptable form [8]; and as a combination of factors that allow the person to face and overcome the problems and adversities of life, it is characterized by a set of intrapsychic social processes that make it possible to have a healthy life, living in an insane environment, made so current, today in Venezuela [9].

The resilience or ability to recover from adversity and come out strengthened has been presented and discussed with an emphasis on the strengths that promote them and the personal and environment factors that enable their development.

Literature Review

In Venezuela, the Quality of Life and Resilience model should be applied to the study of the transition for young people to enter the level of higher education in order to identify the different variables that have a positive impact on quality of life and the configuration of possible sources of resilience.

Around this aspect, some authors argue that by emphasizing only cognitive technological models in higher education at the university level, students lack an emotional education, where positive emotions based on resilience serve as protective health effects for stress; which can lead to inhibitions, blockages, fears, insecurity, instability, and frustrations in the face of adversity, which can even induce social mismatches and lack of control in opposing situations such as frustration or failure [10,11].

In relation to this affirmation, a weakness of education is the little emphasis it places to enhance the positive aspects of the human being, as postulated by positive psychology, being rather the tendency to focus negatives; which downplays the fact that he or she is the student himself responsible for working for his well-being and not passively expecting him to be provided by others.

This study sought to investigate, with an empirical-analytical approach typical of the positivist paradigm, the quality of life in medical students as well as their motivation and resilience elements these intimately related, finally building on the basis of the results a tetrachoric model of theoretical approach to the construct of resilience.

Thus, and in order to facilitate the presentation of research work, it was structured into sections, which are presented below: Section I, this first section refers to the necessary theory for understanding the study and a look at the evolution of the term resilience. Section II presents a number of measuring instruments to assess the Resilience construct. Section III, here is a sample of experience-based resilience as well as a look at resilience in Venezuela; it also briefly sets out and describes the methodology, methods and used procedures for data collection, statistical analysis. In conclusion, the theory of the problem is developed in study formulating finally the conclusion and recommendation of the study.

Theoretical support of resilience

Resilience has become a research topic because it is associated with mental health and mechanisms of adaptation to the environment by the individual. Likewise, it is related to trust, optimism in the face of adversity because it allows the individual to recognize his own possibilities, to trust in the help he can obtain from others and to manage the circumstances in which he must know how to resist and undertake, preserving quality of life [12].

The concept of resilience refers to the human being's ability to face life's adversities, overcome them and be transformed by them. Wolin and Wolin in 1993 used the theory of Mandala for resilience to name the set of characteristics or protective qualities that all successful survivors have to face adversity, which in turn takes most of the factors described by Werner [5-7].

Human resilience is not limited to resisting, it allows reconstruction and in educational terms it is conceived as a moral spring, and a quality of a person who is not discouraged, who does not allow himself to be dejected, capable of overcoming himself despite adversity and their concept of resilience also includes the capacity of a person or social system to adequately face difficulties, and also in a socially acceptable way [8].

For Cyrulnik [13], resilience is a process, a set of harmonized phenomena, in which the person faces a context, affective, social and cultural. He also defines it as the art of to sail against the current. Resilience as a combination of factors that allow the person to face and overcome life's problems and adversities, is characterized by a set of intrapsychic social processes that make it possible to have a healthy life, living in an insane environment, so current, currently Venezuela [9].

Resilience or ability to recover from adversity and emerge stronger has been presented and discussed with emphasis on the strengths that promote them and on the factors of the person and the environment that allow their development; Based on this Garassini [14] affirms that gratitude is the most developed strength in Venezuelans, for his part Emmons [15] confirmed that this same strength constitutes one of the main sources for the development of well-being since it allows people be aware that everything they own and part of who they are thanks to the effort of others.

Some researchers such as Wu y cols. [16], in their neurobiology study of resilience and its implications for promoting it, psychosocial factors of resilience highlight those based on strengths such as humor, religiosity, altruism and generosity; in the same way, they present the recent findings in relation to genetics, epigenetics and the neurochemical factors that intervene in the management of trauma and stress associated with the development of resilience circuits, and consider that the neural patterns and circuits involved remain in discussion in the mediation of the same; proposing that increasing knowledge of resilience factors would lead to the development of drugs and interventions to increase resilience and mitigate its adverse consequences.

Regarding the psychosocial factors that could be involved, Eley, Cloninger, Walters, Laurence, Synnott, and Wilkinson [17] in a study carried out in Australia concluded that resilience was associated with a mature, responsible, optimistic personality, trait pattern, persevering, and cooperative considered all personality strengths that support the inclusion of resilience as a component of optimal functioning and well-being in the physicians who were studied.

Most studies, which have been conducted, tend to place an emphasis on disease states. Because of this, most research has focused on describing diseases and trying to discover causes or factors that could explain negative or unwanted results, both biologically and mentally.

The Positive Psychology by posing as a new edge that studies positive emotions, individual traits and positive institutions that help improve the quality of life of individuals. Understanding positive emotions (happiness, pleasure, satisfaction, well-being) together with the study of positive personality traits (character, talents, interests, values) and that of positive institutions (families, schools, businesses, communities, societies) capable to enable positive subjective experiences that contribute to well-being [18-20].

Positive Psychology by focusing on the scientific study of human strengths and virtues, which allow us to adopt a perspective focused on human potential, its motivations and capabilities, giving meaning to life and positive meaning to adverse or difficult circumstances, allowing us to alleviate people's discomfort and promote their resilience, being an important resource for personal growth [21-23].

It focuses its attention on the construction of the positive aspects of the human being and on the repair and transformation of those negative and/or dysfunctional aspects. This prevents or reduces the tendency to develop mental illnesses and/or disorders and promotes psychological well-being, understood as an indicator of mental health [24].

Broadly speaking, Resilience refers to the individual ability to grow despite adversity. The ever-present stressful nature of the events and events to which people are exposed and their effects on health may probably continue to fuel the growing interest in Resilience [24]. Smith, Tooley, Christopher and Kay [25] pointed out that there are important barriers in the advancement of knowledge of Resilience. First, since the word resilience has been associated with an increasing number of vague and imprecise meanings. Second, this conceptual confusion has made it difficult to clearly understand the health effects of Resilience. And third, it is not entirely clear how Resilience is related to health measures, beyond other important positive characteristics sufficiently studied in the literature on the subject (such as optimism or self-efficacy) [26].

Resilience also refers to positive adaptation when dealing with stress and traumatic events. However, the ability to maintain good function after exposure to stress is more common than previously thought, and therefore the study of Resilience is

important to achieve a comprehensive understanding of human responses to stress and stress [27,28].

Various authors affirm: the empirical evidence suggests that Resilience is based on a set of genetic, biological, psychological and environmental factors [29-36]. Therefore, the continued discovery of the biopsychological foundations of Resilience can aid in prevention and intervention focused on helping people recovers from stressful events and stress-related disorders.

Analyzing the concept that it implies; although the word resilience has taken many meanings, it comes from the English word "resilience" which is "recover or jump backwards." The root of the word resilience is the Latin word "*resilio*" which combined with the meaning of "cia" and "salire" means "jump or jump" [37].

A look at the evolution of the term

The first definition of the Resilience dictionary includes those related to physics. Thus, physicists and electrical engineers apply this concept to everything that has "the ability to regain or regain shape, position, etc.". After this meaning it was extended to the social sciences.

Appropriately, the Royal Spanish Academy (RSA) [38], on its page shows a preview of the twenty-third edition of the Dictionary of the Spanish Language in which the word resilience is already included. Offering two meanings: one linked to Psychology, defined as "the ability of a living being to adapt to a disturbing agent or an adverse state or situation"; and another referring to mechanics, defined as "the capacity of a material, mechanism or system to recover its initial state when the disturbance to which it had once been has ceased."

The "psychological meaning" offered by the RSA is not only important due to the fact that the word resilience is included within the Spanish lexicon, but also because that meaning slips from the first conceptualizations of Resilience with traumatic situations assuming the trait version of said concept, that is, as a more stable personality characteristic, and not only as a state or process [38].

As regards the "psychological meaning" of the word resilience, different authors have tried to define it, which is why there are various variables for this term. Becoña [39] analyzed this construct in depth and although it is a concept used by psychologists, there is still no complete agreement on its definition. However, he himself points out, the most accepted definition is that carried out by Garmezzy [40] who defined it as "the ability to recover and maintain adaptive behavior after abandonment or the initial incapacity to start a stressful event".

On the other hand, Masten [41] provided an equivalent definition when considering it as "a specific type of phenomenon for good results despite serious threats to adaptation or development". Block and Block the consideration as "the dynamic capacity of an individual to modify his modal level of ego control, in one direction or another, as a function of the characteristics of the environment's demand" [42]. Similarly, wait the person with "ego-resilience" works best in

new, changing, and/or unsolvable circumstances, which successfully manages the ability to cope with changing environmental contingencies.

Given the conceptualization of Resilience previously exposed, it is determined as a characteristic or trait of the individual's personality, which helps a successful form of success in environmental circumstances, closely related to the conception of emotional intelligence given by Goleman [43], when affirming that it constitutes a key factor for a successful adaptation in the different contingencies of life and a set of meta-abilities that can be practiced, learned and applied. In this way, with all the pressures that we are sometimes in current life, emotional intelligence helps to go through them, feel better and learn from all the experiences lived.

However, and at a more dynamic level, Becoña (39) pointed out that there is a major consensus in considering Resilience as a process or phenomenon, and not as a trait or characteristic of the individual's personality. In contrast, Block and Block (42) do not associate this dynamic capacity of the individual with problems after highly traumatic success (as most limitations do), leaving open the possibility of applying the concept of Resilience to stressful situations not so "Extraordinary".

Fletcher and Sarkar [44] pointed out that, although Resilience has been conceptualized in many different ways, most definitions are based around two central aspects: adversity and positive adaptation. Therefore, for Resilience to be demonstrated, both adversity and positive adaptation must be evident. Even though, the inconsistencies in the specific delimitation of these concepts have led to confusion about their meanings.

On the one hand, adversity usually includes negative life circumstances that are known to be statistically associated with adaptation difficulties [30,45] and that most of them do not constitute major disasters but rather discrete ruptures that are immersed in life every day.

Davydov, Stewart, Ritchie, and Chaudieu [46] noted that Resilience mechanisms may differ in relation to contextual severity, ranging from Resilience against common everyday difficulties, such as student stress (i.e., medium adversity) to Resilience against occasional severe stress, such as the loss of a loved one (i.e., high adversity).

In this same direction, Luthar, Cicchetti and Becker [26] emphasized that it is important that researchers clearly define what they consider to be adversity and provide a reasoned justification for it.

On the other hand, positive adaptation has been defined as behaviorally manifested social competence or success in development tasks [27], and it must be conceptually appropriate to the adversity examined in terms of the domain assessed and with rigorous criteria [44].

When investigating and analyzing positive adaptation, the sociocultural context in which the individual operates must not be forgotten. In this way, and because Resilience manifests itself in various contexts, researchers must be sensitized to the

sociocultural factors that contextualize how resilience is defined or is manifested in different populations, all this based on the existing debate about conceptualizing it as a trait or as a process [47,48].

When Resilience has been conceived as a trait, it has been suggested that it represents a constellation of characteristics that allow individuals to adapt to the circumstances they encounter; this suggests that Resilience is a quality or trait of personality that one has or does not have [26,49,50]. Whereas when it has been conceptualized as a dynamic process that changes over time, which includes positive adaptation within a context of significant adversity, which recognizes that the effects of protective and promoting factors can vary contextually (from a situation to another) and temporarily (through a situation and a person's life) [26,44].

Apart from the conjectures of their conceptualization, some authors have been in charge of classifying the characteristics of Resilience, one of the most important being that carried out by Polk [51] who found four patterns for Resilience: 1) The dispositional pattern consisting of physical and psychological attributes related to the ego. 2) The relational pattern includes the characteristics of the roles and relationships that influence Resilience. 3) The situational pattern referred to the characteristic approach to situations or stressors and manifests itself as cognitive assessment and problem solving skills, as well as attributes that indicate a capacity for action in the face of a situation. 4) Finally there is the philosophical pattern which is manifested by personal beliefs.

Garmezí [40] had considered three main factors four years before (the personality of the individual, his family and the availability of social support) in a stressful situation. Other researchers have proposed numerous Theories of Resilience during the past three decades. Most of which have common aspects: For Fletcher and Sarkar [44], there is the notion that Resilience is a dynamic process that changes over time and that the interaction of a wide range of factors determines whether an individual is or not resilient. Thus, although Resilience is considered the most desirable result in most theories, some researchers include other (positive) outcome indicators such as optimal coping, job satisfaction, and productivity. Although most Resilience theories are specific to particular populations, there are generic theories that can be applied to different groups of people and potentially stressful situations. An example of these theories is Richardson's meta-theory of resilience [51,52].

However, the growing interest in recent years for the Resilience construct has led it to be related to other concepts that have been considered as equivalents, central elements or substitutes for it, these being that of competence, considering it as a construct that carries to achieve resilient results; vulnerability, constituting the opposite pole of Resilience [39].

On the one hand, internal locus of control and positive attributional style has been identified as factors that promote resilience. On the other hand, Resilience differs from recovery in that it is more stable over time. Thus, recovery is characterized by a temporary period followed by a gradual

restoration towards healthy levels of functioning, while Resilience refers to the ability of individuals to maintain normal levels of function [44].

Resilience has usually been associated with coping with stress when considering it as a process of coping with stressors, adversity, change or opportunity [47,52-54]. Although both terms have been used as interchangeable concepts, there is a body of evidence that suggests that they are conceptually distinct constructs. For this reason, Fletcher and Sarkar [44] stated that Resilience influences how an event is valued, while coping refers to the strategies used once the stressful situation assessment has been carried out.

There is another fundamental distinction between Resilience and coping which is related to the associated consequences with the stress process. Resilience predicts a positive response to the stressful situation (the experience of positive emotions), while coping can be positive (solving the problem) or negative (denying the situation). Recently, the construct of Resilience has been related in a very powerful way to Positive Psychology, as the promoters of this movement defend a vision of human experience that includes knowledge of human strengths, talents and virtues. A shift from weakness-oriented to strength-focused approaches that allow individuals to survive and grow even in the face of adversity is also recommended. Taking into account the above, although the Resilience construct fits perfectly with the foundations of the current of Positive Psychology (and they share common elements), it is an independent construct and can be used in any psychological current in general, avoiding its exclusivity to a single stream [39,52,55].

Resilience Measures

The notion of Resilience varies not only substantially in its definition (as it has already been verified) but also, in its measure. This above all and as a consequence of the fact that there is no common underlying theoretical construct for the research so heterogeneous that it has been carried out so far. This implies that the evaluation and comparison of the findings is extremely complicated and that the measurement instruments are therefore different; constituting an obstacle to the development of an adequate biopsychosocial model of Resiliences, due to the lack of adequately validated measures of this construct [46,49].

There are a series of measurement instruments to evaluate the Resilience construct. Some scales measure Resilience directly, while others measure it indirectly through different factors that compose it. On the other hand, some scales are multidimensional while others have a one-dimensional structure of Resilience [56]. Among the measurement instruments are: "Adolescent Resilience Scale" (ARS) prepared by Oshio, Kaneko, Nagamine and Nakaya, [57]; Baruth Protective Factors Inventory (BPMFI) designed by Baruth and Carroll [58]; Brief-Resilient Coping Scale (BRCS) built by Sinclair and Wallston [59]; "Connor-Davidson Resilience Scale" (CD-RISC) prepared by Connor and Davidson, [60,61]; "Ego-Resiliency Scale" (ER89), The ER89 developed by Block

and Kremen [62]; Resilience Scale (RS); "Resilience Scale for Adults" (RSA) created by Friborg, Hjemdal, Rosenvinge and Martinussen [63-66]; notwithstanding the possibility that the number of instruments that may progressively emerge being designed and validated progressively over time in search of a tool capable of expressing in an increasingly faithful and real way, either individually or in groups in the different realities (sui generis) will always be latent.

Resilience based on experience

The study of Resilience in Psychology and Psychiatry comes from efforts to know the etiology and development of psychopathology, especially of children at risk of developing it due to parents' mental illnesses, perinatal problems, interpersonal conflicts, poverty or a combination of several of these factors. Being the most studied life events the divorce of parents and traumatic stressors including abuse or neglect and war.

In such a way that the first theories of Resilience emphasized the identification of childhood characteristics associated with positive consequences when facing adversity [67,68]. Therefore, it could not be affirmed, as was done up to that moment, that an unhappy childhood determines the child's life, being an adult dissatisfied with his life [69]. This research direction was later extended to include external protective factors that can promote Resilience, such as affective groups and supportive relationships with adults [26].

Current theories consider Resilience as a multidimensional construct, depending on the author, the study of Resilience has focused on three components: the study of risks, the study of protective factors and the study of the characteristics of the resilient person [70]. In this sense, some of the risks that can lead individuals (especially children) to loss of balance, adaptation, subjective well-being and personal development have been collected: such as poverty, deprivation, broken family, child abuse, or disaster and homelessness situations [71]. It is valid to emphasize that these factors do not usually occur in isolation, but combined and act cumulatively, without predicting behavior.

However, there are some children and individuals who adapt in such contexts, not only in the passive sense of survival, but in the positive sense of personal and social development, so there must be certain protection and development factors that favor such adaptation. Two major types of risk protective factors coexist around this fact: the interpersonal characteristics of the family and social support. Interpersonal relationships within the family, even in contexts of poverty and deprivation, have a high protective value and development of the feeling of personal worth. In this way, warm and autonomous affective relationships, with parents, or in general with family members, generate a feeling of personal protection even in critical contexts. Social support also has an external value of accessibility to the few and insufficient means available. The school, the teachers, or other institutions, political, religious, sports or group, provide a feeling of social and collective identity and of managing complementary resources [72].

Regarding the component of the characteristics of resilient people, such as personal competence, the use of personal resources and problem solving, Rutter [67] stated that the resilient person is characterized by a feeling of self-confidence, of belief in own personal capacity and ability to solve problems. While Moreno [70] considers that such personal variables are assimilated to those proposed by Erickson about the basic qualities that must be acquired throughout the life cycle. This is why, in this line, the research has tried to clarify how to favor the development of such capacities.

Despite all of the above, only recently have clinical researchers agreed to engage in inquiry to understand positive adaptation despite adversity. For example, Charney [73] developed a model of the psychobiological systems involved in resilient adaptation that follows acute stress. Based on previous models of neural bases of reward, motivation, conditioned fear and social behavior, proposing an integrated model of Resilience and vulnerability that incorporated various brain regions and numerous neurochemical, neuropeptide and hormonal mediators of the response to acute stress. This type of theoretical model can help balance the overwhelming focus on stress-related psychopathology that has long characterized this field of research.

Tsuang [74] suggested that research on factors promoting Resilience could have very important clinical implications, particularly for preventive interventions. Noting that in the future genetic-molecular studies could help to reveal the mechanisms underlying Resilience, and that they could reveal the most convenient psychological and pharmacological treatments; what has also been proposed by researchers such as Wu y cols. [16], in their neurobiology study of resilience and its implications for promoting it; when proposing that in addition to the psychosocial factors of resilience, the findings of genetics, epigenetics and neurochemical factors, he considers that the neural patterns and circuits involved in mediating it remain under discussion; arguing that increasing knowledge of resilience factors would lead to the development of drugs and interventions to increase resilience and mitigate its adverse consequences.

Resilience can be considered more than a simple recovery from the offense as growth or positive adaptation following periods of homeostatic disruption [28,52]. Although positive adaptation in response to extreme adversity was originally intended to refer to "extraordinary individuals," the latest research suggests that resilience is relatively common among children and adolescents exposed to deprivation, trauma, and adversity [41].

In relation to this last aspect, it is necessary to highlight that most of the research in Resilience has been conducted towards younger populations and little is known about how Resilience operates in adulthood. Taking into account the aforementioned about the little attention that the adult population has received, it is necessary to consider the possible reconceptualization of the concept of Resilience; since it has often been associated with the possibility that an individual exhibits some form of psychopathology as a consequence of a traumatic event

experienced in his life, thus being traditionally associated with the disease, so if you do not want Resilience to be absolutely associated with psychopathology, in this population reconceptualization must involve the role of resilience in coping. Miller [75] noted that resilient behavior or behavior is more than whether or not an individual has pathological symptoms or disorders of some kind after experiencing a major traumatic event in their life.

Regarding the investigations that have specifically related Resilience with well-being (considered this from a psychological perspective), most have been carried out from the framework of the Theory of the Expansion and Construction of Positive Emotions [69,70]. From this theory it is assumed that, since positive emotions are useful to counteract the effects of negative emotions (by expanding the repertoires of "thought-action"), positive emotions (such as happiness or well-being) can be useful for build personal resources in adverse circumstances, such as Resilience.

Consistent with this, Fredrickson [76,77] showed in research that individual differences in resilience predict the ability to capitalize on positive emotions when dealing with negative emotional experiences. For example, resilient people frequently use humor as a coping strategy [12,78], which has been shown to help people deal effectively with stressful situations, concluding that resilient people more frequently resort to positive emotions (such as happiness) to cope with stress [34].

Since that theory, it has been proven that positive emotions lead to higher levels of Resilience in the future and that Resilience also partially achieves its effects through positive emotions [79-81]. In such a way, that people with high levels of Resilience have more positive emotions than less resilient people, when they face a stressor, even when they experience negative emotions at the same level. Likewise, it has been shown that the difference in more than positive emotions in resilient people explains their better ability to recover from adversity and stress, prevent depression and continue to grow. On the other hand, even in everyday life, positive emotions predict an increase in Resilience [54,80-82].

Finally, Resilience has become a construct and a very important personality characteristic in Latin American countries. This has aroused a special interest that could be due to the economic, social and political situations of risk for development in Latin America and the current Venezuelan context, making for this reason, Resilience a relevant theoretical and practical issue. Countries like Argentina, at the National University of Lanús, have created the International Center for Information and Resilience Studies; on the other hand, and very particularly in the family sphere, the development of the concept of family resilience is so valid in the reality that is lived in Venezuela, so vital for every family to have the ability to resist adversity, following this same orientation [82,83].

A look at resilience in Venezuela

Following this approach to the Resilience construct, distancing it from psychopathology, an investigation carried out in Venezuela sought to evaluate it in everyday stressful situations, such as those that occur in the student environment, without seeking its association with highly traumatic events despite the current situation that confronts the very fact of the Venezuelan reality in which we are all involved in one way or another [84].

Methodology

To this end, and in search of a theoretical model that would explain the Resilience in Venezuela, a field investigation inserted within the quantitative paradigm, correlational level, non-experimental design, cross-sectional was carried out. The population was made up of all the third year students of the Medicine career, from the School of Medicine (Carabobo headquarters), from the Faculty of Health Sciences of the University of Carabobo, being to date 481 students. The sample was made up of 218 third year medical students from the Carabobo headquarters who voluntarily agreed to participate in the study, after signing an informed consent letter, according to the Helsinki Declaration of 1983 and who met the following inclusion criteria: Students of both sexes belonging to the 3rd year of medicine at the University of Carabobo, Valencia, present at the time the instrument was applied, anonymously. The inductive reasoning method was used, the data collection technique was the self-administered survey and one of the data collection instruments was as follows:

- Version modified by Méndez, from the Graffar scale [85]
- The instrument called SODEMEM modified by Cardozo [86]
- Ruiz and Baca's Quality of Life (CCV) questionnaire [87]

Connors-Davidson Resilience Scale (CD-RISC) in its Spanish version by Bobbes et al. This is a scale that consists of 25 items that are answered on a Likert scale ranging from 0 to 4, where 0 means not at all agree 4 totally agrees. The construct is made up of five factors or dimensions: persistence-tenacity-self-efficacy (8 items); control under pressure (7 items); adaptability and support networks (5 items); control and purpose (3 items) and spirituality (2 items), whose Cronbach alpha reliability coefficient is 0.812. To obtain the scores of each dimension, the scores obtained in each of the items that belong to each dimension are added, later to obtain the overall score of the test, the scores obtained in each dimension are added, considering that the scores between 1 and 70 indicate low level of resilience, medium between 71 and 87 and greater than 88 high level of resilience [49].

Discussion

Based on the findings found, the following theory was constructed, remembering that a theory is constructed as a way of looking at the facts, a way of organizing and representing conceptually, making the exception of all scientific theories they will always be partial (and that will only deal with some

aspects of reality) and because they are approximate (they contain errors or specific erroneous appreciations). According to Thuillier [88], all theory is an infinite and ordered set of propositions that exceed experience.

When reviewing the definition above, it is observed in the first instance that doing research is not an innocent act. In effect, those who carry out an investigative activity always do so from a valuing position of themselves and their social environment. That is, from its own epistemological place, this must be explicitly declared *ab initio*. Likewise, it assumes an optic about its reality and establishes with this relationship that enables it to generate knowledge about it. For such a process of knowledge production, the researcher uses conceptual resources and procedures of various kinds, all within the framework of an action strategy that is oriented towards the achievement of fines [89].

For this reason and supported by the five-dimensional approach applied to quality of life, motivation and resilience; In order to systematize the essential aspects to be taken into account in an investigation, González proposed this approach, which contemplates the specification of the dimensions, in order to establish the essential aspects that affect the roadmap of a process of investigation, without constituting a straitjacket. Below is a breakdown of each of the dimensions contemplated in it.

The Axiological answers the why of the investigation. This dimension is questioned about the value attributed to the investigative activity, the arguments by which it is considered valuable, important, interesting and meritorious. Values are relevant when studying both motivation and QOL and resilience, because the notion that everyone has about it, the elements that they consider valuable in their particular existence and way of life.

Regarding ontology, the investigator must offer answers related to what of the investigation, the questions that must refer to the probable records of investigation. In the context of research, the ontological path is demarcated by the research problem. Epistemological aspects respond to the relationships between who and what. Therefore, they have to do with the links between subject and object, that is, with the relations that the researcher maintains, as a subject, with the object that he studies.

In the study, the epistemic matrix of Logical Positivism was assumed, the ultimate goal of which is to explain the reality of the object of study and what is perceived as real by means of the methods of modern science through the steps of the scientific method, which be verifiable and generalizable to the study group [90,91].

As for the teleological, it refers to the ultimate justifying purposes of the researcher's work; answer why research. As a valid generic argument, the commitment of every person to contribute to increasing the stock of knowledge of Humanity could be used.

As for the benefit of the results of this research, in this particular case the construction of theoretical approaches to

quality of life, motivation and resilience was sought in medical students of the University of Carabobo, in order to understand this area of great interest in the cardinal role of university students, the *raison d'être* of universities as trainers of human resources, which will be a model for new generations of professionals.

The methodological scope of investigative work refers to how, that is, to the ways in which investigative work is conducted, encompasses the disciplinary aspect of research. This research was carried out with a quantitative approach that allowed a theoretical approach about the perception that medical students have of the quality of life, motivation and resilience, reflecting their dimensions, interactions and particularities.

The five mentioned dimensions (axiological, ontological, epistemological, methodological and teleological) in relation to the research process, make up the proposed Penta dimensional Approach as an analytical tool for research (Figure 1) [22].

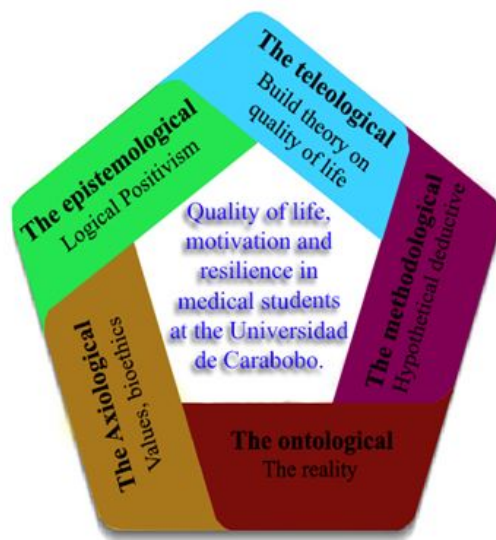


Figure 1. Five-dimensional approach to Quality of life, motivation and resilience in medical students at the Universidad de Carabobo.

The following theory tries to synthesize all the information collected in the investigation; and it is for this reason that it is considered as the central conclusion of the work, summarized as follows:

Proposing the following theoretical model

The students must assume themselves as positive beings capable of entering to construct from their conscious individuality the change in reality, based on the fact that it does not depend on the other but on each one and in turn as a whole (Figure 2) [89-91].

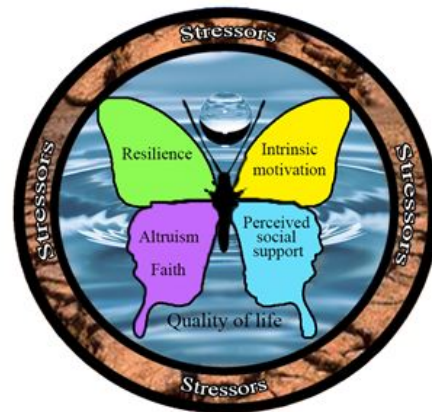


Figure 2. Tetrachoric model of Quality of life, motivation and resilience in medical students at the University of Carabobo.

Conclusion and Recommendations

Given the current little hopeful context in which the lives of Venezuelan citizens unfold and from which the medical student does not escape, added to the university environment in which he develops and the demands of the career, changes in his health could be generated such as anxiety, sleep disorders, depression, and somatizations; Thus, in this scenario, it would be worth considering the need to strengthen the components of personality, proto-trust and emotional health in them, in order to have an individual with a balanced life, both with himself and with his environment.

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