

Wellbeing Impacts on Suicidal Ideation among Farmers in Visakhapatnam

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Abstract: [6]The National Crime Records Bureau of India reported that a total 296,438 Indian farmers had committed suicide since 1995. It is important to examine the psychological aspects of distressed farmers. Suicide among working people, such as farmers, is the outcome of a complex interaction between worker vulnerabilities (e.g., mental health problems), stressful working conditions, and living conditions (social and/or environmental stressors). **Objectives** [7] the objective of this study was to find out farmers various demographic variables of age, education qualification, Gender and marital status effects on wellbeing and suicidal ideation a survey study was performed among farmers residing in Donkada, kothuru village Nakkapalli mandala of Visakhapatnam district. District of Andhra Pradesh. The sample for the present study consisted of 150 members (Age range 17 to 69) (Male farmers=50, Female farmers=50 and Farmers children's=50), Structured, pretested questionnaires were used to find the prevalence of suicidal ideation, farmers. Pearson Correlation, Student's t-test, analysis of variance, and Anova were used to identify the factors influencing well-being domains on suicidal ideation. **Results** [17] identified a significant difference between male and female on depression. So, mean indicated that male gender has higher depression than the female group. Male gender group significantly differed than the female group on well-being dimension. There is no significant difference between male and female on anxiety and positive thinking as well as suicidal ideation. **Conclusion:** Present study identified Positive correlation with Depression and suicidal ideation. Positive thinking is negatively correlated with suicidal ideation among farmers and their families. There is an association between high depression and suicidal ideation. This present study did not find any correlation among anxiety and energy.

Key words: Farmers, suicidal ideation, Well-Being, Depression

Introduction

[1] The current state of farmers' suicide and the increased attention that the media and the government are compelled to give it creates an environment for the mental health professionals to focus on it and deal with it as an issue of public mental health, to pool their views and learn from the experience. South India is distinguished as the region with the world's largest number of suicides by young men and women [1]Though it is debatable how much of suicide is constituted by diagnosable mental disorders, and not restricting ourselves in the categorical view of mental ailments suicide can still be assumed to be an indicator of the status of mental health of the community, which has been looming large in the present time (as suggested by the World Health Report, 2001). A contradictory view would be that suicide does not equate with mental disorders, yet it can be considered a mental health consequence in a broader way. Moreover, reports vary with the prevalence of mental health problems in suicide extending up to 90%.

Farmers' suicide: current state [4] a recent study based on the NCRB data conducted by K.Nagaraj of the Madras Institute of Development Studies reveals the progressively increasing nature of suicide in farmers. Nearly two thirds was contributed by the Indian states of Maharashtra, Andhra Pradesh, Karnataka and Madhya Pradesh (including Chhattisgarh). An additional finding of the data is that suicide in the general population has also shot up. The number of Indians committing suicide each year rose from around 96,000 in 1997 to roughly 1.14 lakh (114,000) in 2005. Thus incidence figures in government records (where the national annual average stands around 11 per 100,000 population) are much lower than recent community-based verbal autopsy studies. Such studies conducted in rural South India report average annual suicide rates of about 92.1 (Prasad et al., 2006) and 95 (Joseph et al., 2003) per 100,000 population. Though it is noted that the incidence figures in South India are higher than the national average, the vast disparity between the two figures can be attributed to under-reporting in the government records.(1) This is evident from the skewed distribution of data of victims of suicide, predominated by male landholding farmers, who head the family.

Mental health of farmers: [1] Suicide rates in farmers are higher than most other occupations and national trends. In contrast, a number of studies have found that the mental health of farmers is no different to other rural and urban residents. Several explanations have been given for this discrepancy such as farmers having greater access to means for suicide, farmers are unwilling or unable to acknowledge mental health problems and seek help, or that farmers may have a lower threshold for suicide than other people in the setting of psychological stress. A recent study of subsidised mental health services in Australia found that usage rates decreased with increasing remoteness. This suggests that remoteness is associated with inequality in the health care system resulting in less access to services, but may also indicate that remote rural residents are less Overall, there is a paucity of data regarding the physical and mental health of farmers compared to their rural counterparts. It is important for health service providers to assess the health needs of those in farming and whether the issues surrounding mental health are specific to farming or

are characteristic of rural areas in general. If the epidemic of farmers' suicide can be seen as an entity of mental health consequence by itself, then it can also be said that this impending epidemic helps us understand the impact of broad social and economic policies and the consequences of the inability to deliver the fruits of development in the spirit of social justice, in an egalitarian manner to distinct social groups (Banerji, 1978). In fact, a study in Indonesia described rates of CMD according to levels of economic development in villages and changes in these levels in the 1980s. Development was rated according to attributes such as means of subsistence, education, community co-operation and participation, and transportation (the more developed villages having better amenities).

(2). In India, farmer suicides had been reported from various states, viz. Andhra Pradesh, Punjab Karnataka and Orissa. Maharashtra, one of India's most prosperous states is currently facing an epidemic of farmer suicides especially in the Vidharbha region. Studies in India, Sri Lanka, Canada, England and Australia have identified

Psychological well-being it is being studied by using both subjective and objective indicators. Researchers are defined psychological well-being in different ways. Bradburn (1969) believes that psychological well-being is highly related to the emotional status of an individual. The affective part is a hedonic evaluation guided by emotions and feelings such as the frequency with which people experience pleasant /unpleasant moods in reaction to their lives. The assumption behind this is that most of the people internally evaluate their life as either good or bad enabling them to communicate their judgments. [9] identified six core variables that best predict happiness and satisfaction with life. These six variables are: positive self-esteem, sense of perceived control, extroversion, optimism, positive social relationships and a sense of meaning and purpose to life. Carr (2004) adds to these predictors of happiness; optimism, emotional intelligence, giftedness, creativity and wisdom. He agrees on dimensions like, self systems that contribute to resilience, like positive self-esteem and positive relationships to make up a comprehensive presentation of the moderators of well-being. According to Denier (1984), Kahneman, Denier, and Schwarz (1999), the psychological well-being is equal to the good life or satisfaction with life in a hedonic sense.

Review of Literature

Studies in India, Sri Lanka, USA, Canada, England and Australia have identified farming as one of the most dangerous industries associated with a high suicide rate than in general population. A study in the Vidharbha region of Maharashtra had associated indebtedness (87%) and deterioration in the economic status (74%) as major risk factors for suicide [6]. This study has revealed that age-adjusted suicide mortality rate for male farmers had trebled from 17 in 1995 to 53 in 2004.

Farmers' suicide in various parts of India. The prevalence of depression in India among the general population based on the National Mental Health Survey was 5.25%

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Farm exit intention and wellbeing: A study of Australian farmers

Author links open overlay] contend that a state of stable wellbeing is achieved when an individual has "the psychological, social and physical re-resources they need to meet a particular psychological, social and/or physical challenge" Resources are argued to be an important factor in maintaining an individual's wellbeing and stress is argued to occur when those resources are threatened or lost The size of the farm is important because small and large farms have different operating styles and their operators face a different set of challenges [10] Level of education is important because farmers with advanced qualifications may be able to take advantage of post-farming opportunities that would not be available to less qualified farmers, and off-farm income matters because the amount and proportion of income earned off-farm may moderate the relationship between on-farm change and a farmer's identity and financial security. Farmers earning greater proportions of their income off farm may not see farming as a core part of their identity and may also have more favourable financial circumstances (1) perhaps enabling a less psychologically and financially challenging exit from the industry.. Wellbeing is often measured across several heterogeneous domains[4] and the measures presented in this paper follow this method. Field studies in western Vidharbha (Mishra, 2006), and various districts of Vidharbha, Marathwada and Khandesh regions (Tata Institute of Social Sciences, 2005) (in the state of Maharashtra) have evaluated the factors. The neighbourhood or in the family (32%); addiction (28%); and health problems (including problems of mental health) (21%).Illness of self or somebody else in the family; and family disputes. However, these studies have been criticized due to their inability to conceptualize the factors of the agrarian crisis and attributing the reasons for suicide to socio-behavioural practices of farmers. What is more unique to the Indian setting is, unlike in the West, suicides are often related to pre-existing chronic socioeconomic stress, interpersonal, social and cultural conflicts [1] Thus the figures presented from NCRB data can be considered to be a conservative estimate Literature dealing with farmer's suicide describes suicide in the general population either as total suicide rate or suicide mortality rate. The increasing trend of suicide by farmers compared to that of the total suicides can be seen from the NCRB data while the percentage of suicides due to pesticide poisoning (a proxy for avoiding reporting bias) far exceeds that of the reported suicides in farmers.

METHODOLOGY [5]This chapter provides the methodology adopted in the present study. The objectives of the study, the measures used, and the statistical analysis performed on the data is presented. The study is mainly aimed to examine the effect of demographic variables like age, qualification, marital status and gender on suicidal ideation and wellbeing.

AIM:-

The aim and objective of present study is to understand the effect of well being on suicidal ideation among farmers.

OBJECTIVES OF THE STUDY:-

[17.10]The main objective of the present study is to examine the effect of demographic variables on suicidal ideation and wellbeing of farmers.

- To examine the effect of various demographic variables of age on suicidal ideation and wellbeing.
- To examine the effect of various demographic variables of education qualification on suicidal ideation and wellbeing.
- To examine the effect of various demographic variables of gender on suicidal ideation and wellbeing.
- To examine the effect of marital status of farmers on suicidal ideation and wellbeing.
- To find the correlation between well being and suicidal ideation among farmers.

HYPOTHESES[10]

- **Hypothesis 1:** There will be no significant difference between suicidal ideation and wellbeing on male and female groups.
- **Hypothesis 2:** There will be significant difference between suicidal ideation and wellbeing on Income.
- **Hypothesis 3:** There will be no significant difference between suicidal ideation and well being on age among the sample group.
- **Hypothesis 4:** There will be no significant difference between suicidal ideation and wellbeing on education qualification among the sample group.

DATA COLLECTION:-

[17] In the present study, the researcher opted the survey method. This is a method of collecting and analysing data, attained from a large group of respondents, representing from selected population collected through questionnaire. The investigator used the tool of questionnaire which was developed by Dr. Devendra Singh Sisodia and Dr. Vibhuti Bhatnagar.

PROCEDURE Primary biographical information was obtained from the subjects and they were administered the wellbeing questionnaire, which measured four domains of WB and suicidal ideation questionnaire. The questionnaire was scored as per the instructions in the manual.

SAMPLE

The sample for the present study consisted of 150 members (Age range 17 to 69) (Male farmers=50, Female farmers=50 and Farmers children's=50), studying in Donkada kothuru village Nakkapalli mandalam of Visakhapatnam district. The selection criteria was that the participants selected age range from 17 to till death, farmers, male and female of different qualification and age groups and other domains of variables are included for the selection criteria. This study was conducted among the farmers of Donkada kothuru village of Visakhapatnam district of Andhra Pradesh.

TOOLS:

SUICIDAL IDEATION QUESTIONNAIRE:

This questionnaire was developed by Dr. Devendra Singh Sisodia and Dr. Vibhuti Bhatnagar. This questionnaire measures Suicidal Ideation. Suggestions were invited from the experts from different fields such as psychology, sociology, human development, family relations and psychiatry. The final form of scale was thus prepared comprising of 25 statements. The scale consists of 21 positive statements and 4 negative statements. Serial numbers of negative statements are 11, 13, 18 and 24. The scale can be used for screening individuals who suffer from alarmingly high degree of suicidal ideation. The scale gives quick measures of suicidal ideation for experimental, clinical and counselling purposes. It is a self-administering test. It is eminently suitable for group as well as individual testing.

WELL BEING QUESTIONNAIRE:

This questionnaire measures wellbeing (WB), using four sub-scales: Depression, Anxiety, Energy and Positive thinking. For this study, a 22 item questionnaire was used. The test can be applied in the field of social, educational, family and corporate settings etc

RESULTS

[10]Hypothesis 1 There will be no significant difference between suicidal ideation and wellbeing on male and female groups.

Table-1-Descriptive statistics for well-being dimension as on Gender group:

Well-being Dimension& SI	Gender	N	Mean	SD	t- value	R-value	p-value
Depression	Male	84	10.52	2.65	2.14**	-.174*	.033
	Female	66	9.60	2.52			
Anxiety	Male	84	7.17	2.49	0.17	-.014	.863
	Female	66	7.10	2.63			
Energy	Male	84	9.04	2.02	3.27*	-.260**	.001
	Female	66	7.84	2.45			
Positive thinking	Male	84	10.75	2.23	-0.70	.057	.485
	Female	66	11.04	2.93			
Suicidal ideation	Male	84	56.6190	13.5	.041	-.003	0.968
	Female	66	56.5303	12.9			

Regarding to the depression dimension obtained result is that for male (M=10.52, SD= 2.65), Female (M=9.60, SD=2.52) t-value is 2.14<0.05 which is significant difference among gender in depression dimension of well-being. The obtained mean &SD value from Anxiety dimension for male (M=7.17, SD=2.49) For Female (M=7.10SD=2.63) and t-value is 0.17 which is non-significant in nature. The obtained mean value from Energy dimension is (m=9.04, SD=2.02) (M=7.84, SD=2.45) t-value is (3.27*<0.01) which is significant @0.01. The other positive thinking dimension is not significant mean value is (M=10.75SD=, 2.23) (M=11.04, SD=2.93) and t-value is (0.70). Indicated There is a correlation between depression among gender group with $r = -0.174$, $P < 0.05$. There is a correlation between energy among gender group $r = 0.260$, $P < 0.01$. Hence the null hypothesis rejected and research hypothesis accepted that there is a significant difference in between well- being dimension among gender

Hypothesis 2: There will be significant difference between suicidal ideation and wellbeing on Income.

Table-2 Descriptive statistics and Pearson's correlation for wellbeing dimensions as on Monthly income

Well-being Dimension	Monthly Income level	N	Mean	SD	t- value	R-value	p- Value
Depression	10,000Below	104	10.07	2.59	-0.30	.044	.589
	10,000Above	46	10.21	2.72			
Anxiety	10,000Below	104	6.75	2.59	-2.86**	.162**	.048

	10,000Above	46	8.02	2.24			
Energy	10,000Below	104	8.24	2.39	-2.27*	.209**	.010
	10,000Above	46	9.15	1.93			
Positive thinking	10,000Below	104	10.96	2.73	0.58	.078	.345
	10,000Above	46	10.69	2.11			
Suicidal ideation	10000 below	104	56.21	12.35	-0.51	.076	.357
	10000 above income	46	57.41	15.16			

$P^{**} < 0.01$, $P^* < 0.05$

Regarding depression dimension is resulted (M=10.07, SD=2.59), (10.21, 2.97) t-value is -0.031 Which is non-significant among various income groups. Regarding well-being dimension Anxiety (M=6.75, SD=2.59), (M=8.02, SD=2.24) and t-value is (-2.86**<0.05.) which is significant in nature. The obtained mean value from Energy dimension is (M=8.24, SD=2.39) (M= 9.15, SD= 1.93) t-value is (-2.27*<0.01) which is significant at 0.01. The other positive thinking dimension is not significant mean value is (M=10.96, SD=2.73) (M=10.69, SD=2.11) and t-value is (0.58). There is a correlation between monthly income group $r = .162^*$, $P < 0.05$. There is a correlation between monthly income groups as on wellbeing dimension Energy. The r value indicated $.209^{**}$ $P < 0.01$. Hence the null hypothesis accepted that there is a significant difference in between Well- being dimension in the sense of socio economic Income groups.

Hypothesis 3 There will be no significant difference between suicidal ideation and wellbeing on age among the sample group.

Table 3: Descriptive statistics and correlation for wellbeing dimension as on Age group.

Well-being Dimension	Age group	N	Mean	SD	t- value	r-Value	p-value
Depression	16-29	55	10.0	2.86	0.97	.069	.402
	30-45	68	9.91	2.57			
	46-60andabove	27	10.7	2.22			
Anxiety	16-29	55	8.05	2.66	5.86**	-.234**	.004
	30-45	68	6.61	2.50			
	46-60andabove	27	6.62	1.88			
Energy	16-29	55	8.54	2.57	1.86	.072	.385
	30-45	68	8.22	2.15			
	46-60andabove	27	9.22	1.92			
Positive thinking	16-29	55	10.67	2.45	0.76	.094	.254
	30-45	68	10.83	2.83			
	46-60andabove	27	11.40	1.96			
Suicidal ideation	16-29	55	56.58	13.86	0.016	-.008	.926
	30-45	68	56.73	12.57			
	46-60andabove	27	56.18	14.05			

$P^{**} < 0.01$, $P^* < 0.05$

From the Age groups, 16-29years, 30-45years, 40-60years and above obtained the Mean, SD value on well-Being dimensions.

Regarding the depression dimensions resulted [M=10.07, SD=2.86], [M=9.91, SD=2.57], [M=10.74, SD=2.22] f-value is 0.974 which is non-significant. The obtained mean and SD value from Anxiety dimension [M=8.05, SD=2.66], [M=6.61, SD=2.50], [6.62, 1.88] and f-value is [5.86**<0.01] which is significant in nature. The obtained mean and SD value from Energy dimension [M=8.54, SD=2.57], [M=8.22, SD=2.15], [M=9.22, SD=1.92] and f-value is 1.86 which is non-significant. The obtained mean and SD value from Positive thinking [M=10.67, SD=2.57], [M=10.83, SD=2.83] and f-value 0.76 which is non-significant. R=, P<0.01. Hence, the null hypothesis rejected that there is a significant difference between on Well-Being dimension in the age groups. There is a correlation between anxieties among age group

Hypothesis 4: There will be no significant difference between suicidal ideation and wellbeing on education qualification among the sample group.

Table 4 Descriptive statistics for wellbeing dimension and correlation as on Education.

Well-being Dimension	Education	N	Mean	SD	f-value	r-value
Depression	Nil education	20	10.95	2.74	0.693	0.268**
	1-5 Class	30	9.86	2.34		
	6-10	42	9.80	2.75		
	Inter	31	10.41	2.94		
	Degree	22	10.00	2.18		
	Pg	05	9.60	2.88		
Anxiety	Nil education	20	6.40	2.23	1.497	0.104
	1-5 Class	30	6.50	2.04		
	6-10	42	7.09	2.58		
	Inter	31	7.77	3.34		
	Degree	22	7.68	1.88		
	Pg	05	8.20	2.28		
Energy	Nil education	20	8.30	2.00	1.056	-.092
	1-5 Class	30	8.03	2.67		
	6-10	42	8.33	2.33		
	Inter	31	8.83	2.28		
	Degree	22	8.95	1.93		
	Pg	05	10.00	2.00		
Positive thinking	Nil education	20	10.60	2.43	0.370	-.343
	1-5 Class	30	10.90	3.19		
	6-10	42	11.11	2.57		
	Inter	31	10.45	2.21		
	Degree	22	11.022	2.18		
	Pg	05	11.00	2.91		

P< 0.01, P* < 0.05**

From the above table of the of Education, Nil education, 1-5, 6-10, Inter, Degree and PG obtained the Mean, SD value on Well-Being dimensions. Regarding the depression dimension obtained result is that For nil education [M=10.95, SD=2.74], 1-5 Class [M=9.86, SD=2.34], 6-10 Class [M=9.80, SD=2.75], Inter [M=10.41, SD=2.94], Degree [M=10.00, SD=2.18] and Pg [M=9.60, SD=2.88] f-value is 0.693 which is non-significant in nature. The obtained mean and SD value from Anxiety dimension For nil education [M=6.40, SD=2.23], 1-5 Class [M=6.50, SD=2.04], 6-10 Class [M = 7.09, SD=2.58], Inter [M=7.77, SD=3.34], Degree [M=7.68, SD=1.88], PG [M=8.20, SD=2.28] and f-value is 1.497 which is non-significant in nature. The obtained mean and SD value from Energy dimension For nil education [M=8.30,SD=2.00], 1-5 Class[M=8.03,SD=2.67], 6-10 Class[M=8.33 ,SD=2.33], Inter[M=8.83,SD=2.28], Degree[M=8.95,SD=1.93], PG[M=10.00 ,SD= 2.00] and f-value is 1.056 which is non-significant in nature. The other Positive thinking is not significant mean and SD for nil education[M=10.60,SD=2.43], 1-5Class[M=10.90,SD=3.19], 6-10 Class[M=11.11,SD=2.57],Inter[M=10.45,SD=2.21],Degree[M=11.22,SD=2.18],PG[M=11.00, SD= 2.91] and f-value is 0.370. From the above table of correlation, suicidal ideation and well-being dimensions are depression, anxiety, energy and positive thinking and above obtained the R-value, sig value on well-being dimensions. Regarding the depression dimension resulted R-values is 0.268<0.01 which is significant in nature. The obtained R-values from anxiety dimension is 0.104 which is non-significant. The obtained R-value from energy dimension is -.092 which is non-significant. The

obtained R-values from positive thinking dimension is $-.343 < 0.01$ which is significant in nature. Hence the null hypothesis is accepted that there was no significant difference among education groups on wellbeing dimensions. There was a significant relationship between depression and suicidal ideation among education groups..

DISCUSSION

The present study included 150 farmers to assess the presence of depression, suicidal ideation, and well-being and the factors that influenced the presence of depression. Depression increases as well as suicidal ideation increases. Positive thinking is increased than suicidal ideation decreases among farmers and their families. There is an association strong positive correlation between high depression and suicidal ideation. This present study did not find any correlation among anxiety and energy. There is a significant difference between male and female on depression. So, mean indicated that male gender significant higher depression mean value than the female group. Male gender group significantly differ than the female gender group in wellbeing dimension. There is not significant differ between male and female on anxiety and positive thinking as well as suicidal ideation. (7) These findings suggested by Deepak Justine Viswanathan, A.M Veerakumar et al. There is a significant difference between below 10000 poverty and above poverty income on anxiety and energy. So, mean indicated that below 10000 income significant higher anxiety mean value than the above 10000 income. Below 10000 incomes group significantly differ than the above 10000 income group in wellbeing dimension. There is no significant differ between below and above poverty on depression and positive thinking as well as suicidal ideation. The study has included participants across various age groups, socioeconomic groups, and majority of literate were involved in farming activities mainly because it was their ancestral occupation. In this study, significant association was observed between age and presence of Anxiety. In the present study, males had higher level of depression than females. In their study on anxiety and depression among farmers and other occupational workers, Torske et al. also observed higher level of mean depression score and depression symptoms among males compared to females. Sanne et al. also found that males have high level of depression than females. In contrast to this, Hanklang et al. have observed high level of depression among female farmers. In this study, nearly 90% of the farmers were financially poor belonging to middle, lower middle, and lower socioeconomic classes. Since the farmers belonging to upper socioeconomic class was less, the statistically significant difference between the socioeconomic groups could not be observed. Conversely, Kumar and Behmani observed low mean depression score among female farmers below poverty than farmers above the poverty line. The prevalence of depression and Poverty and indebtedness were identified to be one of the reasons for farmers' suicide in Visakha district. This has high social significance because suicide has a significant impact on the economic status of family and social and psychological status of the family members. Suicidal ideation was high among males compared to females. Higher proportion of male farmers had depression and suicidal ideation. This would have occurred because males are head of the family in most of the families and they had to manage the stressors related to difficult families

FINDINGS OF THE STUDY:

- It is found that there is significant difference among gender group male and female on well being dimensions of depression and energy whereas there is no significant difference obtained among males and females on wellbeing dimensions of anxiety and positive thinking.
- There is a significant difference among wellbeing dimensions of anxiety and energy in the sense of socio economic Income group level whereas there is no significance obtained in wellbeing dimensions of depression and positive thinking.
- It is observed that there is no significant difference among depression, energy and positive thinking with reference to wellbeing between age groups while there is a significant difference in anxiety dimension of wellbeing among different age groups.
- There is no significant difference found among wellbeing dimensions of anxiety, depression, energy and positive thinking with reference to different levels of education in the sample group.
- It is observed that the wellbeing dimensions of energy and positive thinking are negatively correlated with suicidal ideation whereas the wellbeing dimensions of depression and anxiety are positively correlated with suicidal idea

Conclusions

The present study included 150 farmers to assess the presence of depression, suicidal ideation, and well-being and the factors that influenced the presence of depression. Depression increases as well as suicidal ideation increases. Positive thinking is increased

than suicidal ideation decreases among farmers and their families. There is an association strong positive correlation between high depression and suicidal ideation. This present study did not find any correlation among anxiety and energy. There is a significant difference between male and female on depression. So, mean indicated that male gender significant higher depression mean value than the female group. Male gender group significantly differ than the female gender group in well being dimension. There is not significant differ between male and female on anxiety and positive thinking as well as suicidal ideation.

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