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The effect of social support on perceived stress among basketball players and possible relationships

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Abstract

This study was designed to explore the level of social support and perceived stress among basketball players. Furthermore, it aimed to identify potential differences in social support and perceived stress based on gender and years of experience. The researchers employed a descriptive methodology on a sample of 220 basketball players (110 males, 110 females) selected randomly. The mean ± SD of the participants' age, height, body mass, and years of experience were 22.5 ± 3 years, 175 ± 18 cm, 70.10 ± 5.15 kg, and 8 ± 3.5 years, respectively, assessed during the 2024-2025 competitive seasons. Data were collected using the Social Support and Perceived Stress Scales. The study's objectives were achieved through the application of means, standard deviations, independent samples t-test, one-way ANOVA, and Pearson's correlation coefficient using SPSS version 29, with a confidence level of 95%. The findings indicate that the perceived stress level among the sample was moderate (14.66). Additionally, the mean scores for social support domains ranged from 3.17 to 3.55, with an overall social support mean of 3.38, reflecting a moderate level. Notably, there were no statistically significant differences in perceived stress based on gender. However, statistically significant differences were observed in social support levels between males and females across the domains and overall scale, favoring females overall, except for the tangible support domain, which favored males. The results may assist coaches in addressing low social support through psychosocial intervention programs, workshops, and awareness lectures for both coaches and players. Further research is recommended to explore the relationship between playing position, performance efficiency, and the variables of perceived stress and social support, as referenced in the study.

Keywords: Basketball, Perceived stress, Players, Practices, Social support.

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1. Introduction

Basketball is one of the most popular sports in many countries, and this sport is characterized by a combination of defensive and offensive skills [1]. There are also many requirements for success and continuity in practicing basketball, such as physical and psychological abilities [2]. Therefore, interpreting psychological processes can be key to improving athletic performance by linking psychological aspects to optimal performance [3]. In this context, social support emerges as an important indicator in enhancing athletic performance, either directly or indirectly [4]. It can be noted that social support is a complex process that involves providing the recipient with various resources, such as emotional support, information, and positivity in their social relationships, which contribute to achieving psychological and personal satisfaction [5].

When examining the studies in the literature that focused on the relationship between social support and stress among basketball players, they were very limited. Therefore, analyzing the social support provided by coaches and its relationship with the level of stress among basketball players is considered one of the important research topics, as it may help in the comprehensive understanding of potential relationships and establish appropriate psychological intervention programs, which assist players in demonstrating the highest possible level of performance and continuing to engage in basketball for the longest possible period. Accordingly, the current study aimed to reveal the level of social support provided by coaches and the perceived stress among basketball players, as well as the differences in the level of social support and perceived stress according to the variables of gender and experience years. In addition, it aims to show the potential relationships between social support and perceived stress among basketball players. The researchers hope that the results of the current study will contribute to developing a deep understanding of the reciprocal relationships between physical and psychological demands, which may help enhance the performance of basketball players by developing psychological training strategies. The study structure model is depicted in Figure 1.

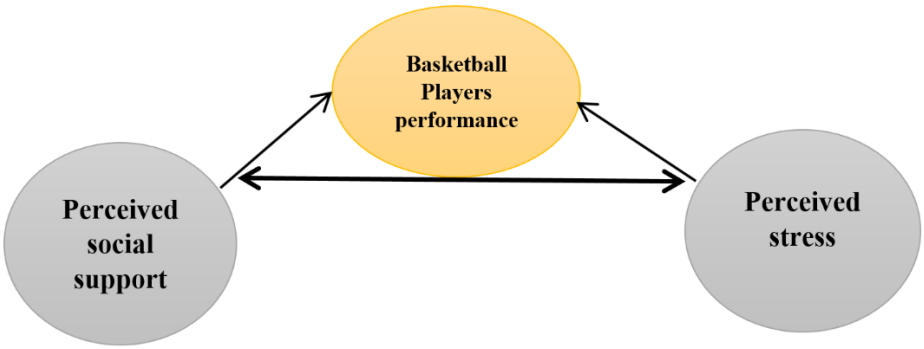

Figure 1.
The conceptual framework of the study.

2. Literature Review

Social support has become a recognized and important resource for athletes, and it has been linked to sports injuries and recovery, fatigue, self-confidence, and performance [6, 7]. It has also been reported that perceived social support (PSS) is an important factor in enhancing athletes' confidence and improving athletic performance [8, 9]. According to Freeman et al [10], the PSS is associated with athletes' confidence, improved motivation, and athletic performance (PSS), and also contributes to reducing the pressures of competition.[10]. The (PSS) is considered a psychological construct [11]. It is an important resource for athletes to maintain a good competitive state [12]. This positively aids in the cohesion of sports teams [13]. It also helps effectively manage stress during competition [14].

In a study conducted by Gabana, et al. [15] on Olympic athletes and their coaches, it was observed that providing social support is considered an important personal and professional resource for athletes, which largely depends on the providers of social support. Consequently, the social support provided by coaches and peers positively influences athletes' cognitive, emotional, and behavioral aspects [6]. Because an unhealthy relationship between the coach and the athlete is associated with negative indicators, such as athlete burnout [16]. On the other hand, a positive relationship between the coach and the athlete is positively related to the well-being of athletes [17]. The relationship between the coach and the

athlete can be defined as the mutual and causal connection between the emotions of coaches and athletes, their thoughts, and their behaviors [18]. Consequently, receiving support from coaches contributes positively to developing relationships with players [19].

In recent decades, there has been an increasing interest in social support due to its importance for physical health, mental well-being, and stress management among athletes [20]. In the same context, the impact of stress on athletes' athletic and social lives cannot be denied [21]. The hypothesis of stress relief is that the social support received by athletes can act as a barrier to protect them from the negative effects of stressful events, making it an important psychological factor for athletes in general and for those experiencing competition-related stress in particular [22]. According to Delfin, et al . [23] the social support is negatively correlated with psychological stress, and the social support scale can be used to predict psychological stress.

Rees [6] demonstrated that social support positively affects the stress levels of golfers. Additionally, effective social support from coaches enhances athletes' positive psychological feelings and reduces their tendency to retire early. Sheridan, et al. [24]. Mishra [25] clarifies that higher levels of social support are associated with lower levels of stress and a greater ability to manage stressors. In the same context, social support is considered a stress-buffering factor [26]. This is regarded as a mechanism for effective coping with stressors [27]. Furthermore, studies have shown statistically significant differences in social support among female basketball players [28].

3. Material and Methods

3.1. Participants

The present research employed a descriptive-analytical study design to explore the level of social support provided by coaches and the perceived stress among basketball players. The Raosoft Sample Size Calculator analysis program calculated the sample size, determining at least 205 players with a margin of error of 4.83% and a 95% confidence level. However, the current study population comprised 220 participants (110 males, 50%; 110 females, 50%). The mean ± SD of the participants' age, height, body mass, and years of experience were 22.5 ± 3 years, 175 ± 18 cm, 70.10 ± 5.15 kg, and 8 ± 3.5 years, respectively. The participants' age, height, body mass, and experience were assessed during the 2024–2025 competitive seasons.

3.2. Data Collection

3.2.1. Perceived Stress Scale (PS-s)

The Perceived Stress Scale (PSS) has 10 items. The questions in this scale inquire about your feelings and thoughts during the past month. For each item, you will be asked to indicate how often you felt or thought a certain way. All items are answered using a 4-point Likert scale ranging from never to very often. The scores for Items 1, 2, 3, 6, 9, and 10 are 0 - never, 1 - almost never, 2 – sometimes, 3 - fairly often, and 4 - very often. Conversely, the scores for Items 4, 5, 7, and 8 are 4 - never, 3 - almost never, 2 – sometimes, 1 - fairly often, and 0 - very often. Additionally, individual scores on the PSS can range from 0 to 40, with higher scores indicating higher perceived stress. Scores from 0-13 are considered low stress; scores from 14-26 are considered moderate stress; and scores from 27-40 are considered high perceived stress [29].

3.2.2. Received Support Questionnaire

The RSQ includes 22 items across four domains: emotional support, esteem support, informational support, and tangible support. Emotional support pertains to behaviors related to comfort, security, and being cared for (e.g., In the last week, how often did someone cheer you up?). Esteem support involves activities that support or bolster a person's self-esteem (e.g., In the last week, how often did someone encourage you?). Informational support encompasses advice and guidance (e.g., In the last week, how often did someone give you advice about performing in competitive situations?). Tangible support refers to practical and instrumental assistance (e.g., How often, in the last week, did someone help plan your training?). The RSQ is scored on a 5-point Likert scale, with 1 = Not at all, 2 = Once or twice, 3 = Three or four times, 4 = Five or six times, and 5 = Seven or more times. Freeman, et al. [30] have provided evidence for the convergent validity and reliability of the RSQ with athletes and a sample of competitive athletes across multiple sports. The reliability of the factors of the ARSQ was good for the present study (emotional support $\alpha = 0.83$; esteem support $\alpha = 0.90$; informational support $\alpha = 0.89$; tangible support $\alpha = 0.84$).

3.2.3. Applying the (RSQ and PS-s) Scales to the Study Sample

To adapt the (RSQ and PS-s) scales, the researchers translated the original version from English into Arabic. Then, they sent the original and translated versions to three university professors in sociology and psychology to evaluate and review the translation. The researchers then revised the translated version based on the reviewers' comments and submitted it again to a translation expert to review the linguistic accuracy of the translated scale.

After adopting the (NK) scale to facilitate the response process of the study sample, the researchers included the (RSQ and PS-s) items in an electronic questionnaire using Google Forms. Subsequently, a link was sent to the participants via WhatsApp and the official page of the Jordan Basketball Federation. Accordingly, the researchers distributed the study tool on 15/10/2024 and continued to collect responses for four weeks.

3.3. Reliability

In the current study, the Cronbach's alpha coefficients of the (RSQ) are (0.94), and for the factors: emotional support, esteem support, information support, and tangible support, they are (0.86, 0.91, 0.89, 0.82), respectively. In the same

context, Cronbach's alpha coefficient for the (**SE-s**) reached (0.85), which is are value close to (1). It can be said that these results are quite reliable according to the references to [31].

3.4. Ethical Considerations

The participation of the study sample was limited to filling out the electronic questionnaire only, noting that the researchers clarified the purpose of the current study and that the data obtained would be treated confidentially, where the first paragraph included the approval to participate in the current study.

3.5. Data Analysis

We used mean and standard deviations as descriptive statistics for the study variables for illustrative purposes. Additionally, we employed independent t-tests and one-way ANOVA to identify differences in the means of (RSQ and PSs) items based on gender and years of experience. Pearson's correlation coefficient was also utilized to explore potential relationships between study variables, using SPSS version 29 with a confidence level of 95% ($p < 0.05$).

4. Results

The primary objective of this study was to assess the level of social support provided by coaches and the perceived stress levels among basketball players. The investigation further sought to elucidate potential disparities in received social support and perceived stress according to gender and years of experience variables. Additionally, the study probed the correlation between study variables. Table 1 presents the result of the One-Sample t-test. Table 2 presents the differences in perceived stress and received social support according to the gender variable. Table 3 presents a comprehensive overview of perceived stress and received social support according to the experience years variable. Table 4 presents the differences in perceived stress and received social support among basketball players according to the experience years variable. Finally, Table 5 presents the correlations between study variables among the basketball players.

Table 1.
Result of the One-Sample t-Test (n=220).

**Scales domains	Mean	Std. Deviation	Skewness	t	df	Sig.
Perceived stress	14.66	2.63	-0.018	3.78	219	0.000*
Emotional support	3.34	0.743	-1.153	6.77	219	0.000*
Esteem support	3.48	0.734	-1.413	7.14	219	0.000*
Information support	3.55	0.609	-1.319	8.28	219	0.000*
Tangible support	3.17	0.758	-0.715	6.06	219	0.000*
Received social support	3.38	0.608	-.935	8.51	219	0.000*

Note: * Statistically significant, $p < 0.05$
** Perceived stress (0-13 low; 14-26 moderate, and 27-40 high); Received social support (Less than 2.34 low; 2.34- less than 3.67 moderate, and 3.67-5 high).

Table 2.
Result of the independent samples t-test according to gender variable (Male, 110; Female, 110).

**Scales		F	t	df	Sig.	Gender	Mean	Std. Deviation
Perceived stress	Equal variances assumed	0.211	0.508	218	0.65	Male	14.88	2.536
	Equal variances are not assumed.		0.508	217.8		Female	14.42	2.742
Emotional support	Equal variances assumed	0.610	0.98	218	0.44	Male	3.294	0.773
	Equal variances are not assumed.		0.98	21		Female	3.392	0.710
Esteem support	Equal variances assumed	2.922	1.58	218	0.09*	Male	3.396	0.779
	Equal variances are not assumed.		1.584	214.3		Female	3.552	0.682
Information support	Equal variances assumed	0.033	0.294	218	0.86	Male	3.536	0.592
	Equal variances are not assumed.		0.294	217.2		Female	3.560	0.629
Tangible support	Equal variances assumed	11.20	0.325	218	0.00*	Male	3.190	0.684
	Equal variances are not assumed.		0.325	210.4		Female	3.157	0.829
Received social support	Equal variances assumed	0.054	0.747	218	0.82	Male	3.354	0.630
	Equal variances are not assumed.		0.747	216.9		Female	3.415	0.586

Note: * Statistically significant, $p < 0.05$
** Perceived stress (0-13 low; 14-26 moderate, and 27-40 high); Received social support (Less than 2.34 low; 2.34- less than 3.67 moderate, and 3.67-5 high).

Table 3.
The perceived stress and received social support means according to the experience years variable (n=210).

Scales	Categories	N	Mean	Std. Deviation
Perceived stress	Less than 5 years	112	14.24	2.97
	5- Less than 10 years	72	15.31	2.33
	10 years or more	36	14.61	2.128
	Total	220	14.65	2.629
Emotional support	Less than 5 years	112	3.41	0.708
	5- Less than 10 years	72	3.16	0.725
	10 years or more	36	3.50	0.826
	Total	220	3.34	0.742
Esteem support	Less than 5 years	112	3.45	0.774
	5- Less than 10 years	72	3.43	0.663
	10 years or more	36	3.61	0.748
	Total	220	3.47	0.734
Information support	Less than 5 years	112	3.62	0.585
	5- Less than 10 years	72	3.36	0.663
	10 years or more	36	3.67	0.489
	Total	220	3.54	0.609
Tangible support	Less than 5 years	112	3.26	0.710
	5- Less than 10 years	72	2.94	0.832
	10 years or more	36	3.35	0.651
	Total	220	3.17	0.758
Received social support	Less than 5 years	112	3.44	0.628
	5- Less than 10 years	72	3.22	0.571
	10 years or more	36	3.53	0.562
	Total	220	3.38	0.608

Table 4.
The differences in the perceived stress and received social support according to the experience years variable (n= 220).

**Variables	Groups	Sum of Squares	df	Mean Square	F	Sig.
Perceived stress	Between Groups	51.046	2	25.52	0.579	0.562
	Within Groups	9572.699	217	44.11		
	Total	9623.745	219			
Emotional support	Between Groups	3.783	2	1.89	3.507	0.032*
	Within Groups	117.038	217	0.54		
	Total	120.821	219			
Esteem support	Between Groups	.828	2	0.41	0.765	0.467
	Within Groups	117.390	217	0.54		
	Total	118.217	219			
Information support	Between Groups	3.820	2	1.91	5.337	0.005*
	Within Groups	77.663	217	0.35		
	Total	81.483	219			
Tangible support	Between Groups	5.858	2	2.92	5.288	0.006*
	Within Groups	120.185	217	0.55		
	Total	126.043	219			
Received social support	Between Groups	2.991	2	1.49	4.155	0.017*
	Within Groups	78.103	217	0.36		
	Total	81.094	219			

Note: * Statistically significant, $p < 0.05$.
** Perceived stress (0-13 low; 14-26 moderate, and 27-40 high); Received social support (Less than 2.34 low; 2.34- less than 3.67 moderate, and 3.67-5 high).

Table 5.
Pearson test results for correlations between study variables (n=220).

Variables		Emotional	Esteem	Information	Tangible	RSQ	PS-s
Emotional	Pearson Correlation	1	0.85**	0.64**	0.61**	0.91**	0.09
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.18
Esteem	Pearson Correlation	0.85**	1	0.66**	0.53**	0.89**	0.117
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.083
Information	Pearson Correlation	0.64**	0.66**	1	0.56**	.82**	0.16*
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.018
Tangible	Pearson Correlation	0.61**	0.53**	0.56**	1	0.80**	0.19**
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.006
RSQ	Pearson Correlation	0.91**	0.89**	0.82**	0.80**	1	-0.16*
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.017
PS-s	Pearson Correlation	0.090	0.117	0.16*	0.19**	-0.16*	1
	Sig. (2-tailed)	0.181	0.083	0.018	0.006	0.017	

Note: Statistically significant; ** p<0.01; *p<0.05.

5. Discussion

The comprehensive review of the values in Table 1 reveals statistically significant differences in the means of perceived stress and social support among the study sample, as well as statistically significant differences in the social support domains. This finding is supported by the levels of statistical significance, which were less significant than P < 0.05. It was also found that the level of perceived stress was moderate according to the perceived stress scale (14.66). Furthermore, the mean scores for the social support domains ranged from 3.17 to 3.55, and the overall social support score was 3.38 for the scale, indicating that these means reflect a moderate level. It can be noted that the highest level was in the informational support domain (3.55), while the lowest was in the tangible support domain (3.17). In this regard, Mishra [25] confirmed that high levels of social support are associated with lower levels of stress and a greater ability to manage stressors.

Additionally, social support is considered a stress-buffering factor [26]. This facilitates the availability of effective mechanisms for coping with stressors [27]. Participating in team games generally helps to develop self-confidence and improve the personal traits of players compared to those who engage in individual sports.

The subsequent review of the values in Table 2 reveals apparent differences in the mean levels of perceived stress among males and females (14.42, 14.88), respectively; however, these differences are not statistically significant. This finding is supported by the levels of statistical significance, which were more significant than P > 0.05. This finding aligns with research by Jochum et al. [32], who indicated statistically significant differences between males and females. Concurrently, studies have reported that female athletes exhibit higher levels of perceived stress than male athletes (17.76±7.1, 13.24±5.8), respectively [32]. In this context, Fletcher and Sarkar [10] indicated that athletes of both genders face various competitive pressures such as expectations, poor performance, and personal stressors like non-sporting life events. Stults-Kolehmainen and Sinha [21] also confirm that the impact of stress on the athletic and social lives of athletes cannot be denied. Thus, athletes struggle to cope with stress when facing unexpected events. Moreover, perceived stress and coping behaviors vary from one athlete to another. Researchers believe that the higher level of perceived stress among male basketball players compared to females may be attributed to the level of local competition in basketball, which is higher than in the female competition league. Additionally, male players rely on basketball as a profession, and thus, their level of anxiety may be higher compared to females, which negatively affects their perceived stress levels.

Regarding the level of social support among the study sample, the results revealed significant differences in the mean levels of social support between males and females in the social support domains, the overall scale, and in favor of females in the overall scale as well as in all domains, except for the tangible support domain, which favored males. This aligns with the superiority of females in perceived stress levels, as indicated by the study results in Table 1. In this regard, Gabana et al. [16] indicated that the social support provided by the coach is an important resource for athletes, affecting emotional and cognitive aspects and demonstrating the role of social support in alleviating stress by acting as a buffer to protect athletes from the negative effects of stressful events [22]. The current study simultaneously revealed statistically significant differences in the tangible social support domain between male and female players, favoring male players. Nishan and Davinder [28] indicate the presence of statistically significant differences in the social support domains among female basketball players.

Analysis of the values in Table 4 reveals apparent differences in the means of perceived stress according to the years of experience variable; however, these differences were not statistically significant, supported by the levels of statistical significance, which were more significant than P > 0.05. The category (less than 5 years) achieved the highest mean (15.31), while the category (10 years and more) ranked second (14.61), and the category (5 - less than 10 years) recorded the lowest stress level (14.24). The researchers find this result noteworthy because it is expected that as athletes gain more experience, their stress levels will decrease due to effective management of various competitive pressures. A decrease in motivation towards competitive sports is a reason for the higher stress levels in this category. The lower stress level of the category (less than 5 years) compared to the other categories can be explained by the fact that this group is beginning their athletic careers. They are more enthusiastic about competitive sports, exerting maximum effort to gain their coaches' trust to become key players on the team.

The researchers simultaneously found that the group with the highest perceived stress also received the lowest level of social support on the overall scale (3.22), as well as in all social support domains (emotional support 3.16, esteem support 3.43, informational support 3.36, and tangible support 2.94). Conversely, the group with the lowest stress level ranked second in the social support domains. Notably, the most stressed group received the lowest levels in the social support domains and overall scale. The results revealed statistically significant differences in the overall social support scale and in all social support domains, except for the esteem support domain, with levels of statistical significance more significant than $P < 0.05$. References are maintained as per the original text.

The results of Scheffe's test for post hoc comparisons revealed differences in the level of social support between the group (5- less than 10 years) and the group (10 years and above) in favor of the group (10 years and above) (3.50). Additionally, there were statistically significant differences in the area of informational support between the groups (less than 5 years) and (5- less than 10 years), in favor of the group (less than 5 years) (3.62). This indicates a weakness in providing tangible support to players, which can be defined as applicable, practical assistance. Consequently, the decrease in tangible support negatively affects athletes' self-confidence, athletic performance, and ability to cope with pressures from competition. Rees [6] confirms that the received social support has a positive effect on reducing stress among players. Additionally, the received and effective social support enhances positive psychological feelings among players and reduces their tendency toward early retirement [24]. Consequently, according to the data presented in Tables 3 and 4, social support can predict the perceived stress level among players.

In the relational connections between the study variables, the results revealed a weak negative relationship with statistical significance between stress and social support (-0.16). In other words, as social support increased, perceived stress decreased; conversely, perceived stress increased as social support decreased. In the same context, the results showed a positive relationship between the emotional support domain and esteem support, informational support, and tangible support (0.85, 0.64, 0.60), respectively. Additionally, emotional support was associated with the overall social support scale (0.91), while the informational support domain was only associated with stress and tangible support domains (0.16, 0.19), respectively. According to Akoglu [34], the correlation coefficients between 0.70 and 0.90 indicate a very strong correlation, while correlation coefficients between 0.4 and less than 0.7 indicate a moderate correlation, and less than 0.4 indicate a weak correlation.

In this context, Delfin, et al. [23] indicated that social support is negatively correlated with psychological stress. It is important to highlight the positive role of self-esteem support, which enhances an individual's self-respect, thereby aiding in stress management. Self-esteem is a protective factor in reducing anger and stress [33]. Additionally, individuals with high self-esteem recover from negative events more quickly [34].

6. Conclusions

The positive relationship between the coach and athlete is essential for a healthy relationship, as an unhealthy relationship negatively impacts athletes. Additionally, the relationship between the coach and athlete reflects the mutual and causal connection between the emotions, thoughts, and behaviors of both coaches and athletes. Consequently, the study's data revealed a moderate level of perceived stress among basketball players, which was lower among female players than male players. Furthermore, male players excelled in the overall social support scale and in all areas of the social support scale except for tangible support. In the same context, players with less than 5 years of experience exhibited the lowest stress levels and ranked second in social support. Notably, the group with extensive experience ranked second in perceived stress and first in social support. In contrast, the group with 5 to less than 10 years of experience experienced the highest and lowest levels of social support. Additionally, the study demonstrated a negative correlation between social support and stress and high positive correlations among the domains of social support. Based on the study's results, the researchers emphasize the necessity of providing greater tangible support to players and increasing focus on the group with 5 to less than 10 years of experience.

Limitations of the Study: The researchers believe that the main limitation of the study is the reliance on the questionnaire to assess perceived stress levels. In the future, it may be possible to examine hormone levels among basketball players for more accurate results.

6.1. Suggestions for Further Research

Furthermore, it is essential to guide coaches to pay attention to areas of social support with low levels through psychological and social intervention programs, workshops, and awareness lectures for coaches and players. In this regard, future studies can be conducted to address other variables, such as play position and performance efficiency, and their relationship with the level of perceived stress and social support.

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