

## Supplementary material to:

### **DEVELOPMENT AND VALIDATION OF A NEW SCALE FOR PREDICTION OF LOW BACK PAIN OCCURRENCE AMONG NURSES**

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## Appendix: The Scale for Prediction of Low Back Pain Occurrence among nurses

### The Individual Sub-scale

Row	Items	Options				
1	How many hours a <u>week</u> do you go walking?	Never <input type="checkbox"/>	≤1 <input type="checkbox"/>	+1-3 <input type="checkbox"/>	+3-5 <input type="checkbox"/>	>5 <input type="checkbox"/>
2	How many hours a <u>week</u> do you do moderate exercises like cycling, or swimming with usual speed or tennis?	Never <input type="checkbox"/>	1≤ <input type="checkbox"/>	+1-3 <input type="checkbox"/>	+3-5 <input type="checkbox"/>	>5 <input type="checkbox"/>
3	How many hours a <u>week</u> do you do heavy exercises like aerobic, running, rapid cycling, or rapid swimming?	Never <input type="checkbox"/>	1≤ <input type="checkbox"/>	+1-3 <input type="checkbox"/>	+3-5 <input type="checkbox"/>	>5 <input type="checkbox"/>
4	How many stairs do you climb up a day in average?	<20 <input type="checkbox"/>	20-30 <input type="checkbox"/>	30-40 <input type="checkbox"/>	40-50 <input type="checkbox"/>	>50 <input type="checkbox"/>
5	Do you wear standard shoes?	Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>
6	Do you use very soft and flexible bed for sleeping?	Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>
7	How many hours a day do you sit on back-restless chairs, in average?	Never <input type="checkbox"/>	≤1 hour <input type="checkbox"/>	1-2 hours <input type="checkbox"/>	2-3 hours <input type="checkbox"/>	>3 hours <input type="checkbox"/>
8	Do you have bad habits in doing your activities (quick and sudden movements, quick and sudden bending and extending, twisting, etc.)?	Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>
9	Do you have enough time to accomplish all daily tasks (whether home or personal)?	Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>
10	Did you have any tasks in childhood or adolescence which needed doing heavy lifting or heavy-duties?	Never <input type="checkbox"/>	≤2 years <input type="checkbox"/>	2-4 years <input type="checkbox"/>	4-6 years <input type="checkbox"/>	>6 year <input type="checkbox"/>
11	Have you had a history of low back pain?	Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>

Row	Items	Options				
12	Have you had discomfort, pain or disorder in neck, or shoulders during the past month?	Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Some-times <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>
13	How many hours a day do you sit in average? (work+home+outside)	≤4 hours <input type="checkbox"/>	4-6 hours <input type="checkbox"/>	6-8 hours <input type="checkbox"/>	8-10 hours <input type="checkbox"/>	>10 hours <input type="checkbox"/>
14	How many hours a day, are you standing or walking, in average (work+home+outside)	≤4 hours <input type="checkbox"/>	4-6 hours <input type="checkbox"/>	6-8 hours <input type="checkbox"/>	8-10 hours <input type="checkbox"/>	>10 hours <input type="checkbox"/>
15	How many hours <u>a day</u> , do you drive in average?	Never <input type="checkbox"/>	≤1.5 hours <input type="checkbox"/>	1.5-3 hours <input type="checkbox"/>	3-4.5 hours <input type="checkbox"/>	>4.5 hours <input type="checkbox"/>
16	How many hours <u>a day</u> you are inside motor vehicles, in an average?	Never <input type="checkbox"/>	≤1.5 hours <input type="checkbox"/>	1.5-3 hours <input type="checkbox"/>	3-4.5 hours <input type="checkbox"/>	>4.5 hours <input type="checkbox"/>
17	How many hours <u>a day</u> (work+home+outside) is your neck bending angle more than 20 degrees? (the shaded area in the figure below) 	≤2 hours <input type="checkbox"/>	2-4 hours <input type="checkbox"/>	4-6 hours <input type="checkbox"/>	6-8 hours <input type="checkbox"/>	>8 hours <input type="checkbox"/>
18	How long do you seat on chairs with inappropriate heights?	Never <input type="checkbox"/>	≤1 hour <input type="checkbox"/>	1-2 hours <input type="checkbox"/>	2-3 hours <input type="checkbox"/>	>3 hours <input type="checkbox"/>
19	Do you lift loads heavier than 5 kg (boxes, babies, adults, etc.) at home or leisure time? Yes <input type="checkbox"/> 0      No <input type="checkbox"/> 1      If your response is No, go to the question 20.					
Tick the type of loads and handling time a day (household or leisure activities) on the cross table.						
		≤1 hour	1-2 hours	2-3 hours	>3 hours	
19-1	Boxes, cartons, and other heavy objects	2	3	4	5	
19-2	Child	2	3	4	5	
19-3	Adult	2	3	4	5	

### The Occupational Sub-scale

**20** Do you reposition the patients during the shift?  
 Yes  0      No  1      If your response is no, go on to question 21.

Tick on the cross table, the total time of repositioning during a shift, and the patient's age group.

Duration of repositioning		The patient's age group			
		≤0.5 hours	0.5-1 hours	1-1.5 hours	>1.5 hours
19-1	infant	2	3	4	5
19-2	child	3	4	5	5
19-3	adult	4	5	5	5

**21** Do you lift and handle the patients?  
 Yes  0      No  1      If your response is no, go on to question 22.

Tick on the cross table, the total time of lifting and handling the patients during a shift and the patient's age group?

Duration of lifting and handling patients		The patient's age group			
		≤0.5 hours	0.5-1 hours	1-1.5 hours	>1.5 hours
20-1	infant	2	3	4	5
20-2	child	3	4	5	5
20-2	adult	4	5	5	5

**22** Do you lift loads (other than patients) during the shift?  
 Yes  0      No  1      If your response is no, go on to question 23.

Tick on the cross table, the total time of load lifting during the shift and the weight of the loads? (Note: you can choose more than one cell.)

Duration of load lifting		Load's weight			
		≤0.5 hours	0.5-1 hours	1-1.5 hours	>1.5 hours
≤5 kg		2	3	4	5
5-10 kg		3	4	5	5
10-15 kg		4	5	5	5
>15 kg		5	5	5	5

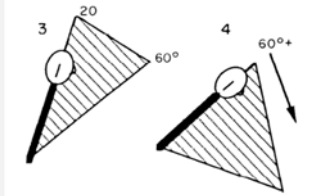
**23** Do you push or pull the patients or the objects during the shift?  
 Yes  0      No  1      If your response is no, go on to question 24.

Tick on the cross table the total time of pulling or pushing during the shift and the load's weight?

<b>Duration of pushing/pulling</b>  <b>The load's weight</b>	≤0.5 hours	0.5-1 hours	1-1.5 hours	>1.5 hours
≤25 kg	2	3	4	5
25-35 kg	3	4	5	5
35-45 kg	4	5	5	5
>45 kg	5	5	5	5

**24** Do you do any tasks (other than lifting, handling or pushing) during which your body be placed in a bending position?  
 Yes  0      No  1      If your response is no, go on to question 25.

Tick on the cross table, your trunk bending angle and the total time of that during the shift.  
 (You may use the pictures as a guide to determine the bending degrees)



<b>Trunk position</b>  <b>Duration of being in bended postures</b>	≤0.5 hours	+0.5-1 hours	+1-1.5 hours	1.5< hours
Forward bending 21-60 degrees (Figure 3)	2	3	4	5
Forward bending ≤60 degrees (Figure 4)	3	4	5	5
Backward bending 1-20 degrees	2	3	4	5
Backward bending ≤20 degrees	3	4	5	5

**25** Does the limited space of your work station make you uncomfortable for working or applying forces?  
 Never       Hardly ever       Sometimes       Most of the time       Always

**26** Are your recovery breaks (rest periods or lighter parts of work between the ponderous and tiring parts of your work) enough for refreshing?  
 Never       Hardly ever       Sometimes       Most of the time       Always

<b>27</b>	<b>In average, how many hours a week do you work? (Please consider the second occupation if any.)</b>	<b>≤40 hours</b> <input type="checkbox"/>	<b>40-50 hours</b> <input type="checkbox"/>	<b>50-60 hours</b> <input type="checkbox"/>	<b>60-70 hours</b> <input type="checkbox"/>	<b>&gt;70 hours</b> <input type="checkbox"/>
<b>28</b>	How many 12-hour shifts (long shifts) do you have in a month?	0 <input type="checkbox"/>	1-2 <input type="checkbox"/>	3-4 <input type="checkbox"/>	5-6 <input type="checkbox"/>	>6 <input type="checkbox"/>
<b>29</b>	How many years have you been occupied in nursing?	≤5 years <input type="checkbox"/>	5-10 years <input type="checkbox"/>	10-15 years <input type="checkbox"/>	15-20 years <input type="checkbox"/>	>20 years <input type="checkbox"/>

### The Psychosocial Sub-scale

<b>30</b>	Have you experienced the following symptoms during the past month?						
	30-1	I was unable to become enthusiastic about anything	Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>
	30-2	I felt down-hearted and blue	Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>
<b>31</b>	Is the relationship between you and your immediate superior a source of stress to you?		Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>
<b>32</b>	Is the relationship between you and your co-workers a source of stress to you?		Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>
<b>33</b>	If needed, can you get support and help with your work from your co-workers?		Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>
<b>34</b>	Is your job stressful?		Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>
<b>35</b>	Does your job can damage to you?		Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>
<b>36</b>	How much are you satisfied with your job?		Dissatisfied totally <input type="checkbox"/>	Dissatisfied to some extent <input type="checkbox"/>	Indifferent <input type="checkbox"/>	Satisfied to some extent <input type="checkbox"/>	Satisfied totally <input type="checkbox"/>
<b>37</b>	Is your low back pain intolerable for you?		Never <input type="checkbox"/>	Hardly ever <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Most of the time <input type="checkbox"/>	Always <input type="checkbox"/>