

# The Relationship Between Proactive Coping and Job Well-being in University Faculty

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Received: April 1, 2023

Accepted: May 5, 2023

Online Published: May 18, 2023

doi:10.5430/irhe.v8n1p1

URL: <https://doi.org/10.5430/irhe.v8n1p1>

## Abstract

The present research aims to investigate the correlational relationship between proactive coping and job well-being in university professors as a function of gender, specialization, and academic title. To this end, a proactive coping scale was developed based on Greenglass's theory (2002). Abu Baker and Ahmad's (2020) job well-being scale was adopted to examine this dimension in university professors. Having confirmed the validity and reliability of both tools, we performed them on a sample consisting of 400 professors. Findings show the sample group enjoys proactive coping and job well-being, and there exists a positive relationship between proactive coping and job well-being in university professors. However, there is no relationship between proactive coping and job well-being as a function of gender, specialization, or academic title.

**Keywords:** proactive coping, job well-being, university professors

## 1. Introduction

Previously, coping strategies were viewed as a group of interactive strategies which focused on the problem, emotion, and avoidance. These strategies were used to manage the circumstances and situations that already took place. Lately however, these strategies have been viewed as those that can be used before the exposure to stressors (Zambianchi, 2014). Moreover, individuals need not wait until occurrences take place, but instead predict events and take precautionary actions to prevent the potential threats or reduce their negative effects (Ouwehand, 2005). The coping strategies directed at the future are known as proactive strategies in which individuals make a decision for the future, predict the future outcome, and discover all the possible ways to confront stressful, undesirable circumstances (Dehnad, 2017).

Job well-being, as Warr (2011) points out, not only concerns the faculty member's happiness but also his job satisfaction, life quality, and job quality. Moreover, job well-being positively affects organizational performance, organizational citizenship behavior, and positive performance (Abu Baker & Ahmad, 2020; and Fisher, 2003, and Podsakoff et al., 2003, as cited in Huand: 299). To further illuminate this topic, we will attempt to answer the following questions: Do university professors use proactive coping and enjoy job well-being? Is there a correlation between university professors' proactive coping and job well-being? What is the nature of this relationship?

## 2. Research Significance

University education is important because it serves three major roles: the transfer of knowledge through teaching, the production of knowledge through scientific research; and the service to society.

Greenglass (2002) defines proactive coping as a multidimensional planning process which is multi-tasked and directed at the future. It combines processes aiming to maintain or enhance life quality with those aiming to achieve personal goals. Proactive coping is one of the most important concepts in health psychology; it's necessary to adjust to stressful circumstances which include all activities an individual does to exercise control over various demands (Huei wu et al., 2008: 104).

Research into the relationship between proactive coping and positive feelings and emotions has stood out from other coping studies (Rogella, 2015: 52). One such study is conducted by Abu Baker and Ahmad (2020) that investigates the relationship between conflict management techniques, job well-being, and research self-efficacy among the faculty members of Minia University. Findings reveal that there is a positive relationship between conflict management techniques (i.e., collaboration, negotiation, and compromise), job well-being, and research self-efficacy.

Vernon et al. (2009) argue that proactive coping is a process that encourages healthy growth through positive behavior. Stressors are viewed as challenges and opportunities rather than potentially catastrophic threats. Proactive coping is always active and is not for confronting only certain stressors. Instead, it prevents future stressors and tensions, addresses unique circumstances, and improves personal growth.

Stressors that individuals experience have been found to mediate the relationship between proactive coping and maladjustment. Proactive coping alone plays an important role in adjusting to university life. This is important as staff regularly spend one-third of their time at work. Proactive coping is positively correlated with personal well-being for those staff (Gen et al., 2010; Simone, 2014; Lee et al., 2014).

In addition, mental health has been defined as the presence of well-being, not the absence of disease. Well-being improves health in the workplace and allows the person to realize his personal and social identity, and to actualize himself (Al-Rubaish et al., 2011; Rothausen, 2013; Page & Vella-Brodrick, 2009).

Job well-being measures the faculty member's satisfaction from his working circumstances, environment, salary, incentives, and support, as well as his job relationships and interactions with bosses, colleagues, workers, and students (Abu Baker & Ahmad, 2020). A study by Dijkstra et al. (2005) finds a negative relationship between organizational conflict and job well-being. This finding is replicated by Sonnentag et al. (2013), who finds psychological detachment reduces the negative relationship between relationship conflict and job well-being.

### 3. Research Limits

The present research was performed on the professors at the University of Diyala. Participants included both males and females specializing either in sciences or humanities. The study was performed in the academic year 2020-2021.

#### 3.1 Proactive Coping

##### 3.1.1 The Concept of Proactive Coping

For over 40 years, coping has been an important concept in psychology. Moreover, it has been the center of a group of psychological treatments and educational programs. These programs aim at improving coping skills (Lazarus & Folkman, 1984: 117).

Locke (2009) defines coping as the efforts made by a person to manage or overcome the existing demands and circumstances that form a challenge, threat, damage, or loss to the person. Coping may also be a reaction to a certain occurrence or a prevention from future demands. Furthermore, coping may be proactive for someone against the challenges imposed on them.

Others define proactive coping as the ability to guide behavior and take precautionary actions to mitigate the potential pressures. Therefore, this kind of coping helps individuals set out goals, work on achieving them, plan beforehand, and take appropriate practical actions (Lee et al., 2014).

##### 3.1.2 Explaining Greenglass's Theory (2002) on Proactive Coping

Greenglass believes proactive coping has several main aspects such as planning and using resources to achieve goals. Moreover, a proactive person shows initiative, employs others, attributes successes to himself, does not blame himself for failures, and takes actions based on his perception of the future. Greenglass points out that proactive coping is influenced by internal factors: self-efficacy, perceived self-efficacy, and hopefulness- which plays a major role in proactive coping. It's also influenced by external factors like the social resources available to the person when encountering a stressful event.

Greenglass highlights three main features that distinguish proactive coping from conventional coping.

- a. Direction at the future: Proactive persons are able to predict future occurrences and develop plans and strategies for those occurrences. On the other hand, in conventional coping individuals deal with actual stressful occurrences to compensate loss or damage (Greenglass, 2011).
- b. Goal management: In dealing with problems, proactive coping is more active than conventional coping. Proactive persons facilitate the general resources required for active treatment of difficult situations in the distant future. Those resources also improve personal development through achievement of goals (Greenglass et al., 2014).

- c. Positive motives: In proactive coping, individuals possess positive perceptions which allows them to perceive difficult situations as challenges instead of threats. Proactive persons can see future dangers, demands and opportunities, and evaluate them as challenges not potential threats (Greenglass, 2002: 39).

### 3.2 Job Well-being

#### 3.2.1 The Concept of Job Well-being

Job well-being has been viewed as a multi-dimensional concept that encompasses such aspects as health (absence of disease), mental health (absence of stress and symptoms of exhaustion), and satisfaction and motivation (job satisfaction and enjoyment) (Pahkin, 2015).

Job well-being has three features (Wright & Cropanzano, 2000):

- a. It includes personal perceptions about health.
- b. It often concerns positive feelings.
- c. It can be viewed as an overall evaluation rather than a specific evaluation.

#### 3.2.2 Warr's (1987) Model for Job Well-being

As the first person to use the concept of emotional intelligence in relation to work, Warr categorizes job feelings under two dimensions: happiness and excitement. Accordingly, he develops a model referred to as the Vitamin Model (Mäkikangas et al., 2007: 198). Using these two dimensions, Warr (2011) provides three axes out of career and job well-being emotions: contentment vs. discontentment, anxiety vs. comfort, and depression vs. pleasure.

Vitamin Model assumes that job characteristics influence an employee in the same way that vitamins influence physical health. Vitamins have a special impact on the body and allow it to function perfectly. Lack of vitamins leads to physical weakness and consequently to severe illnesses. Conversely, consumption of vitamins improves health and body functions. However, no improvement will occur if consumption of vitamins exceeds a certain level. Continuous consumption of vitamins can lead to two different results with the first being the so-called 'constant effect' in which health neither improves nor deteriorates. Warr (1987) points out that C-E vitamins have a profound impact on the human body, and overconsumption of them does not cause any negative effects. C-E stands for constant effect, and this abbreviation applies to vitamins with this feature. Another result is that overconsumption of vitamins can concentrate poison in the body which compromises the body's performance and deteriorates the person's health. Vitamins A-D are known to be poisonous if used in large amounts. For this reason, Warr uses A-D (additional decrement) to describe vitamins categorized in this group (Unterslak, 2009: 9).

Warr (1987) believes the presence of job characteristics from the beginning of work has a positive effect on an employee's mental health whereas the absence of those characteristics damages the mental health of the employee. Should there be an increase in job characteristics, constant effect can occur, as is the case in C-E vitamins. Alternatively, the increase in job characteristics can damage health, as in the case of A-D vitamins. Warr (1987) specified 9 'job characteristics' which can determine mental health and job well-being. Six job characteristics (i.e., job autonomy, skill utilization, job demands, skill variety, environmental clarity, and connection to others) have a similar effect to A-D vitamins (Additional Decrement). The other three characteristics (i.e., salary, safety, and social status) are supposed to follow the C-E model (Jonge & Schaufeli, 1998: 389).

#### 3.2.3 Job Vitamins Categorized in A-D (Additional Decrement) Model

- a. Job autonomy: It corresponds to self-autonomy, absence of meticulous supervision, self-determination, participation in decision-making, and freedom of choice.
- b. Skill utilization: It concerns the utilization of valuable, necessary skills and abilities.
- c. Job demands: This dimension concerns job demands, necessary tasks, quantitative and qualitative work, role responsibility, role contradiction, and family-work conflict (Warr, 2011: 113).
- d. Skill variety: It includes non-repetitive work, skill variety, and task variety. Low skill variety is related to low job well-being for two primary reasons. Variety plays a significant role in striking a balance between chores, since absence of variety is unpleasant. Low variety is related to other environmental characteristics that compromise personal well-being, such as low self-autonomy and low skill utilization.
- e. Environmental clarity: This characteristic concerns information about the future, low role confusion, clear role, and feedback about the task.
- f. Connection to others: This feature concerns the degree of social interaction, social density, quality of social interaction, social support, and freedom from offence or bullying (Unterslak, 2009: 16).

### 3.2.4 Job Vitamins Categorized in C-E (Constant Effect) Model

- a. Salary: It concerns income and wage rate (financial resources).
- b. Safety: It concerns the absence of risks, quality of equipment, and appropriateness of work circumstances.
- c. Social position: It is about the importance of task or role, usefulness of job, situation in society, and contribution to society.
- d. Supportive supervision: This characteristic corresponds to the compassionate approach of work bosses, just treatment, concern with the individual's well-being, and effective supervisory behavior.
- e. Job expectations: This feature is about job security, job promotion, or a transition to other roles.
- f. Justice: It is about distributive and procedural justice, the absence of unjust discrimination, the employer's morality, and the institution's relation with society (Cooper & Quick, 2017: 60).

## 4. Method and Procedure

We adopt the descriptive method in which the relationship between two or more variables is investigated and quantitatively indicated through correlation coefficients.

### 4.1 Participants

There were 1328 faculty members in all Colleges of the University of Diyala in the academic year 2020-2021. Out of this number, 400 professors agreed to participate in the study.

Table 1. Research sample in terms of specialization, college, and gender

Specialization	No.	College	Gender		Total
			Male	Female	
Science	1	Physical education and sports sciences	24	8	32
	2	Education for pure sciences	17	11	32
	3	Agriculture	23	4	27
	4	Medicine	12	9	21
	5	Veterinary medicine	14	5	19
	6	Sciences	29	20	49
	7	Fine arts	7	3	10
	8	Engineering	50	14	64
<b>Total</b>			176	74	250
Humanities	9	Education for humanities	28	25	53
	10	Law and political sciences	9	4	13
	11	Islamic studies	17	1	18
	12	Basic education	37	29	66
<b>Total</b>			91	59	150
<b>Overall total</b>					400

## 5. Research Tools- Proactive Coping Scale

We took the following steps to develop the scale:

### 5.1 Specifying the Proactive Coping Theory

We adopted Greenglass's theory (2002) to develop the proactive coping scale. There are three primary aspects in which proactive coping differs from conventional coping:

- a. Direction at the future
- b. Goal management instead of risk management
- c. Positive motives

### 5.2 Phrasing the Scale's Items and Instructions

Having reviewed the literature and previous studies on proactive coping, we phrased 32 positive and negative items for the scale, which were distributed to three dimensions. There were five alternative responses for each item (i.e., always true, often true, sometimes true, rarely true, never true). Moreover, respondents were provided with instructions on how to give their responses.

### 5.3 Appropriateness of the Proactive Coping Scale

The scale's primary form was presented to a group of referees (18 persons) specializing in educational and psychological sciences to give their notes on the appropriateness and representativeness of the scale. Referees' agreement on the appropriateness of items was 80 percent, as indicated in Table 3. Accordingly, corrections were made, and language rephrasing was done as referees recommended. Following these changes, referees' agreement on the appropriateness of the scale's items was 90 percent.

### 5.4 Piloting to Test the Clarity of Instructions

The scale was performed on a sample of 30 faculty members of the University of Diyala who were specialized in both areas and who were from outside of the main research sample. Instructions were given to the pilot and the response time was calculated. Instructions and items were all clear for the sample group, and the response time was between 10-15 minutes with an average of (5, 12) minutes.

### 5.5 Discriminatory Power of Proactive Coping Scale's Items

Table 2. The discriminatory power of proactive coping scale's items

Item	Top group		Bottom group		Calculated T-value	Significance
	Mean	SD	Mean	SD		
1	4.0833	0.9817	3.3889	1.2517	4.667	Significant
2	4.5648	0.5343	3.5370	0.8474	10.661	Significant
3	4.5556	0.6314	3.3611	0.8478	11.002	Significant
4	4.5556	0.6314	3.2963	0.8456	12.400	Significant
5	4.6944	0.5198	3.2593	0.9003	14.346	Significant
6	4.2315	0.8924	2.7870	1.1026	10.582	Significant
7	4.4259	0.6863	3.1389	0.9318	11.557	Significant
8	4.4815	0.6764	3.0278	1.008	12.437	Significant
9	4.6852	0.4666	3.2500	1.0242	13.252	Significant
10	4.7037	0.5512	3.1759	0.9455	14.506	Significant
11	4.7315	0.4452	3.0463	0.9509	16.678	Significant
12	4.5556	0.6164	2.6944	0.9318	17.310	Significant
13	4.1204	1.0205	3.0648	1.0875	7.356	Significant
14	4.7500	0.4760	3.3333	1.0875	7.356	Significant

15	4.5556	0.6011	3.2037	1.0830	11.341	Significant
16	4.6296	0.5895	3.1481	0.9453	13.819	Significant
17	4.7315	0.5043	3.2593	0.9893	13.777	Significant
18	4.5741	0.6295	3.0185	1.0935	12.811	Significant
19	4.4259	0.7388	2.9722	1.0363	11.870	Significant
20	4.5926	0.6119	2.9259	0.8934	15.994	Significant
21	4.5648	0.5515	3.1759	0.9051	13.618	Significant
22	3.9722	1.2186	2.7593	1.0034	7.985	Significant
23	4.6667	0.4736	3.6019	0.8531	11.341	Significant
24	4.5370	0.5541	3.4722	0.8367	11.026	Significant
25	3.3981	1.2223	2.7685	0.8604	4.377	Significant
26	4.7407	0.5182	3.6296	1.0642	9.755	Significant
27	3.8148	1.1450	3.0463	0.9108	5.459	Significant
28	3.6759	1.2592	3.0556	0.9455	4.094	Significant
29	3.5833	1.2539	2.9259	0.9925	8.135	Significant
30	4.1944	1.0630	3.0926	0.9225	8.135	Significant
31	3.9167	1.1033	2.9167	0.9679	7.081	Significant
32	4.5463	0.9311	3.2407	1.0489	9.673	Significant

To know the discriminatory power of the scale’s items, those lacking a precise response were excluded, the two-terminal groups method was adopted, the overall score for each individual was calculated, and scores were ordered in a descending manner. Moreover, the 27 percent high-score group and the 27 percent low-score group were determined; these two percentages manifest the largest difference between groups (Ebel, 1972: 385). The two terminal groups received 216 questionnaires (108 questionnaires for each group). Then a t-test for independent variables was used to determine the significance of differences between the top and bottom groups in each item (totaling 32 items). Results showed that all items were different for each group. The calculated t-value was between 4.094 and 17.310, which is greater than the table t-value (1.96) at significance level of 0.05 and freedom degree of 214. The table has a t-value at significance level 0.05 and freedom degree of 214 = 1.96

5.6 The Relationship Between Item Score and Scale’s Total Score

Table 3. The relationship between item score and scale’s total score

Item	Correlation coefficients value	Item	Correlation coefficients value
1	0.295	17	0.619
2	0.515	18	0.617
3	0.539	19	0.564
4	0.661	20	0.586
5	0.611	21	0.653
6	0.536	22	0.455
7	0.588	23	0.576
8	0.588	24	0.574
9	0.559	25	0.279

10	0.617	26	0.502
11	0.636	27	0.302
12	0.680	28	0.252
13	0.465	29	0.272
14	0.591	30	0.410
15	0.606	31	0.389
16	0.637	32	0.435

This process helps ensure the construct's validity. All items were found to be congruent, to measure a single construct, and to possess a reasonable degree of internal consistency. To investigate the relationship between each item with the scale's total score, Pearson correlation coefficients were calculated. Then the correlation coefficients of the critical value were compared which were found to be 0.098 with a significance level of 0.05 and degree of freedom of 398. Results showed that all items were statistically significant. In other words, all items of proactive coping scale had internal consistency. The critical value of correlation coefficients is at a significance level 0.05 and a degree of freedom of 398 = 0.098.

#### 5.7 The Relationship Between a Dimension's Score, and the Total Score of the Scale and Other Dimensions

Table 4. Correlation matrix for the dimensions of proactive coping scale

Third dimension	Second dimension	First dimension	Proactive coping dimensions
0.786	0.781	1	First dimension
0.867	1	0.781	Second dimension
1	0.867	0.786	Third dimension

Pearson correlation coefficients between each dimension's score and the scale's total score, and between each dimension's score and other dimensions' scores were calculated and compared to the critical value of correlation coefficients (0.098). Statistically significant differences were found between all scores. The critical value of correlation coefficients is at a significance level of 0.05 and a degree of freedom of 398: 0.098.

#### 5.8 Psychometric Characteristics of the Proactive Coping Scale

##### 5.8.1 Validity

Validity was confirmed through the following indicators:

- a. Face validity: It assumes items to measure a proposed characteristic. Referees' agreement upon the appropriateness of items was more than 90 percent.
- b. Construct validity: Construct validity was calculated through the following indicators:
  - The discriminatory power of items through two-terminal groups method as shown in Table 2.
  - The relationship between each item's score and the scale's total score as indicated in Table 3.
  - The relationship between a dimension's score, the scale's total score, and scores of other dimensions as shown in Table 4.

##### 5.8.2 Reliability

Reliability refers to the variance versus convergence in the scores of the first and second tests that were taken by the same individuals in similar circumstances. The proactive coping scale's reliability was confirmed in two ways:

- a. Test-Retest

The scale was performed on a pilot sample consisting of 60 faculty members from the University of Diyala. The second test was performed on the same sample 14 days after the first test. Pearson correlation coefficients were 0.88, which is a high value.

b. Internal consistency through Cronbach's alpha method

Cronbach's alpha coefficient ( $\alpha$ ) was calculated to identify the scale's reliability. The internal consistency of the 400 participants' scores was calculated and found to be 0.91. This reliability coefficient value is high.

### 5.9 Statistical Indicators of Proactive Coping Scale

Table 5. The statistical indicators of the proactive coping scale

No.	Statistical indicator	Value	No.	Statistical indicator	Value
1	Mean	120.6550	8	Skewness standard error	0.122
2	Standard error	0.8065	9	Kurtosis	- 0.328
3	Mediator	121.5000	10	Kurtosis standard error	0.243
4	Mode	109.000	11	Range	88.000
5	Standard deviation	16.1303	12	Lowest score	72.000
6	Variance	260.186	13	Highest score	160.000
7	Skewness	- 0.025			

The descriptive statistical indicators of the primary sample's scores were calculated. These indicators can show the degree to which participants' scores are close to the population's normal distribution.

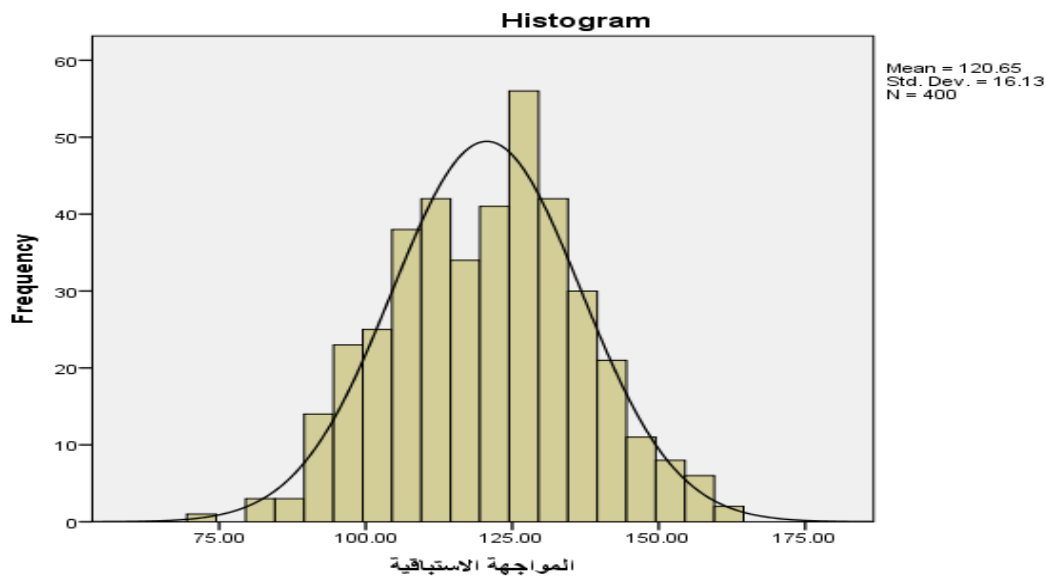


Figure 1. Distribution of participants' scores on the proactive coping scale

## 6. Research Tools- Job Well-being Scale

An Arabic scale was used to measure job well-being. The scale was developed by Abu Baker and Ahmad (2020) and consisted of 31 positive and negative items distributed to three dimensions. The first dimension included working circumstances and environment. The second included salary, incentives, and support. The third encompassed job



relationships. Five alternative responses were available (i.e., always true of me, often true of me, sometimes true of me, rarely true of me, never true of me). To investigate if the scale was appropriate for the research purposes, the following procedures were followed:

6.1 Appropriateness of the Job Well-being Scale's Items

Table 6. Referees' opinions about the appropriateness of the job well-being scale's items

Area	Items	Total	Number of referees	Agree	Disagree		Agreement percentage
					Remove	Edit	
Working circumstances and environment, and job performance.	1, 2, 3, 4, 6, 7, 8, 10, 11, 23, 26, 27, 28, 29.	14	18	18	-	-	100%
Salary, incentives, and support.	12, 13, 15, 17, 19, 21, 25, 31.	8	18	18	-	-	100%
Job relationships	5, 9, 14, 16, 18, 20, 22, 24, 30.	9	18	18	-	-	100%

The scale was presented to a group (18 persons) of referees and specialists in developing mental scales in the fields of educational sciences and psychology. They were requested to give their opinions about the appropriateness of the scale's items and its suitability for the research objectives. All referees confirmed the appropriateness and suitability of the scale.

6.2 Piloting to Test the Clarity of Instructions

The scale was performed on a random sample consisting of 30 faculty members from the University of Diyala. Participants were specialized in both categories and were from outside of the main sample group. Instructions were given to participants and the response time was calculated. All parts of the scale including the instructions, items, and response method were clear for participants. The time spent on responding was between 10 and 15 minutes with an average of (5, 12) minutes.

6.3 Statistical Analysis of the Job Well-being Scale's Items

Table 7. The discriminatory power of the job well-being scale's items

Item	Top group		Bottom group		Calculated t-value	Significance
	Mean	Standard deviation	Mean	Standard deviation		
1	0.4666	4.6661	3.9907	0.9016	7.109	Significant
2	3.9444	1.3172	2.7870	1.0506	7.139	Significant
3	4.2500	0.7503	3.4907	0.8259	7.071	Significant
4	4.5185	0.6187	3.3056	0.8803	11.751	Significant
5	3.3056	1.1557	2.8056	0.9807	3.428	Significant
6	4.6296	0.5569	3.2870	0.9277	12.894	Significant
7	4.6296	0.5569	3.2870	0.9277	12.894	Significant
8	4.6852	0.5743	3.2500	0.9679	13.705	Significant
9	4.7685	0.5043	3.2685	1.0195	13.705	Significant

10	4.2500	0.8102	3.0833	1.0058	9.387	Significant
11	4.5556	0.5692	3.3333	0.9763	11.239	Significant
12	4.2685	0.7439	2.9074	1.0983	10.663	Significant
13	4.1389	0.9012	3.0185	1.1189	8.104	Significant
14	4.7500	0.4953	3.4722	1.1954	10.262	Significant
15	4.0926	0.9426	2.9259	1.1166	8.297	Significant
16	4.7222	0.5084	3.5833	0.9775	10.741	Significant
17	4.2130	0.8094	3.0741	1.0652	8.847	Significant
18	4.8426	0.3905	3.4630	1.0973	12.309	Significant
19	4.3981	0.6827	3.5185	1.0183	7.459	Significant
20	4.1852	1.0152	3.0648	1.0072	8.141	Significant
21	3.8426	0.9187	3.0556	1.0306	5.924	Significant
22	4.5000	0.6037	3.3148	0.8823	11.521	Significant
23	3.9537	0.9005	3.0463	0.8688	7.536	Significant
24	4.5741	0.6442	3.3519	0.9304	11.224	Significant
25	3.7778	1.2022	2.7315	1.0643	6.772	Significant
26	4.3889	0.7833	3.1574	1.0061	10.036	Significant
27	3.7685	1.2350	2.8426	0.9187	6.251	Significant
28	4.2963	0.8002	3.2130	0.8759	9.489	Significant
29	4.4630	0.6328	3.1944	1.0089	11.069	Significant
30	4.5370	0.6178	3.1019	1.0316	12.403	Significant
31	4.5278	0.7789	3.0833	1.1448	10.841	Significant

The discriminatory power of the scale's items was calculated through the two-terminal groups method. Results showed that all items were specific as their calculated t-values were between 3.428 and 13.705, which are greater than the table t-value (1.96). The table has a t-value at a significance level of 0.05 and a degree of freedom  $214 = 1.96$ .

### 6.3.1 The Relationship Between Each Item's Score and the Scale's Total Score

Table 8. The relationship between each item's score and the scale's total score

Item	Correlation coefficients value	Item	Correlation coefficients value
1	0.410	17	0.481
2	0.387	18	0.634
3	0.349	19	0.378
4	0.554	20	0.436
5	0.210	21	0.288
6	0.490	22	0.557
7	0.667	23	0.427
8	0.648	24	0.582
9	0.667	25	0.406

10	0.456	26	0.553
11	0.595	27	0.325
12	0.562	28	0.511
13	0.501	29	0.560
14	0.611	30	0.611
15	0.448	31	0.537
16	0.603		

Pearson correlation coefficients were calculated to determine the relationship between each item's score and the scale's total score. Values of the correlation between each item's score and the scale's total score were compared to the critical value of correlation coefficients (0.098) at significance level 0.05 and degree of freedom of 398. All items were shown to have a statistically significant relationship with the scale's total score. This means all items of the job well-being scale have internal consistency with each other. The critical value of correlation coefficients at significance level 0.05 and degree of freedom of 398 = 0.098.

### 6.3.2 The Relationship Between Each Item's Score, the Scale's Total Score, and Other Dimensions' Scores

Table 9. Correlation matrix for the dimensions of proactive coping scale

Third dimension	Second dimension	First dimension	Job well-being
0.862	<b>0.714</b>	<b>0.924</b>	
0.784	0.480	1	<b>First dimension</b>
0.371	1	0.480	<b>Second dimension</b>
1	0.371	0.784	<b>Third dimension</b>

Pearson correlation coefficients between each dimension's score and the scale's total score, as well as the correlation coefficients between each dimension's score and scores of the other dimensions were calculated. These scores were then compared to the critical value of the correlation coefficients (0.098), and all coefficients were statistically significant. The critical value of the correlation coefficients at significance level 0.05 and degree of freedom of 398 = 0.098.

## 7. Psychometric Characteristics

### 7.1 Validity of the Proactive Coping Scale

Validity was confirmed through the following indicators:

#### 7.1.1 Face Validity

The scale's basic form was presented to a group of referees specializing in psychology and educational sciences to determine the appropriateness of items and their suitability for the research objectives. Referees' consensus over the scale's suitability for the research objectives was 100 percent.

#### 7.1.2 Construct Validity

Construct validity was conformed through the following indicators:

- The discriminatory power of items employing the two-terminal method as shown in Table 7.
- The relationship between each item's score and the scale's total score as shown in Table 8.
- The relationship between each dimension's score, the scale's total score, and scores of the other dimensions as shown in Table 9.

### 7.2 Reliability of the Job Well-being Scale

The reliability was measured in two ways:

7.2.1 Test-Retest

To measure reliability through test-retest method, we performed the scale on a pilot sample consisting of 60 faculty members from the University of Diyala who specialize in both categories (College of Education for Humanities and College of Sciences). Fourteen days later, the test was performed on the same sample group. Then we calculated Pearson correlation coefficients of individuals' scores in the first and second tests. The scale's reliability coefficients were found to be 0.85 in this method, which is a high value.

7.2.2 Internal Consistency Using Cronbach's Alpha Method

To measure reliability in this method, Cronbach's alpha equation was performed on the scores of the sample group that consisted of 400 university professors from the University of Diyala and in both specializations. In this method, the reliability coefficient was found to be 0.91 which is a high value.

7.3 Statistical Indicators of the Job Well-being Scale

Table 10. Statistical indicators of the job well-being scale

No.	Statistical indicator	Value	No.	Statistical indicator	Value
1	Mean	117.2925	8	Skewness standard error	0.122
2	Standard error	0.72614	9	Kurtosis	0.338
3	Mediator	119.000	10	Kurtosis standard error	0.243
4	Mode	112.00	11	Range	92.00
5	Standard deviation	14.52289	12	Lowest score	63.00
6	Variance	210.914	13	Highest score	155.00
7	Skewness	- 0.393			

Descriptive statistical indicators of the main sample group's scores were calculated. These indicators can describe how close the scores' distribution is to the normal distribution of population.

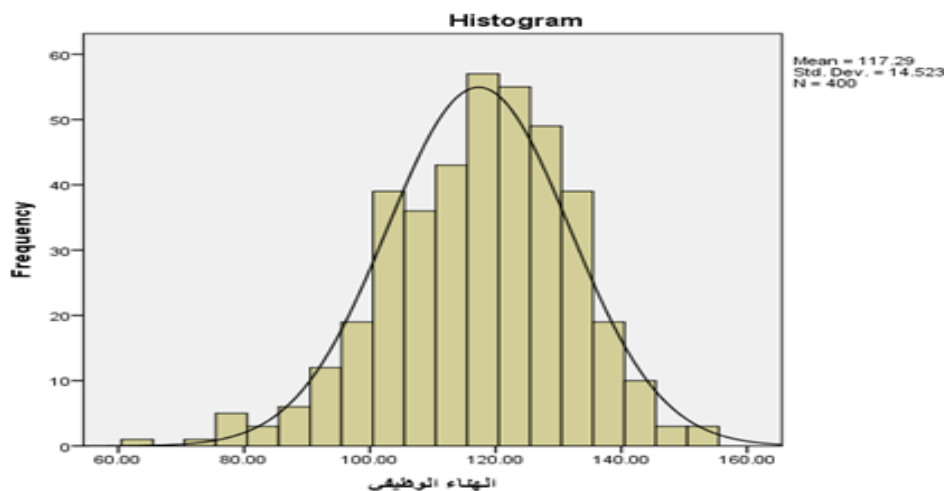


Figure 2. Distribution of the sample group's scores on the job well-being scale

#### 7.4 Final Application of Both Tools of the Research

Having developed the scales (proactive coping and job well-being) in their final forms, and to achieve the research objectives, the scales were performed on the research sample that consisted of 400 faculty members of the University of Diyala who specialize in sciences and humanities. The scale was performed in a paper-and-pencil form and over about a month (1/2/2021 – 4/3/2021). Each faculty member had two scores, one on the proactive coping scale and the other on the job well-being scale. Appropriate statistical tests were then used in SPSS.

### 8. Results, Discussion, and Explanation

#### 8.1 Investigation of Proactive Coping in Faculty Members

Participants' mean score on the proactive coping scale was calculated, along with the statistical differences between this score and the scale's assumed mean.

Table 11. T-test results regarding the significance of the differences between participants' scores mean and the scale's assumed mean

Variable	Sample	Mean	Standard deviation	Assumed mean	T-value	
					Calculated	Table
Proactive coping	400	120.665	16.130	96	30570	1.96

As shown in the table above, the calculated t-value is 30.570 which is, at significance level of 0.05 and degree of freedom of 399, greater than the table t-value (1.96). This means that faculty members enjoy proactive coping in dealing with stressors and challenges they encounter. This finding is in agreement with that of Gan et al., (2010), Lee et al., (2014), and Greenglass (2020). The latter argues that individuals can see and perceive dangers and demands in the future; however, they do not consider them as potential threats, but as challenges and opportunities.

We believe faculty members can use proactive coping for future stressors and challenges because members have high awareness and efficacy, positive perceptions of themselves, and the ability to perceive future stressors and challenges and deal with them effectively.

#### 8.2 Investigation of Job Well-being in Faculty Members

Participants' mean score on the job well-being scale was calculated, and statistical significance of the difference between mean score and the scale's assumed mean was also investigated.

Table 12. T-test for the difference between participants' mean and job well-being scale's assumed mean

Variable	Sample	Mean	Standard deviation	Assumed mean	T-value	
					Calculated	Table
Job well-being	400	117.292	14.522	93	33.454	1.96

Table 12 shows that the calculated t-value (33.454) is greater than the table t-value (1.96) at a significance of 0.05 and a degree of freedom of 399, which means university professors enjoy job well-being. This finding is consistent with that of Abu Baker and Ahmad (2020) as well as Warr's model (1987) which proposes job-related emotions and emotional well-being through two primary dimensions: pleasure and arousal (Warr, 2011: 22). We believe university professors enjoy a high level of mental health and positive traits which enables them to manage different circumstances and gain job well-being.

#### 8.3 Investigation of the Correlational Relationship Between Proactive Coping and Job Well-being in University Professors

Pearson correlation coefficients were used to calculate participants' scores on the proactive coping scale as well as on the job well-being scale.

Table 13. Pearson correlation coefficients between participants’ scores on the proactive coping scale and job well-being scale, and the t-value for the significance of correlation coefficients

First variable	Second variable	Calculated correlation coefficients value	Table correlation coefficients	T-value	
				Calculated	Table
Proactive coping	Job well-being	0.667	0.098	17.849	1.96

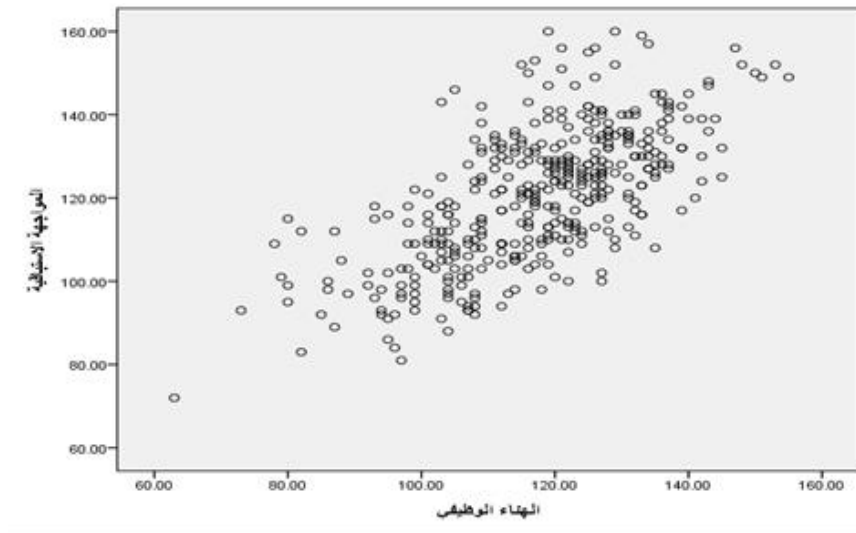


Figure 3. The correlational relationship between participants’ scores on the proactive coping scale and job well-being scale

The correlation coefficients value was found to be 0.667 which is, at a significance level of 0.05 and a degree of freedom of 398, greater than the correlation coefficients table value (0.098). A t-test was also performed to investigate the significance of correlation coefficients. The calculated t-value was shown to be 17.849 which is greater than the table t-value (1.96). This means there is a statistically significant correlation between the research variables; the more university professors employ proactive coping to confront stressors and challenges they may encounter, the higher their job well-being will be. This finding is in agreement with that of Lee et al. (2014), which reveals proactive coping is related to middle aged adults’ well-being. Moreover, this result agrees with Greenglass’s theory (2002) which assumes proactive coping enhances life quality. Thus, proactive coping is somewhat driven by positive psychology and contributes to individuals’ well-being. In other words, positive beliefs improve healthy practices and predict higher levels of physical and mental health.

*8.4 Differences in the Relationship Between Proactive Coping and Job Well-being Among University Professors in Terms of Gender, Specialization, and Academic Title*

A z-test was performed to investigate the differences in correlation coefficients. Findings show the calculated z-value is smaller than the table t-value (1.96). This means there are statistically no significant differences in the relationship between proactive coping and job well-being in terms of gender, specialization, and academic title.

Table 14. Z-test for the differences between proactive coping and job well-being correlation coefficients in terms of gender, specialization, and academic title

Gender	Frequency	Correlation coefficients	p-value	z-value	
Male	267	0.647	0.767	Calculated	Table
Female	133	0.695	0.858	0.849	1.96
Specialization	Frequency	Correlation coefficients	p-value	z-value	
Sciences	250	0.663	0.802	Calculated	Table
Humanities	150	0.616	0.717	0.816	1.96
Academic title	Frequency	Correlation coefficients	p-value	z-value	
Professor	82	0.591	0.677	Calculated	Table
Lecturer	101	0.697	0.585	0.19	1.96
Academic title	Frequency	Correlation coefficients	p-value	z-value	
Professor	82	0.591	0.667	Calculated	Table
Teaching assistant	96	0.689	0.848	1.11	1.96
Academic title	Frequency	Correlation coefficients	p-value	z-value	
Assistant professor	121	0.678	0.820	Calculated	Table
Lecturer	101	0.697	0.858	0.278	1.96
Academic title	Frequency	Correlation coefficients	p-value	z-value	
Assistant professor	121	0.678	0.820	Calculated	Table
Teaching assistant	96	0.689	0.848	0.202	1.96
Academic title	Frequency	Correlation coefficients	p-value	z-value	
Teacher	101	0.697	0.858	Calculated	Table
Teaching assistant	96	0.689	0.848	0.069	1.96

Findings show there are statistically no significant differences in the relationship between proactive coping and job well-being among university professors as a function of gender, specialization, and academic title. This result in part agrees with that of Lee et al. (2014).

Therefore, gender, specialization, and academic title influence participants' use of proactive coping in dealing with stressors and problems they encounter. This finding is consistent with Greenglass's theory which does not specify any kind of person who may be more able than others in using proactive coping to deal with stressors and threats they may encounter. Greenglass (2002) points out that individuals who possess advanced psychological and social resources such as personal control, high self-esteem, hopefulness, and good social relationships are more able to deal proactively with problems and stressors they may encounter.

## 9. Conclusion

Our data analysis and discussion lead us to draw the following summaries:

1. Professors at the University of Diyala are able to use proactive coping in dealing with stressors and challenges they may encounter, which means they possess great capabilities in managing various situations effectively.

2. Professors enjoy job well-being despite the COVID-19 outbreak. This means they perceive the importance of the work they do, they have a sense of responsibility, and they know the social status a university professor has in the Iraqi community.
3. Job well-being increases as professors' use of proactive coping to confront potential stressors and challenges increases.
4. Participants' similar environmental and cultural circumstances allow them to enjoy proactive coping and job well-being regardless of their gender, specialization, and academic title.

### Aknowlegment

This research was been partly funded by Qatar University, grant # QUHI-CED-22/23-581.

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