CHAPTER VII

ANALYSIS - III AGE AND HEALTH PROBLEMS

With advancing age the susceptibility to illness increases. Age reduces both the physical and mental resistance power of the worker to these hazards. Period of exposure is measured in terms of years the worker has worked in a particular environment. Thus, increasing age enhances risks to worker's health. Work and working are always taxing on human body, though the degree may vary from person to person. Studies suggest that occupational disease may also develop due to exposure (long and extended to a particular hazardous occupational environment. (Schuler, 1980) Thus, age and exposure are practically coterminous and have almost identical effects on the health of workers, the factors of age increasing the ill-effects of exposure.

Occupational stresses usually develop over an extended period of time. They are slow and generally cumulative in their effects.They are irreversible and often complicated by non-occupational factors.

TABLE 7.1

BACK PROBLEM AND AGE

Health Problem Back	AGE						Total Number of respondents
	20-30 years		31-40 years		Above 40 years		
	N	%	N	%	N	%	
Sufferers	27	22.68	27	22.68	74	34.90	128
Non-sufferers	92	77.31	92	77.31	138	65.09	322
Total	119	100	119	100	212	100	450

The age group of above 40 years shows slightly high back problem (Fig.5.1.a).

TABLE 7.2

NECK PROBLEM AND AGE

Health Problem Neck	AGE						Total Number of respondents
	20-30 years		31-40 years		Above 40 years		
	N	%	N	%	N	%	
Sufferers	19	15.06	19	15.96	37	17.46	75
Non-sufferers	100	84.04	100	84.04	175	82.54	375
Total	119	100	119	100	212	100	450

Neck informity in all age groups is low (Fig.5.2.a.)

TABLE 7.3

SHOULDER PROBLEM AND AGE

Health Problem	AGE						Total
	20-30 years		31-40 years		Above 40 years		Number of
Shoulder	N	%	N	%	N	%	respondents
Sufferers	26	21.84	24	20.17	45	21.23	95
Non-sufferers	93	78.16	95	79.83	167	78.77	355
Total	119	100	119	100	212	100	450

All the age groups suffer from low shoulder infirmity (Fig.5.3.a.)

TABLE 7.4

HAND PROBLEM AND AGE

Health Problem	AGE						Total
	20-30 years		31-40 years		Above 40 years		Number of
Hands	N	%	N	%	N	%	respondents
Sufferers	22	18.49	22	18.49	59	27.35	103
Non-sufferers	97	82.35	97	82.35	153	72.16	347
Total	119	100	119	100	212	100	450

Workers above 40 years suffer from slightly high hand infirmity (Fig.5.4.a).

TABLE 7.5

LOWER LIMB PROBLEM AND AGE

Health Problem	AGE						Total Number of respondents
	20-30 years		31-40 years		Above 40 years		
Lower Limb	N	%	N	%	N	%	
Sufferers	42	35.29	40	33.61	103	48.58	165
Non-sufferers	77	64.70	79	66.38	109	51.41	265
Total	119	100	119	100	212	100	450

Lower limb infirmity is higher in the age group of above 40 years (Fig.5.5.a.)

TABLE 7.6

RESPIRATORY PROBLEM AND AGE

Health Problem	AGE						Total Number of respondents
	20-30 years		31-40 years		Above 40 years		
Respiratory System	N	%	N	%	N	%	
Sufferers	22	18.48	29	24.36	76	35.84	127
Non-sufferers	97	81.51	90	75.63	136	64.15	323
Total	119	100	119	100	212	100	450

The respiratory system problem is slightly high in the age group of above 40 years (Fig.5.6.a.)

TABLE 7.7

CARDIOVASCULAR PROBLEM AND AGE

Health problem Cardiovascular System	AGE						Total Number of respondents
	20-30 yrs		31-40 yrs		Above 40 years		
	N	%	N	%	N	%	
Sufferers	15	12.61	13	10.92	43	20.28	71
Non-sufferers	104	87.39	206	89.07	169	79.71	279
Total	119	100	119	100	212	100	450

All age groups have low cardiovascular system problem (Fig.5.7.a.)

TABLE 7.8

PROBLEM OF NERVOUS SYSTEM AND AGE

Health problem Nervous System	AGE						Total Number of respondents
	20-30 yrs		30-40 yrs		Above 40 years		
	N	%	N	%	N	%	
Sufferers	10	8.40	14	11.76	45	21.23	69
Non-sufferers	109	91.60	205	88.24	167	78.77	381
Total	119	100	119	100	212	100	450

The nervous system problem is slightly high in the age group above 40 years (Fig.5.8.a.)

TABLE 7.9

PROBLEM OF GASTROINTESTINAL SYSTEM AND AGE

Health Problem Gastrointest-inal system	AGE						Total Number of respondents
	20-30 yrs		31-40 yrs		Above 40 years		
	N	%	N	%	N	%	
Sufferers	13	10.92	17	14.23	29	13.68	59
Non-sufferers	106	89.08	102	83.71	183	86.32	391
Total	119	100	119	100	212	100	450

Gastrointestinal problems are low in all age groups (Fig.5.10.a)

TABLE 7.10

EYE PROBLEM AND AGE

Health problem Eyes	AGE						Total Number of respondents
	20-30 yrs		30-40 yrs		Above 40 years		
	N	%	N	%	N	%	
Sufferers	45	37.82	56	47.06	120	56.60	221
Non-sufferers	74	62.18	63	52.94	92	43.39	229
Total	119	100	119	100	212	100	450

Eye infirmity is high in all age groups (Fig.5.11.a)

TABLE 7.11

EAR PROBLEM AND AGE

Health Problem Ear	AGE						Total Number of respondents
	20-30 yrs		30-40 yrs		Above 40 years		
	N	%	N	%	N	%	
Sufferers	16	13.44	16	13.44	38	17.92	70
Non-sufferers	103	86.56	103	86.56	174	82.03	380
Total	119	100	119	100	212	100	450

Hearing informity is low in all age groups (Fig.5.11.a)

TABLE 7.12

SKIN PROBLEM AND AGE

Health problem Skin	AGE						Total Number of respondents
	20-30 yrs		30-40 yrs		Above 40 years		
	N	%	N	%	N	%	
Sufferers	16	13.44	27	22.68	61	28.77	104
Non-sufferers	103	86.56	92	77.32	151	71.23	346
Total	119	100	119	100	212	100	450

Skin problem is slightly high above 40 years of age (Fig.5.12.a.)

TABLE 7.13

NOSE PROBLEM AND AGE

Health Problem Nose	AGE						Total Number of respondents
	20-30 yrs		30-40 yrs		Above 40 years		
	N	%	N	%	N	%	
Sufferers	32	26.89	35	39.41	95	44.81	162
Non-sufferers	87	73.11	84	70.89	117	55.19	288
Total	119	100	119	100	212	100	450

Problem connected with the nose seems to be increasing with age and is high in the age group of above 40 years (Fig.5.13.a)

TABLE 7.14

SLEEP PROBLEM AND AGE

Health Problem Sleep	AGE						Total Number of respondents
	20-30 yrs		30-40 yrs		Above 40 years		
	N	%	N	%	N	%	
Sufferers	48	40.36	38	31.93	116	54.71	202
Non-sufferers	71	59.66	81	68.07	96	45.29	248
Total	119	100	119	100	212	100	450

Problem of sleep is slightly higher in initial ages. It decreases somewhat in 31-40 years group but again increases in the age group of above 40 years (Fig.5.14.a)

TABLE 7.15

ASTHMA PROBLEM AND AGE

Health Problem Asthma	AGE						Total Number of respondents
	20-30 yrs		31-40 yrs		Above 40 years		
	N	%	N	%	N	%	
Sufferers	16	13.44	15	12.60	52	24.52	83
Non-sufferers	103	86.56	104	87.40	160	75.48	367
Total	119	100	119	100	212	100	450

Asthma problem is slightly high in age group of above 40 years (Fig.5.15.a)

TABLE 7.16

STRESS PROBLEM AND AGE

Health Problem Stress	AGE						Total Number of respondents
	20-30 yrs		31-40 yrs		Above 40 years		
	N	%	N	%	N	%	
Sufferers	78	65.54	64	53.78	144	67.92	286
Non-sufferers	41	34.46	55	46.22	68	32.08	164
Total	119	100	119	100	212	100	450

Stress is high among all three age groups (Fig.5.15.a)

TABLE 7.17

Health Problem	Age Groups			Total Number of respondents
	20-30 yrs	31-40 yrs	Above 41 years	
	(% of workers affected)			
Back	21.09	21.09	57.81	128
Neck	25.33	25.33	49.33	75
Shoulder	27.36	25.26	47.36	95
Hands	21.35	21.35	57.28	103
Lower Limbs	25.45	24.24	62.42	185
Respiratory	17.32	22.83	59.84	127
Cardiovascular	21.13	18.30	60.56	69
Nervous	10.75	15.05	74.19	69
GIS	22.03	28.81	49.15	59
Eyes	20.36	26.41	54.29	221
Ears	22.85	22.85	54.28	70
Skin	15.38	25.96	58.65	104
Nose	19.75	21.60	58.64	162
Sleep	23.76	18.81	57.42	202
Asthma	19.27	18.07	62.65	83
Stress	27.27	22.38	50.35	286

When the infirmities are analaysed according to the different age group (Table 7.17) it is observed that in the age group of 20-30 years shoulder and stress problems are the highest (more than 27% each) followed by infirmity of the neck and lower limbs (more than 25.45 % each) and Sleep

(23.76%). The minimum problem seen in this age group is related to the nervous system.

In age group of 31-40 years problem of the Gastrointestinal System (28.81%) is the major hazard, followed by infirmities of the eyes (26.41%) skin (25.96%) neck (25.33%) and shoulder (25.33%) while the lowest problem in this group is related to the nervous system (15.05%) preceded by cardiovascular system (18.30), asthma (18.07%) and sleep (18.81%).

In the third age group of above 40 years, all the health problems have high percentages of sufferers. The major problem is of the nervous system (74.19%), followed by lower limb (62.42%) and asthma (62.65%). The lowest suffering experienced is of the shoulder (47.35%).

It is evident that with advancing years of age, the intensity of problems increases. Only in the case of sleep and stress a higher number of sufferers are noted in the age group of 20-30 years. All the other health problems increase with increasing age.

The salient fact that emerges is that health problem in an industrial environment, develops over an extended period of time. The problems are slow and cumulative in their effect. They are the result of constant exposure to the

influence of toxic substances and mechanical processes involving continuous physical labour. The association between age and various infirmities encountered among industrial workers are further substantiated by the results of the F-Test presented in Tables 7.18 to 7.33. It is amply clear that infirmities associated with the hands, lower limbs, respiratory system, cardiovascular system, nervous system, eyes, skin, nose, sleep and asthma are more among workers in the higher age groups. Other health problems show no significant relationship with age.

TABLE 7.18

Variable BACK
By Variable Age

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	8.0243	4.0121	4.5713	.0108
Within Groups	447	392.3215	.8777		
Total	449	400.3458			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	1.6143	.8922	.0818	1.0000	4.0000	1.4523 To 1.7762
Grp 2	119	1.6538	1.0200	.0935	1.0000	5.0000	1.4686 To 1.8389
Grp 3	212	1.9000	.9123	.0627	1.0000	5.0000	1.7765 To 2.0235
Total	450	1.7593	.9443	.0445	1.0000	5.0000	1.6719 To 1.8468

(*) Denotes pairs of groups significantly different at the .050 level

Mean	Group	G r p 1	G r p 2	G r p 3
1.6143	Grp 1			
1.6538	Grp 2			
1.9000	Grp 3			

The above table shows the association between health problem of back and age of the respondents.

It is seen that group 3(above 40 years) differs significantly from group 1(20-30 years) at 0.05 level of confidence. Rest of the groups do not show association as they are not significantly differing from each other.

TABLE 7.19

Variable D NECK NECK
By VariableAG

Analysis oi Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.3241	.1621	.1890	.8279
With Groups	447	383.3288	.8576		
Total	449	383.6529			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	1.6731	.9911	.0909	1.0000	5.0000	1.4932 To 1.8530
Grp 2	119	1.6277	.9488	.0870	1.0000	5.0000	1.4555 To 1.8000
Grp 3	212	1.6080	.8741	.0600	1.0000	5.0000	1.4897 To 1.7264
Total	450	1.6304	.9244	.0436	1.0000	5.0000	1.5448 To 1.7161

No two groups are significantly different at the .050 level.

The above table shows the assocaition between the problem of neck and age.

It is clear that neck and age show no association with each other. This signifies that neck problem is more or less same in all the three groups of age, becuase Scheffe procedure shows that no two groups differ significantly at 0.05 level of confidence.

TABLE 7.20

Variable SHOULDER
By Variable Age

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.3729	.1864	.1522	.8389
Within Groups	447	547.4857	1.2248		
Total	449	547.8586			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	1.7395	1.2013	.1101	1.0000	5.0000	1.5214 To 1.9576
Grp 2	119	1.6605	1.0420	.0955	1.0000	4.8000	1.4713 To 1.8497
Grp 3	212	1.6962	1.0865	.0746	1.0000	5.0000	1.5491 To 1.8433
Total	450	1.6982	1.1046	.0521	1.0000	5.0000	1.5959 To 1.8006

No two groups are significantly different at the .050 level

The above table shows the association between health variable shoulder in various age group of the workers.

The Scheffe procedure shows that no two group differ significantly at 0.05 level of confidence. Thus, it is clear that the shoulder problem is more or less same irrespective of the age group of the respondent.

TABLE 7.21

Variable Hands
By Variable Age

Analysis of Variance

Source	D.F.	Sum of Saquares	Mean Squares	F Ratio	F Prob.
Between Groups	2	8.9518	4.4759	3.6626	.0264
Within Groups	447	546.2584	1.2221		
Total	449	555.2102			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	1.5521	.8998	.0825	1.0000	5.0000	1.3888 To 1.7154
Grp 2	119	1.6681	1.0400	.0953	1.0000	5.0000	1.4793 To 1.8569
Grp 3	212	1.8797	1.2374	.0850	1.0000	5.0000	1.7122 To 2.0472
Total	450	1.7371	1.1120	.0524	1.0000	5.0000	1.6341 To 1.8401

(*) Denotes pairs of groups significantly different at the .050 level.

Mean	Group	Grp 1	Grp 2	Grp 3
1.5521	Grp 1			
1.6681	Grp 2			
1.8797	Grp 3	*		

The above table shows the association between the health problem of hands and age group.

It is seen that group 3(above 40 years age) differs significantly at 0.05 level of confidence from group 1 (20-30 years age). This means that hand problem and age group (40 years) have some association.The other groups do not differ significantly from one another.

TABLE 7.22

Variable Lower Limb
By Variable Age

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	18.6098	9.3049	5.7309	.0039
Within Groups	447	725.7590	1.6236		
Total	449	744.3688			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	2.0471	1.1576	.1061	.8000	5.0000	1.8369 To 2.2572
Grp 2	119	2.0571	1.2249	.1123	.8000	5.0000	1.8348 To 2.2795
Grp 3	212	2.4594	1.3605	.0934	1.0000	5.0000	2.2752 To 2.6436
Total	450	2.2440	1.2876	.0607	.8000	5.0000	2.1247 To 2.3633

(*) Denotes pair of groups significantly different at the .050 level

Mean	Group	Grp 1	Grp 2	Grp 3
2.0471	Grp 1			
2.0571	Grp 2			
2.4594	Grp 3	**		

The above table shows the association between problem of lower limb and variable age.

It is seen that group 3(above 40 years age) differs significantly from age group 1 (20-30 years age) and group 2 (31-40 years age) at 0.05 level of confidence. Thus, it is clear that there is some association between variable age and problem of lower limb as they differ significantly.

TABLE 7.23

Variable Respiratory Sys
By Variable Age

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	22.5066	11.2533	12.5894	.0000
Within Groups	447	399.5597	.8939		
Total	449	422.0662			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	1.7689	.7894	.0724	1.0000	4.6000	1.6256 To 1.9122
Grp 2	119	1.8160	.7948	.0729	1.0000	4.1000	1.6717 To 1.9602
Grp 3	212	2.2392	1.0917	.0750	1.0000	4.6000	2.0913 To 2.3870
Total	450	2.0029	.9695	.0457	1.0000	4.6000	1.9131 To 2.0927

(*) Denotes pairs of groups significantly different at the .050 level.

Mean	Group	Grp 1	Grp 2	Grp 3
1.7689	Grp 1			
1.8160	Grp 2			
2.2392	Grp 3	**		

The above table shows the association between respiratory system problem and age variable.

As the group 3(above 40 years) differs significantly from group 1 (20-30 years) and group 2(31-40 years age) at 0.05 level of confidence, it is clear that there is some association of the health problem related to respiratory system.

TABLE 7.24

Variable Cardio Vasc.Sys
By Variablve Age

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	8.5818	4.2909	6.9282	.0011
Within Groups	447	276.8414	.6193		
Total	449	285.4232			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	1.6319	.7660	.0702	1.0000	4.3000	1.4929 To 1.7710
Grp 2	119	1.6118	.6860	.0629	1.0000	3.7000	1.4872 To 1.7363
Grp 3	212	1.8981	.8490	.0583	1.0000	5.0000	1.7832 To 2.0131
Total	450	1.7520	.7973	.0376	1.0000	5.0000	1.6781 To 1.8259

(*) Denotes pairs of groups significantly different at the .050 level.

Mean	Group	Grp 2	Grp 1	Grp 3
1.6118	Grp 2			
1.6319	Grp 1			
1.8981	Grp 3	**		

The above table shows the association between the health problem of Cardiovascular system and age.

It is seen from the table that group 3(above 40 years age) differs significantly from group 2(31-40 years age) and group 1(20-30 years) at 0.05 level of confidence. This clearly shows some association between age and the cardiovascular problem.

TABLE 7.25

Variable Nervous System
By Variable Age

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	15.7830	7.8915	14.2766	.0000
Within Groups	447	247.0818	.5528		
Total	449	262.8648			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	1.4790	.6796	.0623	1.0000	5.0000	1.3356 To 1.6024
Grp 2	119	1.5378	.7550	.0692	1.0000	5.0000	1.4008 To 1.6749
Grp 3	212	1.8811	.7707	.0529	1.0000	4.2000	1.7768 To 1.9855
Total	450	1.6840	.7651	.0361	1.0000	5.0000	1.6131 To 1.7549

(*) Denotes pairs of groups significantly different at the .050 level

Mean	Group	Grp 1	Grp 2	Grp 3
1.4790	Grp 1			
1.5378	Grp 2			
1.8811	Grp 3	**		

The above table shows the association between nervous system problem and age groups of the respondents.

The group 3(above 40 years age) differ significantly from two groups group 1(20-30 years age) and group 2(31-40 years) at 0.05 level of confidence.This means that age and nervous systems have some association.

TABLE 7.26

Variable Gastro Intes.Sys
By Variable Age

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.7452	.3726	.8818	.4148
Within Groups	447	188.8824	.4226		
Total	449	189.6276			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	1.5345	.6131	.0562	1.0000	3.6000	1.4232 To 1.6457
Grp 2	119	1.5689	.6232	.0571	1.0000	3.4000	1.4558 To 1.6820
Grp 3	212	1.6292	.6839	.0470	1.0000	4.2000	1.5366 To 1.7218
Total	450	1.5882	.6499	.0306	1.0000	4.2000	1.5280 To 1.6484

No two groups are significantly different at the .050 level

The above table shows the association between gastro intestinal system and age.

It is seen that no two groups differ significantly at 0.05 level of confidence. This means that problem gastro intestinal system is more or less same in all 3 age groups.

TABLE 7.27

Variable Eyes
By Variable Age

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	20.0841	10.0420	6.6468	.0014
Within Groups	447	675.3305	1.5108		
Total	449	695.4146			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	2.2269	1.1569	.1061	1.0000	5.0000	2.0169 To 2.4369
Grp 2	119	2.4261	1.2357	.1133	1.0000	5.0000	2.2017 To 2.6504
Grp 3	212	2.7241	1.2642	.0868	1.0000	5.0000	2.5529 To 2.8952
Total	450	2.5138	1.2445	.0587	1.0000	5.0000	2.3985 To 2.6291

(*) Denotes pairs of groups significantly different at the .050 level.

Mean	Group	Grp 1	Grp 2	Grp 3
2.2269	Grp 1			
2.4261	Grp 2			
2.7241	Grp 3	*		

The above table shows the association between eye problem and age.

It is seen that age group 3 (above 40 years age) differs significantly from group 1 (20-30 years age) at 0.05 level of confidence. This shows that there is some association between eye proble and age.

TABLE 7.28

Variable Ears
By Variable Age

Analysis of Variance

Source	D.F.	sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	.0132	.0066	.0095	.9905
Within Groups	447	311.4910	.6968		
Total	449	311.5042			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	1.5765	.7850	.0720	1.0000	4.3000	1.4340 To 1.7190
Grp 2	119	1.5840	.8445	.0774	1.0000	4.3000	1.4307 To 1.7373
Grp 3	212	1.5896	.8560	.0588	1.0000	3.7000	1.4737 To 1.7055
Total	450	1.5847	.8329	.0393	1.0000	4.3000	1.5075 To 1.6618

No two groups are significantly different at the .050 level

The above table shows the association between the problem of ear and age.

It is seen that no two groups differ significantly at 0.05 level of confidence for Schedfe procedure. Thus it can be concluded that the ear problem is more or less same in all groups.

TABLE 7.29

Variable Skin
By Variable Age

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	8.4710	4.2355	3.8724	.0215
Within Groups	447	488.9172	1.0938		
Total	449	497.3882			

Group	Count	Mean	Standard Deviation	Standard Deviation	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	1.5126	1.0211	.0936	1.0000	5.0000	1.3272 To 1.6980
Grp 2	119	1.6395	1.0112	.0927	1.0000	5.0000	1.4559 To 1.8231
Grp 3	212	1.8349	1.0780	.0740	1.0000	5.0000	1.6890 To 1.9809
Total	450	1.6980	1.0525	.0496	1.0000	5.0000	1.6005 To 1.7955

(*) Denotes pairs of groups significantly different at the .050 level.

Mean	Group	Grp 1	Grp 2	Grp 3
1.5126	Grp 1			
1.6395	Grp 2			
1.8349	Grp 3	*		

The above table shows the association between problem of skin and age.

It is seen that group 3 (above 40 years age) differs significantly from group 1 (20-30 years age) at 0.05 level of confidence. This means that there is some association between skin problem and age.

TABLE 7.30

Variable Nose
By Variable Age

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	9.1993	4.5997	4.6730	.0098
Within Groups	447	439.9846	.9843		
Total	449	449.1839			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	2.0067	.9421	.0864	1.0000	5.0000	1.8357 To 2.1777
Grp 2	119	2.0437	.9216	.0845	1.0000	5.0000	1.8764 To 2.2110
Grp 3	212	2.3104	1.0554	.072	1.0000	5.0000	2.1675 To 2.4535
Total	450	2.1596	1.0002	.0472	1.0000	5.0000	2.0669 To 2.2522

(*) Denotes pairs of groups significantly different at the 0.50 level.

Mean	Group	Grp 1	Grp 2	Grp 3
2.0067	Grp 1			
2.0437	Grp 2			
2.3104	Grp 3	*		

The above table shows the association between nose problem and age.

It is observed that group 3 (above 40 years age) differs significantly at 0.05 level from group 1 (20-30 years age).This means that there is some association between nose problem and age.

Table 7.31

Variable Sleep
By Variable Age

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	12.3809	6.1904	6.6379	.0014
Within Groups	447	416.8657	.9326		
Total	449	429.2466			

Group	Count	Mean	Standard deviation	Standard deviation	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	2.4529	1.0195	.0935	1.0000	5.0000	2.2679 To 2.6380
Grp 2	119	2.3160	.9406	.0862	1.0000	5.0000	2.1452 To 2.4867
Grp 3	212	2.7014	.9485	.0651	1.0000	5.0000	2.5730 To 2.8298
Total	450	2.5338	.9778	.0461	1.0000	5.0000	2.4432 To 2.6244

(*) Denotes pairs of groups significantly different at the .050 level.

Mean	Group	Grp 2	Grp 1	Grp 3
2.3160	Grp 2			
2.4529	Grp 1			
2.7014	Grp 3	*		

The above table shows the association between sleep and age.

It is seen that group 3 (above 40 years age) differs significantly from group 2 (31-40 years age) at 0.05 level of confidence. This shows that there is some relation between sleep problem and age.

TABLE 7.32

Variable ASTHMA
By Variable Age

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	31.9463	15.9732	12.6854	.0000
Within Groups	447	562.8520	1.2592		
Total	449	594.7983			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	1.4269	.8000	.0733	1.0000	4.6000	1.2817 Ro 1.5721
Grp 2	119	1.4151	.9327	.0855	1.0000	5.0000	1.2458 To 1.5844
Grp 3	212	1.9547	1.3502	.0543	1.0000	5.0000	1.5658 To 1.7791

(*) Denotes pairs of groups significantly different at the .050 level.

Mean	Group	G r p 2	G r p 1	G r p 3
1.4151	Grp 2			
1.4269	Grp 1			
1.9547	Grp 3	**		

The above table shows association between asthma problem and age.

It is observed that group 3(above 40 years age) differs significantly from group 2(31-40 years age) and group 1 (20-30 years age) at 0.05 level of confidence.This shows some association between age and asthma problem as groups differ significantly.

TABLE 7.33

Variable STRESS
By Variable Age

Analysis of Variance

Source	D.F.	Sum of squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	4.4945	2.2472	2.2242	.1094
Within Groups	447	451.6377	1.0104		
Total	449	456.1322			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum	95 Pct Conf Int for Mean
Grp 1	119	2.8571	.9307	.0853	1.0000	4.8000	2.6882 To 3.0261
Grp 2	119	2.6992	1.0897	.0999	1.0000	5.0000	2.5013 To 2.8970
Grp 3	212	2.9420	.9960	.0684	1.0000	5.0000	2.8071 To 3.0768
Total	450	2.8553	1.0079	.0475	1.0000	5.0000	2.7620 To 2.9487

No two groups are singificantly different at .050 level.

The above table shows the association between stress problem and age.

It is observed from the Scheffe procedure that no two groups are significantly different at 0.50 level. This means that stress problem is more or less in all the age group.