

Quality of response to stressful life events and attitude toward health risk as predictors of psychosomatic disorders

(A field study for workers in government institutions in Al-Salam locality - West Kordofan State)

Altayb Alsanosi Yousif Yahia Mohmmmed Fadullallah Maha Ahmed Abdel Haleem
Department of Psychology Department of psychology Department of Psychology
Alsalam University Islami University Almajmaa University

altyb114@yahoo.com

تاريخ الاستلام 2023/11/16

الملخص:

هدفت الدراسة إلى معرفة جودة الاستجابة لضغوط الحياة والاتجاه نحو المخاطر الصحية كمنبئات بالاضطرابات النفسية الجسدية لدى العاملين في الخدمات العامة بالمؤسسات الحكومية بمحلية السلام (مدينة الفولة). الفولة، هيئة التأمين الصحي، السجل المدني. وبلغ حجم عينة الدراسة (99) عاملاً، (58) ذكراً و(41) أنثى، تم اختيارهم بالطريقة العشوائية البسيطة.. واستخدم الباحثون مقياس جودة الاستجابة لضغوط الحياة اليومية (من إعداد الباحثون) ومقياس الاتجاه نحو المخاطر الصحية (إعداد مايو 2020)، وقائمة كورنيل الجديدة للاضطرابات النفسية الجسدية (1986)، التي ترجمها إلى العربية أبو النيل (1995) كأدوات للدراسة، حيث تم التحقق من الصدق والثبات وكانت معاملات هذه الأدوات كما يلي (مقياس الاستجابة لضغوط الجودة = 0.858). (مقياس الاتجاه نحو المخاطر الصحية = 0.785). وقائمة كورنيل = 0.767)، بعد تحليل بيانات الدراسة بواسطة برنامج (SPSS) باستخدام المتوسط والانحراف المعياري. والنسب المئوية واختبار الانحدار الخطي المتعدد

وتوصل الباحثون إلى النتائج التالية:

-يوجد تباين في مستوى جودة الاستجابة لضغوط الحياة

-هناك انخفاض في معدل الاتجاه نحو المخاطر الصحية والاضطرابات النفسية الجسدية.

-جودة الاستجابة لضغوط الحياة والاتجاه نحو المخاطر الصحية تنبئ بالاضطرابات النفسية الجسدية، حيث تكون نسبة مساهمة الاتجاه نحو المخاطر الصحية أكبر من جودة الاستجابة لضغوط الحياة في التنبؤ بالاضطرابات النفسية الجسدية.

الاستنتاج: إن تكرار نوعية الاستجابة السلبية لضغوطات الحياة اليومية، وضعف الوعي بالمخاطر الصحية من أكثر العوامل التي تساهم في ظهور الاضطرابات النفسية الجسدية، والتي تتطلب تدخل الإرشاد النفسي (النمائي والوقائي والعلاجي). لجميع العاملين في الدولة، الأمر الذي قد يقلل بدوره من هذه المخاطر الصحية.

الكلمات المفتاحية: جودة الاستجابة لأحداث الحياة الضاغطة، الاتجاه نحو المخاطر الصحية، الاضطرابات النفسية الجسدية.

Abstract:

The study aimed to know the quality of response to life stresses and the attitude towards health risk as predictors of psychosomatic disorders among workers in public services in government institutions in Al-Salam locality (Al-Fula city). Al-Fula, Health Insurance Authority, Civil Registry. The size of the study sample was (99) workers, (58) males and (41) females, they were chosen in a simple random way..The researchers used the quality of response to the stresses of daily life scale (prepared by the researchers) and the measure of attitude towards health risk (prepared by May, 2020), and Cornell's new list of psychosomatic disorders (1986),translated to Arabic by Abu El Nile (1995) as tools for the study, where the validity and reliability coefficient of these tools were as follows (Quality Stress Response Scale = 858.) (attitude toward health risk scale = 785.) and (Cornell List = 767.), after analyzing the study data by (SPSS), using mean, standard deviation, percentages, and multiple linear regression test

The researchers reached the following results:

-There is a contrast in the level of the quality of response to life stresses

-There is a decrease in the rate of attitude towards health risk and psychosomatic disorders.

-The quality of the response to life stresses and the attitude towards health risk predicts psychosomatic disorders, where the proportion of the contribution of the attitude towards health risk is greater than the quality of the response to life stresses in predicting psychosomatic disorders.

Conclusion: The repetition of the quality of the negative response to the stresses of daily life, and the poor awareness of health risks are among the most factors that contribute to the emergence of psychosomatic disorders, which requires psychological counseling intervention (developmental, preventive and curative) for all workers in the country, which in turn may reduce these health risks.

Keywords: quality of response to stressful life events, attitude towards health risk, psychosomatic disorders.

Introduction:

Life stress is one of the psychological concepts that has found great interest by psychologists due to its great impact on the psychological and physical health of individuals, as people in this age suffer from stress in all its forms (Zainab Nofal, 2008).

Stressful life events mean those socially undesirable events that are related to health, social relationships, and the environment, and these stresses can weaken the body's resistance and enhance the likelihood of disease (Zhang, 2017). It increases the risk of physical illness with a psychological cause.

We find that the relationship of stressful life events with psychosomatic disorders is scientifically proven in terms of its direct relationship, and does not need to prove or explain a breach. However, the researchers noted that most of the previous studies focused in their interpretation of the relationship of the two variables on the impact of stressful life events on the psychological and physical aspects, and neglected the nature and quality of individuals' response to the stressful event.

Individuals' responses to stressful situations vary according to many psychological and environmental variables.

There are individuals who respond positively to stressful life events and consider these events as transient circumstances and a test from God for him and fates that require patience and there is another person who responds to these stressful events negatively and pessimistically about them and considers them the end of life, according to the influence of his external control point and its impact is clear through the changes that occur in himself, his body, his compatibility and his social interaction. What distinguishes this study is its focus on measuring the quality of individuals' response (the study population) to stressful life events.

There are many models that explain stress and its impact on psychological and physical aspects, the most important of which is the psychosomatic model of stress, which indicates that the tensions resulting from adversity have pathological consequences on all other body systems. Inducing changes in physiological processes (Kashroud, 1995).

In the same context, as US statistics indicate that (50%) or more of the US population suffers from at least one symptom of Psychosomatic diseases, and (75%) of these suffer from ulcers, stomach upset and (monthly) high blood sugar. (Alshahry, 2021).

Psychological stress plays a major role in the possibility of developing these psychosomatic disorders, and the life of every individual is not free from stressful events, as they are inherent and continuous with the human being, but the individual response is not the main problem, (Compos, et. al, 2018) claimed that the stressful event in itself is not sufficient for the occurrence of negative outcomes such as emotional disturbance; However, individual differences in the perception of the stressful event are a decisive factor in determining the impact of this event (May Idris, 2020).

There are many definitions that attach the importance of the quality of the individual's response to different stressful situations. Sylay (1964) sees that a stressful event is a physical response that is not specific to any environmental

demand, and this response takes place in three stages, which he called symptoms of general adaptation, namely: the warning stage, the resistance stage, and exhaustion stage. Gerenberg (1984) explains the scope of this response, as a physiological, psychological and mental reaction resulting from the responses of individuals to environmental stresses, conflicts and stressful events (Al-Mashaan, 2001).

The concepts of the current study are consistent with what was confirmed by Beck and Bredemeier (2016), that negative perceptions and evaluations resulting from negative beliefs serve to consolidate schemas that distort information processing. In a study conducted on a sample of depressive patients, which aimed to assess the role of repetition and perception of stressful event in predicting depressive symptoms, the study found that awareness of stressful situation control and negative evaluation of it are among the most predictive factors of depressive symptoms (Maquet, et al, 2020)

(Campose, et.al, 2018) indicates that the more an individual's perception of a stressful event is negative, severe and unexpected, the more the individual suffers from it. Therefore, the determinants of perception are considered as intermediate variables between the stressful event and its effects that can be classified into one of two outcomes: maintaining physical health or psychological deterioration.

Amimen (2014) points out the strong link between psychosomatic disorders in the soul and the body, and that it is the product of the continuous interaction between personality and emotional conflict on the one hand, and the autonomic nervous system on the other.

Disturbance in emotional stability is also associated with ineffective coping, and poor adaptation (Felsten, 2004). And that people with high emotional stability disorder or neuroticism are more likely to target negative emotions and are more likely to perceive daily life stresses more negatively (Javanovic, 2019).

And what is meant by risk, as defined by Glanz and others, (Glanz, et al, 2016) as directing individuals to take risks or avoid them when deciding on any situation with uncertain outcomes. There is a discrepancy regarding this concept, Some

scholars have indicated that the tendency towards risk is a stable personality trait, while others indicate that the tendency towards risk differs in different areas of social, economic, and health life (Glanz, et al, 2016).

The researchers noted that the majority of previous and relatively recent research in which researchers dealt with health-risk behavior by focusing on the use of psychological substances and alcohol and unprotected sex, as an example, but not limited to a study (Manzini, 2015; Crawford, 2019; Griggs, 2017). There are many relevant foreign studies that dealt with risk-taking behavior, such as using a mobile phone while driving, as the study of (Zhang, et al, 2019).

As for the Arab countries, Safwat's study (1992) and Mai's study (2020) are among the most important studies that dealt with the attitudes towards health risk. In his study, Safwat dealt with behaviors that many people do, including giving up treatment just to feel better, Failure to observe the expiry date of food, and the absence of caution against exposure to weather changes.

According to the researchers' knowledge, there are dangerous health behaviors practiced by people in society, especially among employees working in various state institutions, and they may be ignorant of their dangers, which the researchers seek to measure. Therefore, the repetition of the stressful event and the individual's negative awareness of these stressful events are among the factors that affect the health of the body.

This drew the researchers' attention to measure the response rate of public service workers in West Kordofan State to life stresses, as well as measuring their awareness of dangerous things that they use in their daily lives and may not realize their negative impact on their physical health, such as putting the phone under the pillow, using it while charging, and sitting for long periods without movement. ..etc. With measuring the relationship between these variables and psychosomatic disorders.

The problem of the study: The problem of the study lies in measuring the response rate of workers in Al-Fula locality to psychological stress and knowing whether their response to stress is, positive or negative. The repeated negative

response to life stresses affects the general physical and psychological health and thus makes the individual vulnerable to risks, as well as affects the worker's performance and thus may not play the role that should be done to the fullest, as well as the relationship of negative response to stress and psychosomatic disorders.

Especially since the workers in the locality of Al-Fula are providing public services to the public, and direct interaction with the public generates various and continuous pressures, as well as work pressures, social pressures of the worker and work obstacles. All of these factors may generate different pressures, as the worker needs a sound awareness and a scientific approach through which he resists these pressures, and one of the reasons for doing the current study is the lack of scientific studies concerned measuring life stresses and the quality of response to them, especially in the locality of Al-Fula, and this study is almost the only one in according to the researchers' information.

There are many people who do some dangerous behaviors, whether with their knowledge or ignorance of its seriousness, that affect their healthy lives and may expose them to diseases in the future, such as bad handling of the mobile phone, dependence on fast food, sleeping and sitting for long periods and others, so measuring this type of behavior is one of the important kind of scientific studies. Modern scientific studies, especially since such research issues are not included in the interest of researchers in Sudanese society in general and public service workers in particular.

Therefore, the researchers seek to measure whether the quality of the response to life stresses and the tendency to take risks have a predictive ability to expect the occurrence of psychosomatic disorders such as stomach ulcers, asthma, migraine headaches, diabetes, stomach disorders, and irritable bowel.

The Study limits: The study is determined temporally in 2022 and spatially in West Kordofan State, Al Salam locality, Al Fula city. The study was applied in government institutions related to public services (Al-Sadaqa Hospital, Al Salam locality, civil registry, health insurance).

The study terminologies:

- Quality of life stress response: The researchers define it as the way an individual responds to different life stresses, according to his personal characteristics.

- Attitude towards health risk: This concept refers to the perception of risk to many factors, including the individual's beliefs and assessment of the risk associated with a situation that the individual perceives to cause him harm and this assessment is influenced by many factors which some of it is individually and some is related to society, and the culture of society, and this perception is based on the individual's experiences, attitudes, beliefs, judgments, and feelings (Cori et al, 2020).

WHO defines health risk as the factor that increases the likelihood of negative health outcomes, and health behaviors generally mean activities that affect health or predispose to disease. It is divided into two categories: risky behaviors, whose repeated practice contributes to the development of chronic diseases, and health promotion behaviors, which include a group of activities whose practice leads to strengthening the health level of the individual, such as healthy eating and buckling the seat belt (Jahangard, et al, 2019).

This concept also refers to the danger that results from something artificial or natural, whether this risk is for a person, group, or society as a whole, and most definitions indicate that it is not possible to rely only on digital indicators for this concept. Rather, there are other factors related to the concept, including: psychological, social, and cultural factors. Because these factors influence the way individuals and societies take risks (Schmidt, 2004). The perception of risk is also related to individuals' beliefs and assessments of the harm caused by the danger.

One of the basic components of this concept is: The cognitive component, which is the individuals' knowledge and perceptions of the nature of the risks surrounding them (Dryhurst, et al, 2015). Here we must distinguish between two types of knowledge: knowledge based on self-evaluations, and knowledge based on scientific evidence. The more inaccurate information about the situation, the

greater the perception of danger, especially if the subjective information contradicts the confirmed facts (Sundblad, Biel & Gearling.2007).

As for the emotional component: it is represented in the emotions such as anxiety, annoyance and fear, which individuals feel when they are exposed to danger, or the anticipation of danger to them (Dryhurst et al., 2020; Van Der-Linden, 2015). The third component is cultural and social factors: it is reflected in values and their impact on the individual's perception of risk, the extent of individuals' commitment to preventive signals, and the role of culture in formation the size of the perception of individual risk. An individual's experience also plays a large role in increasing the The probability that he will comply with the measures that will avoid him taking risks.

As for the fourth and final component, which is: Individual Differences Component: It means demographic variables such as the individual's educational level and gender, these variables would affect how and to what extent the individual perceives risks, and then responds to their prevention (Nisreen Hassan, Shusha, 2020).

There are many foreign and regional studies about the trend towards health risk, but locally, the researchers did not find a study about risk-taking behavior. The current study is the first study that about the quality of response to life stresses and the trend towards health risk as predictors of psychosomatic disorders, within the limits of the researchers' knowledge.

Mai Idris study (2020) aimed to explore the role of stressful life events and the trend towards health risk in predicting the intrinsic self-assessment among Cairo University students, the study reached a prediction of the trend towards health risk by (15%) and (10%) of the degree on the core assessment, while it did not predict the frequency of the event. Compressor and its intensity by intrinsic self-assessment.

The study of (Ban Sback, et al, 2016) also aimed to reveal the trend towards health risk among a sample of the Canadian population. The study sample consisted of (6780) participants. It found that (4949) of the participants, i.e. (73%)

of the sample members, had a risk-averse pattern related to health and (13%) were characterized by risking their health by adopting unhealthy behaviors.

(Martin-Fernandez, et al, 2018) conducted a study aimed at examining the relationship between the attitude towards health risk and the adoption of preventive behaviors, on a sample of (2822) Dutch adult participants, and the results of the study claimed that the participants not being inclined to take risks when it comes to aspects health, but their behavior tends to be risky when they are making decisions related to the economic aspect.

The study of (Lutter, Szentes, Wacker, Winter, Wichert & Peters et al., 2019) aimed to find out the trend towards health risk on patients' adherence to aspirin therapy for the prevention of cardiovascular diseases. The study was conducted on (357) patients who took large doses of Low levels of aspirin, the study found a positive relationship between patients' risk appetite and non-adherence to the treatment specified for them.

Psychosomatic disorders:

The term (psyche - bodily) is a rather new word in medical writings, as it was used for the first time in 1922, by the Germans, and was not used in the English medical dictionary until the early thirties by Dr. Helen Flinders, in her famous book (The Emotion and physical disorders), and this concept is considered a scientific concept since it refers to the nature of the interaction between the soul and the body (Ghanim, 2011). One of the most important definitions is the definition of (Okasha, 2010)who defined it as organic disorders that arise as a result of emotional factors, usually through the autonomic nervous system.

Methodology:

The researchers followed the descriptive approach, where the study was conducted in West Kordofan state, Al-Fula locality, among workers in some government institutions that are concerned with public services, which are Ministry of Health, Local Government and Civil Registry, represented employees of Alsadaga educational hospital, locality, health insurance and civil registry.

Table (1) shows the number of employees in the institutions where the study tools were applied:

	Institute	Total number of the workers	The sample rate
1	Friendship Teaching Hospital	160	22.5%
2	Health Insurance	50	22%
3	Alfoula locality	200	14.5%
4	Civil Registry	60	38%
5	Total	470	21%

Source: Alfoula locality : 2022

The sample size of the study was (99) male and female workers, they were classified as follows: Al-Sadaqa Hospital (36) workers, health insurance (11) male and female workers, Al-Fula locality (29) male and female workers, and the civil registry (23) male and female workers, as they were chosen in a simple random way.

Table No. (2) Characteristics of the research sample according to the gender variable and some other demographic variables:

Variable	gradient	frequencies	Rate
Sex	Male	58	58.6
	female	41	41.4
	Total	99	100.0
Marital status	single	36	36.4
	married	63	63.6
	Total	99	100.0
Institute	Alsadaga hospital	36	36.4
	Health insurance	11	11.1
	Civil registry	23	23.2
	Alfoula locality	29	29.3
	Total	99	100.0
	25 -less	20	20.2

Age	26-30	18	18.2
	31-40	35	35.4
	41-50	18	18.2
	51-60	6	6.1
	61-above	2	2.0
	Total	99	100.0
Educational level	uneducated	2	2.0
	Primary	1	1.0
	intermediate	18	18.2
	University \ BA	73	73.7
	Above university	5	5.1
	Total	99	100.0

Variable	Age	Educational level	Occupational degree
Number	99	99	99
Average	2.78	3.79	6.51
Stander deviation	1.250	643.	5.213
Range	5	4	20

The Study tools:

Stress response quality questionnaire:

The researchers designed this questionnaire after reviewing the literature of the theoretical frame related to psychological stress and its measurement methods, as no tool was found to measure the rate of response to stress, In its initial form, the tool consists of (18) items that measure the negative perception of stress, negative response and anticipation of danger.

Where the answer options were made according to the five-point Likert scale and are as follows (always, often, sometimes, rarely, never,) where the answer options were given the following weights (always = 5, often = 4, sometimes = 3,

rarely = 2, never = 1) The resolution degrees are distributed as follows (80-80 = negative and dangerous response, (60-79 response above the mean) (59-45 response to normal medium stress) (54- less response to mild stress, i.e. positive).

A questionnaire of quality response to psychological stress was presented to (5) arbitrators with experience in the field of psychology, who made some simple modifications and recommended the validity of the questionnaire to measure the individual's response to life stresses. To ensure the validity and reliability of the paragraphs of the questionnaire in response to psychological stress, it was applied to an exploratory sample consisting of (40) subjects who were chosen randomly.

After conducting the statistical analysis, it was found that the correlation coefficients of the paragraphs with the total score of the scale are very high at the level of significance (0.05), and that the stability of the resolution through (Alpha Cronbach = 858., Spearman Brown = 838.), and this is a strong indicator of the stability of the paragraphs of the questionnaire.

Peripheral comparison validity:

The researchers relied on discriminatory honesty, so they took (27%) of the lowest questionnaire scores for the sample that consisted of (30) individuals and (27%) of the highest questionnaire scores. After arranging the scores in ascending order, each group had (08) members from the lower group, and (08) members from the higher group, then the researchers used the statistical method T-test to indicate differences, through the use of the Statistical Package for Social Sciences (SPSS) program. The results were as shown in the following table:

Table (3) shows the validity of the peripheral comparison to identify the quality of the response to life stresses:

	Mean	S.D	T. value	D of F	P .value
Higher group	75.75	3.694	30.906	14	.000
Lower group	27.88	2.357			

Through the above table, it is clear that the (T) value for the significance of the differences between the averages is statistically significant, which indicates that the questionnaire of quality response to life stresses has the ability to distinguish between high and low scores in response to life stresses.

Second: The measure of attitude towards risk:

Through the researchers' review of previous measures related to measuring health risk, the researchers used the measure of health risk behaviors prepared by (Mi, 2020), which she designed based on its reference to previous health risk measures as (YRBSS) scale of Kahn and colleagues in 1989, Safwat scale 1992, Fleischer and colleagues scale , 1993, the Risk-taking Behavior Scale (ARQ-RB) of Zeng and colleagues, 2011, and the propensity scale for the risk-taking behavior of Mkhaimer, 2014 (May, 2020).

The researchers modified the scale of (May, 2020) by adding items that measure the reality of risk-taking behaviors in society. In its initial form, the scale consisted of (23) items, which included dealing with a mobile phone, eating fast food, and other behaviors such as closing the gas tube, sitting for long periods, especially at work, not paying attention to drinking water for long periods, and not committing to sleeping on time. Excessive consumption of stimulants during official working hours, not visiting the doctor when feeling some diseases, symptoms and pain..etc

The scale was presented in its initial form to (5) psychology experts from university professors, where the arbitrators unanimously agreed on the validity of the scale's paragraphs to measure risk-taking behavior.

To ensure the validity and reliability of the items of the measure of attitude towards health risk, it was applied to a pilot sample consisting of (40) subjects who were chosen randomly. Three Paragraphs whose correlation with the total score is weak, were deleted, and therefore the scale items in its final form amounted to (20) items. The stability of the questionnaire was reached by (Cronbach's alpha = 785, Spearman Brown = 728), and this is a strong indicator of the stability of the paragraphs of the questionnaire.

Peripheral comparison validity:

The researchers relied on the discriminatory honesty, so they took (27%) of the lowest scores of the questionnaire for the sample that consisted of (30) individuals and (27%) of the highest scores of the measure of attitude towards risk. After arranging the scores in ascending order, each group had (08) members from the lower group, and (08) members from the higher group, Then, the researchers used the statistical method t-test for the significance of differences, using the statistical package for social sciences (SPSS), and the results were as shown in the following table:

Table (4) shows the validity of the peripheral comparison of the measure of attitude towards risk-taking behavior:

	Mean	S.D	T. value	D of F	P .value
Higher group	80.38	5.854	19.645	14	.000
Lower group	36.62	2.326			

Through the above table, it is clear that the (t) value for the significance of the differences between the averages is statistically significant, which indicates that the measure of attitude towards risk has the ability to distinguish between high and low scores in the measure of attitude towards risk.

All paragraphs of the measure of attitude towards risk were formulated in a declarative form, and all paragraphs of the scale had a negative orientation, and the answer options were in the following alternatives, (always = 5), (often = 4), (sometimes = 3), (rarely = 2), (Never = 1), where it is considered that the examinee obtained scores from (80-100, health risk index is high), while the examinee's obtained (79-51, risk index is medium), and scores from (50-20 indicate low risk health behavior.

Third: Psychosomatic Disease Scale:

The researchers used the new Cornell List of Neuroses and Somatic Disorders, due to the comprehensiveness of the scale that measures a list of psychosomatic disorders, which was prepared in 1986 by Keeb Brodman, Albert J. Erdman, and

Harold J. Wolf (Harold G.Wolf), Paul F.Miskovits, and the Cornell List was Arabized by (Abu Nile, 1995) (May, 2020).

The scale consists of (223) questions divided into eighteen sub-scales: (hearing and sight, 13), (nervous system, 18), (inadequate, 12), (respiratory system, 17), (urinary genital syste, 13), (depression, 6), (cardiovascular, 19), (fatigue, 7), (anxiety, 9), (digestive system, 20), (recurring disease, 9))

(Allergies, 6), (skeletal, 11), (various diseases, 18), (anger, 9), (skin, 7), (habits, 20), (stress, 9). Due to the large number of Cornell's list axes, only (5) axes were used in this study, which are (the digestive system, the respiratory system, allergies, the nervous system, and the cardiovascular system), which is one of the most common disorders.

The scale in its final form after excluding the rest of the axes, consist of (24) questions, which were extracted from the five axes, and they were presented to (5) arbitrators from professors of mental health at Khartoum State Universities, where the arbitrators unanimously agreed on the validity of these questions to measure psychosomatic disorders.

To ensure the validity and reliability of the paragraphs of Cornell's list, it was applied to an exploratory sample consisting of (40) subjects who were chosen randomly. And the stability of the Cornell list was reached through (Cronbach's Alpha reached 767., Spearman Brown = 552.), and this is a strong indicator of the stability of the paragraphs of the Cornell List.

Peripheral comparison validity:

The researchers relied on the discriminatory honesty, so they took (27%) of the lowest scores of the questionnaire for the sample that consisted of (30) individuals and (27%) of the highest scores on Cornell's list. After arranging the scores in ascending order, each group had (08) members from the lower group, and (08) members from the higher group. Then the researchers used the statistical method t-test for the significance of differences, using the statistical package for social sciences (SPSS), and the results were as shown in the following table:

Table (5) shows the Peripheral comparison validity of Cornell's list:

	Mean	S.D	T. value	D of F	P .value
Higher group	48.50	3.071	19.309	14	.000
Lower group	26.62	.916			

From Table (3) it is clear that (T) value for the significance of the differences between the averages is statistically significant, which indicates that the Cornell List has the ability to distinguish between high and low scores in the Cornell List to measure psychosomatic disorders.

All the paragraphs of Cornell's list were formulated in declarative form, and all the questions of the list have a negative point, and the answer options were in the following alternatives, (Yes = 3), (Sometimes = 2), (Never = 1), and the total score for the list is (72), The average degree is (48), and the low degree is (24).

- **Statistical methods:** The following statistical methods were used in analyzing the study data:
- The mean and standard deviation.
- .Alpha Cronbach and Spearman Brown and (T)
- One-sample t-test.
- Multiple linear regression test.

The results:

To verify the validity of the first question of the current study, which states: What are the levels of response to psychological stress and the trend towards health risk and psychophysical disorders among workers in Al-Fula locality?

To verify this question, the researchers conducted a t-test for the average of one population, and the following table shows the results of this procedure:

Table No. (6) shows the result of the t-test for the average of one population to judge the general characteristic of the quality of response of the workers in Al-Fula locality to life stresses and their attitude towards health risks and psychosomatic disorders (freedom score = 98):

variables	Response rate	Standard segmental test	N	Rate	Mean	S.TD
Quality of response to stress	high(-)	60-90	32	32.3	2.12	.940
	middle	50-59	29	29.3		
	low(+)	49-19	32	32.3		
	Very low	18-less	6	6.1		
	Total	-	99	100.0		
Attitude toward risk	high(-)	71-100	6	6.1	2.72	.858
	middle	61-70	36	36.4		
	low(+)	50-60	37	37.4		
	very low	49-less	20	20.2		
	Total	-	99	100.0		
Psychosomatic disorders	High	50-72	29	29.3	2.71	.457
	Middle	39-49	-	-		
	Low	38-less	70	70.7		
	Total	-	99	100.0		

The result of the second question:

The second question was :does the quality of response to life stresses and the attitude towards health risk predict psychosomatic diseases among a sample of workers in Al Salam locality?

In order to answer this question, multiple regression coefficients were extracted for the quality variables of response to life stresses and the attitude towards risk among a sample of workers in Al Fula locality,table (7) claims this procedure:

Sample	Standard coefficients		Beta	T value	Sig	R	R2	The change in R value	F value
	regression coefficient	standard error							
Constant	25.041	2.673		9.367	000.				
	132.	046.	224.	3.961	030.	*373.	139.	130.	15.692

Quality of response to stress									
Attitude towards risk	102.	048.	280.	2.751	007.	*425.	041.	163.	10.571

Discussion:

With regard to the result of the first question, the values of Table (6) related to the percentages of the sample members in how they respond to stressful life events, the researchers did not find the results of previous studies that explain this result within the limits of the researchers’ knowledge, that (32%) approximately had a high response to stressful life events (negative).

The reason for their negative response to stress may be due to several factors, including the deterioration of their mental health, their negative attitudes and beliefs and their pessimistic view of life. As for the sample members whose response was average, their percentage amounted to approximately (29%), and these also need psychological care and increased awareness of the dangers of negative response to life stresses.

As for the third category, their response to stressful life events was low (positive), as their percentage reached (32%). ,These are the normal people who perceive the stressful life events in a normal way and those who enjoy good mental health,

As for the fourth category, they are those whose response to life stressors was very low (positive), as their percentage reached (6%)these are also among the best sample members who enjoy good mental health and may enjoy a positive quality of life. The positive response to stressful life events may indicate the many problems of social and professional life, and the sample members are accustomed

to them, especially the rule of religious values they have, such as patience with calamities and that our life is not without problems.

As for the outcome of the attitude towards health risks among workers in the Alsalam locality, the researchers did not find the results of previous studies that explain this result, as the percentage of workers who are unaware of the health risks resulting from their unhealthy behavior reached 6%, and their weak awareness of health risks resulting from their unhealthy behavior may be due to their poor awareness of the magnitude of the health risk as a result of their negative behavior, negligence, and the lack of direct impact of their negative behavior on their health.

As for the sample members whose level of awareness of the health risk resulting from their interaction with things that affect their health in a medium degree, their percentage was (36%) The researchers expect that they realize the danger of their use of things and also do not realize the danger of their use of some things to their health, and negligence and lack of seriousness in dealing with risks may be a characteristic of these people..

As for the percentage of the sample members whose rate of awareness of the health risks resulting from their use of things that affect their health reached (37%), while the percentage of those who do not use things that represent a danger to their health reached (20%). The researchers may attribute this to their high educational levels, the percentage of those who studied secondary or intermediate education reached 18%, while the percentage of those who studied university was (74%), and the researchers may attribute this to the level of health awareness, especially since 46% of the study sample work in Alsadaga hospital .

The researchers may also explain this result through the reality of the local environment in Al-Salam locality and may attribute the decrease in the sample members' use of things that threaten their health, perhaps to several factors, including: For example, with regard to the scale items related to the use of fast food, the researchers noted that the majority of the residents of the of Al-Fula city depend in their diets on the local nutritional culture, and eat in their home.

As for the paragraph on sitting for long periods, perhaps due to their short stay in work offices, because the number of individuals who need services is small, compared to large cities such as Khartoum and Madani. The decrease in the use of things that may pose a danger to the health of the worker is affected by several factors, and this decrease may not sometimes reflect the worker's awareness of these risks, but perhaps to the poor use of dangerous things in the worker's environment.

As for the low percentage of people with psychosomatic disorders (sample members) working in Al-Salam locality, the researchers may attribute this to several factors, including: the majority of the sample members responded positively to the stressful life events, and this is a positive indicator, and a variable directly related to the psychosomatic disorders variable

Also among these factors, the researchers noted that (74%) of the sample members had high educational qualifications. Perhaps education had a positive impact that contributed to increasing the awareness of workers through their use of preventive methods by which they face the constant life pressures, especially since a large number of sample members They work in Al-Sadaqa Hospital (36%) and health insurance(11%).

For the second question which state(: Can psychosomatic disorders be predicted through the quality of response to stressful life events and the attitude towards health risk among workers in Al Salam locality?)its result shown in table (7),for the interpretation of this question, the researchers did not find a result from the previous scientific studies that agreed with this result. Table (7) shows the coefficients of the multiple regression analysis for the quality of response to stressful life events among workers in Al Salam locality, as it explains (13%) of the variance in psychosomatic disorders, and this explanation Statistically significant with a level of significance (0.05), and the table shows that the values of the interpreted regression coefficients were positive, and statistically significant for psychosomatic disorders ($p = 001$.; $t = 3.961$; $B = .132$); positive and statistically significant for the trend towards health risk ($p=.001$; $t=2.751$; $B=.102$);

The percentage of the explained variance (2R) between the response to stressful life events and psychosomatic disorders was (139.), which means that (13%) of the variance in psychophysical disorders is explained by the quality of the response to stressful life events, and the percentage of the explained variance reached (change in 2R), between attitudes towards health risk and psychosomatic disorders(136).

This means that (16%) of the variance in psychosomatic disorders is explained by the variable attitude towards health risk, that is, the variable attitude towards health risk predicts psychosomatic disorders to a greater degree than the quality variable in response to stressful life events among workers in Al Salam locality in west kordofanState.

This result may need more subsequent scientific studies to support the its validity. It is difficult to generalize it for several factors, including that the small number of the study sample members, and the absence of previous scientific studies supporting it, especially with regard to predicting the attitude towards health risk in psychosomatic disorders.

Through the researchers' review of the literature of the theoretical frame, the result can be explained through the following: The more negative the response of the sample members to stressful life events, the higher the expectation that they will suffer from psychosomatic disorders and the more the sample members use things that pose a threat to their physical health, the higher the expectation that they will suffer from psychosomatic disorders.

The Recommendations:

Through the research study the researchers recommended the following:

- The necessity of psychological and medical awareness related to the correct ways to face the various pressures of life, especially the workers in the various state institutions, and in particular those working in public services.
- That the various socialization agencies adopt a comprehensive guidance and prevention program to be financed from the state budget, with state monitoring of ways to implement it correctly and completely.

References:

- Um Ayman, Osman Ali (2004). Mental Health, Edition (1): International House.
- Alshehri, Nawaf Manna (2021). Psychological hardness and its relationship to psychosomatic disorders, Arab Journal for Scientific Publishing, Issue (27) 2021.
- May, Idris (2020). The role of stressful life events and the trend towards health risk in predicting the intrinsic self-evaluation of university students, The Egyptian Journal of Psychological Studies, Issue (109), Volume 30, October 2020.
- Okasha, Ahmed (2010). Contemporary Psychiatry, Cairo: Anglo-Egyptian Library.
- Ghanem, Mohamed Hassan (2011). Psychosomatic disorders, Cairo: Dar Gharib-Kashroud, Ammar Al-Tayeb (1995). Industrial Psychology and Modern Organization, Benghazi: Garyounis University Publications, Edition (1), Volume (2).
- Al-Mishaan, Owaid Sultan (2001). Sources of Stress at work: A Comparative Study between Kuwaiti and Non-Kuwaiti Employees in the Government Sector, King Saud Journal, Volume (13), Administrative Sciences (1), Riyadh, Saudi Arabia
- Campos, R.C., Holden, R.R., Cacador, B., Fragata, A.S., @Baleizao, C. (2018). self-criticism, intensity of perceived negative life events, and distress: Results from a two-wave study. *Personality and Individual Differences*, 124, 145-149.
- Zhang, R. (2017). the stress- buffering effect of self-disclosure on facebook: An examination of stressful life events, social support, and mental health among college students, *Computers in human Behavior*, 75, 527-537.
- Manzini, T.T. (2015). An investigation of the Relationship between self-esteem and risk-taking behavior among adolescent students studying at the university of KwaZulu-Natal, Pietermaritzburg Campus. (master dissertation, university of KwaZulu-Natal, Pietermaritzburg Campus).
- Jovanovic, V. (2019). Adolescent life satisfaction: the role of negative life events and the Big five personality traits . *personality and individual Differences*, 151, 109548.
- Griggs, S. (2017). The relationship between hope, Core self-evaluations, emotional well-being, sexual risk-taking, substance use, and academic performance in freshman university students. Graduate school of nursing dissertations, paper49. <https://escholarship.umassmed.edu/gsn-diss/49>

- Felsten, G.(2004). Stress reactivity and Vulnerability to depressed mood in college students. *Personality and individual differences* 36,789-800.
- Khanjani, N., Tavakkoli, L.,&Bazargan-Hejazi, S.(2019). Factors related to cell phone use while driving based on the theory of planned behavior among university students in kerman, Iran, *JInj Violence Res*,11(2),203-212.
- Zhang, Y., Huang, Y.,Wang,Y.,&Casey, T.W.(2020).who uses amobile phone while driving for food delivery? The role of personality, risk perception and driving self-efficacy. *Journal of safety research*,73,69-80.
- Cori, L., Bianchi, F., cadum, E.,&Anthonj, C.(2020). Risk perception and Covid-19, international journal of Environment research and public health, 17,1-6, doi:10.3390/ijerph.17093114.
- Sundblad,E.,Biel.A.,&Garling,T.(2007).Cognitive and affective risk judgment related to climate change. *journal of Environmental psychology*.27(2).
- Van Der-Linden, S.(2015).the social-psychological determinants of climate change risk perception: towards a Comprehensive model, *journal of environmental psychology*,41,112-124.
- Schmidt,M.(2004).Investigating risk perception: a short introduction.loss of agro-biodiversity in vavilov centers, with a special focus of genetically modified organisms (GMOs),edited by: Schmidt, M.,ph.D.thesis.Vienna.
- Dryhurst, S.,Schneider,C.,Kerr,J.,Freeman,A.,Recchia,G.,Van Der Bles.A.,Spiegelhalter,D.&Van Der linder. S.(2020).risk perceptions of COVID-19around the World, *journal of risk research*.23,1-13.
- Zhu, J.,Shi,Y.,Li,J.,&Zhang,Z.(2019).Role of risk attitudes and time preference in preventive aspirin use adherence, *journal of Evaluation clinical practice*,26,818-825.
- Martin.Fernandez, J.,Medina-Palomino,H.J.,Ariza-Cardiel,G.,Polentions-Castro,E.,&Rutkowski,A.(2018). Health Condition and risk attitude in Dutch population: an exploratory approach. *Health, Risk&Society*,20(3-4),126-146.
- Lutter, J.,Szentes,B.,Wacker, M.,Winter,T.,Wichert,S.,Peters,A.,Holle,R&Leidl,R.(2019).Are health. Risk Attitude and general Risk Attitude Associated with healthcare utilization, Costs and working Ability? Result from German KORA FF4 Cohort study, *health economics Review*,9(26),1-11.
- Bansback, N., Harrison, M.,Sadafsafavi, M.,Stiggelbout, A.,&Whitehurst, D.(2016).Attitude to Health Risk in the Canadian population: A Cross-Sectional Survey, *CMAJ*,4(2),284-291.

- Maquet, Y.G., Angel.J.D., Canizares,C., Lattig,M.C., Agudelo,D.M., Avenas, A., & Ferro,E.(2020).the role of stressful life events appraisal in major depressive disorder. *Revista Colombiana of Psiquiatria*, 49,67-74.
- Glanz, B., Greeke, E., LaRussa. A., Stuart, F., Rintell. D., Chitnis, T& Healy, B.(2016).Risk attitudes and risk perceptions in individuals with multiple Sclerosis, *Journal of Experimental, Translational and clinical*, 2, 1-11.