

Knowledge and attitudes of secondary school teachers toward substances abuse among the students

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Abstract

Introduction: Substance abuse among school age has become an issue of concern and public health problems throughout the world. **Aim:** To assess knowledge and attitudes of teachers about substance abuse. **Subjects and method:** A descriptive research design used in four secondary schools which selected by simple random sampling; (490) teachers included in the study. Two tools used; tool (1): self-administrative questionnaire included two parts; Part (1): Included questions regarding personal data. Part (2): teachers' knowledge about substances abuse included 17 questions as definition, types, and risk factors. Tool (2): teachers' attitude about substance abuse **Results:** There was a statistically significant difference between teachers' attitude regarding substance abuse and their level of education. **Conclusion:** Less than half of study sample had poor knowledge about substance abuse while the majority of the teachers had positive attitude regarding dangerous of substance abuse. **Recommendation:** Health education for teachers about importance of closed monitoring and supervision for school age children for early detection of substances abuse.

Keywords: Substance Abuse, Secondary Schools, Attitude & Knowledge.

Introduction

Substance abuse represents major public health problems that affect millions and place enormous burden worldwide. The accumulated costs to the individual, the family and the community are staggering and arise as a consequence of many direct and indirect effects, including compromised physical and mental health, loss of productivity, reduced quality of life, increased crime and violence, abuse and neglect of children and health care costs (Kolodny et al., 2015).

Substance abuse refers to use of all chemicals, drugs and industrial solvents that can produce dependence and also refer to repeated non-medical use of potentially addictive chemical and organic substances (Ekpenyong, 2012).

According to the World Drug Report, 2014 30% of the world population use tobacco and 5%, aged between 15 and 16 years use illegal drugs. Another report by the European Monitoring Centre for Drugs and Drug Addiction, estimates that 22 million people in Europe use marijuana. Currently Africa and Asia account for 70% of global population using opium and its derivatives (Chebukaka, 2014).

In Egypt, 20% of the Egyptian male students have used drugs; among them 25% have continued to do so. Among secondary school male students, 5.05% abused hashish, 0.84% abused opiates, 2.72% abused tranquilizers, 1.79% abused stimulants and 2.26% abused hypnotics. The last National Survey report, 2014 stated that 9.6% of the Egyptians used drugs at least once during their lives. Tramadol abuse has

dramatically increased in Egypt since, 2008 and has led to many admissions to addiction treatment centers (Medhat et al., 2015).

There are many types of drugs divided into four main classes according to effect of drugs on the brain that can lead to substance use disorders. These classes include: Narcotic, hallucinogens, stimulants and depressant drugs. Prescription opioid abuse and misuse is a serious and growing public health issue. Between 2002 and 2013, an estimated 25.4 million people initiated non-medical use of pain relievers. In 2014, 18,893 drug overdose deaths involved a prescription opioid). In 2011, approximately 420,000 emergency department visits were related to prescription opioid abuse and misuse (Substance Abuse & Mental Health Services Administration, 2014).

Significant community-level risk factors for substance misuse and use disorders include: easy access to inexpensive alcohol and other substances. Caregiver/family-level risk factors include low parental monitoring, family history of substance use or mental disorders and high levels of family conflict or violence. At the individual level, major risk factors include current mental disorders, history of abuse and neglect and history of substance use during adolescence among others (Stone et al., 2012).

Teachers can help the students to increase their awareness about dangerous effect of substances abuse. Teachers can assist the students to build self-esteem, strengthen inter-personal skills, encouraging

to accept themselves and to distinguish between the beneficial uses of medicines and the harmful consequences of taking illegal drugs (Elizabeth, 2017).

As a health care provider, health educator, and school/family/community liaison, the school nurse is in a unique position to act as a change agent for youth substance abuse prevention. Through careful assessment, identification of substance abuse risk factors, and promoting the enhancement of protective factors of students, both in and out of the school setting, the school nurse can play a vital role in the prevention of substance abuse (Patestos et al., 2014).

Significance of the study

The prevalence of substance abuse among school students in Zagazig, Egypt were 8.8% the majority of them used substances once a month or less. The most common substances used by the students included tramadol, cannabis and alcohol (83.3, 27.8 and 16.7% respectively) (Negm & Fouad, 2014).

Aim of the study

To assess secondary school teachers' knowledge and attitudes about substances abuse among schools' students in Manfalout District.

Research questions

- 1-Are teachers having knowledge regarding substances abuse among the students?
- 2-What are the attitudes of teachers' regarding dangerousness of substances abuse among the students?

Subjects & Methods

Research design: Descriptive research design.

A-Settings:

The study was carried out in four secondary schools,(Manfalout secondary school for boys, Manfalout secondary school for girls, Manfalout secondary technical industrial mix school and secondary commercial mix secondary school).

B- Sampling

Multi stage random sampling. Assuit Governorate included 11 districts; one district was selected Manfalout by simple random sampling which included 15 secondary schools from which four schools were selected by systematic random sampling. The total number of studied sample was 490 teachers selected as the following:

Schools' name	Male	Female	Total
Manfalout Secondary School for Boys.	48	5	53
Manfalout Secondary School	38	42	80

for Girls.			
Manfalout secondary technical industrial mix school.	105	94	199
Manfalout Secondary commercial mix school.	75	83	158
Total	266	224	490

C- Tools of the study

Two tools used; **Tool (I): Self-administered questionnaire sheet** developed by the researcher for data collection. It based on reviewing of relevant literature to obtain needed data, this questionnaire composed of two parts; **Part 1:** included questions regarding personal data such as name, sex, age, academic qualification, years of experience, marital status, residence, school name and educational training courses about substance abuse. **Part 2:** teachers' knowledge about substances abuse included 17 questions such as definition of substance abuse, types, risk factors, side effect, complications and prevention...etc.

Total scoring

Total score calculated by summing up and converted into a percent score, teachers' knowledge scored as the following:- Poor knowledge >60%, average knowledge from 60- 70%, good knowledge ≤70%.

Tool II: likert scale included 28 items used to assess attitudes of teachers toward substances abuse among secondary school students. The responses based on a three-points Likert scale format ranging from agree, neutral or disagree; which (James and Omoaregba, 2013).

Total scoring

The attitude scores divided as the following:- Positive attitude if more than 70%. Negative attitude if it equal or less than 70% (James & Omoaregba, 2013).

Validity of tools

Translation of the tool from English to Arabic reviewed by 5 experts from Nursing staff, Assuit University.

Reliability

Reliability applied for testing the internal consistency of the tools by administration of the same tools to the same subject under the similar conditions, reliability of attitude was analyzed by alpha test (α 0.871) and reliability of knowledge was analyzed by alpha test (α 0.892).

D-Methodology**1- Administrative phase**

An official letter approval obtained from the Dean of the Faculty of Nursing- Assuit University to Assuit Directorate of Education then to Directorate of Education in Manflout and directors of the selected schools; this letter included a permission to carry out the study.

2-Pilot study

Pilot study carried out before starting of data collection on 10% 50 teachers who included in the sample. The aim of the pilot study was to test the feasibility, clarity and to estimate the required time to fillin the questionnaire.

3-Ethical considerations

Research proposal approved from the ethical committee in the Faculty of Nursing, Assuit University, there was no risk for study subjects during application of research, the study followed the common ethical principles in clinical research, oral consent taken from all teachers participated in the study after explaining the nature and purpose of the study, confidentiality and anonymity was assured and study participants were had the right to refuse participation in the study.

Data collection (field work):-

Data collected in the period from 6th of January 2016 to 14th of July 2016. The researcher introduced herself and explained the purpose of the study. The researcher interviewed each teacher according to his/her work schedule to obtain the necessary data. Every week about 18 to 20 sheets were collected. The average of time taken for completing each questionnaire was around 10-15 minutes depending on the persons' response to questions.

Statistical analysis:

The data obtained reviewed, prepared for computer entry, coded, analyzed and tabulated. Descriptive statistics (i.e., frequencies, percentage, mean, standard deviation) were done by using Software Package for Statistical Science (SPSS) Version 19. Chi-square test was used to compare differences in the distribution of frequencies among different groups, it is considered significant when $P < 0.05$.

Results

Table (1): Distribution of secondary schools' teachers regarding to their personal characteristics at Manfalout District 2016.

Items	(No= 490)	%
Age: (years)		
< 30	64	13.1
30 -	159	32.4
40 -	148	30.2
≥ 50	119	24.3
Mean ± SD (Range)	40.94 ± 9.69 (21.0 – 59.0)	
Sex:		
Male	289	59.0
Female	201	41.0
Qualifications:		
Bachelorate	297	60.6
Technical Institute	55	11.2
Diploma	138	28.2
Residence:		
Rural	143	29.2
Urban	347	70.8
Marital status:		
Single	80	16.3
Married	396	80.8
Divorced	2	0.4
Widow	12	2.4
Years of experience:		
< 10 years	103	21.0
10 - < 15 years	89	18.2
15 - < 20 years	120	24.5
≥ 20 years	178	36.3
Attending training courses about drug addiction and substance abuse		
Yes	181	36.9
Participating in any school activity for the student about substance abuse:		
Yes	112	22.9
Smoking:		
Smoker	76	15.5
Non-smoker	414	84.5

Table (2): Distribution of secondary schools' teachers' knowledge about substance abuse at Manfalout District, 2016.

Items	(No= 490)	%
Definition of substance abuse:		
Correct	305	62.2
*Types of drugs:		
Hashish	350	71.4
Opium (morphine and heroin)	389	79.4
Cocaine	163	33.3
Tramadol	206	42.0
Alcohol	58	11.8
LSD	6	1.2
Sleeping pills	3	0.6

Items	(No= 490)	%
Glue	4	0.8
Caffeine	7	1.4
Tamol	11	2.2
Don't know	39	8.0
*The most dangerous types of drugs:		
Hashish	78	15.9
Opium (heroin, morphine)	334	68.2
Cocaine	114	23.3
Tramadol	81	16.5
Alcohol	44	9.0
Kerosene and glue	32	6.5
Don't know	66	13.5
*Methods of substance abuse:		
Smell	343	70.0
Swallowing	334	68.2
Smoking	360	73.5
Injection	121	24.7
Don't know	48	9.8

More than one answer

Table (2): con.: Distribution of secondary schools' teachers' knowledge about Symptoms and effect of substance abuse at Manfalout District, 2016.

Items	No. (n= 490)	%
*Symptoms that appear on the student abusing of substance:		
Abnormally isolated from others	66	13.5
Fatigue, weakness and lethargy	233	47.6
Laziness and constant yawning sleep during lessons and lectures, sore eyes and jink sight	369	75.3
Pale in the face and sweating and chills in limbs	147	30.0
Loss of appetite and constipation	74	15.1
Nervousness and agitation for no reason and bad relations with friends	254	51.8
Negligence of different hobbies	85	17.3
Deception and lying and stealing and depression	50	10.2
Don't know	39	8.0
*Harmful effects of substance abuse:		
Loss of appetite	226	46.1
Poor digestion	251	51.2
Liver damage, cirrhosis and increase in blood sugar	233	47.6
Inflammation of the brain and memory loss	274	55.9
Reduces sexual ability	64	13.1
Cancer	26	5.3
Abscesses, hepatitis C, and AIDS	9	1.8
Don't know	98	20.0

*more than one answer was selected

Table (3): Distribution of secondary schools teachers' knowledge about substance abuse at Manfalout District, 2016.

Items	(No= 490)	%
*Methods of prevention of substance abuse:		
Raising of public awareness about substance abuse	408	83.3
Health education for family members	126	25.7
Penalties traders	53	10.8
Health education youth who already abuse substance	23	4.7
Competence religious	202	41.2
Don't know	49	10.0
*Punishment should be taken against substance abuser students:		
Call the student's parents	189	38.6
Reporting to the Directorate of Education	63	12.9
Reporting to the police	23	4.7
The imposition of penalties on the abused student	89	18.2
Don't know	238	48.6
Important of school/ parents cooperation		
Yes	484	98.8
Important of family's role		
Yes	478	97.6

**more than one answer was selected*

Table (4): Relationship between teachers' attitude and their personal characteristics in Manfalout secondary schools, 2016.

	Attitude				P-value
	Negative (n= 127)		Positive (n= 363)		
	No.	%	No.	%	
Age: (years)					0.436
< 30	19	15.0	45	12.4	
30 - < 40	36	28.3	123	33.9	
40 - < 50	36	28.3	112	30.9	
≥ 50	36	28.3	83	22.9	
Sex:					0.543
Male	72	56.7	217	59.8	
Female	55	43.3	146	40.2	
Residence:					0.251
Rural	32	25.2	111	30.6	
Urban	95	74.8	252	69.4	
Marital status:					0.234
Single	25	19.7	55	15.2	
Ever-married	102	80.3	308	84.8	
Years of experience:					0.310
< 10 years	32	25.2	71	19.6	
10 - < 15 years	18	14.2	71	19.6	
15 - < 20 years	28	22.0	92	25.3	
≥ 20 years	49	38.6	129	35.5	
Attending training courses about drug addiction and substance abuse:					0.130
Yes	54	42.5	127	35.0	
No	73	57.5	236	65.0	

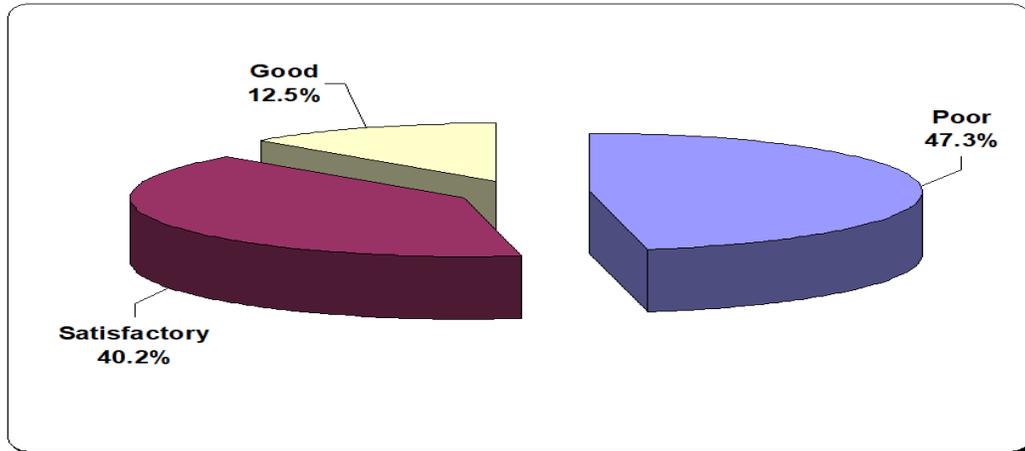


Fig. (1): Distribution of secondary schools' teachers total score of knowledge regarding substance abuse at Manfalout district, 2016

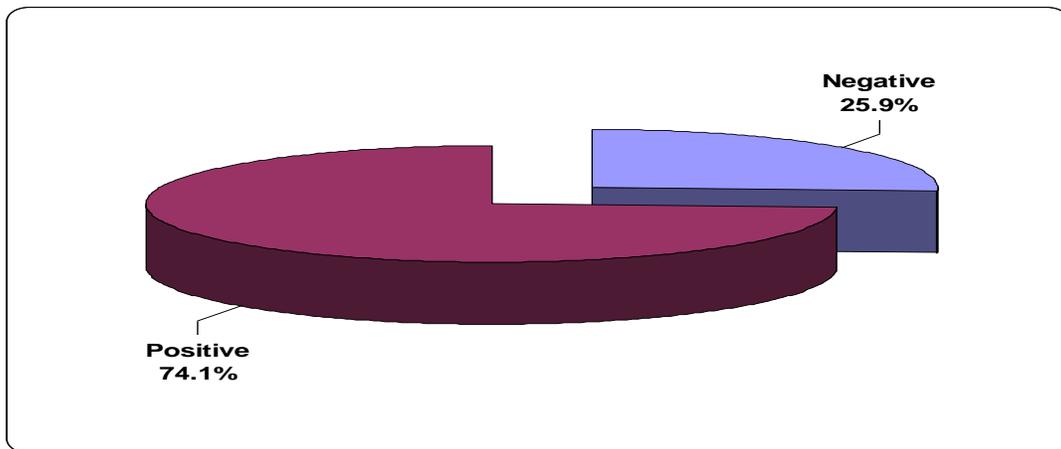


Fig. (2): Total scoring of secondary schools' teachers attitude regarding dangerous of substance abuse at Manfalout district, 2016

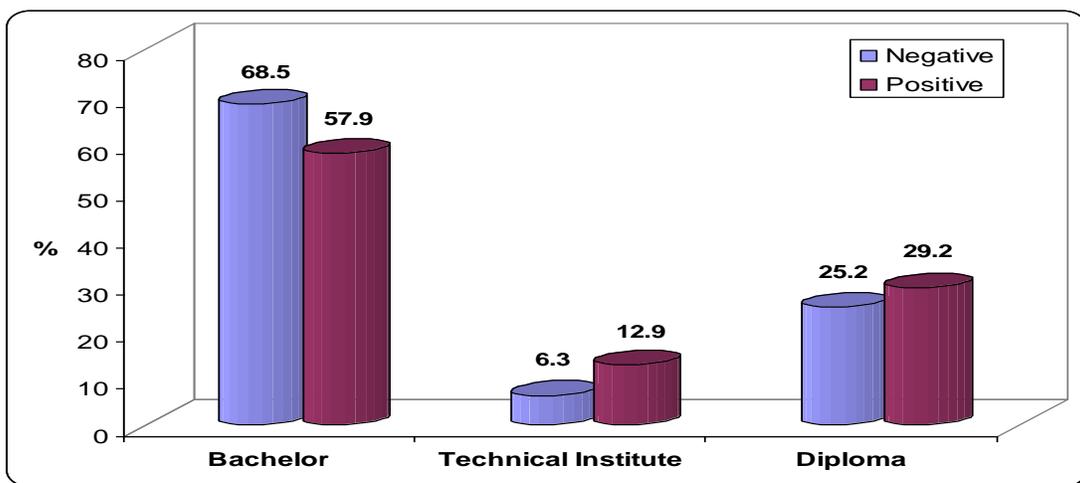


Fig. (3): Relationship between teachers' attitude and their qualification in Manfalout secondaries' schools, 2016.

Table (1): Distribution of secondary schools' teachers regarding to their personal characteristics shows that about 59% of the studied teachers were males and about 70.8% of them were from urban area. Concerning teachers' qualifications, it found that 60.6% of them had bachelor degree. In referral to attending training courses about drug addiction and substance abuse, about 36.9% of the teachers attended training courses and about 22.9% of them participated in school activities for the student about substance abuse.

Table (2): Distribution of secondary schools' teachers' knowledge about substance abuse presents that 62.2% of teachers known the definition of substance abuse and about 79.4% of them stated that opium is the most common type of abused substance. Regarding the most dangerous type of drugs; cocaine mentioned by 23.3% of teachers and about 73.5% of the participated teachers mentioned that smoking is one of method for intake of substance

Table (2) con.: Distribution of the studied teachers regarding to their correct knowledge about symptoms and effect of substance abuse. About 75.3% of studied teacher stated that laziness and constant yawning sleep during lessons and lectures, sore eyes and jink sight is the most common symptoms appear on the student abusing of substance. 55.9% of teachers believed that inflammation of the brain and memory loss is the most harmful effect of substance abuse.

Table (3): It shows that distribution of the studied teachers regarding to methods of prevention. 83.3% of studied teachers stated that raising of public is necessary to prevent of substance abuse. While 48.6% of the studied sample don't know any punishment take against abused students. The vast majority of the teachers 98.8% and 97.9% respectively stated that important of cooperation between school and parents to solve this problem and knew family's role in educating teenage about substance abuse.

Table (4): Relationship between teachers' attitude and their personal characteristics clears that there was no statistical significant difference between secondary school teachers' level of attitude and their personal characteristics at Manfalout district.

Fig. (1): shows that about 47.3% of the studied teachers had poor knowledge about substance abuse followed by 40.2% of teachers had satisfactory knowledge about of substance abuse and only 12.5% of them had good knowledge about substance abuse.

Fig. (2): Reveals that about three quarters of the study sample 74.1% had positive attitude regarding dangerous of substance abuse.

Fig. (3): Shows that there was statistical significant difference between teachers' attitude and their qualifications P-Value 0.050.

Discussion

Substance abuse remains a critical problem in most countries and it is associated with several social and economic consequences. The societal consequences of substance abuse have led to a dramatic loss of resources, both human and material, increased morbidity and mortality and loss of productivity. Some of these societal effects include increased rate of accidents, crime, domestic violence, child abuse, suicide, work place consequences and community deterioration (Helmy et al., 2017).

In referral to smoking practice among teachers; the present study recorded that the majority of studied teachers don't smoke in front of the students. This result was in agreement with (Kaya & Erdogan, 2011) who carried out a study about knowledge, attitudes and opinions of Turkish private school principals and reported that more than half of the principals in the study declared that they did not smoke because consider the teachers as models for them.

Concerning teachers' knowledge about definition of substance abuse; more than half of studied teachers in the present study gave correct definition of substance abuse, this finding in agreement with (Kaya & Erdogan, 2011) who found that two fifths of studied teachers give correct answer.

Regarding teachers' knowledge about types of substance; it was found that more than half of the studied teachers mentioned hashish and cocaine this finding, similar with (Haddad, 2016) who conducted a study at Jordan about Knowledge of Substance Abuse among high School Students in Jordan at Hashemite University and reported that nearly half of respondents knew about various forms of substance abuse including intoxicating drugs such as marijuana, cocaine and psychotherapeutic drugs.

Concerning knowledge of teachers about the most common types of drugs; the vast majority of the studied teachers stated opium (heroin, morphine) as the most common types of drugs because these types are available rather than other substances while alcohol not accepted with religious and culture. this finding disagreed with Simatwa et al., (2014) who conducted a study in Kenya about substance abuse among public secondary school students: prevalence, strategies and challenges for public secondary school managers in Kenya: and reported that alcohol is one of the common types of substances because it is generally more readily and cheaply available than other substances.

Concerning methods of administration of substance abuse; include smoking, smell, injecting and oral route this finding agreed with **Makotamo & Muchena, (2017)** who done a study about drug misuse among high school candidates in Mutare urban and peri Manicaland province, Zimbabwe and reported that routes of drug administration included injecting, smoking, snorting and oral due to smoking is considered common route of substance abuse.

In referral to symptoms of substance abuse that appear on the abused student; the current study showed that laziness and constant yawning sleep during lessons and lectures, abnormal isolated from others, nervousness and agitation for no reason and bad relations with friends. These signs were mentioned by the teachers this finding similar with **Ekpenyong, (2012)** who carried out a study in Nigeria drug abuse in Nigerian schools and found that common sign appears of abused student laziness and lack of concentration, poor relationship with others, lack of interest in studies, absenteeism, withdrawal and indiscipline.

Concerning harmful effects of substance abuse; results of the current study showed that loss of appetite, inflammation of the brain and memory loss, hepatitis C and AIDS as mentioned by the studied teachers these results agreed with **Ekpenyong, (2012)** who stated that harmful effects of substance abuse are prolonged loss of appetite, greater risk of hepatitis C and HIV/AIDS infection, various forms of cancers and brain damage.

Concerning methods of prevention; the finding of the current study refers to that the majority of teachers mentioned that raising of public knowledge about substance abuse is necessary for prevention of substance abuse, vast majority of the teachers stated that the importance of cooperation. This result agreed with **(Abur, 2014)** who carried out a study about drug and substance abuse among secondary school students, in embakasi district, Nairobi and reported that importance of cooperation between school and parents and strengthening knowledge about substance abuse is important line of substance abuse because raising of public knowledge about substance abuse help in decrease substance abuse among students.

Regarding measure should be taken against abused students; in the current study about half of studied teachers stated that call the student's parents and punishment of abused student this matched with **(Oyedele et al., 2016)** who stated that the highest of respondents indicated that students were asked to bring parents to come to school when the students take drugs and they have heavy punishment but didn't match with my other finding as report to the police and to the directorate of education because this

measure according to school discipline policy in Egypt.

Conclusion

Based on the results of the present study, it can be concluded that

About less than one half of the studied teachers had poor knowledge regarding substance abuse. Also, there was no significant difference between teachers' level of knowledge and their personal characteristics. On the other hand, the majority of the teachers had positive attitude about dangerous of substance abuse. Also, there was statistical significant difference between teachers' attitude and their qualifications.

Recommendations

Based on the results of the present study, it can be recommended that:

- 1- Continuous training and educational programs for teachers about substance abuse to improve their knowledge.
- 2- Publications and posters should be available in every school's library to increase knowledge about substances abuse.
- 3- Regulate involvement of parents of the students in schools' parent's council to discuss issues related to their children.

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