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Changes in working conditions for home healthcare workers and impacts on their work activity and on their emotions

Corinne Van De Weerd^{a*}, René Baratta^b

^{a*}National Research and Safety Institute, Vandoeuvre Les Nancy, França, corinne.vandeweerd@inrs.fr

^bL'ouvre-boîte, PANTIN, França

Abstract

Home healthcare is steadily growing in many countries. Nevertheless, it is known that home healthcare workers are frequently exposed to a variety of potentially serious occupational hazards. Working conditions have changed to become more emotionally and physically demanding on workers. Emotional labor is increasingly high in this profession. Time pressure is increasingly common. This paper describes an ergonomic study analyzing the working conditions of nursing assistants and nurses, as well as the impacts of their work in terms of job satisfaction, emotions at work, relationships with the others, and occupational stress. The study shows that changing working conditions are making it increasingly difficult for home healthcare workers to do their work properly. We can confirm that such workers use strategies to try to cope. They use individual strategies to preserve the relational dimension of their work activity. These strategies are specifically centered around preserving the relationships with patients, and coping with the demands of the job. The study also shows that workers use strategies to express emotions and to conceal them from others. Finally, the paper presents the recommendations that were discussed with the manager and workers for improving working conditions and that led to practical proposals: e.g. implementing certain items of equipment better suited to difficult care, encouraging assistance between workers when operations so require through appropriate organizational measures, extending emotion-focused work discussion groups with management involvement.

Keywords

Emotion. Home healthcare. Job satisfaction. Occupational stress. Workplace.

1. Introduction

Home healthcare is steadily growing in Europe and in the United States. Home healthcare provides vital medical assistance to ill, elderly, convalescent, or disabled persons who live in their own homes instead of a healthcare facility. It is one of the most rapidly expanding industries in those parts of the world. The Bureau of Labor Statistics (2008) projects that home healthcare employment will grow by 55% between 2006 and 2016 in the United States, making it the fastest growing occupation of the next decade.

There are a number of reasons for this development. For example, in France, an aging population has created new and increasing demand for an alternative form of healthcare, and rising hospital costs have

contributed to the expansion of new healthcare services. Furthermore, people are increasingly preferring to stay in their own homes rather than go to hospital or relocate to a family. There is a general tendency for people to preserve the greatest possible independence. Live-in home care is especially appropriate for a person suffering from Alzheimer's disease, for example, or for someone at risk of falling and being incapable of getting up from the floor alone, or for someone who cannot remember to take medication. Home healthcare workers also facilitate quick, smooth transition of patients from a hospital to a home environment and they provide patients with the opportunity of receiving quality medical care in the comfort of their own homes.

For several years now, it has been known that home healthcare workers are frequently exposed to a variety of potentially serious hazards (El-Askari & DeBaun, 1999). Recently, the NIOSH (Centers for Disease Control and Prevention, The National Institute for Occupational Safety and Health, 2010) published a report that reveals that during 2007 alone, 27,400 recorded injuries occurred among more than 896,800 home healthcare workers in the United States. It describes a list of occupational risks to which such workers are exposed. That list features: biological, chemical, road, musculoskeletal disorder and psychosocial risks, as well as risks of infection and of falls.

Regarding biological risks, the NIOSH refers, for example, to exposure to needlestick and sharps injuries, and bloodborne pathogens. Contact with contaminated needles, scalpels, broken glass, and other sharps may expose healthcare workers to blood that contains pathogens which pose a serious and potentially lethal risk.

Concerning chemical risks, the list mentions, for instance, exposure to toxic products, latex allergy, and irritant contact or allergic contact dermatitis. Irritant contact or allergic contact dermatitis is caused by contact with chemicals that have been added during harvesting, processing, or manufacturing latex products. Latex allergy is potentially a more serious reaction than irritant contact or allergic contact dermatitis. Mild reactions consist of redness of the skin, hives, or itching. More serious reactions might include runny nose, sneezing, itchy eyes, scratchy throat, and asthma. Rarely, shock may occur, but a life-threatening reaction is seldom the first sign of latex allergy. Regarding toxic products, workers can be exposed during home chemotherapy, for example.

Furthermore, home healthcare workers are exposed to infectious diseases during home visits. For example, Baron et al. (2009) showed that a home health care worker's ability and willingness to respond during a pandemic depends on appropriate communication, training, and adequate protections, including influenza vaccination and respiratory protection. Gershon et al. (2010) confirmed it with their study on pandemic-related attitudes and behavioral intentions of home healthcare workers. They showed that most workers (86 percent) had not received any work-based, pandemic-related training, and only 5 percent reported that their employer had an influenza pandemic plan. The risk of infectious contagion is particularly high in this occupation.

Another risk concerns falls, because home healthcare workers do not have control over the walkways and may encounter icy pavements, wet

floors, or wet carpeting. Loose area rugs and other floor coverings can also be hazardous.

Additionally, driving from client to client is a serious hazard in any home healthcare work. Home healthcare workers are at a high risk for motor vehicle related injuries. Distracted driving, aggressive driving, lack of seatbelt use, driving while tired or after having used alcohol or drugs, poor weather conditions, and poorly maintained vehicles can all contribute to motor vehicle related injuries.

Moreover, home healthcare workers may be exposed to back injuries and musculoskeletal disorders. They experience musculoskeletal disorders at a rate exceeding that of workers in construction, mining, and manufacturing. For example, occupational injuries and illnesses to home nursing assistants accounted for nearly 20 percent of the days-away-from-work cases in 2011 (Bureau of Labor Statistics, 2012). All healthcare workers who lift and move patients are strongly exposed to these risks (Owen, 2003; Parsons et al., 2006; Waters et al., 2006). Symptoms of musculoskeletal disorders include pain, stiffness, swelling, numbness, and tingling. Home healthcare workers do many of the same tasks as workers in traditional healthcare settings, but conditions in the home environment often make the work more difficult. For instance, home healthcare workers usually perform heavy work, like lifting and moving patients, without assistance (Centers for Disease Control and Prevention, The National Institute for Occupational Safety and Health, 2010).

Risks of musculoskeletal disorders are closely linked to psychosocial risks. The NIOSH report (Centers for Disease Control and Prevention, The National Institute for Occupational Safety and Health, 2010) points out frequent risks in this sector, such as overexertion, verbal abuse, physical violence, and stress at work. Home healthcare workers can be vulnerable as they face an unprotected and unpredictable environment each time they enter a client's community and home (Canton et al., 2009). The spectrum of violence ranges from verbal abuse, to stalking or threats of assault, and to homicide. Verbal abuse from the client, family members, or people in the community is a form of workplace violence. Verbal abuse may be subtle, such as asking for help beyond the scope of the job (such as with cleaning), or it may be obvious, such as complaining about job performance or worker appearance, or even threatening to cause harm.

Burnout is also a very common phenomenon in these occupations (Estryn-Béhar et al., 2007; Meissner et al., 2007). Similarly, the European NEXT study of healthcare worker quality of life, conducted between 2004 and 2006, revealed the problems encountered prematurely by these workers, when

performing their jobs. This is a major concern since all ten countries covered by the study are affected.

Similarly, emotional labor is frequently high in this profession (Hochschild, 1983, 1993; Totterdell & Holman, 2003). Workers are often required to deal with difficult situations in relation to the affective component of their occupation and they are increasingly exposed to high emotional demands. They need to control their attitude, their tone of voice, their level of language and at the same time permanently assess the effects of these behavioral dimensions on patients. For example, a healthcare worker is sometimes required to conceal negative emotions relating to disease development in a patient, for whom he or she is caring, if recovery progress is in doubt. The intention is to avoid negatively influencing the patient's own emotions. Emotion contagiousness phenomena are strategically avoided by personnel in some circumstances, as shown by several researchers (Hatfield et al., 1993; Barsade, 2002). This emotional dissonance can be harmful for health in long term (Zapf, 2002).

These risks are accentuated when workers do their work in unhealthy or unsafe homes. Home healthcare workers may encounter unsanitary homes (Gershon et al., 2008); they may discover temperature extremes, and homes without water that is safe to drink. Unsanitary homes may harbor pests including rodents, lice, scabies, or termites. Workers can also encounter hostile pets. Several workers were concerned about being bitten or otherwise injured by animals (Centers for Disease Control and Prevention, The National Institute for Occupational Safety and Health, 2010).

Home healthcare workers are isolated. They have to cope alone when a patient falls, faints, is aggressive because of his or her pathology, or is terminally ill, when the patient's family is hostile, or when working conditions are unsafe. Working alone amplifies mental and physical workload and increases psychosocial risks.

Although these hazards are known, home healthcare workers continue to experience injuries and illnesses in the workplace. The number of work situations where home healthcare workers have to face high psycho-affective demands is increasing. Little research effort has been devoted to the topic of emotion and emotional factors in the workplace. That ongoing research is proposing to characterize working conditions, as well as the psycho-affective dimensions of highly demanding situations, and relies on ergonomics interventions in the workplace.

In analysing work activity and emotions at work, in the dynamic context of the workplace, we can study the relationship between working conditions

and health and well-being. Activity analysis refers to ergonomic theories focused on the work activity (Leplat & Cuny, 1977; Leplat & Terssac, 1990; Guérin et al., 2007). This theory emphasizes understanding the work situation as a whole, demand analysis and framework intervention and the distinction between prescribed work and actual work. It is based on models of the work situation (e.g. model of Leplat & Cuny, 1977) that focus on the difference between task and activity. Task means a piece of work to be undertaken or done and activity means what is actually done. A task is also what someone has been assigned to do. A task is what is planned, whereas activity is what has actually been done.

Because of potential risks in the home healthcare sector, activity analysis involves various dimensions: the physical activity (including body movements, postures, etc.), the cognitive dimension (concerned with perception, memory, reasoning, and motor response, as they affect interactions among humans and other elements of a system), and the emotional component (including emotional labor, affective workload, and emotion regulation).

The concept of strategy refers to the concept of coping strategy developed by Lazarus & Folkman (1984) who define it as the set of cognitive, emotional or mental efforts that a person makes to control or tolerate the internal or external tensions threatening or exceeding the resources of this person. Faced with a stressful situation, the person assesses the situation and the means they have to deal with it. Then, they arrange to try to reduce or to eliminate stress by using one or more strategies. These strategies are used in a dynamic process, and they change at the same time as the situation changes. In task-oriented coping, the person who is confronted with a stressful situation endeavors to analyze the problem, to seek additional information and to find a solution. In emotion-oriented coping, the goal is to find ways of moderating the intensity of the negative emotions.

Hochschild has highlighted specific strategies used by people who are confronted with emotional workload. These strategies refer to 'surface acting' and 'deep acting'. In the case of surface acting, people act emotions that are not actually felt. In the case of deep acting, people try to feel the emotion expressed (Hochschild, 1983; Pugh, 2001; Grandey, 2003). While the former consists in exercising voluntary control over behavioral manifestations (verbal and non-verbal such as gestures, tone of voice, prosody), the latter is based on cognitive action that consists in trying to actually experience the expected emotion. Surface acting is focused on superficial behavior (outside the body). Deep acting is focused on feelings (inside the body). In the first case, people act emotion as if they

felt an emotion knowing that it is not actually felt. In the second case, people try to arouse an emotion they want to feel.

2. Method

This paper describes an ergonomic study conducted on a home healthcare service with 45 employees.

The service was created 20 years ago, and quickly expanded, in particular with growing financial and human resources. For instance, in 10 years, the number of employees doubled and the budget was multiplied by 3. The service is managed by a senior manager who employs 19 nurses, 17 nursing assistants, 3 coordinating nurses and 3 medical and administrative secretaries.

The research focuses on analyzing the working conditions of home healthcare workers, as well as the impacts of their work in terms of job satisfaction, well-being, emotions at work, relationships with others (patients, colleagues, line managers, clinicians, senior managers, etc.) and occupational stress. This study looks at the work activity, the emotional labor, the occupational stress in the workplace and the strategies adopted by employees for coping with these issues.

This applied investigation aims to increase understanding of the safety and health risks involved in home healthcare in the workplace, and to contribute to reducing occupational hazards, with the participation of a home healthcare service. In this context, recommendations, discussed with the manager and workers, have been made for improving working conditions in this sector, by developing appropriate organizational risk prevention strategies.

Our approach was based on an ergonomic operation, which lasted 13 months. Two study operators monitored 8 nurses, 7 nursing assistants, 3 coordinating nurses and 3 secretaries for a week using video, when that was possible and accepted by the persons observed.

The specific methodology, built to collect data on work activity, emotions at work, and coping strategies, involves four stages (Table 1).

The first stage was a pre-investigation, based on work document analysis, collective and individual interviews with managers and employees, and exploratory observations. This phase enabled organization, issues, and internal culture to be taken into account.

The second stage consisted in evaluating overall working context, job demands, and perceived health of workers. To this end, individual and collective semi-directive interviews were conducted. This phase aimed to evaluate working conditions as perceived by employees, and to assess subjective evaluation of health, with reference to theories demonstrating the importance of subjective evaluation of working situations and job control by workers in estimating chronic stress level (Karasek, 1979; Lazarus & Folkman, 1984).

The third stage attempted to analyze work activity in the workplace, with visual observations, and video recording observations whenever possible and accepted by people, and with collective interviews (self-confrontations) for collecting, from videos or notes, comments from observed people on the work activity done and on emotions at work.

Table 1. The four methodological stages of the ergonomic study.

	Detailed method
Stage 1: pre-investigation	<ul style="list-style-type: none"> - visit of the service - 9 individual interviews with the managers - intervention preparation - pre-observation of worker activity
Stage 2: investigation of overall context, job demands and perceived health	<ul style="list-style-type: none"> - observation of 2 team meetings - observation of 1 monthly meeting with the participation of home healthcare nursing assistants - 3 individual interviews with home healthcare nurses - 3 individual interviews with home healthcare nursing assistants - 2 individual interviews with coordinating nurses - 1 individual interview with a permanent nurse - 1 individual interview with the medical secretary - 1 individual interview with the administrative secretary
Stage 3: analysis of activity and emotions at work in the workplace	<ul style="list-style-type: none"> - 17 observations of work activity of people in the workplace during 5 days - video recording of activity when it was possible and accepted by people) - 6 collective interviews to collect comments from workers about work activity, working conditions and emotions at work - video recording of collective interviews when it was possible and accepted by people - 3 meetings to validate the videos before showing them and presenting the results
Stage 4: collectively thinking about prevention recommendations	<ul style="list-style-type: none"> - 1 oral presentation of results on various media (slides, video) - 1 written report - 1 prevention plan with management involvement

The purpose of the final stage was to consider prevention strategies and policies, by proposing recommendations from discussions with the manager and workers for improving working conditions.

Regarding the collective interviews, they were initially held by job group (disciplinary), followed by collective interviews involving different jobs (cross-disciplinary) (Table 2). These sessions prompted discussion on working conditions and their potential improvement.

The method used to transform raw data into usable data was, firstly, to perform content analysis of individual and collective interviews. All the interviews were recorded with audio or video tools. It was therefore possible to analyze themes mentioned by workers. We also calculated the recurrence and frequency of the themes. A table was set up to highlight them and to prepare the questions that were significant to explore in collective interviews. Some questions were designed to be developed in more depth by workers in a discussion group. The questions

were also used to determine whether the other workers in the group had already met such situations, and if so, how often. Other questions were designed to create internal debates to establish discussions centered on several work components, and to bring out solutions. These questions were selected because they were relevant to creating discussions focused on concrete tasks, and also to making suggestions for improving working conditions. The Table 3 shows several examples of these themes.

3. Results

The results are organized into three parts. They relate to changes in working conditions regarding: increasing time pressure on the work activity, diminished emotional labor recognition, emotion regulation strategies to cope with job demands, and impacts of the method on the improvement of working conditions.

Table 2. Numbers of observations and of collective interviews.

Number of observations	Number of collective interviews
<ul style="list-style-type: none"> ➤ 4 nurses - with video ➤ 3 nurses - without video (notes) ➤ 2 nursing assistants - with video ➤ 2 nursing assistants - without video (notes) 	<ul style="list-style-type: none"> ➤ 3 interviews - by job group - with video ➤ 1 interview - by job group - without video (notes) ➤ 2 interviews - with various different job groups - with video ➤ 1 interview - validation of the final video

Table 3. Extract of table of data from the activity content analysis and themes to ask workers about in collective interviews and questions for creating debates.

Main themes of activity content analysis				Themes to ask about in collective interviews	Questions for creating debates
Positive aspects of working conditions		Negative aspects of working conditions			
Activity content	Corresponding video excerpt and notes	Activity content	Corresponding video excerpt and notes		
Adaptation in real time of the visits schedule by employees to ensure the quality of care.	Corresponding video excerpt: the nurse takes time to explain to the patient the reason for the injection. Note: the nurse makes a phone call to her colleague to ask for help with lifting a heavy patient.	Contrast between nurses' expectations about the time necessary to do the work and the imposed time pressure.	Corresponding video excerpt: the nurse quickly expresses support for the patient by just giving a piece of advice not to worry. Note: the nursing assistant can't give more explanations about hygiene care to the patient and says after work that she does a job half-done.	Are the tasks of healthcare workers clearly defined in the service? Do workers think it is important to talk about the limits of their role to define them clearly?	To discuss in a collective group the meaning of the limits set by everyone. Create a debate on work quality criteria.
Workers arrange the task by merely guiding the patient and letting them do the care so as to make them more independent.	Corresponding video excerpt: the nurse leaves the patient to wash their own face. Note: the nursing assistant encourages the patient to shave himself.	Contrast between patient expectations and employee tasks.	Corresponding video excerpt: a patient wants to have a shower even though a shower is not scheduled. Note: the patient is not at home even though the nurse visit is scheduled.	Do these situations occur frequently?	Is there a written contract that defines the tasks to be performed by workers? Is there a record of it to give to patients?

3.1. Increasing time pressure on the work activity

The work activity is both technical and relational. Nurse and nursing assistant work involves administering patient care, while also responding to certain expectations that fall within the area of worker-patient relations. The proportion of these two work dimensions varies, depending not only on the context, but also on the patient and his/her characteristics. The technical portion is equal to the relational portion of the care, when everything happens as intended, without any unforeseen event delaying the worker's visits. But, technical performance will be favored in the event of lateness. However, the most frequent situations are those in which the relationship is of prime importance to providing the care. For example, this is the case when a patient complains of pain, will not cooperate and resists by adopting a position that is inconvenient for the healthcare worker. The patient may also ask for repeated explanations in relation to the care operation or may need to receive calming words. In this case, relational activity will be favored because it becomes essential before administering the medical dimension of the care. The time taken to perform the relational operation will be longer than the time required for the technical procedure. Working conditions have shifted towards a high level of control over the costs and the time for doing the work activity. In performing their prescribed tasks, workers theoretically have to work fast, by giving preference to the technical part of their work activity.

The sequence of healthcare visits will then be structured based on these aspects to avoid accumulated delays with respect to the forecast schedule. Visit schedules are organized in advance by coordinating nurses, and so adjustment by healthcare workers affects the work of the schedulers, who have to take such field adjustment into account. They need to adapt the visits scheduled for the future as best they can. Proper coordination and consideration of each person's constraints is fundamental to efficient operation of the structure. However, the totals of the times for visits and the times spent in the car are

high (Table 4). The number of home visits per round is high, despite the significant travel time involved in each round. This constraint has implications for workers who have to perform patient care in short times. Despite their efforts to focus on the relational part of the work, healthcare workers have to carry out work activity that is more technically oriented in order to save time. This change in working conditions can impede quality of work and quality of relationships with patients and their families.

Figure 1 shows the proportion of time spent in the vehicle during rounds of nurses in the morning. It takes one result in Table 4 to graphically illustrate this data. We can see that the time spent in the car is high. Time allocation within the work activity of nurses, between working at patient's home and driving to do the next visit, creates time pressure on the work activity. Time pressure makes it complex to arrange time to perform the relational part of the work.

In addition, organizing the work of healthcare workers by coordinating with nurses, supervisor nurses and nursing assistants is difficult to perform because of this lack of time. Time pressure plays a major part in the relationships between colleagues and supervisors.

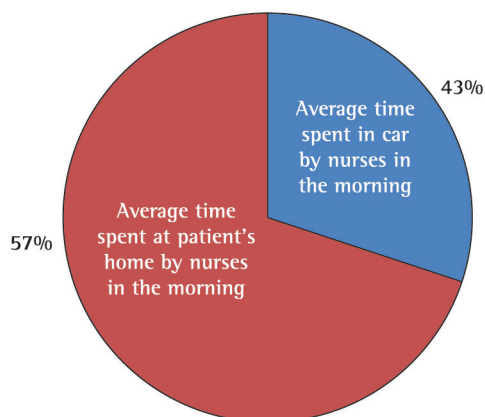


Figure 1. Proportion of time spent by nurses with patients and in the vehicle in the morning.

Table 4. Mean of duration for visits and routes of home healthcare workers.

	In the morning			In the evening		
	average time per visit (min)	average time spent in car (min/working hours)	average time between 2 visits (min)	average time per visit (min)	average time spent in car (min/working hours)	average time between 2 visits (min)
Nursing assistants' activity	32	11.2	8	6	25	6
Nurses' activity	15	26.0	10	8	17.83	8

3.2. Diminished emotional labor recognition

Recognition of healthcare work's relational and affective dimension (between workers and patients and between workers and management personnel) is a key to success. And yet, this recognition of the emotional part of the work activity is declining. Observed sources of stress are caused by confrontation between the requirements and between optimising the relationship and the speed of care to make all the scheduled visits.

Employee strategies are specifically centered around preserving the relationships with patients and other workers and coping with the demands of the job. As a minimum, employees seek to work in line with the organization culture, while nurturing patient well-being and preserving their own health. Such strategies correspond to surface acting.

Home healthcare workers express emotions and conceal them from others and, in this connection, emotional strategies are used in the workplace.

In relation to emotional work, healthcare workers conceal some of their emotions from patients, but express them to their nursing or nursing assistant colleagues in order to share them after their visits. These moments of shared emotion take place after work because of the lack of time (Table 4).

Positive emotions at work felt by healthcare workers are most often linked to regression of a patient's disease, the quality of their relationship with the patient, their feeling of helpfulness, success of technical procedures leading to less pain for the patient, the patient's acceptance of his/her state of

health and the care administered and, finally, physical aspects such as car journey conditions, available equipment, etc.

Negative emotions at work are linked to a poor relationship with the patient, care performance conditions (lack of space, medical bed, hygiene, etc.), time-related pressure, which adversely affects relational activity, and lack of constraint recognition by the management.

3.3. Emotion regulation strategies to cope with job demands

This study makes it possible to identify sources of positive and negative emotions at work and to classify regulation strategies for reducing emotional workload. On the basis of the results, it appears that emotions can be categorized in two classes (Table 5): emotions relating to nature of work, and emotions resulting from organisation problems. To illustrate these categories, Table 5 presents a list of several emotions at work and their associated regulation strategies.

Workers' reactions to difficulties depend on the origin of the felt emotion and on its class. When emotional workload results from nature of work, employees consider that they have to cope with it alone. Conversely, when emotional workload comes from organization problems or inefficient management style, workers find it difficult to accept it. They speak out strongly against this sort of job demand. In the event of organizational problems, the workers' tolerance for such problems is limited. Their coping

Table 5. List of some observed emotions at work and associated regulation strategies.

	Emotions at work	Associated regulation strategies
emotions relating to nature of work and associated strategies	Sadness at losing patient	Go to the funeral to mourn the loss
	Sadness when faced with a patient who is afraid of dying	Focus on the relationship by talking and by passing more time with them
	Joy at seeing a patient who is feeling better	Spend more time to foster the independence of the patient
	Annoyance when faced with a patient who complains	Take time for soothing words, or use humor to take the drama out
	Fear of a patient falling or fainting	Go to the patient's home outside planned visits to check their health
	Apprehension at discovering a new place of residence	Ask questions on the context to prepare oneself
emotions relating to organization and associated strategies	Anger at violence or abuse to a patient from their family	Speak about it to the manager to report it
	Fear when faced with an aggressive patient	Speak about it to the manager to report it
	Sadness because a patient commits suicide	Look for social support from colleagues and other people in the service
	Anger at the lack of appropriate needles	Make a request concerning needles or try to use them sparingly
	Anger at not being able to help because of instructions	Obtain help from colleagues while trying to limit traveling and using phone calls for receiving social support
	Disgust at an unhealthy place	Report it to try to change the situation

strategies are oriented to find a solution. The analysis of positive and negative emotions in the workplace shows that employees accept difficulties much better when they are related to the nature of the work.

3.4. Impacts of the method on the improvement of working conditions

The methodology was built on the basis of four steps. It enabled individual and collective data to be collected. It also enabled results to be compared in groups, with collaborative solutions then emerging. Debates took place in the service with the participation of managers. The manager's participation had a significant impact on the implementation of solutions. Concrete actions could be implemented because managers agreed to carry them out. They managed introducing the solutions. In this way, the emergence of the solutions could lead to concrete actions. The group could identify the working conditions that should be changed and those that should be maintained. It led to developing an action plan with the majority of the employees. The group of participants in these discussions included leaders, staff representatives and voluntary workers.

The first action was to set up a discussion group to speak about emotions at work, felt by employees, with the aim of changing working conditions in a second stage. The discussion began with emotions expressed at work, and then it focused on the work, and finally moved on to improving working conditions.

Expounding and coping with problems, and discussing emotional strategies, job satisfaction, and stress at work with colleagues was found to be genuinely effective.

Sharing emotions in an organisation-based formal group led or controlled by management and managers was a very efficient way of recognizing the work's relational and affective dimension. It would indeed appear to be fundamental to work-related dialogue, job satisfaction, social support, etc. The recent experience of this formal group had a positive effect in terms of occupational well-being. The group offered employees the possibility of expressing and sharing their emotions concerning a specific patient situation which can emotionally affect workers.

Furthermore, this study made it possible to identify positive and negative emotions at work and their sources. With these results, it will probably be easier to detect negative emotions and to speak about the sources of the emotions in a focus group. The aim of this prevention option is to detect negative emotions, to determine their origin, to discuss them and to change the working situations if it is possible, so as

to prevent difficult working conditions. Detecting negative emotions is useful for such prevention, if the future action is to try to improve working conditions before the emotional load becomes too high to be tolerated. A focus group makes it possible to share intense emotions, to reduce the collective emotional load, and to ameliorate the working environment. For example, if a patient is afraid to die, the worker can be authorized to take more time to speak with them.

Such exchanges involved a wider and freer expression of emotions concerning a specific case, but also the recognition of the emotional and relational part of the work by management. This formal group led by management, and the collective interviews conducted by researchers, made it possible to increase the feeling of mutual trust and to recreate a social climate favorable to dialogue. They also had a positive effect in terms of motivation at work.

Finally, recommendations discussed with the manager and workers for improving working conditions in this sector led to practical proposals. They enabled us to reveal the advantage of implementing certain equipment items better suited to difficult care (especially introducing the use of winglets for injections that are particularly difficult to perform).

They also allowed us to favor and encourage assistance between healthcare workers, when operations so require (e.g. for heavy patients) through adequate organizational measures.

Moreover, extending work emotion-focused discussion groups with management involvement provided not only psychological help for healthcare workers, but also management recognition of the work's affective dimension, which can be a burden to manage by oneself alone and can cause health consequences when there is no support.

Working conditions could be improved through greater knowledge of work constraints in parallel with expression of encountered difficulties. This is a practical part of preventing occupational, including psychosocial, hazards.

4. Discussion

We could see that working conditions of home healthcare workers had developed into arduous working conditions. Time pressure had become a factor in job strain, with less time to perform the relational part of the work activity. Therefore, the recognition of the emotional work component has decreased. The emotional part of the work activity is no longer a priority for managers and people who need to make schedules. However, this emotional working dimension is very important for employees in order to achieve quality of work.

We could also see that restoring a period of time devoted to emotional expression led to a better recognition of the work in all its components (i.e. in its technical, social, and emotional dimensions).

Changes in equipment participate in improving working conditions and quality of life for workers. In the same way, clarification of work instructions improves the operational situation in the workplace.

The impacts of these changes are effective on home healthcare worker activity and on felt and expressed emotions. The group has been strengthened and social dialogue has been improved. The introduction of regular discussions is useful for improving working conditions. The management of the service is now oriented in a sustainable way to assess working situations and to deal with problems before these situations get worse. In this way, the study intervention has participated in the development of psychosocial risk prevention.

Moreover, we believe that ergonomics, in its approach to the 'reality' of work, should take into account this relatively new field: analysis of work activity and of emotions at work. Methodological investigations in this direction would deepen the study of the relationship between emotional workload and work activity, and pave the way for other knowledge and other practices for further improving psychosocial risk prevention.

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