

Investigating The Burden of Musculoskeletal Diseases on Hospital Staff

Introduction



Occupational Health Nurse

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2017- 20

- Nursing officer
- (Armed Forces Hospital)

2021 - 23

- Occupational Health Nurse
- (Industry)

2023 ~ Current

- Occupational Health Nurse
- (Hospital)

Abstract Title

The occurrence of musculoskeletal disorders among hospital staff through an investigation into the harmful factors of ergonomic workload.

Contents



1. Background

2. Methods

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1. Background

Program Introduction

- This is to investigate the occurrence of musculoskeletal diseases through an investigation of harmful factors for musculoskeletal burdens on faculty and staff at university hospitals.

Enforcement Cycle

- Every 3 years

Subjects

- All Staff at Seoul Hospital Soon Chun Hyang

Inspection Tool

- 1) Survey
- 2) Interviews

Survey Schedule

- November 16th to 24th, 2023

Respondent

- 1,497 survey respondents out of a total of 1,850

Response Department

- Medical department (doctor)
- Nursing
- General administration

Interviews schedule

- December 13th to 15th, 2023

Measures

- Tasks, Workload, and Work environment

Questionnaires for Musculoskeletal Disorder Symptom Survey

I. Please fill in the following form:

Name	Age		_____ Years
Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female	Employment at current business	_____ Years and _____ months
Job department	_____ Department _____ line _____ tasks	Marital status	<input type="checkbox"/> Married <input type="checkbox"/> Single
Current task (describe in detail)	Task: _____ Employment period in this task: _____ Years and _____ months		
Daily work-hours	_____ Hours Break during work-hours (except meal breaks): _____ times (about _____ minutes)		
Task prior to current task	Task: _____ Employment period in this task: _____ Years and _____ months		

- Select the following leisure and hobby activities that you regularly enjoy (two or three times a week and 30 minutes or longer each time):
 - Activities relevant to computer Instrument playing (e.g., piano or violin)
 - Knitting, embroidering, Calligraphy
 - Tennis, badminton, squash Soccer, foot volleyball, basketball, skiing N/A
- How many hours on average do you spend on housework (e.g., cooking, washing, cleaning and babysitting for child/children younger than two years)?
 - Rarely Shorter than one hour Longer than one hour and shorter than two
 - Longer than two hours and shorter than three Longer than three hours
- Has a physician ever diagnosed you for any of the following diseases? (Check the applicable items.)
(Diseases: Rheumatic arthritis Diabetes Lupus nephritis Gout Alcoholism)
 - No Yes (If Yes, what is your current condition? Complete recovery Under treatment or observation)
- Have you ever injured your hands, fingers, wrists, arms, elbows, shoulders, neck, waist, feet or legs in sports activities or accidents (e.g., traffic accident, tumbling or falling)?
 - No Yes (If Yes, what is the injured part? Hand/finger/wrist Arm/elbow Shoulder Neck Waist Foot/leg)
- How would you describe the level of physical exertion required for your current task?
 - Not hard Workable Slightly difficult Very difficult

II. Have you ever suffered aches or discomfort in your hands/fingers/wrists, arms/elbows, shoulders, waist, or feet/legs relevant to your work in the past year (such as ache, throbbing, stiffening, burning, numbness or prickling)?

- No (Thanks for your answers. You have answered all of the questionnaires.)
- Yes. (Please check the aching that applies on the following table and the applicable items along the vertical column.)

Aching part	Neck ()	Shoulder ()	Arm/elbow ()	Hand/wrist/ finger ()	Waist ()	Foot/leg ()
1. Specify the aching part.	<input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both	<input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both	<input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both	<input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both	<input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both	<input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both
2. How long does the aching last?	<input type="checkbox"/> Less than one day <input type="checkbox"/> One day - less than one week <input type="checkbox"/> One week - less than one month <input type="checkbox"/> One month - less than six months <input type="checkbox"/> Longer than six months	<input type="checkbox"/> Less than one day <input type="checkbox"/> One day - less than one week <input type="checkbox"/> One week - less than one month <input type="checkbox"/> One month - less than six months <input type="checkbox"/> Longer than six months	<input type="checkbox"/> Less than one day <input type="checkbox"/> One day - less than one week <input type="checkbox"/> One week - less than one month <input type="checkbox"/> One month - less than six months <input type="checkbox"/> Longer than six months	<input type="checkbox"/> Less than one day <input type="checkbox"/> One day - less than one week <input type="checkbox"/> One week - less than one month <input type="checkbox"/> One month - less than six months <input type="checkbox"/> Longer than six months	<input type="checkbox"/> Less than one day <input type="checkbox"/> One day - less than one week <input type="checkbox"/> One week - less than one month <input type="checkbox"/> One month - less than six months <input type="checkbox"/> Longer than six months	<input type="checkbox"/> Less than one day <input type="checkbox"/> One day - less than one week <input type="checkbox"/> One week - less than one month <input type="checkbox"/> One month - less than six months <input type="checkbox"/> Longer than six months
3. What is the degree of the ache? (See the description)	<input type="checkbox"/> Mild aching <input type="checkbox"/> Medium aching <input type="checkbox"/> Severe aching <input type="checkbox"/> Extremely severe aching	<input type="checkbox"/> Mild aching <input type="checkbox"/> Medium aching <input type="checkbox"/> Severe aching <input type="checkbox"/> Extremely severe aching	<input type="checkbox"/> Mild aching <input type="checkbox"/> Medium aching <input type="checkbox"/> Severe aching <input type="checkbox"/> Extremely severe aching	<input type="checkbox"/> Mild aching <input type="checkbox"/> Medium aching <input type="checkbox"/> Severe aching <input type="checkbox"/> Extremely severe aching	<input type="checkbox"/> Mild aching <input type="checkbox"/> Medium aching <input type="checkbox"/> Severe aching <input type="checkbox"/> Extremely severe aching	<input type="checkbox"/> Mild aching <input type="checkbox"/> Medium aching <input type="checkbox"/> Severe aching <input type="checkbox"/> Extremely severe aching
<Description>	Mild aching: Mildly unpleasant, but no discomfort when concentrating on tasks. Medium aching: Ache felt during task, but relieved after resting at home. Severe aching: Relatively severe ache during task, that continues at home. Extremely severe aching: So severe that task as well as daily living are hard to endure.					
4. How many times have you suffered from the ache in the last year?	<input type="checkbox"/> Once in six months <input type="checkbox"/> Once in two to three months <input type="checkbox"/> Once a month <input type="checkbox"/> Once a week <input type="checkbox"/> Daily	<input type="checkbox"/> Once in six months <input type="checkbox"/> Once in two to three months <input type="checkbox"/> Once a month <input type="checkbox"/> Once a week <input type="checkbox"/> Daily	<input type="checkbox"/> Once in six months <input type="checkbox"/> Once in two to three months <input type="checkbox"/> Once a month <input type="checkbox"/> Once a week <input type="checkbox"/> Daily	<input type="checkbox"/> Once in six months <input type="checkbox"/> Once in two to three months <input type="checkbox"/> Once a month <input type="checkbox"/> Once a week <input type="checkbox"/> Daily	<input type="checkbox"/> Once in six months <input type="checkbox"/> Once in two to three months <input type="checkbox"/> Once a month <input type="checkbox"/> Once a week <input type="checkbox"/> Daily	<input type="checkbox"/> Once in six months <input type="checkbox"/> Once in two to three months <input type="checkbox"/> Once a month <input type="checkbox"/> Once a week <input type="checkbox"/> Daily
5. Did you suffer from the ache in the last week?	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Yes
6. Which action have you taken to relieve this ache in the last year?	<input type="checkbox"/> Clinic treatment <input type="checkbox"/> Drug treatment <input type="checkbox"/> Leave on medical & worker's compensation insurance <input type="checkbox"/> Task change <input type="checkbox"/> N/A Others ()	<input type="checkbox"/> Clinic treatment <input type="checkbox"/> Drug treatment <input type="checkbox"/> Leave on medical & worker's compensation insurance <input type="checkbox"/> Task change <input type="checkbox"/> N/A Others ()	<input type="checkbox"/> Clinic treatment <input type="checkbox"/> Drug treatment <input type="checkbox"/> Leave on medical & worker's compensation insurance <input type="checkbox"/> Task change <input type="checkbox"/> N/A Others ()	<input type="checkbox"/> Clinic treatment <input type="checkbox"/> Drug treatment <input type="checkbox"/> Leave on medical & worker's compensation insurance <input type="checkbox"/> Task change <input type="checkbox"/> N/A Others ()	<input type="checkbox"/> Clinic treatment <input type="checkbox"/> Drug treatment <input type="checkbox"/> Leave on medical & worker's compensation insurance <input type="checkbox"/> Task change <input type="checkbox"/> N/A Others ()	<input type="checkbox"/> Clinic treatment <input type="checkbox"/> Drug treatment <input type="checkbox"/> Leave on medical & worker's compensation insurance <input type="checkbox"/> Task change <input type="checkbox"/> N/A Others ()

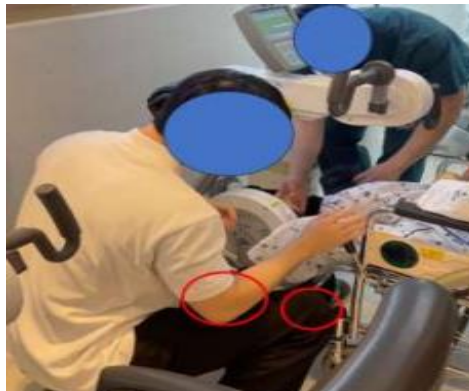
The results of the survey

	Neck	Shoulder	Arms	Wrist	Back	Legs	Total Results
Normal	1,332 (89%)	1,242 (83%)	1,447 (96.7%)	1,299 (86.8%)	1,227 (82%)	1,322 (88.4%)	953 (63.7)
Required management	142 (9.5%)	215 (14.4%)	43 (2.9%)	173 (11.6%)	230 (15.4%)	159 (10.7%)	442 (29.6%)
Pain	23 (1.6%)	40 (2.7%)	7 (0.5%)	25 (1.7%)	40 (2.7%)	16 (1.1%)	102 (6.9%)
Total	1,497 (100%)	1,497 (100%)	1,497 (100%)	1,497 (100%)	1,497 (100%)	1,497 (100%)	1,497 (100%)

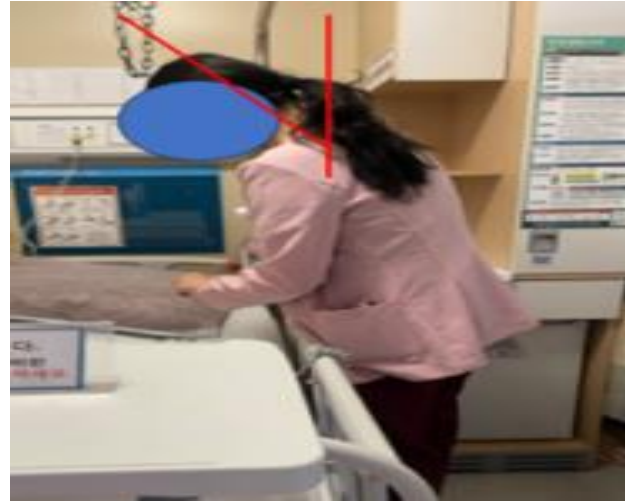
1) Patient Transportation



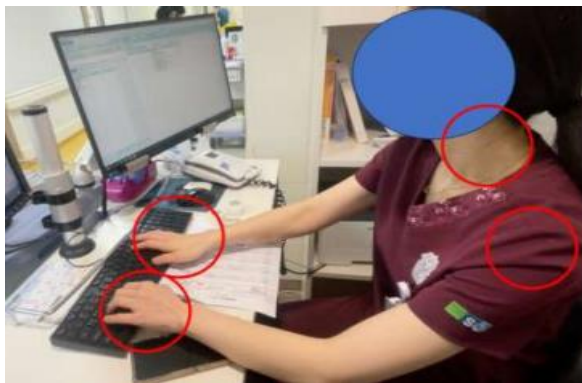
2) Physical Therapy



3) Injection



4) Charting



5) Maintenance of Facilities



3. Results

High-risk Department

	Department	Work	High risk group in 2020	High risk group in 2023
1	Nursing	Change of position	2	1
		Injection	2	1
2	Facilities team	Maintenance	3	1
3	OR	Using surgical instruments	2	1
4	ER	Patient care	-	1
5	Diagnostic Testing Medical Team	Microbial culture	2	1
6	Pathology team	Slide production	2	1
7	Rehabilitation team	Patient transportation	2	2
8	Central supply room	Packaging	2	2
9	Pharmaceutical team	Drug inspection	-	2

4. Conclusions

Department		Work	Conclusions
Medical	Rehabilitation Medicine	Patient movement	- Use Gait belt, sliding board for movement assistance
	Blood Vessel Center	Treatment of patients	- Height-adjustable bed replacement
	Gastroenterology	Cleaning operation	- Consider shortening the wash tank rotation cycle
	Orthopedics	the treatment of splints	- Provision of assistants and foot boards when dealing with splints
Nursing	Ward	Charting Working on a PC	- Height-adjustable desk installation - Feeding footrests - Perform regular rest and stretching
		Change of position	- Use of Aids for Position Transformation
	Central supply room	Cleaning and disinfection of equipment	- Workstation height improvement - Sterilizer Cart Wheel Regular Inspection
General Office	Facilities team	Maintenance of facilities	- Workstation height improvement - Sterilizer Cart Wheel Regular Inspection
	Administration team	Working on a PC	- Height-adjustable desk installation - Feeding footrests
Common	All	Long standing, Working on a PC	- Provide medical protective equipment (wrist/waist/compression stockings, etc.) - Provide wrist protection items (such as mouse pads)

Bulletin board on the website

Provide data on the prevention of musculoskeletal diseases

Face-to-face education

1. 근골격계 질환이란

정의

근골격계 질환 정의

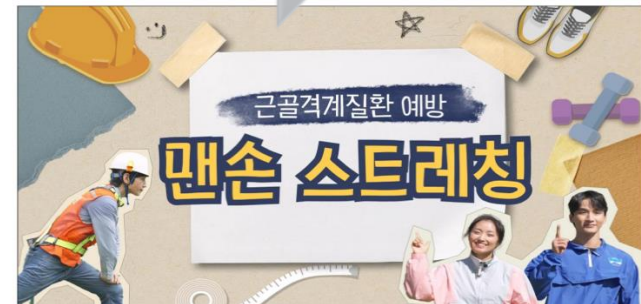
무리한 힘의 사용, 반복적인 동작, 부적절한 작업자세, 날카로운 면과의 신체접촉, 진동 및 온도 등의 요인으로 인해 **근육과 신경, 힘줄, 인대, 관절 등의 조직이 손상** 되어 신체에 나타나는 **건감장애**



순천향대학교 서울병원

5. 근골격계 질환 예방

스트레칭 동영상



순천향대학교 서울병원

동영상 출처 : 안전보건공단

SCH 순천향대학교 서울병원
SUNGCHUN HYANG UNIVERSITY HOSPITAL SCHOOL

슬기로운 일터생활

작업 전 **5**분
스트레칭

목 스트레칭

1. 머리에 손을 얹은 후 옆으로 지그시 당겨주세요
2. 양쪽 손을 머리 뒤로 깎지 낀 후 아래로 당겨주세요
3. 엄지손가락을 턱에 대고 위를 향하여 당겨주세요
4. 원을 천천히 그리면서 목을 지그시 돌려주세요

어깨 스트레칭

1. 어깨에 손을 올리고 원을 그리며 돌려주세요
2. 팔을 최대한 몸쪽으로 붙여 천천히 당겨주세요
3. 팔을 머리 뒤로하여 팔꿈치를 잡고 아래로 눌러주세요
4. 등 뒤로 두 손을 맞잡아 가슴을 내민 후 고개를 젓혀주세요

손목 스트레칭

1. 양쪽 손을 깎지 낀 후 손과 손목을 돌려주세요
2. 손등을 맞붙여 팔꿈치를 같은 높이로 놓고 눌러주세요
3. 다섯 손가락을 꼭 껐다 구부리기를 반복해주세요
4. 한쪽 손을 편 뒤 반대편 손목을 몸쪽으로 젓혀 당겨주세요

허리 스트레칭

1. 양쪽 손을 깎지 낀 후 머리 위로 올려 좌,우로 당겨주세요
2. 양쪽 손을 깎지 낀 후 앞으로 팔을 쭉 뻗어주세요
3. 양쪽 손을 앞뒤로 두고 허리를 좌,우로 비틀어주세요
4. 양쪽 다리를 살짝 굽힌 채 좌,우로 허리를 돌려주세요

다리 스트레칭

1. 한쪽 발을 앞으로 두고 무릎을 잡고 허리를 숙여주세요
2. 무릎을 두 손으로 잡고 올려 몸 쪽으로 최대한 당겨주세요
3. 팔을 뒤로 뻗어 발등을 잡고 몸쪽으로 당겨주세요
4. 두 손을 벽에 대고 한쪽 다리를 뒤로 보낸 후 종아리 근육을 눌러주세요

Poster Production

Visit **100** departments

Poster Bulletin

Attachment

Stretching **E**ducation

5. Preventive activities

Stretching



Thank You

 Contact : wnstk4048@naver.com