

Women's working conditions in hospital cleaning: a case study¹

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Abstract. Hospital cleaning work, as health care work, is mainly performed by women all over Europe. Hospital cleaning activities represent a poorly studied sector although very important also for patient's health. We applied the Method of Organizational Congruencies to study cleaning work in three typical hospital units (Emergency Room, Haematology, General Medicine) of a roman University hospital where 198 women cleaners work. We analyzed the 731 technical actions performed in the three shifts and the related Organizational Constraints (OC). Working outsourcing, no occupational risks training, washing personal equipment at home, standing, long walking, early morning and night shift in emergency room, high monotony (>10 actions per hour) contact with biological and chemicals materials, risk conditions of accidents, artificial lights, hot microclimate and working in a cure setting represent the main Organizational Constraints. Differences among the three Units are discussed together with the importance of considering cleaning hospital as a preventive action towards hospital clinical risk.

Keywords: hospital, cleaning, women, organizational constraints, method of organizational congruencies

1. Introduction

Hospital cleaning work is a cleaning sector poorly studied although it represents one of the major women's activities in Italy and Europe with millions of workers involved. In the European Union alone it is estimated that about three million workers are cleaners. Cleaners are more often working on a part-time basis and frequently trying to combine several cleaning jobs to make enough to live on and are particularly likely to be immigrants or belong to ethnic minorities [1]. In Italy 36.726 enterprises in the cleaning service operate in more than twenty types of contract. In 2001 the cleaning sector had 26.792 work accidents in which 65 % women were the victims [2]. The European Occupational Health and Safety Agency (OSHA-EU), in order to reduce the high rate of accidents, had published three important Fact-sheets on cleaning work: *Preventing work-related slips, trips and falls* (n. 14, 2001), *Work equipment, tools and*

cleaners (n. 38, 2006), *Preventing harm to cleaning workers* (n. 86, 2009) in order to increase prevention in this sector [3]. The low literate status of workers in this work setting together with a low number of women in Italian trade unions can also explain why this sector is almost neglected. We have also to consider how double burden in women cleaners play an important role in increasing the occupational risks. Italian women spend more than five hours per day to the overall household activities, more than two times Italian men. Cleaning work is physically demanding and labour intensive. About 80% of cleaning is done manually using non-powered tools; for example, dusting, sweeping and mopping. Many of these tasks require repetitive motions, awkward postures high forces, and create a high load on the lower limbs, all of which contribute to musculo skeletal disorders. This exposure explains the higher rate of tunnel carpal syndrome among Italian women cleaners [4]. In the cleaning sector hospital cleaning plays a particularly important role because patients, health

workers and environment (hospital wastes) are also involved. To explore women cleaners working conditions in a University Public hospital, we undertook a specific ergonomics study. The promotion of the study was mainly due to the Health local unit that planned a prevention plan in this important sector in order to improve women's working conditions in the cleaning sector. This initiative was also favoured by a recent Italian law (L. 81/08) in which gender work assessment in order to improve women's health at work is mandatory [5]

2. Method

We applied the Method of Organizational Congruencies [6] in order to study the relationship between cleaning work and women's health. We observed cleaning work in three main hospital units (Haematology, Emergency Room, General Medicine) for a total of 52 hours of work of eleven cleaners employed (198 cleaners in all hospital units). Eighty per cent of cleaners in this setting are women (n. 158). The Method of Organizational Congruencies consists (MOC) of the detailed recording of "technical actions" performed by a worker in a typical work day and in each work shift. The following items are recorded in a grid: type of technical action, characteristic of the work including age, gender, whether the action was performed by a single worker or in collaboration with others, instruments and tools used (ex. mops and brushes), duration of the actions, the location (ex. office, ward, bathrooms, corridors) and the technical knowledge required to perform the action. We applied the MOC, considering the 24 hour cleaning cycle. The cleaners' work is organized in two typical work shifts (6-13; 13-20) and night shift only in the Emergency Room (22-6). In the second phase of the research we shall interview all the working women in order to identify their health condition and promote shared good practices.

3. Results

We have analyzed a total of 731 technical actions in all work shifts (Table 1). Technical actions in each work shift differ in the three hospital units. Cleaners perform more than 4 technical action in one minute with a high monotony rhythm. The technical actions observed are summarized in table 2. They are mainly: cleaning patient's room and

bathrooms, wearing protective gloves, twist floor cloths, change floor cloths, collecting floor wastes, negotiating cleaning with health care workers, etc. We have found hospital common shared Organizational Constraints such as: working in outsourcing, being employee (no loans) or partner of the cleaning cooperative service, no training on occupational health, periodical medical control not oriented towards occupational risks, no safety data sheet on new chemicals product (Antisapril vs Vircol and others), lack of information in case of floor or wall pouring, shift work, early morning shift (6 a.m.), night shift in Emergency Room, never two consecutive days off, working on Sundays (except two per month), working on Saturdays (except one in a month), washing personal equipment at home (twice or three times per week), no required protective shoes, responsibility recognized only in the case of bad practices, working in an hospital context (with suffering patients), no place to allocate personal belongings (also mobile phone), frequent interruptions, frequent non formal cleaning technical actions asked as a personal courtesy, limited time to rest (15 minutes each shift).

Fifty per cent of the cleaners are employed in the lower professional level (third level in a six levels ladder) in which they can perform all the cleaning activities in any hospital units. The main specific Organizational Constraints considering physical, mental and social health are shown in table 3.

4. Discussion

Hospital cleaning, in our case-study, is formally considered as other cleaning activities with no specific occupational risks or specific technical knowledge. No specific healthy selection is done among cleaning workers and wages do not differ from cleaning in other settings such as office, schools, etc. This is probably due to the organizational choice of outsourcing hospital cleaning contracts. A study on cleaners workers in Norway [7] showed how probably selection of poor health women into this occupation is one of the reasons of high disability rate in that country. On the contrary hospital cleaning is an important intervention for controlling hospital-acquired infection particularly those related to acinetobacter and staphylococcus aureus. Telephones, mobile phones, computers and patient's bed are the highest contaminated area and need to be clean [7]. Unfortunately no cleaning procedures are congruent with clinical risk prevention in this hospital.

Cleaning work as many women activities is considered a women "light" work as shown in Messing study [4] although "Light" work was characterized by flexed postures, walking, rapid repetitive movements involving the articulations of the upper limb and light weights (dusting) or 1-3 kg weights (emptying wastebaskets), with more occasional intense effort. The Author suggested to re-design the job in order to reconsider light and heavy work in a proper way. Usually it has been asked to be performed cleaning work in an invisible way in order to not interrupting cure and care hospital activities. This aspect of work determines frequent cleaning interruptions during the working schedule higher in less organized hospital units such as General Medicine. Women cleaners perform their hospital cleaning work without education in the field although they are exposed to biological and chemical agents. Dangerous hospital wastes are collected mainly in the Emergency Room where this exposure is much more frequent. Women spend all the working hours standing, often in awkward position, wearing gloves. They are often working with wet floor with a high risk of accidents. They walk kilometers in order to collect cleaning materials sometimes because of frequent unplanned cleaning interventions or lack of materials. The monotony of work is also very high if we follow european guidelines (< 10 actions/hour). Monotony represents a hazard to mental health together with working in solitude as in the Haematology Unit. Early morning shift is also an unhealthy organizational choice. Mental health problems have been studied in Norway and are frequent among female cleaning professionals [11]. Collaboration with co-workers, quality of leadership and ethnicity were significantly associated with mental health. Cleaners work should be considered as a cure job. Some hospital organization suggests to create a "combi-job" work in a manner to orient the cleaning activities and the hygiene of the patients in one single profession. This choice could improve professional profiles and competence with a reduction in monotony. This preliminary results will be discussed together with hospital cleaners in order to organize the change in terms of ergonomic organizational choices.

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Table 1

Number of Technical Actions in the three hospital Units per shift and working hours

CLEANING PER HOSPITAL UNIT	WORKING SHIFTS	HOURS OF WORK	NUMBER OF TECHNICAL CLEANING ACTIONS	TECHNICAL ACTIONS /HOUR
HAEMATOLOGY				
Morning	6.00-13.00	7	93	13.2
Afternoon	13.00-20.00	7	111	15.8
GENERAL MEDICINE				
Morning	6.00-13.00	7	122	17
Afternoon	13.00-20.00	7	101	14.4
EMERGENCY ROOM				
Morning	6.00-14.00	8	102	12.7
Afternoon	14.00-22.00	8	98	12.2
Night	22.00-6.00	8	104	13
TOTAL		52	731	14

Table 2

Type of technical actions in cleaning the three hospital Units

TYPE OF TECHNICAL ACTIONS	HAEMATOLOGY N. 204	GENERAL MEDICINE N. 223	EMERGENCY ROOM N. 304	TOTAL N. 731
Twist floor cloth	66	82	77	225
Wearing gloves	81	47	80	208
Collecting floor wastes	28	8	45	81
Cleaning wards	29	28	4	61
Cleaning patient's bathroom		20	4	24
Others		38	94	132
TOTAL	204	223	304	731

Table 3

MAIN ORGANISATIONAL CONSTRAINTS AS A PERCENTAGE OF TECHNICAL ACTIONS PERFORMED

	HAEMATOLOGY	GENERAL MEDICINE	EMERGENCY ROOM
<i>PHYSICAL CONSTRAINTS</i>			
STANDING	98	98	98
AWKWARD POSTURE	56	65	54
WEARING LATEX GLOVES	95	95	95
CONTACT WITH CHEMICALS	57	57	65
CONTACT WITH BIOLOGICAL MATERIALS	51	51	51
HEAVY LIFTING MATERIAL	11	15	11
AIR CONDITIONING	98	98	98
WET GROUND FLOOR	45	47	46
WRIST TURNING	35	37	25
ARTIFICIAL LIGHTS	98	98	98
LONG WALKING	10	12	8
COLLECTING DANGEROUS WASTES	1	2	2
<i>MENTAL CONSTRAINTS</i>			
MONOTONY WITH ATTENTION (>10 ACTIONS PER HOUR OF WORK)	16	7	7
INTERRUPTIONS	5	16	5
<i>SOCIAL CONSTRAINTS</i>			
WORKING ALONE	1	97	80
WORKING IN COUPLE	99	3	20
RELATIONSHIP WITH PATIENTS	2	4	2