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# A Study to Assess the Level of Awareness and Attitude Regarding Traumatic Brain Injury among Non Medical Male Students in Selected College, Bangalore

**B. Venkatesan*, Jayavel ****

## Abstract

*Introduction:* Traumatic brain injury (TBI) is the leading cause of death and disability in children and young adults in the world. TBI is also a major concern for elderly individuals, with a high rate of death and hospitalization due to falls among people age 75 and older. According to report said a majority (54.1 per cent) of those killed in road accidents during 2015 were in the age group of 15-34. Thirteen States, including Tamil Nadu, Maharashtra, Madhya Pradesh, Karnataka, Kerala and Uttar Pradesh, accounted for the highest number of accidents. Among cities, while Mumbai had the highest number of accidents (23,468), Delhi saw the most number of deaths (1,622) in road accidents. *Objectives:* 1. To assess the awareness and attitude regarding traumatic brain injury among non medical male students. 2. To associate the awareness and attitude regarding traumatic brain injury among non medical male students with selected demographic variables. 3. To find the correlation between the awareness and attitude regarding traumatic brain injury among non medical male students. *Methodology: Research Design*: Descriptive research design. *Setting of Study*: Padmashree Institute management sciences. *Population:* Non medical male students. *Sample*: 61 Art students. *Sampling Technique*: Non probability Conveniences sampling technique. *Description of the Tool*: A. Demographic variables B. Structure questionnaire Used to assess the awareness C) Liker scale used to assess the attitude. *Data Analysis:* Descriptive and inferential statistics were used. *Major Findings of the Study:* 1. Majority of the subjects (49.18%) in the age group of 21-23 years. 2. The majority of the subjects 23(37.70%) had adequate awareness, 21(34.43%) had moderately awareness and 17(27.87%) had inadequate awareness on TBI. 3. Regarding attitude majority of subject had favorable attitude 59 ( 96.72% ) and 2 ( 3.28% ) had neutral attitude. 4. There was positive and weak correlation between awareness and attitude. *Conclusion:* The present study revealed that majority of the subjects had adequate awareness on traumatic brain injury. Regarding the attitude most of the subjects had favorable attitude. Study concluded that the non medical male students for improving awareness on traumatic brain injury the awareness programme can conducted.

**Keywords:** Traumatic Brain Injury; Non Medical Male Students; Non Probability Conveniences Sampling Technique.

**Author's Affiliations:** *Associate Professor, Padmashree Institute of Nursing, Bangalore and PhD Student, Sri Ramachandra University Chennai. **Nursing Officer, AIIMS, New Delhi, India.

**Corresponding Author: B. Venkatesan,** Associate Professor cum HOD of Medical Surgical Nursing, Padmashree Institute of Nursing, Bangalore, Karnataka, India.
E-mail: venkib882@gmail.com

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## Introduction

Traumatic brain injury (TBI) is the leading cause of death and disability in children and young adults in the world. TBI is also a major concern for elderly individuals, with a high rate of death and hospitalization due to falls among people age 75 and older. Depending on the severity of injury, TBI can have a lasting impact on quality of life for survivors

of all ages – impairing thinking, decision making and reasoning, concentration, memory, movement, and/or sensation (e.g. vision or hearing), and causing emotional problems (personally changes, impulsivity, anxiety, and depression) and epilepsy [1].

Annually, TBI injuries cost an estimated $76 billion in direct and indirect medical expenses. The U.S.Centres for Disease Control and Prevention (CDC) statistics for 2010 alone (when the survey was last taken) state:

- TBIs were a factor in the deaths of more than 50,000 people in the United States.
- More than 280,000 people with TBI were hospitalized.
- 2.2 million People with TBI visited an emergency department.

Today, we understand a great deal more about the healthy brain and its response to trauma, although science still has much to learn about how to reverse damage resulting from head injuries.

*New Delhi*

An official report, released by Union Road Transport and Highways Minister NitinGadkari on Thursday, said 1.46 lakh people were killed in road accidents in India in 2015 – an increase of five per cent from 2014 [6]. Road accidents as a whole rose 2.5 per cent during 2015 to 5.01 lakh or 1,374 accidents every day, claiming 400 lives, the report said.

*Indian Senior about TBI*

The report said a majority (54.1 per cent) of those killed in road accidents during 2015 were in the age group of 15-34. Thirteen States, including Tamil Nadu, Maharashtra, Madhya Pradesh, Karnataka, Kerala and Uttar Pradesh, accounted for the highest number of accidents. Among cities, while Mumbai had the highest number of accidents (23,468), Delhi saw the most number of deaths (1,622) in road accidents.

The investigator interested to conduct the study among non medical students regarding traumatic brain injury knowledge and attitude, and also providing information regarding traumatic brain injury through Self instructional module order to improve their knowledge .

*Statement of the Problem*

A study to assess the level of awareness and attitude regarding traumatic brain injury among non medical male students in selected college , Bangalore.

*Objectives of the Study*

1. To assess the awareness and attitude regarding traumatic brain injury among non medical male students.
2. To find the correlation between the awareness and attitude regarding traumatic brain injury among non medical male students.
3. To associate the awareness and attitude regarding traumatic brain injury among non medical male students with selected demographic variables.

*Section A: Frequency and Percentage Distribution of the Demographic Variables.*

**Table 1:** Frequency and percentage distribution of age, course of study, family income, marital status, birth order, domicile and locality among non medical male students N=61

| S. No. | Demographic Variables | Frequency | Percentage |
|---|---|---|---|
| 1. | **Age in Years** | | |
| | 18-20 | 4 | 6.5% |
| | 21-23 | 30 | 49.18% |
| | 24-26 | 27 | 44.26% |
| 2. | **Course of studying** | | |
| | Under graduate | 10 | 16.39% |
| | Post graduate | 51 | 83.60% |
| | P. G Dip course | 0 | 0% |
| 3. | **Monthly family income** | | |
| | <5000 | 1 | 1.63% |
| | 5001-10,000 | 6 | 9.83% |
| | 10,001-15,000 | 12 | 19.67% |
| | Above 15000 | 42 | 68.85% |
| 4. | **Marital status** | | |
| | Married | 2 | 3.27% |
| | Unmarried | 59 | 96.72% |
| | Divorced | 0 | 0% |

| | | | |
|---|---|---|---|
| 5. | **Birth order** | | |
| | First Child | 21 | 34.42% |
| | Second Child | 25 | 40.98% |
| | Others | 15 | 24.59% |
| 6 | **Locality** | | |
| | Rural | 13 | 21.31% |
| | Urban | 33 | 54.09% |
| | Semi urban | 15 | 24.59% |

The data presented in table 1 depicts the frequency and percentage distribution of age, course of study, family income, marital status, birth order, domicile and locality.

Regarding age 4(6.50%) belongs to 18-20 years of age group, 30(49.18%) of them belongs to 21-23 years of age group, and 27(44.26%) of them belongs to 24-26 years of age group.

Regarding course of study 10(16.39%) of them belongs to Under graduate, 51(83.60%) of them belongs to Post graduate and 0(0%) belongs to P.G Dip course.

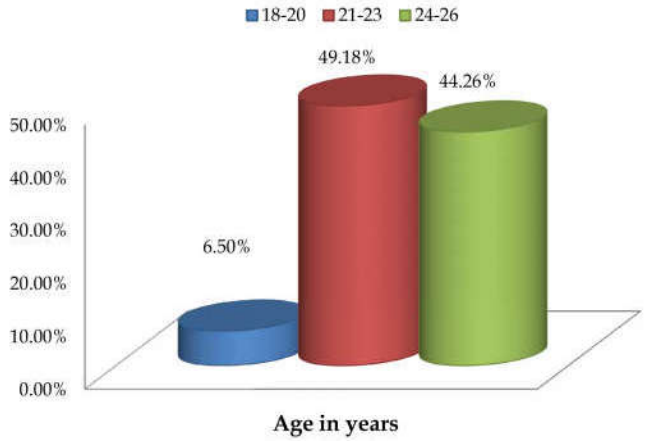
With regard to family income 1(1.63%) of them had income of <5000, 6(9.83%) of them had income of 5001-10,000, 12(19.67%) of them had income of 10,001-15,000 and 42(68.85%) of them had income of above 15,000.

Regarding marital status 2(3.27%) of them belongs to married, 59(96.72%) of them belongs to unmarried and 0(0%) belongs to divorce.

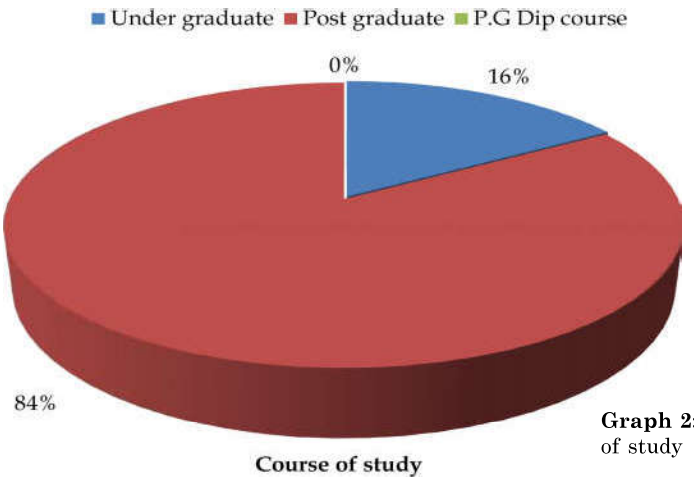
Regarding birth order 21(34.42%) of them belongs to first child, 25(40.98%) of them belongs to second child and 15(24.59%) of them belongs to others.

Considering the domicile 43(70.49%) of them belong to urban and 18(29.50%) of them belong to rural.

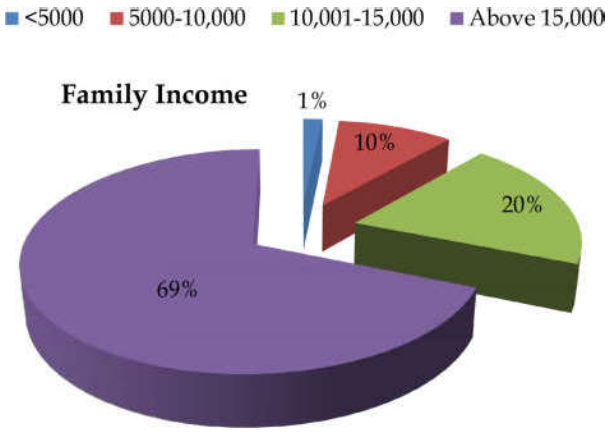
Regarding the locality 13(21.31%) of them belong to rural area, 33(54.09%) of them belong to urban area and 15(24.59%) of them belong to semi urban area.



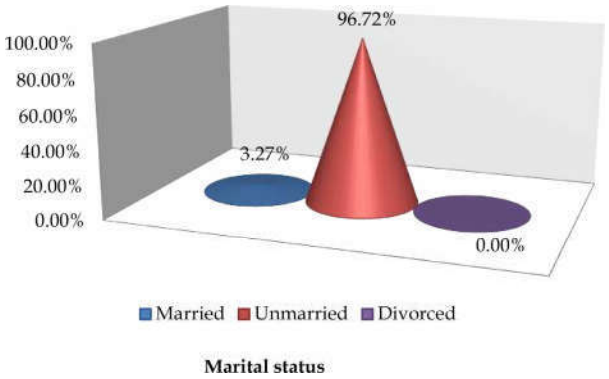

**Graph 1:** Percentage distribution of age in years



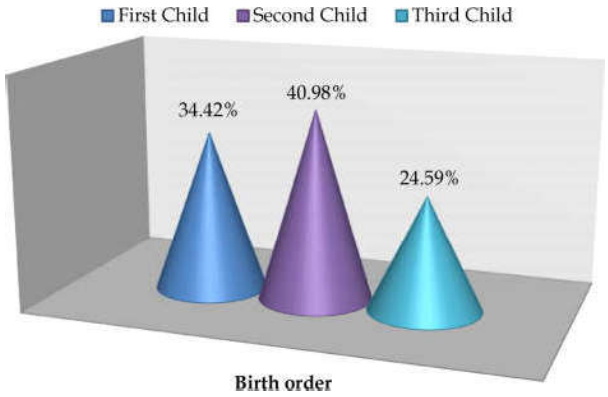

**Graph 2:** Percentage distribution of course of study



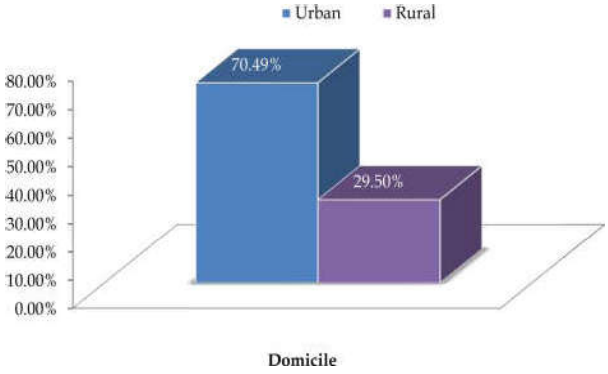

**Graph 3:** Percentage distribution of family income



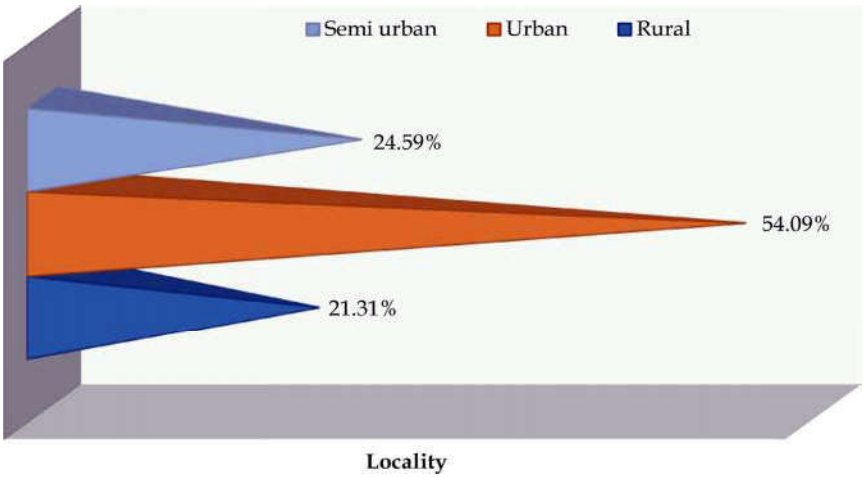

**Graph 4:** Percentage distribution of marital status




**Graph 5:** Percentage distribution of birth order




**Graph 6:** Percentage distribution of domicile



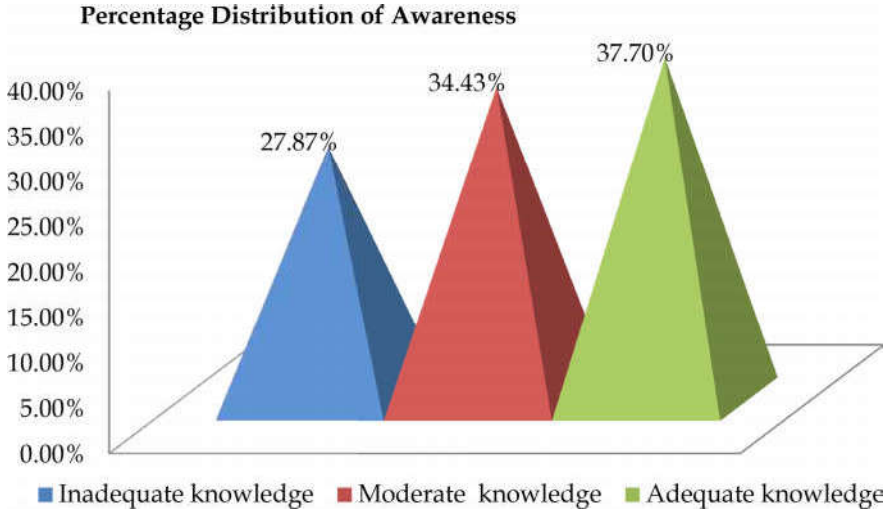

**Graph 7:** Percentage distribution of locality

*Section B: Frequency and Percentage Distribution of Level of Awareness Regarding Traumatic Brain Injury among Young Adults.*

**Table 2:** Frequency and percentage distribution of level of awareness regarding traumatic brain injury among non medical male students N= 61

| Level of Awareness | No | Percentage |
|---|---|---|
| Inadequate awareness | 17 | 27.87 |
| Moderate awareness | 21 | 34.43 |
| Adequate awareness | 23 | 37.70 |
| **Overall** | **61** | **100** |

The data presented in Table 3, shows frequency and percentage distribution of awareness regarding traumatic brain injury among young adults. Regarding this, 17(27.87%) of them have inadequate knowledge, 21(34.43%) of them have moderate knowledge and 23(37.70%) of them have adequate knowledge regarding traumatic brain injury among young adults.




**Graph 8:** Percentage distribution of level of awareness regarding traumatic brain injury among young adults

**Table 3:** Range, Mean, standard deviation and mean percentage regarding traumatic brain injury among non medical male students N=61

| S. No. | Aspects of awareness | Max. score | Range | Mean | Standard Deviation | Mean Percentage |
|---|---|---|---|---|---|---|
| 1 | General information on traumatic brain injury | 4 | 1-4 | 3.03 | 1.06 | 75.75 |
| 2 | Cause and types of traumatic brain injury | 5 | 0-5 | 3.34 | 1.22 | 66.8 |
| 3 | Symptoms and diagnostic evaluation of traumatic brain injury | 6 | 0-6 | 3.70 | 1.62 | 61.66 |
| 4 | Management and prevention of traumatic brain injury | 5 | 0-5 | 2.90 | 1.57 | 58.0 |
| | **Overall** | **20** | **2-19** | **13.18** | **3.92** | **65.9** |

The data presented in the table 4, shows the range, mean, standard deviation and mean score percentage of awareness regarding traumatic brain injury among young adults.

With regard to general information regarding traumatic brain injury, out of maximum score 4, the range was 1-4, and the mean score was found to be 3.03, with standard deviation of 1.06 and the mean score percentage was 75.75%.

In context with the cause and types of traumatic brain injury, out of maximum score 5, the range was 0-5, the mean score was found to be 3.34, with standard deviation of 1.22 and the mean score percentage was 66.80%.

With regard to symptoms and diagnostic evaluation of traumatic brain injury, out of maximum score 6, the range was 0-6, the mean score was found to be 3.70, with standard deviation of 1.62 and the mean score percentage was 61.66%.

In context with the management and prevention of traumatic brain injury, out of maximum score 5, the range was 0-5, the mean score was found to be 2.90, with standard deviation 1.57 and the mean score percentage was 58.0%.

On overall awareness regarding traumatic brain injury among young adults, out of maximum score 20, the range was 2-19, the mean score was 13.18, with standard deviation of 3.92 and the mean score percentage was 65.90%.

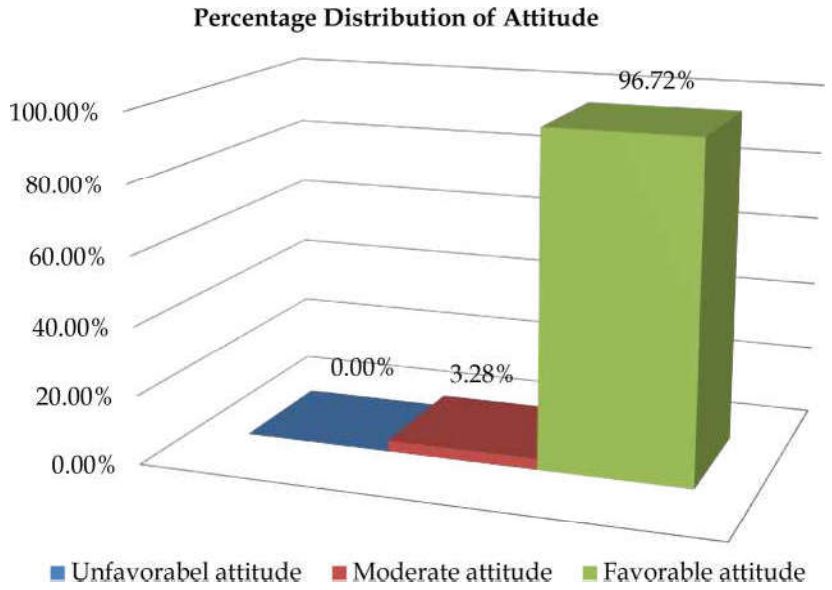
**Table 4:** Frequency and percentage distribution of attitude regarding traumatic brain injury among non medical male students N=61

| Level of Attitude | No. | Percentage |
|---|---|---|
| Unfavorable attitude | 0 | 0 |
| Neutral ( moderate attitude ) | 2 | 3.28 |
| Favorable attitude | 59 | 96.72 |
| Overall | 61 | 100 |

The data presented in Table 5, shows the attitude regarding traumatic brain injury among young adults. Regarding this, 0(0%) of young adults have unfavorable attitude, 2(3.28%) of them have moderate attitude and 59(96.72%) of them have favorable attitude.

The data presented in the table 6, depicts the range, mean, standard deviation and mean percentage of awareness regarding traumatic brain injury among young adults.

It revealed that in attitude regarding traumatic brain injury, out of maximum score 30, the range was 15-30, the mean was found to be 24.31, with standard deviation 2.91 and mean percentage was 81.0%.




**Graph 9:** Percentage distribution of level of attitude regarding traumatic brain injury among young adults

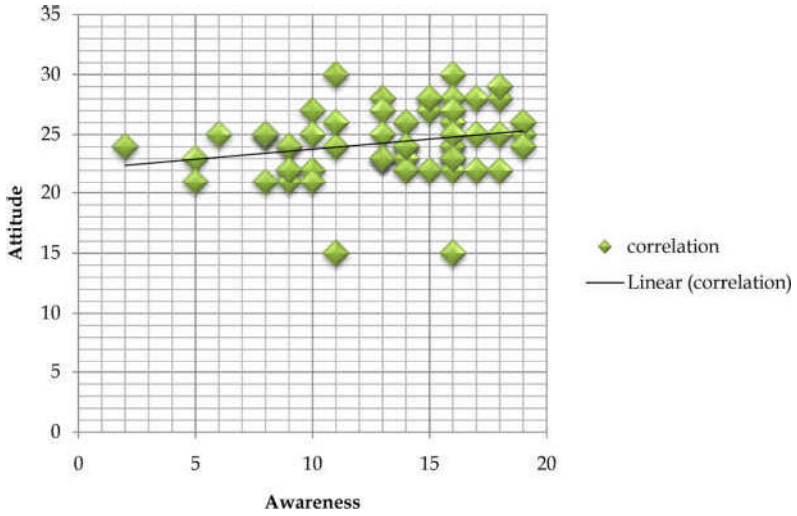
**Table 6:** Range, Mean, Standard deviation and Mean percentage regarding traumatic brain injury among non medical male students N=61

| Domain | Max score | Range | Mean | Standard deviation | Mean percentage |
|---|---|---|---|---|---|
| Level of attitude | 30 | 15-30 | 24.31 | 2.91 | 81.0 |

*Section C: Assessment of Correlation between the Awareness and Attitude Regarding the Traumatic Brain Injury among Non Medical Male Students*

**Table 7:** Correlation between the awareness and attitude regarding the traumatic brain injury among non medical male students N=61

| Variables | Mean | Standard Deviation | Correlation | P value |
|---|---|---|---|---|
| Awareness | 13.18 | 3.92 | 0.13 | P<0.05 |
| Attitude | 24.31 | 2.91 | | |




**Graph 10:** Scattered graph of correlation between awareness and attitude regarding traumatic brain injury among young adults

The above table 9, shows the correlation between the awareness and attitude regarding the traumatic brain injury among young adults. Regarding this, it shows there was weak positive correlation i.e. 0.13 between awareness and attitude regarding traumatic brain injury among young adults.

## Discussion

The findings of the study showed that the majority of the subjects had moderate and adequate awareness only 27% of subjects had inadequate . Majority subjects favorable attitude. Correlation shows there was positive weak correlation.

The similar study was conducted on "traumatic brain injury knowledge and perceived competence among practicing school psychologist" sample size of 229 participants who are school psychologists and graduate school psychology interns. Results suggest that most practicing school psychologist demonstrate an understanding that there was a need for behavior interventions and that counseling and social – skills training are often effective treatment strategies for children preventing brain injuries.

## Conclusion

Study results shows majority of subjects had adequate awareness and only 27% of subjects inadequate awareness. TBI is fatal of form of condition it can prevented by education public and at risk population in order to prevent incidence and death rate in India.

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