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Study on Prevalence and Risk Factors of Neck Pain Among Aimst University Malaysia Academic Staffs

Mishalini Nair A/P Sugumaran, Kshtrashal Singh, Susmitha Govind, Yu Che Wah

Abstract: Introduction: Work-related psychosocial factors, such as interpersonal associations at work, funds, and finances appear to play a major role on the occurrence. Musculoskeletal disorders (MSDs), especially neck pain, are common, occurring in both industrialized and developing countries. They are a major cause of disability among adults of working age, and contribute significantly to the demand for medical services and to the economic burden of absenteeism from work. MSDs are the 4th highest contributor to years lived with disability (YLDs), and 21st in overall disability. The global point prevalence of neck pain is 4.9% with disability life years (DALYs) increasing from 23.9 million in 1990 to 33.6 million in 2010, Neck pain affects both office and field workers alike and is commonly reported by people in teaching jobs, occurring in at least 36.1% of teachers. Methodologies: Cross-sectional survey Design, were data are collected by structural and semi structural, mixed type. Results: The results of this study demonstrated a 41% prevalence of work related neck pain amongst university staff. The findings of our study showing an increased prevalence of work related neck pain in the oldest age group. This suggested a higher prevalence of work related neck pain felt experienced in the posterior part of the neck and shoulder regions. This probably could be because of the high levels of static load caused in the neck and shoulder region while working long hours on the computer.

Keywords: Prevalence, Risk Factors, Neck Pain, Academic Staffs.

I. INTRODUCTION

There are many risk factors associated with neck pain, including work environmental factors, psychosocial factors physical factors, individual factors, and perceived muscular tension [1, 2]. A poor posture and body alignment leads to various symptoms due to poor desk heights, armrests and stressed neck due to repeated movements [3-5]. Excessive neck flexion and poor neck posture are associated with increased upper trapezius muscle activity and neck discomfort among lecturers using computers [6-9]. Their work involves diverse activities, both in and out of lecture-rooms, such as designing course curricula, developing lecture and tutorial plans and material, providing students with information in an interesting and understandable manner, setting questions, and marking examinations [10-15]. These activities, at times, involve long periods of sitting and standing, placing a physical demand on the lower back, cervical spine and the vertebral column in general, thereby contributing to neck and shoulder discomfort[16-21]. Lecturers use computers extensively and are thus exposed to many of the same risk factors to which 'office workers' are exposed. Using a computer is associated with poor neck posture – most often in a forward head position, which is thought to be one of the most common causes of neck, head and shoulder tension and pain [22-25].

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II. METHODOLOGY

To determine the sample size single proportion formula is used a prevalence of 50% to calculate the sample size. Then P will be set to 50 and at 95% CI with 5% tolerable error and non-response of 10% the required sample size for the study are calculated. n= (α2)2x (1−p) 2
Where: n = sample size,
Z = standard normal distribution corresponding to significance level at a = 0.05,
P = expected proportion (50%),
d = margin of error (+5%).
Then
n= (α2)2x (1−p)2=n= (1.96)2x 0.5(1−0.5)0.052=120,
=120+non-response of 10%=132
Then the total sample size of the study is 132.

I.2Figures and Tables

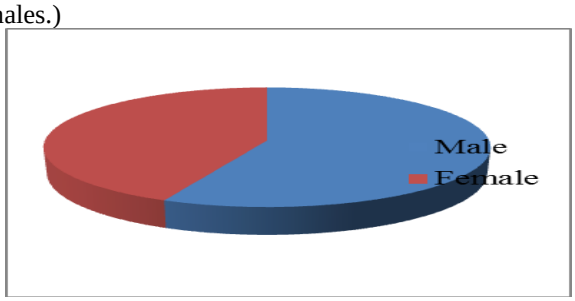
Age group	N	%	T-value	P-value
25-35	36	29%	1.697	0.9505
35-45	53	40%	1.671	0.9505
45-55	19	14%	1.729	0.9599
55 and above	21	15%	1.721	0.9599
Withdrawn	3	2%	2.353	0.9906
Total	132	100%	1.66	0.9505

Table 1: Representing Association of Age over Neck Pain (Out of the 132 respondents, all agreed to participate in this study with response rate of 100%. Out of 132(100%) the 39(29%) participants were age group between 25-35,53(40%) participants were 35-45 age group.19(14%) participants were 45-55 age group and 21(15%) participants were above 55 years of age age group.)

Graph 1-Representing Association of Age over Neck Pain.(Out of the 132 respondents, all agreed to participate in this study with response rate of 100%. Out of 132(100%) the 39(29%) participants were age group between 25-35,53(40%) participants were 35-45 age group.19(14%) participants were 45-55 age group and 21(15%) participants were above 55 years of age age group.)

Gender	N	%	T-value	P-value
Male	72	56%	1.664	.9505
Female	57	43%	1.671	.9505
Withdrawn	3	1%	2.353	.9906
Total	132	100%	1.660	.9505

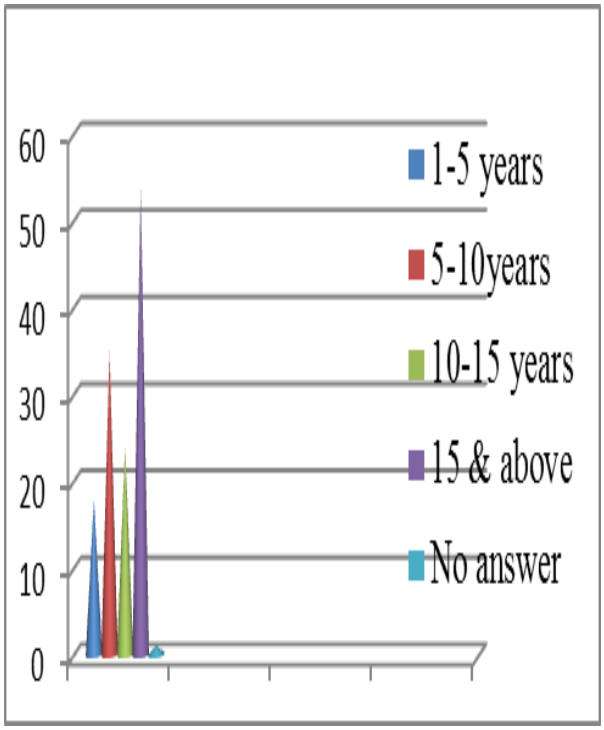
Table 2: Representing Association of Gender over Neck Pain (Out of the 132 respondents, all agreed to participate in this study with response rate of 100%. Out of 132(100%) the 75(56%) participants were male and 57(43%) were females.)



Graph 2- Representing Association of Gender over Neck Pain (Out of the 132 respondents, all agreed to participate in this study with response rate of 100%. Out of 132(100%) the 75(56%) participants were male and 57(43%) were females.)

Job experience in years	N	%	T-value	P-value
01-May	18	13%	1.771	0.9599
05-Oct	32	26%	1.684	0.9505
Oct-15	24	18%	1.711	0.9599
15 and above	54	40%	1.671	0.9505
No answer	1	1%	6.314	0.8531
Withdrawn	3	2%	2.353	0.9989
Total	132	100%	1.66	0.9599

Table 3: Representing Association of Job Experience over Neck Pain (Out of 132(100%) the 18(13%) participants were having nearly 1-5 years of working experience as academic staff, 35(26%) were having nearly 5-10 years of academic experience, 24(18%) were having nearly 10-15 years of academic experience, 54(40%) were having 15 years and above academic experience and 1(1%) were non-respondent.)



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Educational Qualifications	N	%	T-value	P-value
Honor's	12	9%	1.782	.9599
Master	87	68%	1.660	.9505
Ph.D.	24	18%	1.711	.9599
Others	7	5%	1.895	.9678
Withdrawn	2	0%	2.920	.9772
Total	132	100	1.660	.9505

Table 4: Representing Association of Qualification over Neck Pain (Out of 132(100%) the 12(9%) were Honours, 90(68%) were Masters, 24(18%) were Ph.D. and 7(5%) were others.)

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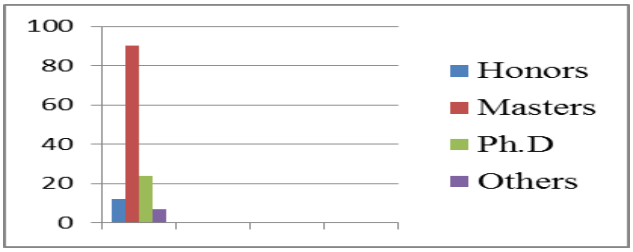
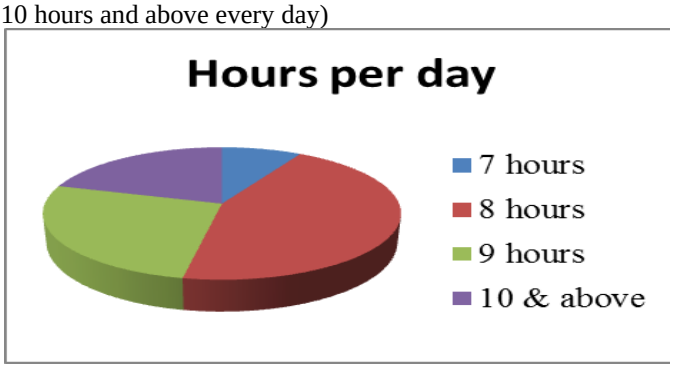


Graph 4-Representing Association of Qualification over Neck Pain (Out of 132(100%) the 12(9%) were Honours, 90(68%) were Masters, 24(18%) were Ph.D. and 7(5%) were others.)

Hours of work in a Day	N	%	T-value	P-value
7	11	8%	1.796	.9599
8	56	44%	1.671	.9505
9	35	26%	1.684	.9505
10 and above	27	20%	1.703	.9599
Withdrawn	3	2	2.353	.9906
Total	132	100	1.660	.9505

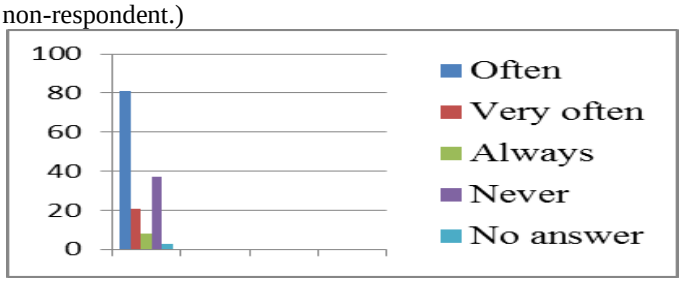
Table 5: Representing Association of Working Hours over Neck Pain (Out of 132(100%) the 11(8%) academic staffs works nearly 7 hour per day, 59(44%) academic staffs works 8 hours per day,35(26%) academic staffs works nearly 9 hours per day and 27(20%) academic staffs works 10 hours and above every day)



Graph 5- Representing Association of Working Hours over Neck Pain (Out of 132(100%) the 11(8%) academic staffs works nearly 7 hour per day, 59(44%) academic staffs works 8 hours per day,35(26%) academic staffs works nearly 9 hours per day and 27(20%) academic staffs works 10 hours and above every day)

Experience of pain during academic activities	N	%	T-value	P-value
Often	68	41%	1.66	0.9505
very often	21	15%	1.721	0.9599
Always	8	6%	1.86	0.9678
Never	27	28%	1.684	0.9505
No answer	3	5%	2.353	0.9906
Withdrawn	5	5	2.015	0.9798
Total	132	100	1.66	0.9505

Table 6: Representing Association of Academic Activities over Neck Pain (Out of 132(100%) the 81(61%) felt often neck pain during academic activities, 21(15%) felt very often neck pain during academic activities, 8(6%) felt always neck pain during academic activities, 37(28%) never felt neck pain during academic activities and 3(2%) were non-respondent.)



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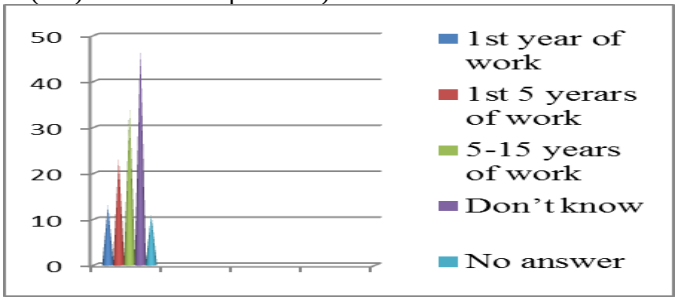
First experience of neck pain	N	%	T-value	P-value
In first year of work	13	15%	1.771	.9599
In first 5 years of year	23	17%	1.724	.9599
5-15 years of work	34	25%	1.684	.9505
Don't know	44	35%	1.671	.9505
No answer	5	4%	2.015	.9798
Withdrawn	3	4%	2.353	.9906
Total	132	100	1.660	.9505

Table 7: Representing association of first experience of pain over neck pain (Out of 132(100%) the 13(9%) academic staff experienced pain at 1st year of work, 23(17%(academic staff felt pain at 1st 5 years of work, 34(25%) academic staff felt pain between 5-15 years of work, 47(35%) don't remember when they started to feel pain and 11(8%) were non-respondent.)



Graph 7- Representing association of first experience of pain over neck pain (Out of 132(100%) the 13(9%) academic staff experienced pain at 1st year of work, 23(17%(academic staff felt pain at 1st 5 years of work, 34(25%) academic staff felt pain between 5-15 years of work, 47(35%) don't remember when they started to feel pain and 11(8%) were non-respondent.)

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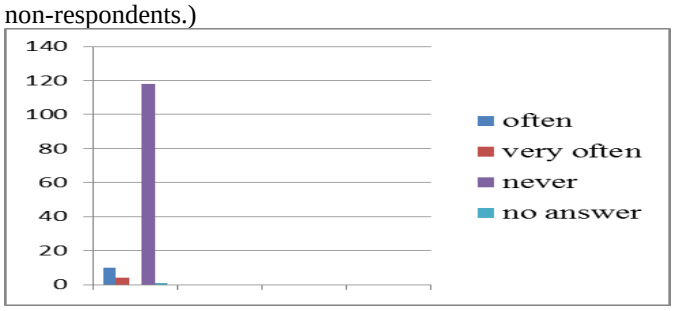
Withdrawal from academics because of pain	N	%	T-value	P-value
Often	10	7%	1.812	.9678
very often	4	3%	2.132	.9842
Always	0	0%	0.000	0.000
Never	115	89%	1.646	.9505
No answer	1	1%	6.314	.0001
Withdrawn	2	0%	2.920	.9772
Total	132	100	1.660	.9505

Table 8-Representing Association of Neck Pain over Leave (Out of 132(100%) the 10(7%) academic staff often taken leave from work due to pain, 4(3%) were very often taken leave from work due to neck pain, 0(0%) no one has always reported to take leave due to neck pain, 118(89%) academic staff were never taken leave for neck pain and 1(1%) were non-respondents.)



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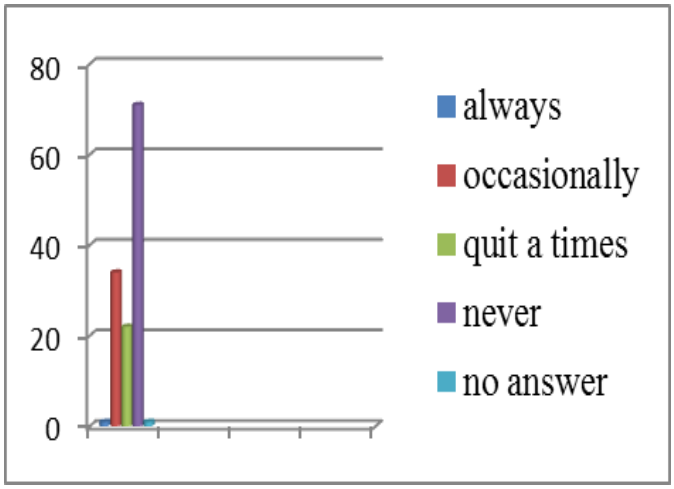
Sleep Disturbance due to Pain	N	%	T-value	P-value
Always	1	1%	6.314	.0001
Occasionally	34	25%	1.684	.9505
Quite a times	22	16%	1.717	.9599
Never	68	53%	1.664	.9505
No answer	5	2%	2.015	.9798
Withdrawn	2	3%	2.920	.9772
Total	132	100	1.660	.9505

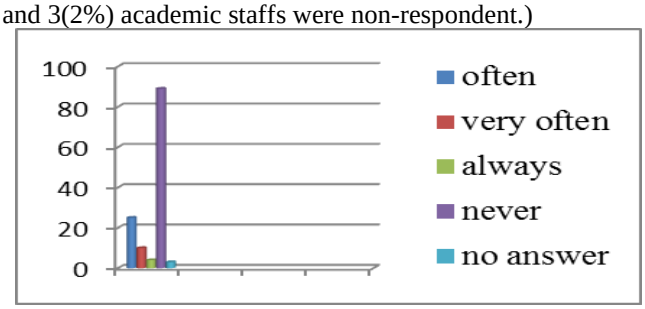
Table 9: Representing Association of Neck Pain over Sleep (Out of 132(100%) the 1(1%) academic staffs always had sleep disturbance due to neck pain, 34(25%) academic staffs occasionally had sleep disturbance due to neck pain, 22(16%) academic staffs were quit a time had sleep disturbance due to neck pain, 71(53%) academic staffs were never had sleep disturbance due to neck pain and 1(1%) academic staffs were non-respondent.)



Graph 9- Representing Association of Neck Pain over Sleep(Out of 132(100%) the 1(1%) academic staffs always had sleep disturbance due to neck pain, 34(25%) academic staffs occasionally had sleep disturbance due to neck pain, 22(16%) academic staffs were quit a time had sleep disturbance due to neck pain, 71(53%) academic staffs were never had sleep disturbance due to neck pain and 1(1%) academic staffs were non-respondent.)

Level of interfere of pain in social activities	N	%	T-value	P-value
Often	25	18%	1.708	.9599
very often	10	7%	1.812	.9678
Always	4	3%	2.132	.9842
Never	86	67%	1.660	.9505
No answer	3	2%	2.353	.9906
Withdrawn	4	3%	2.132	.9842
Total	132	100	1.660	.9505

Table 10: Representing Association of Neck Pain over Social Activities (Out of 132(100%) the 25(18%) academic staffs were often having interference in social activities due to neck pain,10(7%) academic staffs were very often having interference in social activities due to neck pain,4(3%) academic staffs always having interference in social activities due to neck pain,89(67%) academic staffs were never had interference in social activities due to neck pain and 3(2%) academic staffs were non-respondent.)



Graph 10- Representing Association of Neck Pain over Social Activities (Out of 132(100%) the 25(18%) academic staffs were often having interference in social activities due to neck pain,10(7%) academic

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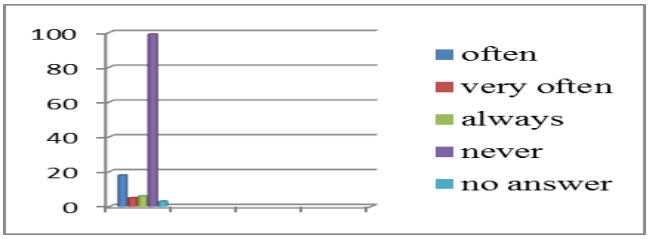
staffs were very often having interference in social activities due to neck pain,4(3%) academic staffs always having interference in social activities due to neck pain,89(67%) academic staffs were never had interference in social activities due to neck pain and 3(2%) academic staffs were non-respondent.)

History of neck pain	N	%	T-value	P-value
Often	18	13%	1.734.	.9599
very often	5	3%	2.015	.9798
Always	6	4%	1.943	.9744
Never	96	75%	1.660	.9505
No answer	3	2%	2.353	.9906
Withdrawn	4	3	2.132	.9842
Total	132	100	1.660	.9505

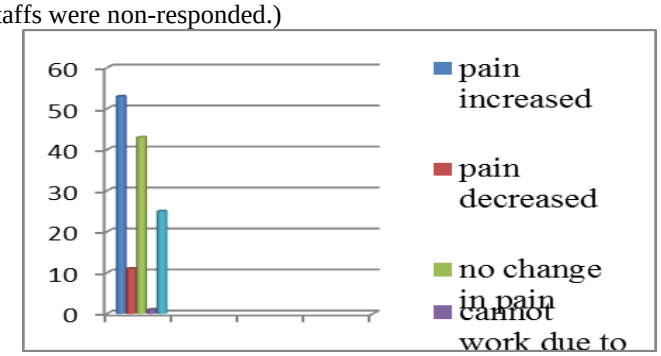
Table 11: Representing Association of Previous Neck Pain over Neck Pain



Graph 11- Representing Association of Previous Neck Pain over Neck Pain (Out of 132(100%) the 18(13%) of academic staffs often had history of neck pain, 5(3%) academic staffs were very often had history of neck pain, 6(4%) academic staffs were always had history of neck pain, 99(75%) academic staffs were never had history of neck pain and 3(2%) academic staffs were non-respondent)

Change in pain after an academic Staff	N	%	T-value	P-value
The neck pain has increased	50	40%	1.671	.9505
The neck pain has decreased	11	8%	1.796	.9599
There has been no change in the neck pain	43	32%	1.671	.9505
Cannot work due to pain	1	1%	6.314	.0001
No answer	25	18%	1.708	.9599
Withdrawn	2	1%	2.920	.9772
Total	132	100	1.660	.9505

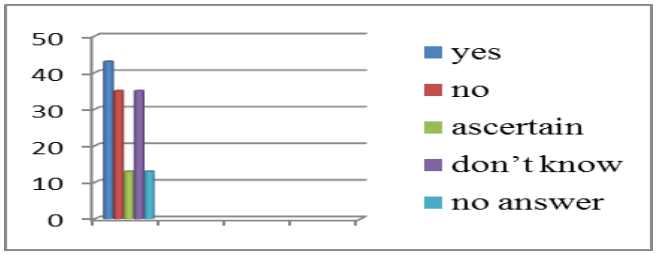
Table 12: Representing Association of Academic Activities over Neck Pain (Out of 132(100%) the 53(40%) had increased in neck pain after becoming academic staffs, 11(8%) had decreased in neck pain after becoming academic staff, 43(32%) had no change in their neck pain after becoming academic staff,1(1%) cannot work due to neck pain after becoming academic staff and 25(18%) academic staffs were non-responded.)



Graph 12- Representing Association of Academic Activities over Neck Pain (Out of 132(100%) the 53(40%) had increased in neck pain after becoming academic staffs, 11(8%) had decreased in neck pain after becoming academic staff, 43(32%) had no change in their neck pain after becoming academic staff, 1(1%) cannot work due to neck pain after becoming academic staff and 25(18%) academic staffs were non-responded.)

Change in the neck pain due to academics	N	%	T-value	P-value
Yes	40	40%	1.671	.9505
No	35	26%	1.684	.9505
Ascertain	13	9%	1.771	.9599
Don't know	35	16%	1.684	.9505
No answer	5	9%	2.015	.9798
Withdrawn	4	0%	2.132	.9842
Total	132	100	1.660	.9505

Table 13: Representing Association of Fluctuation of Pain over Neck Pain (Out of 132(100%) the 43(40%) felt changes in neck pain after becoming academic staff, 35(26%) felt there is no change in neck pain after becoming academic staff, 13(9%) were ascertain about change in neck pain after becoming academic staff, 35(26%) were don't know either there is any change in neck pain after becoming academic staff and 13(9%) academic staffs were non-respondent. Out of 132(100%) the 43(40%) felt changes in neck pain after becoming academic staff, 35(26%) felt there is no change in neck pain after becoming academic staff, 13(9%) were ascertain about change in neck pain after becoming academic staff, 35(26%) were don't know either there is any change in neck pain after becoming academic staff and 13(9%) academic staffs were non-respondent.)



Graph 13-Representing Association of Fluctuation of Pain over

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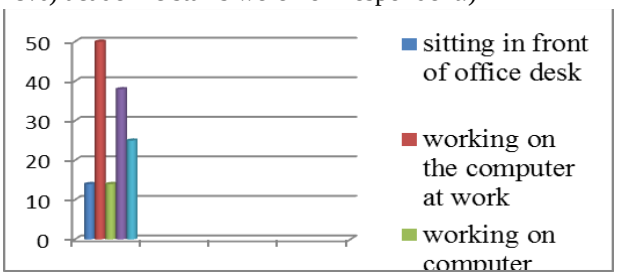
Neck Pain (Out of 132(100%) the 43(40%) felt changes in neck pain after becoming academic staff, 35(26%) felt there is no change in neck pain after becoming academic staff, 13(9%) were ascertain about change in neck pain after becoming academic staff, 35(26%) were don't know either there is any change in neck pain after becoming academic staff and 13(9%) academic staffs were non-respondent. Out of 132(100%) the 43(40%) felt changes in neck pain after becoming academic staff, 35(26%) felt there is no change in neck pain after becoming academic staff, 13(9%) were ascertain about change in neck pain after becoming academic staff, 35(26%) were don't know either there is any change in neck pain after becoming academic staff and 13(9%) academic staffs were non-respondent.)

When did you feel the pain over your neck	N	%	T-value	P-value
Sitting in front of your office desk	14	10	1.761	.9599
Working on the computer at work	50	37%	1.671	.9505
Working on the computer elsewhere	14	10%	1.761	.9599
Other	35	28%	1.684	.9505
No answer	16	15%	1.746	.9599
Withdrawn	3	0%	2.353	.9906
Total	132	100	1.660	.9505

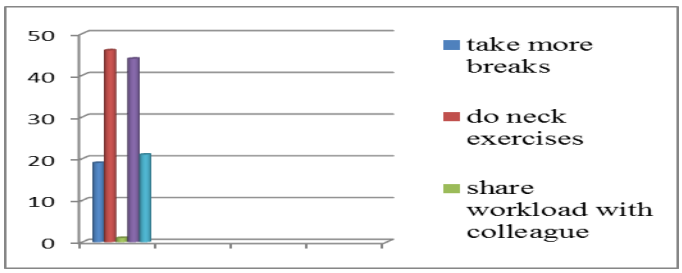
Table 14: Representing Association of Aggravating Factors over Neck Pain (Out of 132(100%) the 14(10%) academic staff felt neck pain while sitting in front of office desk, 50(37%) academic staffs felt neck pain while working on computer at work station, 14(10%) academic staff felt neck pain while working on the computer elsewhere, 38(28%) academic staff felt neck pain with other reasons and 25(18%) academic staffs were non-respondent.)



Graph 14- Representing Association of Aggravating Factors over Neck Pain (Out of 132(100%) the 14(10%) academic staff felt neck pain while sitting in front of office desk, 50(37%) academic staffs felt neck pain while working on computer at work station, 14(10%) academic staff felt neck pain while working on the computer elsewhere, 38(28%) academic staff felt neck pain with other reasons and 25(18%) academic staffs were non-respondent.)

How do you cope with your neck pain	N	%	T-value	P-value
Take more breaks	19	14%	1.729	.9599
Do neck exercises	43	34%	1.671	.9505
Share workload with colleague	1	1%	6.314	.0001
Change working posture	44	33%	1.671	.9505
No answer	21	15%	1.721	.9599
Withdrawn	4	3	2.132	.9842
Total	132	100	1.660	.9505

Table 15: Representing Association of Tolerance of Pain over Neck Pain (Out of 132(100%) the 19(14%) of academic staffs cop ups with neck pain by taking more breaks during working hours, 46(34%) of academic staffs coup ups with neck pain by doing neck exercises, 1(1%) of academic staff coup up with neck pain by sharing workload with colleagues, 44(33%) of academic staff coup ups with neck pain by changing the working posture and 21(15%) of academic staffs were non-respondent.)



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Working performance	N	%	T-value	P-value
Often	20	15%	1.725	.9599
Very often	6	4%	1.943	.9744
Always	4	3%	2.132	.9842
Never	86	67%	1.646	.9505
No answer	12	9%	1.782	.9599
Withdrawn	4	2%	2.132	.9842
Total	132	100	1.660	.9505

Table 16: Representing Association of Performance over Neck Pain (Out of 132(100%) the 20(15%) academic staffs working performance has often reduced due to neck pain, 6(4%) academic staffs working performance has very often reduced due to neck pain, 4(3%) academic staffs working performance always reduced due to neck pain.89 (67%) academic staffs working performance has never been reduced due to neck pain and 12(9%) academic staffs were non-respondent.)

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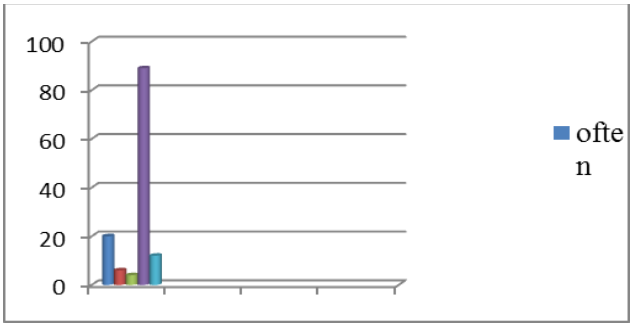
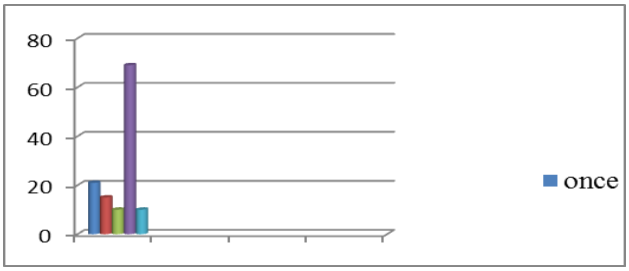


Graph 16-Representing Association of Performance over Neck Pain (Out of 132(100%) the 20(15%) academic staffs working performance has often reduced due to neck pain, 6(4%) academic staffs working performance has very often reduced due to neck pain, 4(3%) academic staffs working performance always reduced due to neck pain.89 (67%) academic staffs working performance has never been reduced due to neck pain and 12(9%) academic staffs were non-respondent.)

Referred to health professional	N	%	T-value	P-value
Once	31	25%	1.721	.9599
Twice	15	11%	1.753	.9599
Many times,	10	7%	1.812	.9678
Never	66	52%	1.664	.9505
No answer	10	5%	1.812	.9678
Withdrawn	0	0%	0.000	0.000
Total	132	100	1.660	.9505

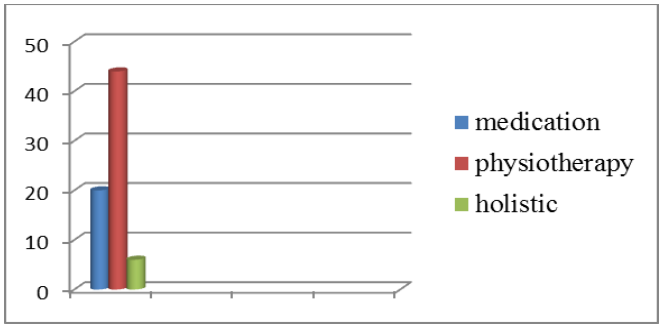
Table 17: Representing Association of Choice of Treatment over Neck Pain (Out of 132(100%) the 21(15%) academic staffs once has been referred to physicians or other health professionals due to neck pain, 15(11%) academic staffs twice has been referred to physicians or other health professionals due to neck pain,10(7%) academic staffs many times has been referred to physicians or other health professions due to neck pain,69(52%) academic staffs never been referred to physicians or other health professionals due to neck pain, and 10(7%) academic staffs were non-respondent.)



Graph 17- Representing Association of Choice of Treatment over Neck Pain (Out of 132(100%) the 21(15%) academic staffs once has been referred to physicians or other health professionals due to neck pain, 15(11%) academic staffs twice has been referred to physicians or other health professionals due to neck pain,10(7%) academic staffs many times has been referred to physicians or other health professions due to neck pain,69(52%) academic staffs never been referred to physicians or other health professionals due to neck pain, and 10(7%) academic staffs were non-respondent.)

What kind of treatment did you receive	N	%	T-value	P-value
Medication	40	18%	1.684	.9505
Physiotherapy	47	33%	1.671	.9505
Holistic	6	14%	1.943	.9744
Others	35	31%	1.684	.9505
Withdrawn	4	4%	2.132	.9842
Total	132	100	1.660	.9505

Table 18: Representing Association of Treatment Type over Neck Pain (Out of 132(100%) the 20(8%) academic staffs has been taken medications for neck pain, 44(33%) academic staffs has been taken physiotherapy treatment for neck pain, 6(4%0 academic staffs has been taken holistic treatment s for neck pain and 29(21%) academic staffs has been taken other treatment s for neck pain.)



Graph 18- Representing Association of Treatment Type over Neck Pain (Out of 132(100%) the 20(8%) academic staffs has been taken medications for neck pain, 44(33%) academic staffs has been taken physiotherapy treatment for neck pain, 6(4%0 academic staffs has been taken holistic treatment s for neck pain and 29(21%) academic staffs has been taken other treatment s for neck pain.)

How was the effect of the treatment	N	%	T-value	P-value
The pain became worse	11	1%	1.796	.9599
The pain remained unchanged	3	2%	2.353	.9906
The pain was slightly improved	49	39%	1.671	.9505
The pain completely subsided	28	21%	1.701	.9599
No answer	39	32%	1.671	.9505
Withdrawn	2	5%	2.920	.9599
Total	132	100	1.660	.9505

Table 19: Representing Association of Effect of Treatment over Neck Pain (Out of 132(100%) the 1(1%) academic staffs reported that pain has become worse after the treatment, 3(2%) academic staffs has been reported that neck pain remained unchanged after the treatment,

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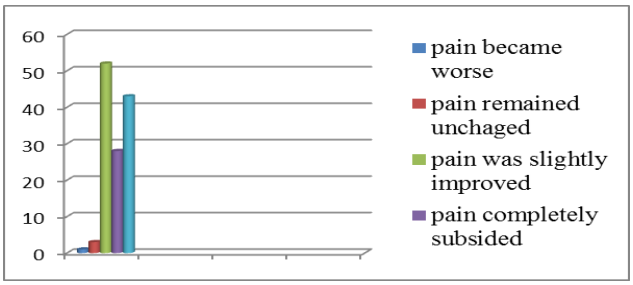
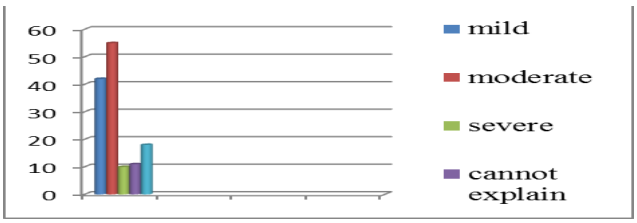
52(39%) academic staffs reported that neck pain was slightly improved after the treatment, 28(21%) academic staffs were reported that neck pain were completely subsided after the treatment and 43(32%) academic staffs were non respondent.)



Graph 19- Representing Association of Effect of Treatment over Neck Pain (Out of 132(100%) the 1(1%) academic staffs reported that pain has become worse after the treatment, 3(2%) academic staffs has been reported that neck pain remained unchanged after the treatment, 52(39%) academic staffs reported that neck pain was slightly improved after the treatment, 28(21%) academic staffs were reported that neck pain were completely subsided after the treatment and 43(32%) academic staffs were non respondent.)

How you rate the intensity of neck pain	N	%	T-value	P-value
Mild	42	31%	1.671	.9505
Moderate	52	41%	1.671	.9505
Severe	10	5%	1.812	.9678
Cannot explain	11	8%	1.796	.9599
No answer	16	13%	1.746	.9599
Withdrawn	2	0%	2.920	.9599
Total	132	100	1.660	.9505

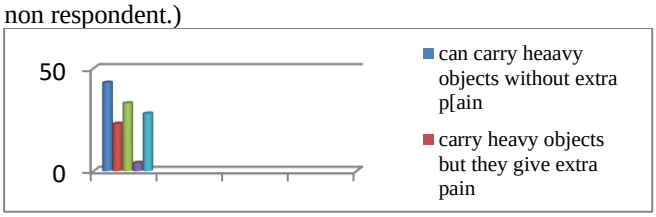
Table 20: Representing Association of Severity of Pain over Neck Pain (Out of 132(100%) the 42(31%) academic staffs were rated neck pain mild on rating scale, 55(41%) academic staffs were rated neck pain as moderate on rating scale, 10(7%) academic staffs were rated neck pain as severe on rating scale, 11(8%) academic staffs were rated neck pain as cannot explain and 18(13%) academic staffs were non respondents.)



Graph 20- Representing Association of Severity of Pain over Neck Pain (Out of 132(100%) the 42(31%) academic staffs were rated neck pain mild on rating scale, 55(41%) academic staffs were rated neck pain as moderate on rating scale, 10(7%) academic staffs were rated neck pain as severe on rating scale, 11(8%) academic staffs were rated neck pain as cannot explain and 18(13%) academic staffs were non respondents.)

Neck pain hindering weights carrying	N	%	T-value	P-value
I can carry heavy objects without extra pain	40	32%	1.671	.9505
Carrying heavy objects gives me extra pain	23	17%	1.714	.9599
I can only lift light weight objects	33	25%	1.684	.9505
I cannot lift anything at all	4	3%	2.132	.9842
No answer	28	21%	1.701	.9599
Withdrawn	4	2%	2.132	.9842
Total	132	100	1.660	.9505

Table 21: Representing association of weight lifting over neck pain (Out of 132(100%) the 43(32%) academic staffs were able to carry weight without extra neck pain, 23(17%) academic staffs reported that thy can carry weight but it gives them extra neck pain, 33(25%) academic staffs reported that they can only lift light weight objects due to neck pain, 4(3%) academic staffs reported that they cannot lift any objects due to neck pain, and 28(21%) academic staffs were non respondent.)



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Does pain keep you away from household work	N	%	T-value	P-value
I can do my usual work without extra pain	52	41%	1.671	.9505
Pain shorten 25- 50% of my working hours	35	20%	1.684	.9505
Pain shorten 50% of my usual working hours	8	6%	1.860	.9678
Pain prevents me from working at all	5	3%	2.015	.9798
No answer	28	16%	1.701	.9599
Withdrawn	4	8%	2.132	.9842
Total	132	100	1.660	.9505

Table 22: Representing Association of House Hold Activities over Neck Pain

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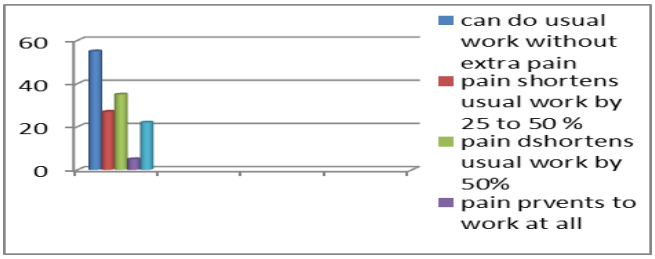
(Out of 132(100%) the 55(41%) academic staffs were reported that they can perform their usual work without extra neck pain, 35(26%) academic staffs were reported that pain disturbs their usual work and shortens between 25% and 50% of usual working hours,8(6%) academic staffs reported that pain disturbs their usual works and shorten them up to 50% of working hours,5(3%) academic staffs reported that neck pain prevent them from working at all and 22(16%) academic staffs were non respondent.)



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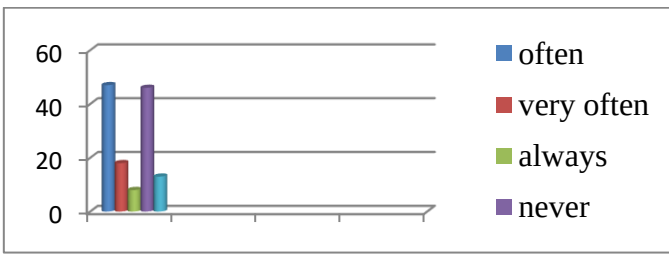
Overhead writing posture aggravates pain	N	%	T-value	P-value
Often	44	35%	1.671	.9505
Very often	18	13%	1.734	.9599
Always	8	6%	1.860	.9678
Never	46	34%	1.671	.9505
No answer	13	9%	1.771	.9599
Withdrawn	3	3%	2.353	.9906
Total	13	100	1.660	.9505

Table 23: Representing Association of Writing Posture over Neck Pain (Out of 132(100%) the 47(35%) academic staffs says that working in overhead writing posture aggravates their intensity of neck pain often,18(13%) academic staffs says that working in overhead writing posture aggravate their intensity of neck pain very often,8(6%) academic staffs says that working in overhead writing posture always aggravate their intensity of neck pain, 46(34%) academic staffs says that working in overhead writing posture never aggravate their intensity of neck pain and 13(9%) academic staffs were non respondent)



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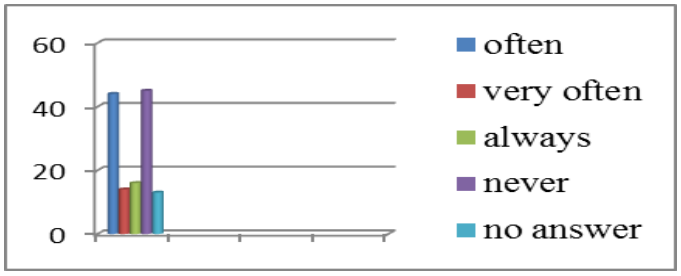
Head down posture aggravates your neck pain	N	%	T-value	P-value
Often	44	33%	1.671	.9505
Very often	14	10%	1.761	.9599
Always	16	12%	1.746	.9599
Never	42	34%	1.671	.9505
No answer	13	9%	1.771	.9599
Withdrawn	3	2%	2.353	.9906
Total	132	100	1.660	.9505

Table 24: Representing association of head posture over neck pain (Out of 132(100%) the 44(33%) academic staffs says that working in head down posture aggravates their intensity of neck pain often,14(10%) academic staffs says that working in head down posture aggravate their intensity of neck pain very often,16(12%) academic staffs says that working in head down posture always aggravate their intensity of neck pain, 45(34%) academic staffs says that working in head down posture never aggravate their intensity of neck pain and 13(9%) academic staffs were non respondent)



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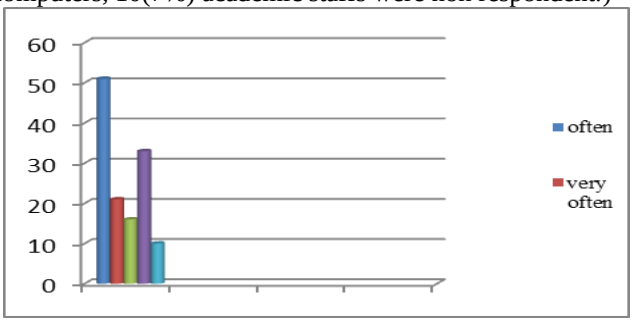
Working with computer aggravates pain	N	%	T-value	P-value
Often	51	38%	1.671	.9505
very often	21	15%	1.721	.9599
Always	16	12%	1.746	.9599
Never	30	25%	1.684	.9505
No answer	10	7%	1.812	.9678
Withdrawn	4	3%	2.132	.9842
Total	132	100	1.660	.9505

Table 25: Representing association of computer oriented work over pain (Out of 132(100%) the 51(38%) academic staffs reported that often their neck pain aggravates while working on computers,21(15%) academic staffs were reported that very often their neck pain aggravated while working on computers,16(12%) academic staffs were reported that always their neck pain is aggravated while working on computers,33(25%) academic staffs reported that their neck pain never aggravated while working on computers, 10(7%) academic staffs were non respondent.)



Graph 25- Representing association of computer oriented work to neck pain (Out of 132(100%) the 51(38%) academic staffs reported that often their neck pain aggravates while working on computers,21(15%) academic staffs were reported that very often their neck pain aggravated while working on computers,16(12%) academic staffs were reported that always their neck pain is aggravated while working on computers,33(25%) academic staffs reported that their neck pain never aggravated while working on computers, 10(7%) academic staffs were non respondent.)

III. CONCLUSION

This study revealed an alarmingly high prevalence of work related neck pain amongst AIMST University Academic Staffs. The findings of this study highlighted the relation between the associated factors; work related factors, individual factors and work tension factors and the development of work related neck pain. A negative impact was seen on the activities of everyday life of the individuals affected, thus hampering their productivity at work.

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