Evaluation of musculoskeletal pain among nurses

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Objectives

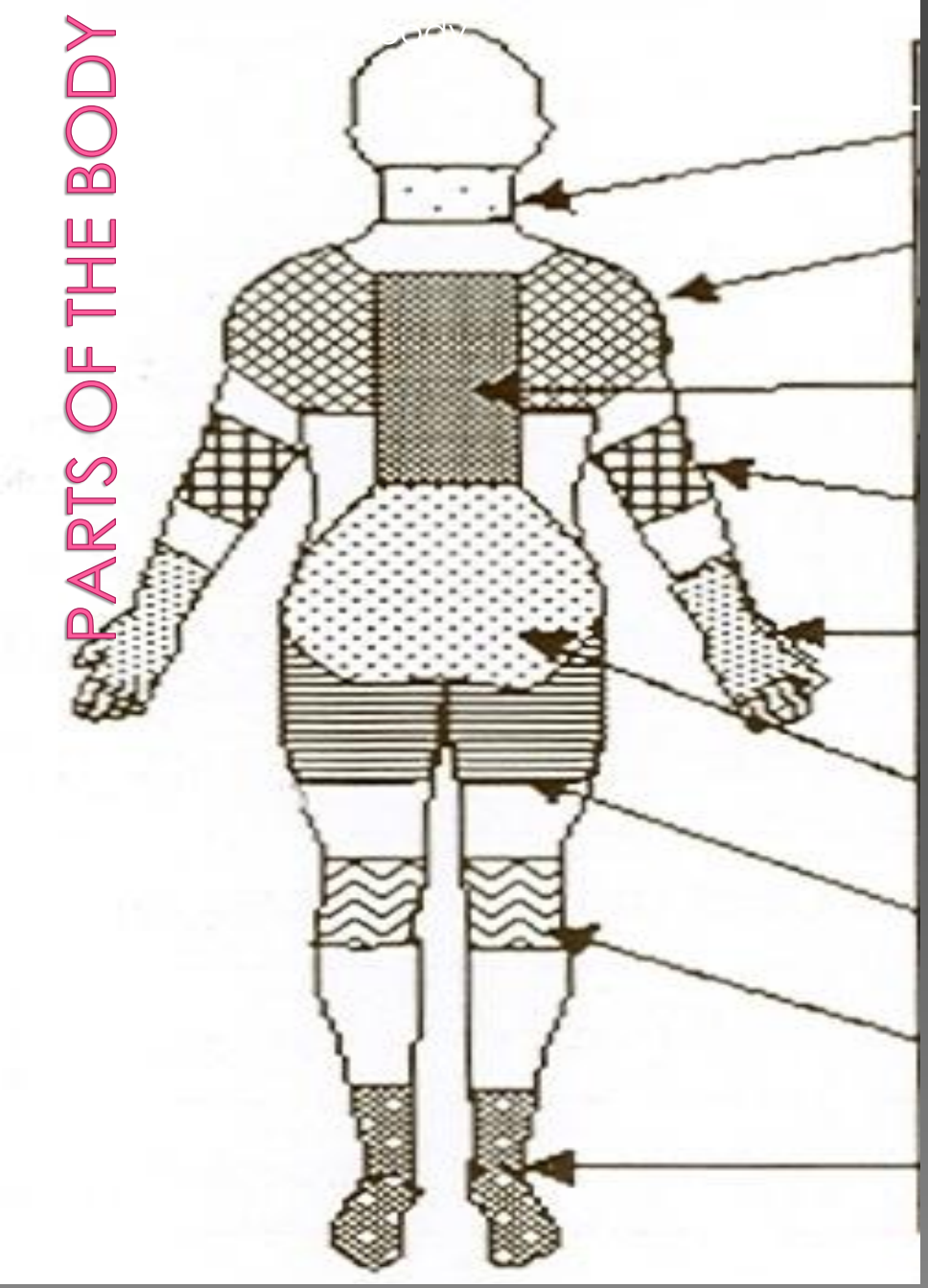
The aim of this study is to assess the prevalence of pain related to musculoskeletal system among nurses

Methods

In a cross-sectional study, musculoskeletal pain was evaluated using the extended of the Nordic Musculoskeletal Questionnaire.

A figure showing nine anatomical areas of the body used for the survey (neck, shoulders, upper and lower back, elbows, wrists/hands, hips/thighs, knees, and ankle/feet)

PARTS OF THE BODY



Neck

Shoulders

Upper back

Elbow

Wrist / Hands

Low back

Hips /Thighs

Knees

Ankles / Feet

Data analysis

- ✓ The Statistical Package for Social Science (SPSS, 17 versions) was used for statistical analysis
- ✓ Prevalence of musculoskeletal pain was analyzed using descriptive statistics
- ✓ The logistic regression analysis was performed for identification of risk factors that may impact on pain
- ✓ A significance level of 0.05 was set for the study

Ethical consideration

- The study was approved by local ethics committee
- All the nurses were informed of the purpose of this study and their permission was obtained
- They were told that their participation in the study was voluntary

Results

- The study sample consisted of 217 nurses
- The main age of nurses in the study was 32.70±8.03. Median (31) (min.-max=(20 -54)
- Two hundred seventeen, of whom 92.6% had musculoskeletal pain in at least one body part, participated in the study.
- The respondent most often reported symptoms in the low back (66.4%), upper back (56.2%), neck (51.6%), and ankle/feet (44.7%)
- 56.2% reported low back pain during the past 12 months, and 48.8% during the past one month and past one week (32.7%)

Table 1. Individual characteristics of nurses

	n	%
Gender		
Male	29	13.4
Female	188	86.6
Body mass index (BMI)		
18.49 ↓	12	5.5
18.50-24,99	153	70.5
25↑	52	24.0
Year of working		
1-5	84	38.7
6-10	36	16.6
11-15	30	13.8
16 ↑	67	30.9

The frequency of pain according to body area

Pain of body	Lifetime Prevalence	Annual prevalence	Monthly prevalence
	n (%)	n (%)	n (%)
Neck	112 (51.6)	106 (48.8)	91 (41,9)
Shoulders	79 (36.4)	67 (30,9)	59 (27,2)
Upper back	122 (56.2)	105 (48,4)	101 (46,5)
Elbow	13 (6)	9 (4,1)	8 (3,7)
Wrist / Hands	56 (25.8)	45 (20,7)	35 (16,1)
Low back	144 (66.4)	122 (56.2)	106 (48,8)
Hips /Thighs	42 (19.4)	32 (14,7)	25 (11,5)
Knees	76 (35)	68 (31,3)	57 (26,3)
Ankles / Feet	97 (44.7)	88 (40,6)	77 (35,5)

	Lifetime hospitalization n (%)	Lifetime Changed jobs or duty n (%)
Neck	8 (3,7)	3 (1,4)
Shoulders	3 (1,4)	4 (1,8)
Upper back	5 (2,3)	5 (2,3)
Elbow	-	1 (0,5)
Wrist / Hands	3 (1,4)	2 (0,9)
Low back	16 (7,4)	7 (3,2)
Hips /Thighs	3 (1,4)	-
Knees	3 (1,4)	5 (2,3)
Ankles / Feet	1 (0,5)	5 (2,3)

	Annual medication	Annual sick leave
Neck	83 (38,2)	11 (5,1)
Shoulders	44 (20,3)	7 (3,2)
Upper back	77 (35,5)	12 (5,5)
Elbow	5 (2,3)	1 (0,5)
Wrist / Hands	30 (13,8)	3 (1,4)
Low back	87 (40,1)	21 (9,7)
Hips /Thighs	23 (10,6)	4 (1,8)
Knees	42 (19,4)	4 (1,8)
Ankles / Feet	57 (26,3)	7 (3,2)

- Being male (odds ratio (OR) 2.21, 95% CI1.22-4.01) and
- Increased body mass index (OR 1.23, 95% CI 1.06-1.43) were the most important factors that increased pain complaints in at least one body part.
- Age wasn't found to be related to MS pain

Conclusions

- In this study, musculoskeletal pain was very common among nurses
- It is important to provide training about occupational risks
- A need to implement preventive measures, early diagnosis, and exercise programs for nursing personnel

Thank you⁂