CHAPTER IV

## RESULTS

The study was an analytical cross-sectional research to study about knowledge, attitudes, and practices of preventive behaviors of stress management in essentialmild hypertension OPD patients at BMA Health Center No.48. Total subjects were 300 pure hypertension patients ( $>=35$ years old) from BMA health center No. 48 .

This chapter presents the findings from data analysis. The data analysis reports on the survey, outcomes, and results, in following orders:

1. General characteristics of the population
2. Knowledge about preventive behaviors regarding stress management
3. Attitudes about preventive behaviors regarding stress management
4. Practices about preventive behaviors regarding stress management
5. Associations between general characteristics with knowledge, with attitudes, and with practice of preventive behaviors regarding stress management
6. Associations between knowledge and attitudes of preventive behaviors regarding stress management
7. Associations between knowledge and practices of preventive behaviors regarding stress management
8. Associations between attitudes and practices of preventive behaviors regarding stress management

### 4.1 General characteristics of the study subjects

The description of general characteristics of the study subjects includes address, gender, age, nationality, marital status, educational level, occupation, family members, monthly household income, monthly household expenditure, family members with hypertension, cause (s) of subject's stress, subject's ability to relieve his/her stress, hours of sleep, height \& weight (BMI), and measured blood pressure for the two most recent times of the subjects.

A total of 300 subjects were interviewed with structured questionnaire in the BMA health center No. 48. All subjects were Thai by nationality.

Table 4: Address distribution of the subjects

| Characteristics | Number | Percentage |
| :--- | :---: | :---: |
| Bangkok | 293 | 97.7 |
| Outside | 7 | 2.3 |
| Total | 300 | 100.0 |

The most of the subjects (97.7\%) lived in Bangkok and 2.3\% lived outside perhaps from Samutsakorn adjacent area (table 4).

Table 5: Gender distribution of the subjects

| Characteristics | Number | Percentage |
| :--- | :--- | :---: |
| Male | 95 | 31.7 |
| Female | 205 | 68.3 |
| Total | 300 | 100.0 |

As presented in table 5, 31.7\% of the subjects were male and $68.3 \%$ were female.

Table 6: Age distribution of the subjects

| Characteristics (years) | Number | Percentage |
| :--- | :---: | :---: |
| $35-44$ | 15 | 5.0 |
| $45-54$ | 70 | 23.3 |
| $55-64$ | 96 | 32.0 |
| $65-74$ | 90 | 30.0 |
| $>74$ | 29 | 9.7 |
| Total | 300 | 100.0 |
| Mean=61.07 | SD=10.311 |  |

The age distribution of the study subjects were the highest in the age group from 55 to $64(32 \%)$, followed with $30 \%$ in the bracket of $65-74,23.3 \%$ between $45-54$, $9.7 \%$ in over than 74 years old, and the least portion was $5 \%$ in the age $35-44$, as shown table 6.

Table 7: Marital status distribution of the subjects

| Characteristics | Number | Percentage |
| :--- | :---: | :---: |
| Single | 17 หาวิทยาลัย | 5.7 |
| Married | 188 | 62.7 |
| Widowed | 77 | 25.7 |
| Divorced/separate | 18 | 6.0 |
|  |  |  |
| Total | 300 | 100.0 |

The majority of the subjects $62.7 \%$ were married, while $5.7 \%$ were single, $25.7 \%$ were widowed and $6 \%$ were divorced or separated respectively (table 7 ).

Table 8: Educational status distribution of the subjects

| Characteristics | Number | Percentage |
| :--- | :---: | :---: |
| Less than Prathomsuksa | 49 | 16.3 |
| Prathomsuksa | 182 | 60.7 |
| Mathayom | 42 | 14.0 |
| Vocation | 10 | 3.3 |
| Over than Vocation | 17 | 5.7 |
| Total | 300 | 100.0 |

Educational status of the subjects showed that $16.3 \%$ of subjects had less than Prathomsuksa while $60.7 \%$ had Prathomsuksa, 14\% had Mathayom, 3.3\% had Vocation and $5.7 \%$ had over than Vocation level (table 8).

Table 9: Occupation distribution of the subjects

| Characteristics | Number | Percentage |
| :--- | :---: | :---: |
| Agricultural worker | 22 | 7.3 |
| General labor | 45 | 15.0 |
| Own small business | 25 | 8.3 |
| Business owner | 12 | 4.0 |
| Housekeeper | CHULALONG 162 | 54.0 |
| Retired person | 12 | 4.0 |
| Not working | 17 | 5.7 |
| Other | 5 | 1.7 |
| Total | 300 | 100.0 |

Regarding the occupation of the subjects, housekeeper (54\%) were the most, $15 \%$ were general labor, $8.3 \%$ owned their small business and $5.7 \%$ were not working,. The rest were agricultural worker, business owner and retired person (table 9).

Table 10: Distribution of the family members of the subjects

| Characteristics (person) | Number | Percentage |
| :--- | :---: | :---: |
| $<4$ | 88 | 29.3 |
| $4-5$ | 130 | 43.3 |
| $>5$ | 82 | 27.3 |
| Total | 300 | 100.0 |
| Mean=4.73 | SD=2.314 |  |

As shown in table 10 , subjects having less than 4 of the family members were $29.3 \%$, between $4-5$ were $43.3 \%$ and more than 5 were $27.3 \%$. And the subjects had 4.73 of the family members on average.

Table 11: Monthly household income distribution of the subjects

| Characteristics (Baht) | Number | Percentage |
| :--- | :---: | :---: |
| $<=9,000$ | 119 | 39.7 |
| $9,001-28,000$ | 129 | 43.0 |
| $>28,000$ | 52 | 17.3 |
| Total | 300 | 100.0 |
| Minimum=500 | Maximum $=100000$ | Mean $=15598.33$ |

On the issue of monthly household income, $39.7 \%$ of the subjects had income $<=9,000$ baht, $43 \%$ of them had income in the range of $9,001-28,000$ baht, while $17.3 \%$ had income more than 28,000 baht. The subjects' monthly household income level was 15,600 Baht on average (table 11).

Table 12: Monthly household expenditure distribution of the subjects

| Characteristics (Baht) | Number | Percentage |
| :--- | :---: | :---: |
| $<=9,000$ | 143 | 47.7 |
| $9,001-28,000$ | 123 | 41.0 |
| $>28,000$ | 34 | 11.3 |
| Total | 300 | 100.0 |
| Minimum=500 | Maximum=80000 | Mean=13475 |
|  |  | SD=11323.15 |

For monthly household expenditure distribution, it was similar to the income range. It showed that $47.7 \%$ of the subjects had expenditure $<=9,000$ baht, $41 \%$ had expenditure in the range of $9,001-28,000$ baht, while $11.3 \%$ had expenditure more than 28,000 baht, and mean of the expenditure was 13,475 Baht (table 12).

Table 13: Distribution of the family history who has hypertension of the subjects

| Characteristics | Number | Percentage |
| :--- | :---: | :---: |
| Yes | 141 | 47.0 |
| No | 159 | 53.0 |
| Total | 300 กาวิทยาลัย | 100.0 |

As shown in table 13, most of subjects (53\%) did not have family history who has hypertension. $47 \%$ had family history with hypertension which from their understanding were their husbands, wives, and sons, in addition to fathers, mothers, siblings, and brothers, as asked in this questionnaire.

Table 14: Distribution of the main cause (s) of stress of the subjects

| Characteristics | Number | Percentage |
| :--- | :---: | :---: |
| Financial problem | 103 | 34.3 |
| Social status | 16 | 5.3 |
| Social relation with others | 7 | 2.3 |
| Family problem/relation with life partner 74 | 24.7 |  |
| Other | 100 | 33.3 |
| Total | 300 | 100.0 |

For the distributions of main cause(s) of stress, it showed that their stress was due to financial problem for $34.3 \%$, followed with $24.7 \%$ to family problem/relation with life partner, $5.3 \%$ to social status, and $2.3 \%$ to social relation to others. As a matter of fact, the subjects responded to having "other" problem at $33.3 \%$ which included health-related issues and stress from work (table 14).

Table 15: Distribution of the subject's ability to relieve stress

| Characteristics | Number | Percentage |
| :--- | :---: | :---: |
| Yes | 245 | 81.7 |
| No | 300 | 18.3 |
| Total | 55 UNIVERSITYY | 100.0 |

As presented in the table 15 , the subjects who had an ability to relieve stress were $81.7 \%$ and for those who had no ability were $18.3 \%$ only.

Table 16: Distribution of the sleep hours per night of the subjects

| Characteristics (hours) | Number | Percentage |
| :--- | :---: | :---: |
| $1-5$ | 89 | 29.7 |
| $6-8$ | 205 | 68.3 |
| $>8$ | 6 | 2.0 |
| Total | 300 | 100.0 |
| Minimum=1 | Maximum=12 | Mean=6.42 | SD=1.396 $\quad$.

For the distribution of sleep hours per night of the subjects, it showed that $29.7 \%$ of the subjects slept for less than 6 hours, $68.3 \%$ of them slept between $6-8$ hours, while $2 \%$ of them slept for more than 8 hours per night.

Table 17: Distribution of the BMI of the subjects

|  | BMI |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Gender | $<18.5$ | $18.5-24.9$ | $25-29.9$ | $>=30$ | Total |
| Male | $5(5.3)$ | $40(42.1)$ | $37(38.9)$ | $13(13.7)$ |  |
| Female | $5(2.4)$ | $93(45.4)$ | $67(32.7)$ | $40(19.5)$ | $205(100)$ |
| Total | $10(3.3)$ | $133(44.3)$ | $104(34.7)$ | $53(17.7)$ | $300(100)$ |
| Minimum=16.26 | Maximum $=46.67$ | Mean=25.862 | $\mathrm{SD}=4.6679$ |  |  |

As presented in table 17, the subjects having BMI less than 18.5 were $3.3 \%$, the subjects having range of $18.5-24.9$ were $44.3 \%, 34.7 \%$ of the subjects had range of $25-29.9$, and $17.7 \%$ of them were with BMI of 30 or over/ And the mean of the subjects' BMI was 25.862. In male, the subjects having BMI less than 18.5 were $5.3 \%$, 18.5-24.9 were $42.1 \%, 25-29.9$ were $38.9 \%$ and 30 or over were $13.7 \%$. In female, proportion of BMI was $2.4 \%, 45.4 \%, 32.7 \%$ and $19.5 \%$, respectively.

Table 18: Distribution of systolic blood pressure of subjects

| Characteristics | Number | Percentage |
| :--- | :---: | :---: |
| $<130$ | 62 | 20.7 |
| $130-150$ | 174 | 58.0 |
| $>150$ | 64 | 21.3 |
| Total | 300 | 100.0 |
| Mean=140.59 | SD=19.84 |  |

As shown in table 18, the subjects having blood pressure less than 130 mmHg were $20.7 \%, 58.0 \%$ of them had blood pressure were in the range of $130-150 \mathrm{mmHg}$, while $21.3 \%$ had blood pressure more than 150 mmHg . The mean of the systolic blood pressure of the subjects was 140.59 mmHg .

Table 19: Distribution of diastolic blood pressure of subjects

| Characteristics | Number | Percentage |
| :--- | :---: | :---: |
| $<80$ | 88 | 29.3 |
| $80-89$ | 119 | 39.7 |
| $>=90$ |  | 31.0 |
| Total | ChULALONGK | 300 |
| Mean=83.69 | SD=9.64 | 100.0 |

According to the diastolic blood pressure of the subjects, $29.3 \%$ of the subjects had blood pressure less than $80 \mathrm{mmHg}, 39.7 \%$ of them had blood pressure in the range of $80-89 \mathrm{mmHg}$ and $31 \%$ had blood pressure 90 mmHg and over. Mean was 83.69 mmHg (table 19).

### 4.2 Knowledge of preventive behaviors regarding stress management

Table 20: Distribution of knowledge level of preventive behaviors regarding stress management of the subjects

| Level | Number | Percentage |
| :--- | :---: | :---: |
| Low | 46 | 15.3 |
| Moderate | 95 | 31.7 |
| High | 159 | 53.0 |
| Total | 300 | 100.0 |

Minimum=1 Maximum=9 Mean=7.26 $\mathrm{SD}=1.703$

Distribution of knowledge of preventive behaviors regarding stress management of subjects showed that $53 \%$ of subjects had "good knowledge" $31.7 \%$ of them had "moderate knowledge" while $15.3 \%$ had "poor knowledge", and within the range of knowledge score 1-9, the mean was 7.26 , as presented in table 20 .

### 4.3 Attitudes of preventive behaviors regarding stress management

Table 21: Distribution of attitudes level of preventive behaviors regarding stress management of the subjects

| Level | Number | Percentage |
| :--- | :---: | :---: |
| Low | 49 | 16.3 |
| Moderate | 133 | 44.3 |
| High | 118 | 39.3 |
| Total | 300 | 100.0 |
| Minimum=16 Maximum=30 | Mean=26.28 | $\mathrm{SD}=2.844$ |

Distribution of attitudes of preventive behaviors regarding stress management of subjects is shown in table 21 . There were $39.3 \%$ of subjects who had "good attitude",
$44.3 \%$ of them had "moderate attitude", while $16.3 \%$ had "low attitude", and within the range of attitudes score $16-30$, the mean was 26.28 , as shown above table 21 .

### 4.4 Practices of preventive behaviors regarding stress management

Table 22: Distribution of practice of preventive behaviors regarding stress management of the subjects

| Level | Number | Percentage |
| :--- | :---: | :---: |
| Low | 73 | 24.3 |
| Moderate | 153 | 51.0 |
| High | 74 | 24.7 |
| Total | 300 | 100.0 |

Minimum=21 Maximum=39 Mean=29.99 SD=3.652

As presented in table 22, about half of the subjects had "moderate practice" and $24.7 \%$ had "high practice", while $24.3 \%$ had "low practice", and within the range of subjects' practices scores $21-39$, the mean of the practices scores was 29.99 .

### 4.5 Association between general characteristics with knowledge, with attitudes, and with practice of preventive behaviors regarding stress management

Most of general characteristics of the subjects had no significant association with knowledge, attitudes and practice of preventive behaviors regarding stress management, however, an ability to relieve stress of subjects had statistically significant association with knowledge and attitudes of preventive behaviors regarding stress management.

Table 23: Association between gender and practices of preventive behaviors regarding stress management

|  | Practices status |  |  |  |  | Chi- |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | P value

There was no significant association between gender and practices of preventive behaviors regarding stress management ( $p$-value 0.276 ) (table 23).

Table 24: Association between age and practices of preventive behaviors regarding stress management

| $\begin{gathered} \text { Age } \\ \text { (years) } \end{gathered}$ | Practices status |  |  |  | ChiSquare |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { Low } \\ \hline \text { No (\%) } \end{gathered}$ | $\begin{aligned} & \hline \text { Moderate } \\ & \hline \text { No (\%) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { High } \\ & \hline \text { No (\%) } \end{aligned}$ | $\begin{gathered} \hline \text { Total } \\ \hline \text { No (\%) } \end{gathered}$ |  |
|  |  |  |  |  |  |
| 35-44 | 8(53.3) | 7(46.7) | 0 (0) | 15(100) |  |
| 45-54 | 13(18.6) | 41(58.6) | 16(22.8) | 70(100) |  |
| 55-64 | 26(27.1) | 43(44.8) | 27(28.1) | 96(100) | 13.2040 .105 |
| 65-74 | 20(22.2) | 48(53.3) | 22(24.4) | 90(100) |  |
| $>74$ | 6(20.7) | 14(48.3) | $9(31.0)$ | 29(100) |  |
| Total | 73(24.3) | 153(51.0) | 74(24.7) | 300(100) |  |

As presented in table 24, there was no significant association between age and practices of preventive behaviors regarding stress management ( $p$-value 0.105 ).

Table 25: Association between marital status and practices of preventive behaviors regarding stress management

| Marital status | Practices status |  |  |  | Chi- <br> Square | P value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { Low } \\ \hline \text { No (\%) } \end{gathered}$ | $\begin{gathered} \hline \text { Moderate } \\ \hline \text { No (\%) } \end{gathered}$ | $\begin{aligned} & \hline \text { High } \\ & \hline \text { No (\%) } \end{aligned}$ | $\begin{gathered} \hline \text { Total } \\ \hline \text { No (\%) } \end{gathered}$ |  |  |
|  |  |  |  |  |  |  |
| Single | 5(29.4) | 10(58.8) | 2(11.8) | 17(100) |  |  |
| Married | 44(23.4) | 91(48.4) | 53(28.2) | 188(100) |  |  |
| Widowed | 19(24.7) | 41(53.2) | 17(22.1) | 77(100) | 4.872 | 0.560 |
| Divorced | 5(27.8) | 11(61.1) | $2(11.1)$ | 18(100) |  |  |
| Total | 73(24.3) | 153(51.0) | 74(24.7) | 300(100) |  |  |

As shown in table 25, there was no significant association between marital status and practices of preventive behaviors regarding stress management ( p -value 0.560 ).

Table 26: Association between educational status and practices of preventive behaviors regarding stress management

| Educational status | Practices status |  |  |  | $\begin{aligned} & \text { Chi- } \quad P \\ & \text { value Square } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { Low } \\ \hline \text { No (\%) } \end{gathered}$ | Moderate <br> No (\%) | $\begin{array}{r} \text { High } \\ \hline \text { No (\%) } \end{array}$ | TotalNo (\%) |  |
|  |  |  |  |  |  |
| <Primary | 16(32.7) | 25(51.0) | 8(16.3) | 49(100) |  |
| Primary | 40(22.0) | 95(52.2) | 47(25.8) | 182(100) |  |
| Secondary | 11(26.2) | 19(45.2) | 12(28.6) | 42(100) | $7.661 \quad 0.467$ |
| Vocation | 4(40.0) | 3(30.0) | 3(30.0) | 10(100) |  |
| >Vocation | 2(11.8) | 11(64.7) | 4(23.5) | 17(100) |  |
| Total | 73(24.3) | 153(51.0) | 74(24.7) | 300(100) |  |

There was no relationship between educational status and practices of preventive behaviors regarding stress management ( p -value 0.467 ), as presented in table 26.

Table 27: Association between occupation and practices of preventive behaviors regarding stress management

|  | Practices status |  |  |  |  | Chi- |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- | P value

As presented above table, there was no significant association between occupation and practices of preventive behaviors regarding stress management (pvalue 0.468 ).

Table 28: Association between numbers of family member and practices of preventive behaviors regarding stress management

| Family member (person) | Practices status |  |  |  | Chi- <br> Square | $P$ value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Low | Moderate | High | Total |  |  |
|  | No (\%) | No (\%) | No (\%) | No (\%) |  |  |
| <4 | 20(22.7) | 44(50.0) | 24(27.3) | 88(100) |  |  |
| 4-5 | 35(26.9) | 68(52.3) | 27(20.8) | 130(100) |  |  |
| >5 | 18(21.9) | 41(50.0) | 23(28.1) | 82(100) | 2.143 | 0.710 |
| Total | 73(24.3) | 153(51.0) | 74(24.7) | 300(100) |  |  |

There was no relationship between numbers of family member and practices of preventive behaviors regarding stress management (p-value 0.710 ), as shown in table 28.

Table 29: Association between monthly household income and practices of preventive behaviors regarding stress management

| Monthly income (Baht) | Practices status |  |  |  | Chi- P value Square |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Low | Moderate | High | Total |  |
|  | No (\%) | No (\%) | No (\%) | No (\%) |  |
| $<=9000$ | 24(20.2) | 72 (60.5) | 23(19.3) | 119(100) |  |
| 9001-28000 | 34(26.4) | 61(47.2) | 34(26.4) | 129(100) |  |
| >28000 | 15(28.8) | $20(38.5)$ | 17(32.7) | 52(100) | 8.4420 .077 |
| Total | 73(24.3) | 153(51.0) | 74(24.7) | 300(100) |  |

As shown in table 29, there was no significant association between monthly household income and practices of preventive behaviors regarding stress management (p-value 0.077).

Table 30: Association between monthly household expenditure and practices of preventive behaviors regarding stress management

| Monthly expenditure <br> (Baht) | Practices status |  |  |  | Chi- $P$ <br> value Square |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Low | Moderate | High | Total |  |
|  | No (\%) | No (\%) | No (\%) | No (\%) |  |
| $<=9,000$ | 30(21.0) | 82(57.3) | 31(21.7) | 143(100) |  |
| 9,001-28,000 | 34(27.6) | 59(48.0) | 30(24.4) | 123(100) |  |
| >28,000 | $9(26.5)$ | 12(35.3) | 13(38.2) | 34(100) | 7.3320 .119 |
| Total | 73(24.3) | 153(51.0) | 74(24.7) | 300(100) |  |

As presented in table 30, there was no significant association between monthly household expenditure and practices of preventive behaviors regarding stress management ( $p$-value 0.119 ).

Table 31: Association between family history who has hypertension and practices of preventive behaviors regarding stress management

| Family history | Practices status |  |  |  | Chi- <br> Square | value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { Low } \\ \hline \text { No (\%) } \end{gathered}$ | $\begin{gathered} \hline \text { Moderate } \\ \hline \text { No (\%) } \end{gathered}$ | $\begin{gathered} \text { High } \\ \text { No (\%) } \end{gathered}$ | $\begin{gathered} \hline \text { Total } \\ \hline \text { No (\%) } \end{gathered}$ |  |  |
|  |  |  |  |  |  |  |
| Yes | 31(22.0) | 75(53.2) | 35(24.8) | 141(100) |  |  |
| No | 42(26.4) | 78(49.1) | 39(24.5) | 159(100) | 0.856 | 0.652 |
| Total | 73(24.3) | 153(51.0) | 74(24.7) | 300(100) |  |  |

There was no significant association between family history with hypertension and practices of preventive behaviors regarding stress management ( $p$-value 0.652 ), as presented in table 31.

Table 32: Association between cause (s) of stress and practices of preventive behaviors regarding stress management

| Cause of stress | Practices status |  |  |  | Chi- P value Square |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Low | Moderate | High | Total |  |
|  | No (\%) | No (\%) | No (\%) | No (\%) |  |
| Financial | 31(30.1) | 52(50.5) | 20(19.4) | 103(100) |  |
| Social status | 3(18.8) | 12(75.0) | 1(6.2) | 16(100) |  |
| Social relation | 1(14.3) | 4(57.1) | $2(28.6)$ | 7(100) |  |
| Family | 19(25.7) | 32(43.2) | 23(31.1) | 74(100) | 15.3960 .118 |
| Other | 19(19.0) | 53(53.0) | 28(28.0) | 100(100) |  |
| Total | 73(24.3) | 153(51.0) | 74(24.7) | 300(100) |  |

There was no significant association between cause of stress and practices of preventive behaviors regarding stress management (p-value 0.118 ) (table 32).

Table 33: Association between ability to relieve stress and knowledge of preventive behaviors regarding stress management

| Knowledge <br> status | Ability to relieve stress |  | Chi- | P value |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Low | Yes | No | Total | Squan |  |
| Moderate | $31(67.4)$ | $15(32.6)$ | $46(100)$ |  |  |
| High | $76(80.0)$ | $19(20.0)$ | $95(100)$ |  |  |
| Total | $138(86.8)$ | $21(13.2)$ | $159(100)$ | 9.227 | 0.01 |

As presented in table 33, an ability to relieve stress of the subjects had significant association with knowledge of preventive behaviors regarding stress management ( p -value 0.01 ).

Table 34: Association between ability to relieve stress and attitudes of preventive behaviors regarding stress management

| Attitudes <br> status | Ability to relieve stress |  |  | Chi- | P value |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Yes | No | Total | Square |  |
| Low | $26(53.1)$ | $23(46.9)$ | $49(100)$ |  |  |
| Moderate | $108(81.2)$ | $25(18.8)$ | $133(100)$ |  |  |
| High | $111(94.1)$ | $7(5.9)$ | $118(100)$ | 38.919 | 0.000 |
| Total | $245(81.7)$ | $55(18.3)$ | $300(100)$ |  |  |

The ability to relieve stress of the subjects had a strongly significant association with attitudes of preventive behaviors regarding stress management ( $p<0.001$ ) (table 34).

Table 35: Association between ability to relieve stress and practices of preventive behaviors regarding stress management

| Practices <br> status | Ability to relieve stress |  |  | Chi- | P value |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Yes | No | Total | Square |  |
| Low | $57(78.1)$ | $16(21.9)$ | $73(100)$ |  |  |
| Moderate | $121(79.1)$ | $32(20.9)$ | $153(100)$ |  |  |
| High | $67(90.5)$ | $7(9.5)$ | $74(100)$ | 5.200 | 0.074 |
| Total | $245(81.7)$ | $55(18.3)$ | $300(100)$ |  |  |

As presented in table 35 , there was no significant association between ability to relieve stress and practices of preventive behaviors regarding stress management ( $p$ value 0.074 ).

Table 36: Association between sleep hours per night on average and practices of preventive behaviors regarding stress management

| Sleep <br> (hours) | Practices status |  |  |  | Chi- P value <br> Square |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Low | Moderate | High | Total |  |  |
|  | No (\%) | No (\%) | No (\%) | No (\%) |  |  |
| 1-5 | 24(27.0) | 51(57.3) | 14(15.7) | 89(100) |  |  |
| 6-8 | 49(23.9) | 98(47.8) | 58(28.3) | 205(100) |  |  |
| >8 | 0 | 4(66.7) | 2(33.3) | 6(100) | 7.278 | 0.122 |
| Total | 73(24.3) | 153(51.0) | 74(24.7) | 300(100) |  |  |

As shown in table 36, there was no significant association between sleep hours per night on average and practices of preventive behaviors regarding stress management ( $p$-value 0.122 ).

Table 37: Association between BMI and practices of preventive behaviors regarding stress management

| BMI | Practices status |  |  |  | Chi- <br> Squar | $P$ value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { Low } \\ \hline \text { No (\%) } \end{gathered}$ | Moderate <br> No (\%) | $\begin{aligned} & \hline \text { High } \\ & \hline \text { No (\%) } \end{aligned}$ | $\begin{gathered} \hline \text { Total } \\ \hline \text { No (\%) } \end{gathered}$ |  |  |
|  |  |  |  |  |  |  |
| <18.5 | 5(50.0) | 3(30.0) | 2(20.0) | 10(100) |  |  |
| 18.5-24.9 | 29(21.8) | 72(54.1) | 32(24.1) | 133(100) |  |  |
| 25-29.9 | 25(24.0) | 51(49.0) | 28(26.9) | 104(100) | 4.765 | 0.574 |
| $>=30$ | 14(26.4) | 27(50.9) | 12(22.7) | 53(100) |  |  |
| Total | 73(24.3) | 153(51.0) | 74 (24.7) | 300(100) |  |  |

There was no relationship between BMI of the subjects and practices of preventive behaviors regarding stress management ( $p$-value 0.574 ), as presented in table 37.

Table 38: Association between systolic blood pressure and practices of preventive behaviors regarding stress management

| Systolic <br> blood pressure | Practices status |  |  |  | Chi- P value <br> Square |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { Low } \\ \hline \text { No (\%) } \end{gathered}$ | $\begin{gathered} \hline \text { Moderate } \\ \hline \text { No (\%) } \end{gathered}$ | $\begin{gathered} \hline \text { High } \\ \hline \text { No (\%) } \end{gathered}$ | $\begin{aligned} & \hline \text { Total } \\ & \hline \text { No (\%) } \end{aligned}$ |  |
|  |  |  |  |  |  |
| $<130$ | 16(25.8) | 34(54.8) | 12(19.4) | 62(100) |  |
| 130-150 | 35(20.1) | 94(54.0) | 45(25.9) | 174(100) |  |
| >150 | 22(34.4) | 25(39.0) | 17(26.6) | 64(100) | 7.1620 .128 |
| Total | 73(24.3) | 153(51.0) | 74(24.7) | 300(100) |  |

As presented in table 38, there was no relationship between systolic blood pressure and practices of preventive behaviors regarding stress management ( $p$-value 0.128 ).

Table 39: Association between diastolic blood pressure and practices of preventive behaviors regarding stress management

| Diastolic blood pressure | Practices status |  |  |  | Chi- <br> Square | P value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Low | Moderate | High | Total |  |  |
|  | No (\%) | No (\%) | No (\%) | No (\%) |  |  |
| <80 | 26(29.5) | 43(48.9) | 19(21.6) | 88(100) |  |  |
| 80-89 | 24(20.2) | 69(58.0) | 26(21.8) | 119(100) |  |  |
| $>=90$ | 23(24.7) | 41(44.1) | 29(31.2) | 93(100) | 6.247 | 0.181 |
| Total | 73(24.3) | 153(51.0) | 74(24.7) | 300(100) |  |  |

As shown in table 39, there was no significant association between diastolic blood pressure and practices of preventive behaviors regarding stress management ( $p$ value 0.181 ).

Table40: Association between systolic blood pressure and ability to relieve stress

| Systolic blood <br> pressure | Ability to relieve stress |  |  | Chi- | P value |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Yes | No | Total | Square |  |
| $<130$ | $52(83.9)$ | $10(16.1)$ | $62(100)$ |  |  |
| $130-150$ | $143(82.2)$ | $31(17.8)$ | $174(100)$ |  |  |
| $>150$ | $50(80.6)$ | $14(19.4)$ | $64(100)$ | 0.768 | 0.681 |
| Total | $245(81.7)$ | $55(18.3)$ | $300(100)$ |  |  |

There was no significant relationship between systolic blood pressure and ability to relieve stress ( $p$-value 0.681 ), as shown in the above table.

Table 41: Association between diastolic blood pressure and ability to relieve stress

| Diastolic blood <br> pressure | Ability to relieve stress |  |  | Chi- | P value |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
| $<80$ | $70(79.5)$ | $18(20.5)$ | $88(100)$ |  |  |
| $80-89$ | $97(81.5)$ | $22(18.5)$ | $119(100)$ |  |  |
| $>=90$ | $78(83.9)$ | $15(16.1)$ | $93(100)$ | 0.568 | 0.753 |
| Total | $245(81.7)$ | $55(18.3)$ | $300(100)$ |  |  |

As presented in table 41, there was no significant association between diastolic blood pressure and ability to relieve stress ( $p$-value 0.753 ).

Table 42: Association between cause of stress and systolic blood pressure

| Cause of |  | Systolic blood pressure |  |  | Chi- | P value |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| stress | $<130$ | $130-150$ | $>150$ | Total | Square |  |
| Financial | $20(19.4)$ | $68(66.0)$ | $15(14.6)$ | $103(100)$ |  |  |
| Social status | $4(25.0)$ | $6(37.5)$ | $6(37.5)$ | $16(100)$ |  |  |
| Social relation | $1(14.3)$ | $5(71.4)$ | $1(14.3)$ | $7(100)$ |  |  |
| Family | $17(23.0)$ | $43(58.9)$ | $14(19.1)$ | $74(100)$ | 10.335 | 0.242 |
| Other | $20(20.0)$ | $52(52.0)$ | $28(28.0)$ | $100(100)$ |  |  |
| Total | $62(20.7)$ | $174(58.0)$ | $64(21.3)$ | $300(100)$ |  |  |

There was no significant association between cause of stress and systolic blood pressure ( $p$-value 0.242 ), as shown in table 42.

Table43: Association between cause of stress and diastolic blood pressure

| Cause of | Diastolic blood pressure |  |  |  |  | Chi- |
| :--- | ---: | ---: | ---: | ---: | ---: | :--- | P value

As presented in table 43, there was no significant association between cause of stress and diastolic blood pressure ( $p$-value 0.996 ).

### 4.6 Association between knowledge and attitudes of preventive <br> behaviors regarding stress management

Table 44: Association between knowledge and attitudes of preventive behaviors regarding stress management

| Knowledge status | Attitudes status |  |  |  | Chi- P value <br> Square |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Low IULA Moderate |  | High RSITY Total |  |  |
|  | No (\%) | No (\%) | No (\%) | No (\%) |  |
| Low | 19(41.3) | 16(34.8) | 11(23.9) | 46(100) |  |
| Moderate | 18(18.9) | 45(47.4) | 32(33.7) | 95(100) |  |
| High | 12(7.5) | 72(45.3) | 75(47.2) | 159(100) | 32.6480 .000 |
| Total | 49(16.3) | 133(44.3) | 118(39.3) | 300(100) |  |

There was a highly significant association between knowledge and attitudes of preventive behaviors regarding stress management ( $p<0.001$ ), as presented in table 44.

### 4.7 Association between knowledge and practices of preventive behaviors regarding stress management

Table 45: Association between knowledge and practices of preventive behaviors regarding stress management

|  | Practices status |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Chi- | P value |  |  |  |  |
|  |  | Moderate | High | Total | Square |

Table 45 showed that there was no significant association between knowledge and practices of preventive behaviors regarding stress management ( $p$-value 0.142 ).

### 4.8 Association between attitudes and practices of preventive behaviors regarding stress management

Table 46: Association between attitudes and practices of preventive behaviors regarding stress management

| Attitudes status | Practices status |  |  |  | Chi- <br> Square |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { Low } \\ \hline \text { No (\%) } \end{gathered}$ | ModerateNo (\%) | $\begin{aligned} & \hline \text { High } \\ & \hline \text { No (\%) } \end{aligned}$ | $\begin{gathered} \hline \text { Total } \\ \hline \text { No (\%) } \end{gathered}$ |  |
|  |  |  |  |  |  |
| Low | 20(40.8) | 23(46.9) | 6(12.3) | 49(100) |  |
| Moderate | 33(24.8) | 76(57.1) | 24(18.1) | 133(100) |  |
| High | 20(16.9) | 54(45.8) | 44(37.3) | 118(100) | 22.9550 .000 |
| Total | 73(24.3) | 153(51.0) | 74(24.7) | 300(100) |  |

There was a highly significant association between attitudes and practices of preventive behaviors regarding stress management ( $\mathrm{p}<0.001$ ), as shown in table 46.

