

Health Behavior among Health Promotion Officers at Primary Health Care in East Kalimantan

Riza Hayati Ifroh^{1*}✉, Indah Nur Imamah²

¹Department of Health Promotion, Faculty of Public Health, Universitas Mulawarman, Samarinda

*Indonesian Society for Health Promotor and Educator, East Kalimantan (PPPKMI)

²Department of Nursing, Health Polytechnic of the Ministry of Health, East Kalimantan

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✉ Corresponding author:

Rizahayatiifroh@fkm.unmul.ac.id

Abstrak

Latar Belakang: Petugas promosi kesehatan bertanggung jawab mendukung masyarakat untuk berperilaku sehat guna mengurangi risiko penyakit tidak menular di Kalimantan Timur sebagai daerah dengan PTM tertinggi di Indonesia. **Tujuan:** Menganalisis perbedaan tingkat gaya hidup promosi kesehatan berdasarkan sosio-demografi, pengalaman kerja, dan indeks massa tubuh pada petugas promosi kesehatan di pelayanan kesehatan primer atau puskesmas di Kalimantan Timur. **Metode:** Merupakan studi *cross-sectional* dengan mengumpulkan data sosio-demografi, pengalaman kerja, BMI dan gaya hidup sehat masyarakat berdasarkan enam indikator HPLP II. Pengambilan data melalui kuesioner *online self-administered*. Teknik pengambilan sampel yaitu *convenience sampling* pada 74 petugas promosi kesehatan di 191 Puskesmas di Kalimantan Timur. Analisis deskriptif dan inferensial merupakan pendekatan analisis statistik. **Hasil:** Sebanyak 67,6% responden memiliki gaya hidup kesehatan yang baik. Secara keseluruhan, tidak ada perbedaan gaya hidup sehat berdasarkan sosio-demografis ($p=0,293$); pengalaman kerja (p -value: 0,098) dan BMI ($p=0,396$). Secara statistik terdapat perbedaan aktivitas fisik berdasarkan jenis kelamin ($p=0,016$), dan tempat tinggal ($p=0,007$). Ada perbedaan secara statistik asupan nutrisi ($p=0,043$), dan hubungan interpersonal ($p=0,011$) berdasarkan status perkawinan. **Kesimpulan:** Adapun gaya hidup sehat petugas promkes Kalimantan Timur dinilai baik, tetapi masih perlu meningkatkan gaya hidup sehat pada tahap optimal. Identifikasi lebih lanjut diperlukan untuk mengetahui penyebab gizi dan aktivitas fisik. Aspek gaya hidup sehat yang perlu dipertahankan adalah tanggung jawab kesehatan, hubungan interpersonal dan pertumbuhan spiritual.

Abstract

Background: Health promotion officers are responsible for supporting the community to behave healthily to reduce the risk of non-communicable diseases East Kalimantan is the area with the highest NCD in Indonesia. **Aim:** To assess the different levels of health-promoting lifestyle based on socio-demography, working experiences, and body mass index among health promotion officers in primary health care in East Kalimantan. **Method:** A cross-sectional study was performed with data collected by socio-demography, working experience, BMI, and Health-Promoting Lifestyle Profile II (HPLP II) of six dimensions. Data was taken by an online self-administered questionnaire. Participants were recruited by convenience sampling on 74 health promotion officers at 191 primary health care in East Kalimantan. The descriptive and inferential statistics were analysis approaches. **Result:** A total of 67.6% of respondents have a good healthy lifestyle. Overall, there is no difference in healthy lifestyle based on socio-demographic (p -value: 0.293); work experience ($p=0.098$), and BMI ($p=0.396$). Statistically, there are differences in physical activity based on gender ($p=0.016$), and place of residence ($p=0.007$). There were statistical differences in nutritional intake ($p=0.043$), and interpersonal relationships ($p=0.011$) based on marital status. **Conclusion:** The healthy lifestyle of East Kalimantan health promotor is good, on the other hand, it is necessary to improve a healthy lifestyle at an optimal stage. Further identification is needed to determine the causes of nutrition and physical activity. Aspects of a healthy lifestyle that need to be maintained are health responsibilities, interpersonal relationships, and spiritual growth.

Introduction

Indonesia has various problems, both infectious and non-communicable diseases, and currently, the prevalence of non-communicable diseases is increasing. Basic Health Research (2018), describes that there has been an increase in several PTMs, such as cancer, stroke, kidney disease, diabetes mellitus, heart disease, and hypertension [1].

East Kalimantan is one of the provinces with a high trend of NCD disease in Indonesia based on the Indonesian Basic Health Research (2018) there was an increase in stroke from 2013 to 2018 increasing to 14.7 and the situation was ranked first in Indonesia. The prevalence of diabetes mellitus in East Kalimantan is ranked second after DKI Jakarta, in addition to hypertension, it is ranked third after North Sulawesi and DKI Jakarta [1]. Based on other supporting studies, health workers are one of the professions with the highest stress levels that cause hypertension [2].

Changes in people's lifestyles, especially during the pandemic, such as low physical activity, consumption of high-fat foods, smoking, and others are the cause of the high burden of NCD in Indonesia [3], [4]. Essential care of primary health is the core component of a wellbeing framework. It ought to be open to all patients and can embrace the early stages of NCDs by giving coherence of care and a high level of health literacy [5]. Based on previous studies conducted that NCD prevention efforts for both the community and health workers cannot be set aside and must remain a priority. Health workers, especially health promotion workers, ensure that educational services and encourage people to live healthy lives [6].

Based on studies that have been conducted [7], 6 out of 10 health workers who support basic health services feel uncomfortable and lack the opportunity to initiate discussions about healthy behavior to patients or visitors to health services. This certainly indicates that efforts to improve wellbeing leading to NCD prevention are still very limited. Currently, the challenge faced is to seek future health workers such as nurses, midwives, and other health workers to be able to behave healthily in their daily life [8]–[10], and it will encourage people to be able to participate in a healthy lifestyle and have a healthy lifestyle and high health literacy [11].

The core of a healthy lifestyle domain is nutritional status, physical activity, own health responsibility, stress management, self-actualization in daily life, spiritual, and interpersonal relationship with others [12], [13]. Socio-demographic conditions can also be a factor in healthy living behavior, where there are differences in facilities and access to health services

[9], [14]. In several studies conducted in urban and rural areas on health status and lifestyle, the people in rural areas have a greater risk of health problems, but taking into account the same benefits of rural life, it is also possible that they are to some extent healthier than their urban counterparts [15]. Based on this situation, a study is needed to identify the situation and level of health behavior in health workers. The objectives of this research are to identify the different levels of health-promoting lifestyle based on socio-demography, working experiences, and body mass index among health promotion officers in primary health care in East Kalimantan.

Method

Design

A cross-sectional study was performed with data were collected by socio-demography, working experience, body mass index, and Health-Promoting Lifestyle Profile II (HPLP II) with six dimensions. Data was taken by online self-administered questionnaire

Participants

Participants of this study were recruited by convenience sampling and assisted access by regional professional organization among 74 health promotion officers available at 191 of main primary health care in 10 regencies of East Kalimantan. This is based on the specific educational background of health promotion and years of service as a health promotion worker.

Instruments

The instruments used of this research were consisted in close-ended question and structured of questions written in Bahasa. The soliciting information from participants about socio-demography, working experiences in years, body mass index and health promoting lifestyle in daily life of health promotion officers. The socio-demography data were collected [14] including participant's gender, age by year, working experiences by year, marital status, employment status (government employee or non-government employee), for body mass index (BMI) will be classified into 4 categories [16], [17] such as underweight (<18.5); normal <18.5–24.9); overweight (25.5–29.9); obesity (\geq 30.0). The health promoting lifestyle variable adopted The Health-Promoting Lifestyle Profile II (HPLP-II) which a by Walker et al (1987) [18]–[20]. The number of question items developed in this instrument is 52 aspects consisting of six main dimensions consisting of responsibility of health, physical exercise, nutritional, spiritual growth, interpersonal relationships, and stress management. The

each items were measured by using four point responses as never (1), sometimes (2), often (3), and routinely (4). After the analysis of answer sheet, continued to classified into four level of health promoting lifestyle: poor (1-1.73); moderate (1.74-2.48); good (2.49-3.23); and excellent (3.24-4).

Statistical Analysis

The descriptive analysis of this study was used to describe mean, frequency and standard deviations (SD) of the socio-demography including working experience, body mass index (BMI) and health promoting lifestyle in category. Inferential statistical analysis using T-Test Independent test to identify differences between six dimension HPLP based on socio-demography (gender, marital status, employment) and using one-way Anova analysis of variance (ANOVA) to identify the differences between each domain of HPLP with working experiences and BMI.

Results

Based on the results of the study, it is known that more than half of the respondents who are health promotion providers (75.5%) are female, besides that the location of the respondent's residents is in the regency area (71.6%).

It is known that there are 51.4% of respondents who answered that their income is below the regional income standard by Government in East Kalimantan and as many as (33.8%) have worked more than 4 years. The BMI value indicator (54.1%) is normal and (27%) is at the overweight level. It is also known that more than half of them are at the level of Good in health-promoting lifestyle (67.6%). Result of descriptive analysis was showed in Table 1.

Based on the results of the study, it is known that more than half of the respondents who are health promotion providers (75.5%) are female, besides that the location of the respondent's residents is in the regency area (71.6%). It is known that there are 51.4% of respondents who answered that their income is below the regional income standard by Government in East Kalimantan and as many as (33.8%) have worked more than 4 years. The BMI value indicator (54.1%) is normal and (27%) is at the overweight level. It is also known that more than half of them are at the level of good in health-promoting lifestyle (67.6%).

More details about the Health-Promoting Lifestyle Indicator can be seen in Table 2. In the aspect of health responsibility, as many as 45.9% of

respondents report unusual health symptoms to health workers and often read or listen to health information to improve their health. In physical activity, indicator distribution such as stretching and routine sports activities in their respective conditions with rare intensity (29.7%).

Table 1: Characteristics of Respondents

Characteristics	n	%
Gender		
Male	18	24.3
Female	56	75.7
Residence		
Regency	53	71.6
Municipality	21	28.4
Marital Status		
Single	25	33.8
Married/Divorce	36	66.2
Employment Status		
Government	28	37.8
Non-Government	46	62.2
Income		
Under regional income	36	48.6
Upper regional income	38	51.4
Working experience		
< 1 year	23	31.1
1-2 years	11	14.9
2-4 years	15	20.3
> 4 years	25	33.8
Body mass index		
Underweight (<18.5)	5	6.8
Normal (18.5-24.9)	40	54.1
Overweight (25.0-29.9)	20	27.0
Obese (>30.0)	9	12.2
Health promoting lifestyle		
Poor	0	0.00
Moderate	5	6.80
Good	50	67.6
Excellent	19	25.7

The focus of the nutritional aspects is 40.5% of health workers rarely consume fruits 2-4 portions a day. The results of the study are also known that the health promotion officers routinely have breakfast before starting everyday work activities, which are 58.1%. Almost more some respondents have a good spiritual growth aspect, this is seen from 75.7% of respondents optimistic about seeing the future, and 74.3% work to achieve life goals. On the other hand, in the interpersonal aspects of relationship, as many as 79.7% of respondents always maintain a meaningful and fulfilling social relations, but on aspects of stress management, 33.8% of respondents never practice relaxation of 15-20 minutes in their daily activities.

Table 2: Description of sub indicators of health-promoting lifestyle respondents

Health Promoting Lifestyle Indicators*	Behavioral intensity			
	Never (n, %)	Sometimes (n, %)	Often (n, %)	Routinely (n, %)
Health responsibility				
Report any unusual signs or symptoms to health provider	1 (1.40)	16 (21.6)	34 (45.9)	23 (31.1)
Read or watch health information to improving health	0 (0.0)	22 (29.7)	34 (45.9)	18 (24.3)
Question to health professionals	0 (0.0)	20 (27.0)	36 (48.6)	18 (24.3)
Get a second opinion in health care provider's advice	0 (0.0)	3 (4.1)	36 (48.6)	35 (47.3)
Discuss of health concerns with health professionals	0 (0.0)	16 (21.6)	36 (48.6)	22 (29.7)
Inspect my body at least monthly for danger signs.	5 (6.8)	34 (45.9)	20 (27.0)	15 (20.3)
Ask for information from health professionals about self-care	5 (6.8)	17 (23.0)	40 (54.1)	12 (16.2)
Attend educational programs on personal health care	9 (12.2)	35 (47.3)	24 (32.4)	6 (8.1)
Seek guidance or counseling when necessary	2 (2.7)	27 (36.5)	31 (41.9)	14 (18.9)
Physical activity				
Follow a planned exercise program	9 (12.2)	28 (37.8)	22 (29.7)	15 (20.3)
Exercise vigorously for 20 at least three times a week	4 (5.4)	22 (29.7)	28 (37.8)	20 (27.0)
Take part in light to moderate physical activity	8 (10.8)	26 (35.1)	20 (27.0)	20 (27.0)
Take part in leisure-time	6 (8.1)	24 (32.4)	26 (35.1)	18 (24.3)
Do stretching exercises at least 3 times per week	6 (8.1)	22 (29.7)	25 (33.8)	21 (28.4)
Get exercise during usual daily activities	5 (6.8)	22 (29.7)	22 (29.7)	25 (33.8)
Check my pulse rate when exercising	16 (21.6)	26 (35.1)	21 (28.4)	11 (14.9)
Reach my target heart rate when exercising	24 (32.4)	29 (39.2)	11 (14.9)	10 (13.5)
Nutrition				
Choose a diet low in fat, saturate fat, and cholesterol	5 (6.8)	40 (54.1)	17 (23.0)	12 (16.2)
Limit use of sugars	3 (4.1)	33 (44.6)	24 (32.4)	14 (18.9)
Eat 6-11 servings of carbohydrate wisely	13 (17.6)	54 (73.0)	4 (5.4)	3 (4.1)
Eat 2-4 servings of fruit each day	2 (2.7)	30 (40.5)	28 (37.8)	14 (18.9)
Eat 3-5 servings of vegetables each day	1 (1.4)	21 (28.4)	37 (50.0)	15 (20.3)
Eat 2-3 servings of milk, yogurt or cheese each day	14 (18.9)	46 (62.2)	13 (17.6)	1 (1.4)
Eat only 2-3 servings of meat, fish, eggs, and nuts group each day	1 (1.4)	15 (20.3)	38 (51.4)	20 (27.0)
Read labels to identify nutrients	4 (5.4)	21 (28.4)	25 (33.8)	24 (32.4)
Eat breakfast	1 (1.4)	16 (21.6)	14 (18.9)	43 (58.1)
Spiritual growth				
Feel I am growing and changing in positive ways	0 (0.0)	7 (9.5)	37 (50.0)	30 (40.5)
Believe that my life has purpose	0 (0.0)	3 (4.1)	23 (31.1)	48 (64.9)
Look forward to the future	0 (0.0)	0 (0.0)	18 (24.3)	56 (75.7)
Feel content and at peace with myself	0 (0.0)	7 (9.5)	33 (44.6)	34 (45.9)
Work toward long-term goals in my life	0 (0.0)	0 (0.0)	19 (25.7)	55 (74.3)
Find each day interesting and challenging	1 (1.4)	15 (20.3)	31 (41.9)	27 (36.5)
Am aware of what is important to me in life	0 (0.0)	4 (5.4)	31 (41.9)	39 (52.7)
Feel connected with some force greater than myself	5 (6.8)	12 (16.2)	37 (50.0)	20 (27.0)
Expose myself to new experiences and challenges	0 (0.0)	13 (17.6)	39 (52.7)	22 (29.7)
Interpersonal relationship				
Discuss problems and concerns with people	0 (0.0)	31 (41.9)	31 (41.9)	12 (16.2)
Praise other people easily for their achievements	0 (0.0)	0 (0.0)	26 (35.1)	48 (64.9)
Maintain meaningful and fulfilling social relationships	0 (0.0)	0 (0.0)	15 (20.3)	59 (79.7)
Spend time with friends	0 (0.0)	31 (41.9)	31 (41.9)	34 (45.9)
Easy to show concern, love and warmth to others	0 (0.0)	4 (5.4)	34 (45.9)	36 (48.6)
Touch and touched by people care	0 (0.0)	4 (5.4)	34 (45.9)	36 (48.6)
Find ways to meet love needs	0 (0.0)	8 (10.8)	35 (47.3)	31 (41.9)
Get support from a network of caring people	0 (0.0)	9 (12.2)	32 (43.2)	33 (44.6)
Settle conflicts through compromise with other	0 (0.0)	7 (9.5)	34 (45.9)	33 (44.6)
Stress management				
Get enough sleep	1 (1.4)	15 (20.3)	30 (40.5)	28 (37.8)
Take some time for relaxation each day	0 (0.0)	30 (40.5)	29 (39.2)	15 (20.3)
Accept those things in my life which I cannot change	0 (0.0)	4 (5.4)	31 (41.9)	39 (52.7)
Concentrate on pleasant thoughts at bedtime	1 (1.4)	12 (16.2)	36 (48.6)	25 (33.8)
Use specific methods to control my stress	1 (1.4)	10 (13.5)	39 (52.7)	24 (32.4)
Balance time between work and play	1 (1.4)	11 (14.9)	43 (58.1)	19 (25.7)
Practice relaxation or meditation for 15-20 minutes daily	25 (33.8)	35 (47.3)	9 (12.2)	5 (6.8)
Pace of self to prevent tiredness	5 (6.8)	12 (16.2)	37 (50.0)	20 (27.0)

*The modification of a brief description of the instrument of Health-Promoting Lifestyle Profile II

Table 2: Score of lifestyle dimensions among respondents by gender, region and marital status

Lifestyle dimensions	Gender		p	Region		p	Marital status		p
	Male	Female		Regency	Municipality		Single	Married	
	Mean (SD)	Mean (SD)		Mean (SD)	Mean (SD)		Mean (SD)	Mean (SD)	
Health responsibility	2.85 (0.53)	2.90 (0.44)	0.670	2.89 (0.47)	2.89 (0.45)	0.998	2.77 (0.38)	2.95 (0.49)	0.130
Physical activity	2.97 (0.54)	2.53 (0.69)	0.016	2.77 (0.64)	2.30 (0.67)	0.007	2.68 (0.71)	2.61 (0.67)	0.701
Nutrition	2.74 (0.54)	2.65 (0.44)	0.481	2.69 (0.46)	2.61 (0.48)	0.532	2.51 (0.38)	2.75 (0.48)	0.042
Spiritual growth	3.50 (0.46)	3.35 (0.35)	0.155	3.40 (0.40)	3.34 (0.35)	0.603	3.32 (0.35)	3.41 (0.40)	0.355
Int. relationship	3.37 (0.39)	3.37 (0.34)	0.953	3.38 (0.35)	3.36 (0.33)	0.876	3.23 (0.30)	3.44 (0.35)	0.011
Stress management	3.37 (0.39)	3.37 (0.34)	0.755	2.96 (0.45)	2.95 (0.41)	0.908	2.88 (0.36)	3.00 (0.47)	0.255
Overall lifestyle	3.07 (0.43)	2.96 (0.34)	0.289	3.02 (0.37)	2.92 (0.34)	0.296	2.90 (0.23)	3.03 (0.40)	0.085

Table 3: Score of lifestyle dimensions among respondents by gender, region

Lifestyle dimensions	Working Experiences (years)				p	BMI				p
	<1	1-2	2-4	>4		(<18.5)	(18.5-24.9)	(25.0-29.9)	(>30.0)	
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Health responsibility	2.75 (0.36)	3.07 (0.48)	2.80 (0.41)	2.98 (0.54)	0.160	2.64 (0.44)	2.96 (0.48)	2.82 (0.51)	2.87 (0.51)	0.427
Physical activity	2.36 (0.58)	2.65 (0.78)	2.72 (0.64)	2.84 (0.70)	0.100	2.35 (0.65)	2.56 (0.63)	2.69 (0.73)	3.03 (0.76)	0.223
Nutrition	2.54 (0.39)	2.66 (0.55)	2.71 (0.38)	2.76 (0.52)	0.421	2.66 (0.27)	2.71 (0.55)	2.61 (0.35)	2.61 (0.35)	0.844
Spiritual growth	3.24 (0.32)	3.35 (0.43)	3.45 (0.34)	3.49 (0.41)	0.121	3.11 (0.11)	3.37 (0.44)	3.38 (0.28)	3.60 (0.35)	0.141
Int. relationship	3.29 (0.34)	3.39 (0.40)	3.39 (0.26)	3.42 (0.38)	0.617	3.11 (0.15)	3.40 (0.34)	3.35 (0.36)	3.47 (0.40)	0.286
Stress management	2.80 (0.36)	3.01 (0.43)	3.06 (0.36)	3.03 (0.52)	0.202	2.67 (0.25)	2.94 (0.48)	3.00 (0.37)	3.12 (0.43)	0.323
Overall lifestyle	2.84 (0.24)	3.03 (0.43)	3.03 (0.29)	3.09 (0.42)	0.097	2.77 (0.21)	3.00 (0.41)	2.98 (0.26)	3.11 (0.35)	0.401

The bivariate analysis in table 3 and table 4, there were no differences between HPLP with socio-demographic ($p=0.293$); working experiences ($p=0.098$) and BMI ($p=0.396$). In detailed, there were differences statistically in physical activity between gender ($p=0.016$), and between the residence ($p=0.007$). Besides that there were differences statistically in nutrition aspect ($p=0.043$), and interpersonal relationship ($p=0.011$) based on marital status.

Discussion

Primary health care is part of the government system in the health sector and carries out health strategies that can be implemented for the community and internal employees of the health worker [21]. The influential variables that have been previously studied in developing a healthy lifestyle climate in the work environment are Age, education level, work experience, gender, and type of organization were the affective perceptions of the members of the organization [22]. Based on the results of the study, overall there is no difference in health promoting lifestyle between socio-demography, work experience in years and body mass index among. This is in accordance with previous research [22] that there

is no difference based on gender and age in the aspect of health promoting lifestyle index. Basically that the exposure to information and behavior of health workers is higher than that of workers in the non-health sector, besides that the background of health education that has been completed forms a more in-depth health pattern [12], [21].

In detailed, identifying from the components of the health promoting lifestyle domain there are differences in physical activity based on gender and region of. This is in accordance with previous research which states that the physical activity component is the dominant factor in a low level of health promoting lifestyle [23]. In this study, it was found that the average physical activity of the male group was higher than the female. These results are in line with the results of previous studies on the background of youth groups in Saudi Arabia, men have a higher level of physical activity than women. Some literature states that the activity level of men is higher than that of women both before and after the confinement in the COVID-19 pandemic [24].

The aspect of living area of respondents in the study, it is known that respondents who live in

rural areas have a higher level of physical activity than those in urban areas. Health promoting behaviors have certain considerable effects on prolonging, improving quality of life, and decreasing healthcare expenses, or increasing prevention disease skills [25]. Several studies conducted in urban and rural areas on health status and lifestyle, note that society in rural areas have a greater risk of health problems, but taking into account the same benefits of rural life, it is also possible that they are to some extent healthier than their urban counterparts [15].

In the aspect of the interpersonal relationship domain, it is known that the married group of respondents has a higher interpersonal relationship than the single. This is contrary to the results of previous studies, it is known that marital status does not have a statistical correlation with the promotion of healthy living [16], but several other studies have described that the level of communication skills has a relationship with daily communication patterns that can improve interpersonal relationships in order to maintain the quality of social network, either on peers, family and other relatives.

General health promotion officers at East Kalimantan can be a role model in behaving healthy, especially in specific aspects such as aspects of responsibility in personal health, spiritual growth, and interpersonal relationships. This is in accordance with the previous studies that explain that communication skills of health workers and high health understandings can be an internal driver of health workers to behave healthy life [5], [7], [22]. While on the side that has not had an impact on the contribution as an appropriate example in healthy behavior is aspects of physical activity and nutrition. It is in accordance with the previous studies that describe that the high workload felt by health workers in basic health services, the less time they have to do physical activity while working, in addition to exposure to high-calorie food and bad eating habits can reduce the essence of health behavior by these health workers [26], [27].

Conclusion

Since the Health-Promoting Lifestyle Profile indicators of health promotion officers scores were good, there is a need to enhance and promote a healthy lifestyle. Further identification is needed to determine the causes of nutrition and physical activity. The aspects that must be maintained are

health responsibility, interpersonal relationships, and spiritual growth in pandemic. Further studies are needed to identify patterns of health promoting lifestyle before and during the pandemic, as well as conducting in-depth studies, especially the domain of healthy behavior on the habits of health workers doing physical activity.

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