


# Practices Used in Israel by Nurses Who Care During Hospitalization for Older Patients With Dementia or Who are Bedridden

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Esther Iecovich, PhD<sup>1</sup> and Barbara Rabin, MSW<sup>2</sup>

## Abstract

The study's purpose was to examine (a) bedside nurses' care practices when providing care to patients with dementia or those who are physically disabled and (b) the extent to which these actions vary by type of hospital, type of ward, and nurse's characteristics. The sample included 265 nurses in internal medicine and geriatric wards in 2 general hospitals in Israel. The results showed that the most prevalent practices were giving greater attention to these patients, locating them in a room near the nurses' station and asking family members to stay with the patient or to hire paid carers. Use of restraints was more prevalent in patients with dementia than those who were physically disabled. Use of specific practices significantly varied by type of ward and hospital, suggesting that nurses' care practices are more connected with organizational characteristics than other factors.

## Keywords

older patients, bedbound, dementia, hospital, nurses' practices

## Introduction

As older adults age, they increasingly use health care services, including inpatient care. In Israel, 56% of the patients hospitalized in internal medicine wards are 65 years or older and comprise 10% of the population. Their bed days constitute 40% of the total bed days in hospitals,<sup>1</sup> and they comprise 64.7% of the patients in internal medicine wards.<sup>2</sup> In the United States, 40% of the bed days are occupied by older adults, although they comprise only 12% of the population.<sup>3</sup> Rates of hospitalization are more than twice as great for the age-group 85 and older compared with the age-group of 65 to 74.<sup>4</sup> These proportions are expected to increase with the aging of the population and the increase in life expectancy.

Many older adults who are hospitalized are functionally disabled<sup>5-7</sup> or have dementia.<sup>8</sup> In the United States, it is estimated that 25% of the hospitalized patients aged 65 and older have dementia and that Medicare beneficiaries with dementia had 3.4 times more hospital days than other beneficiaries.<sup>9</sup> These 2 groups of patients are different from other patients because, in addition to their acute medical conditions, they have long-term care needs, they are more vulnerable, and at higher risk of medical complications, which can increase their length of stay in the hospital and result in mortality. Longer stays in hospitals can have a detrimental impact on their health and increase the costs of national health services.

In spite of their common needs for extensive care, these 2 groups of patients differ in their nursing care needs. Older patients who are bedbound due to physical disabilities need extensive help with basic activities of daily living (ADLs). They are at risk of 2 critical medical dangers: pressure ulcers and developing blood clots.<sup>10</sup> In Canada, patients aged 65 years and older accounted for 72.3% of all hospitalizations in which pressure ulcers were noted.<sup>11</sup> Pressure ulcers can derive from the use of restraints and sedation that can result in long periods of immobility.<sup>12</sup> Because of inactivity, blood can pool in the veins and create blood clots that can lead to a stroke or death. Therefore, a patient who is nonambulatory usually needs full-time care and attention, including extensive help with basic ADLs and repositioning to avoid pressure ulcers and/or blood clots. Studies showed that older patients in general hospitals who are bedbound do not improve their ADLs but rather deteriorate for various reasons such as inadequate care due to shortage of nursing staff to provide personal care to patients who

<sup>1</sup> Department of Public Health, Faculty of Health Sciences, Ben-Gurion University of the Negev, BeerSheva, Israel

<sup>2</sup> Social Services, Meir Medical Center, Kfar Saba, Israel

## Corresponding Author:

Esther Iecovich, PhD, Department of Public Health, Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer-Sheva 84105, Israel.

Email: [iecovich@bgu.ac.il](mailto:iecovich@bgu.ac.il)

need long-term care,<sup>13</sup> nurses' lack of knowledge on aging and attitudes toward older patients, and organizational climate and culture that can influence their practices.<sup>14-16</sup> Time spent in the hospital can also result in the deterioration of functional status.<sup>17</sup>

It is estimated that in the United States, 25% of the hospitalized patients aged 65 and older have dementia.<sup>9</sup> For patients with dementia, hospital environments can be disorienting and frightening and may make them more confused than usual.<sup>18</sup> These patients may be pushed beyond their limits of coping due to their relocation into the unfamiliar environment of a hospital. This can be manifested in disruptive behaviors, such as wandering and aggressive behavior, reflecting their distress, that can disrupt a ward's routine.<sup>19</sup> In addition, they are at greater risk of falls, compared to patients without dementia,<sup>20,21</sup> and falls were found to increase the length of stay and costs.<sup>22</sup> Therefore, these patients need more surveillance and supervision during hospitalization.<sup>23,24</sup> This means that both groups of patients require teamwork that will likely need to include family, nurses, and professional and nonprofessional aides.<sup>25</sup>

In a study conducted by the Alzheimer's Society<sup>26</sup> in the United Kingdom, 97% of nursing staff and nurse managers reported that they cared for patients with dementia. These patients needed additional time and support, but work overload and a growing shortage in nursing labor force significantly limited the ability of the nursing staff to effectively meet the complex nursing needs of these patients,<sup>27-31</sup> particularly those who were nonambulatory or patients with dementia.<sup>32</sup> In Israel, the standard for nursing staff in hospitals did not increase between 1995 and 2010, and projections foresee a severe shortage in nursing staff in the future.<sup>33,34</sup> Shortage of manpower and high workload can hinder the quality of care and quality of life of these patients.<sup>35</sup>

Thus, older patients with disabilities are a major issue in general hospitals. Considering the workload of nurses in hospitals, it is important to learn about the practices that they use to look after these high-risk groups of patients during hospitalization.

## Theoretical Framework

The socioecological model<sup>36,37</sup> is an appropriate theoretical framework to understand how a combination of personal characteristics of the patients, characteristics of the hospitals as organizations, and characteristics of the nursing staff are connected with the practices nurses use when they provide care to older people with disabilities during hospitalization. According to this theory, a system is composed of several subsystems that interact, transact, and affect each other. These include several subsystems: the microsystem (the patient), which is the focus of intervention; the mesosystem (nursing staff) that has the direct and closest contact with the microsystem; and the exosystem (the hospital as an organization), which affects the behaviors of the nursing staff directly and the patients indirectly. The core concept of the social ecological model is that behavior (eg, nurses' practices) has multiple levels of

influence, including interpersonal (families, work groups, peers) and organizational (organizational culture, organizational structure, physical environment). We hypothesize that practices used by nurses to care for their older patients who are functionally dependent or have dementia will be connected with the hospitals' and the nurses' characteristics.

## Practices Used by Nurses

A great variety of practices for the management of hospitalized older adults who are totally dependent or older adults with dementia currently range from one-on-one sitters to antipsychotic medications and physical restraints.<sup>38</sup> However, there are several major practices discussed in the literature that relate to this issue:

**Family support**—family caregivers are an important source of help when older persons are hospitalized, in particular when the latter are physically dependent or have dementia.<sup>39</sup> Family caregivers spend a great deal of time in hospitals when their family members are hospitalized because they want to be involved and to care for them.<sup>40-41</sup> The nursing staff was found to welcome and encourage family involvement.<sup>42-47</sup> Family involvement in care provision was found to vary by severity and type of disease; length of hospitalization<sup>41</sup>; type of ward; characteristics of the nursing staff (skills, empathy, attitudes); quality of communication and degree of trust between the patients, their families, and the nursing staff; characteristics of the ward (eg, privacy, visiting hours, bureaucracy); and the distance from their residence.<sup>48</sup> A study conducted in geriatric, internal medicine, and surgical wards in 6 hospitals in Israel found that 70% of the patients had family caregivers who stayed with them an average of 8 hours a day and 20% even stayed overnight.<sup>49</sup>

**Physical and chemical restraints**—A restraint is a device or medication that is used to restrict a patient's movement. Examples include a lap belt intended to prevent an individual from falling from a wheelchair; medication provided to a patient with dementia to prevent him or her from striking out at staff when they are performing or maintaining catheterization. In the United States, the prevalence of physical restraint use varies from 7.4% to 17% in acute care hospitals; chemical restraint is slightly more prevalent than physical restraint, although the use of both types of restraints has decreased in the recent years.<sup>50</sup> In a review article, Hamers and Huizing found that predictors for physical restraint use were poor mobility, impaired cognitive status, high dependency, and risk of falls.<sup>51</sup> The National Health Service guidance in the United Kingdom mentions the use of antipsychotic medication to control behavioral problems and to manage aggressive behaviors.<sup>52</sup> It was found that 28% of the people with dementia received antipsychotics, of which 12% were newly prescribed during hospitalization. In the United States only, 8.63% of older patients in acute care hospitals were

prescribed tranquilizers<sup>53</sup>; the prevalence of use of physical restraints was 50 per 1000 patients' bed days.<sup>54</sup> However, the use of physical restraints on older patients with dementia is still highly prevalent in hospitals and is aimed to ensure the patient's safety<sup>55-57</sup> and to prevent disruption of therapy.<sup>54</sup> Other practices included discharge planning and allocating a separate space of the ward dedicated for the care of patients with delirium.<sup>58,59</sup>

## Organization Characteristics and Practices

Organizational characteristics were found to affect practices used to care for disabled older patients. Zernike and Sharpe<sup>60</sup> found that physical restraint rates varied by type of unit, with adult intensive care units rated the highest. There were significant intra- and interorganizational differences in the use of physical restraints. In Israel, for example, nurses in internal medicine wards of general hospitals accepted the use of restraints more than those in psychogeriatric wards in nursing homes, with the latter more knowledgeable about the guidelines on restraints and less inclined to use them than their counterparts.<sup>57</sup> In Turkey, a third of nurses used physical restraints, and use of restraints varied by type of ward: nurses who worked in surgical intensive care units and emergency departments and had in-service training used more physical restraint than did nurses in neurosurgery wards.<sup>61</sup> Another study found that weekend days and lower patient-registered nurse (RN) ratio and patient-total staff ratio were connected with increased restraint use.<sup>62</sup>

However, to the best of our knowledge, no previous study examined a variety of practices that nurses use in general hospitals with regard to older patients who are bedbound and patients with dementia. The purpose of this study is 2-fold: (a) to collect information from nurses about their approaches toward practices that should be used when there are older patients who are physically functionally dependent compared to patients who have dementia. It is hypothesized that nurses' approaches toward practices that should be used for physically dependent patients will include providing more surveillance, whereas for patients with dementia they will favor more use of chemical and physical restraints; and (b) to examine the factors that are associated with the use of practices. Based on the social ecological approach, it is hypothesized that nurses' use of practices will vary by type of hospital and type of ward and by nurses' characteristics such as cultural background (immigrants from former Soviet union countries vs those born in Israel and other countries) and professional education.

## Methods

### Sample

The study is a quantitative cross-sectional questionnaire survey. The study was conducted in 2 big general hospitals, 1 government and the second nongovernment, in central Israel.

The government hospital is larger than the nongovernment hospital in terms of total number of beds (1430 compared to 770, respectively) and in terms of nursing personnel (about 2000 and 1050 nursing staff, respectively). In the nongovernment hospital, about 200 nurses are undergraduate RNs, 40 graduate RNs, and the remainder practical nurses or RNs with no academic degree. In Israel, there are several levels of nursing education: registered nursing, which includes 12 years of high school education and 2 years of nursing studies at nursing schools; undergraduate registered nursing, which includes 4 years of studies in schools of nursing in universities and colleges; and graduate registered nursing, which includes master of arts studies in schools of nursing in universities and colleges. In the past, there were also vocational high schools that included tracks of practical nursing, but they have been closed. However, there are still practical nurses working in hospitals, although they are a minority. In the government hospital, about half of the nurses are undergraduate RNs, about 300 nurses are graduate RNs, and about 700 nurses are practical nurses or RNs with no academic degree.

Nurses from 11 internal medicine and 6 geriatric wards participated in the study. In the government hospital, there were 6 internal medicine wards and 4 geriatric wards, with altogether 350 beds. The total number of nurses in these 10 wards was about 290, working part time or full time. In the nongovernment hospital, there were 5 internal medicine wards and 2 geriatric wards, with 290 total beds and about 300 nurses. The number of nursing staff positions per ward ranged from 14 to 30, depending on the size and type of ward.

In each internal medicine and geriatric ward, all the nurses who were present in the wards during the data collection were given questionnaires and were asked to complete and return them to the research assistants. In order to encourage nurses to participate in the study, anonymity was assured by not including names of the respondents on the questionnaires. Therefore, there was no way to know who did or did not participate in the study and to what extent those who refused to complete the questionnaire differed from those who participated in the study. The sample size was 265 nurses, suggesting that about 46% of the total number of the nursing staff in both hospitals participated in the study. In the government hospital, 122 nurses returned the completed questionnaires: 62 in the internal medicine wards and 60 in the geriatric wards. In the nongovernment hospital, 143 nurses participated in the study: 96 in the internal medicine wards and 47 in geriatric wards. The number of nurses in each ward who participated in the study ranged from 11 to 30, depending on the size and type of the ward (internal medicine or geriatric). Inclusion criteria were nurses (licensed practical and registered nurses) who had been working in the ward for at least 3 months and were proficient in either Hebrew or Russian, because many of the nurses immigrated to Israel from former Soviet Union countries since 1989, after the collapse of the Soviet regime, and their mother tongue is Russian. Exclusion criteria were new nurses who had worked less than 3 months in the internal medicine or geriatric wards.

## Measures

### Dependent Variable

**Practices used by nurses.** Nurses were presented with a list of 11 practices (see Appendix A) and were asked to respond to each of them with dichotomous responses: 1 = *yes* and 0 = *No*. The list of practices was constructed based on face-to-face interviews with 10 senior nurses. They were asked to tell about the practices they use when they have an older patient with dementia or when the patient is bedbound and needs surveillance and/or extensive help with all ADLs. Based on the information obtained from these nurses, a list of practices was constructed. The list was shown to the nurses and they were asked whether they would like to change or add some more practices. After receiving their comments, the list was modified and a final version of the measure was formulated and used in the study.

### Independent Variables

Professional qualifications of nurses: These include 3 characteristics:

Professional education in nursing—professional education was classified into 4 categories: 1 = practical nurses or RNs, 2 = undergraduate registered nursing students, 3 = undergraduate RNs, and 4 = graduate RNs.

Professional experience—length of time of working in nursing (in years).

Number of years working in the current ward.

Organizational characteristics: (a) Type of hospital—government versus nongovernment. The nongovernment hospital is owed by 1 of 4 sick funds in Israel that are nonprofit organizations, while the government hospital is owed by the Ministry of Health. Government hospitals in Israel admit patients who are affiliated with any of the 4 sick funds, while the nongovernment hospital mainly serves patients who are members of this specific sick fund. (b) Type of ward—internal medicine versus geriatric. Four groups of organizational units were created: government internal medicine wards, government geriatric wards, nongovernment internal medicine wards, and nongovernment geriatric wards.

Nurses' sociodemographic characteristics: these include gender, age, marital status (coded 1 = *married* and 0 = *unmarried*), place of birth (1 = *Europe/America*, 2 = *Asia/Africa*, and 3 = *Israel*, and coded 1 = *former Soviet Union countries* and 2 = *otherwise*).

### Data Collection

Data collection included closed questionnaires. Questionnaires were distributed by research assistants to all nurses who were at work in each shift. The questionnaires were in either Hebrew or Russian, and respondents were asked to complete them after they received a letter that was supplemental to each questionnaire and included information on the study's aims. However, to increase the response rate, respondents' anonymity was

guaranteed (respondents were not asked to provide identifying personal details such as name, telephone number). Collection of questionnaires was performed by research assistants in each hospital but who were employed by the university that conducted this study.

### Data Analyses

A range of descriptive analyses (percentages, means, and standard deviations) were initially performed to present the characteristics of the respondents and of the dependent (practices) and independent variables (professional qualifications and sociodemographic characteristics of the nurses, and organizational characteristics of the hospitals). Bivariate chi-square ( $\chi^2$ ) analyses were carried out to examine the association between practices used by nurses when the older patient was bedbound and when the older patient had dementia by type of hospital, type of ward, and by nurses' professional education and cultural background. Data storage and analysis were performed using SPSS PC+ package version 17.

The study and questionnaire were reviewed by the institutional review boards (Helsinki Committees) in each hospital and were approved by them. Because of the anonymity of the questionnaires, respondents were not asked to give written informed consent to participate in the study. Only those who volunteered to participate in the study completed the questionnaire. The return of the completed questionnaire was considered informed consent to participate in the study. The completed questionnaires were returned in sealed envelopes to the research assistants.

## Results

### Participants' Characteristics

Table 1 presents the sociodemographic characteristics of the respondents. The findings show that the average age of the respondents was about 37. The vast majority were women, married, and born in Europe/America or in Israel. The majority was RNs with academic education (undergraduate or graduate degree), while only 30% were licensed practical nurses or RNs with no academic education. They had been working as nurses for an average of 13.5 years and working in their current ward for approximately 9 years. Significant differences were found in the nursing staff characteristics by hospital. In the government hospital, there were more men, they were younger, they had a higher professional education, fewer were married, more were born in European/American countries, they had fewer years of professional experience, and had been working fewer years in their current ward, compared to their counterparts in the nongovernment hospital.

### Practices Used for Bedbound Older Patients

Table 2 presents the practices used by nurses when their patients were bedbound in general and by type of hospital and ward. The findings show that the most common practices used

**Table 1.** Sociodemographic Characteristics of the Respondents.

Variable	Total (N = 265)			Government Hospital (N = 122)			Nongovernment Hospital (N = 143)			$\chi^2/t$
	%	M	SD	%	M	SD	%	M	SD	
Age, years		37.57	9.44		36.20	9.23		38.79	9.49	2.19 <sup>a</sup>
Gender										13.14 <sup>b</sup>
Male	14.5			23.0			7.1			
Professional education										22.06 <sup>b</sup>
Practical and registered nursing	30.2			20.4			38.6			
Undergraduate student	1.5			3.3			0.0			
Undergraduate	56.1			56.6			55.7			
Graduate	12.2			19.7			5.7			
Marital status										4.16 <sup>a</sup>
Married/lives with a partner	72.5			66.4			77.6			
Place of birth										17.90 <sup>b</sup>
Europe/America	37.0			50.0			25.9			
Asia/Africa	2.6			0.8			4.2			
Israel	60.4			49.2			69.9			
Years in Israel <sup>c</sup>		18.03	8.58		17.18	7.74		19.31	9.67	1.22
Professional experience		13.42	9.76		12.27	9.93		14.43	9.53	1.78
Years in the ward		8.83	7.09		6.93	6.61		10.48	7.10	4.13 <sup>b</sup>

Abbreviations: M, mean; SD, standard deviation;  $\chi^2$ , chi-square.

<sup>a</sup>  $P < .05$ .

<sup>b</sup>  $P < .001$ .

<sup>c</sup> Includes only those who were not born in Israel.

**Table 2.** Care Practices Used for Bedbound Older Patients.<sup>a</sup>

Practice <sup>b</sup>	Total	Nongovernment Internal medicine	Nongovernment Geriatric	Government Internal medicine	Government Geriatric	$\chi^2$
Allocating a personal worker	0.8	1.0	0.0	1.6	0.0	.67
His or her admission is conditioned on family hiring a paid carer	0.0	0.0	0.0	0.0	0.0	
Ask the family to hire somebody to be available all the time	10.9	4.2	6.4	19.4	16.7	12.04 <sup>c</sup>
Ask the family to hire somebody to stay bedside at night	7.9	7.3	4.3	12.9	6.7	3.16
Ask the family to stay with the patient	31.3	27.1	19.1	53.2	26.7	18.34 <sup>d</sup>
Discharge him or her as soon as possible	4.9	2.1	4.3	4.8	10.0	5.02
The patient is located in a room near the nurses' station	31.7	19.8	36.2	33.9	45.0	11.76 <sup>c</sup>
The nursing staff devote more attention to him or her	61.9	64.6	78.7	43.5	63.3	14.84 <sup>c</sup>
He or she is physically restrained	1.1	0.0	4.3	1.6	0.0	6.01
Sedation	1.1	1.0	4.3	0.0	0.0	5.50
Don't know what to do	3.0	4.2	4.3	1.6	1.7	1.47

<sup>a</sup> N = 265.

<sup>b</sup> Only those who replied "yes."

<sup>c</sup>  $P < .01$ .

<sup>d</sup>  $P < .001$ .

by nurses was giving more attention to these patients (about 62%), followed by locating the patient in a room that was near the nurses' station (31.7%), asking families to stay with the patient (31.3%), or asking them to hire someone to stay either around the clock (10.9%) or only at night (7.9%). The use of other optional practices was negligible. However, significant differences were found by type of hospital and type of ward. In the wards of the government hospital, giving

more attention to these patients was more prevalent than the nongovernment hospital; however, in the nongovernment hospital, placing the patient near the nurses' station was more prevalent for both types of wards. In addition, asking the families to stay with their older family member or hire a paid carer was more common in both types of wards in the nongovernment hospital than those in the government hospital.

**Table 3.** Care Practices Used for Older Patients With Dementia (percentages).<sup>a</sup>

Practice <sup>b</sup>	Total	Nongovernment Internal medicine	Nongovernment Geriatric	Government Internal Medicine	Government Geriatric	$\chi^2$
Allocating a personal worker	10.2	17.7	6.4	6.5	5.0	9.39 <sup>c</sup>
His or her admission is conditioned on family hiring a paid carer	1.9	3.1	2.1	0.0	1.7	2.02
Ask the family to hire somebody to be available all the time	27.2	22.9	19.1	38.7	28.3	6.62
Ask the family to hire somebody to be bedside at night	23.8	16.7	27.7	30.6	25.0	4.73
Ask the family to stay with the patient	54.3	54.2	48.9	67.7	45.0	7.15
Discharge him or her as soon as possible	5.7	4.2	0.0	6.5	11.7	7.35
The patient is located in a room near the nurses' station	58.5	44.8	53.2	69.4	73.3	16.42 <sup>d</sup>
The nursing staff devote more attention to him or her	63.0	58.3	78.7	58.1	63.3	6.53
He or she is physically restricted	20.0	19.8	29.8	30.6	1.7	19.81 <sup>d</sup>
Sedation	31.7	30.2	42.6	27.4	30.0	3.26
Don't know what to do	1.1	1.0	4.3	0.0	0.0	5.50

<sup>a</sup> N = 265.<sup>b</sup> Only those who replied "yes."<sup>c</sup>  $P < .05$ .<sup>d</sup>  $P < .001$ .

### Practices Used for Older Patients With Dementia

The findings show that for older patients with dementia, the most common practices used by nurses were devoting more attention to the patient (63%), followed by locating the patient in a room near the nurses' station (58.5%), asking the family to stay with the patient (54.3%), sedation (31.7%), asking the families to hire a paid carer for the whole day (27.2%) and/or at night (23.8%), and physical restraints (20%; Table 3).

### Differences by Type of Hospital and Type of Ward

Significant differences were found by type of hospital and type of ward. In the internal medicine ward of the nongovernment hospital, allocating a personal worker was more common than in geriatric wards in both hospitals and in the internal medicine ward of the government hospital. Locating the patient in a room near the nurses' station was more common in both types of wards in the government hospital than those in the nongovernment hospital. In addition, using physical restraints was more prevalent in the geriatric nongovernment hospital and the internal medicine ward in the government hospital compared to the geriatric ward in the government hospital and the internal medicine ward in the nongovernment hospital, whereby the use of physical restraints was a very marginal option.

With regard to nurses' characteristics, the findings show no significant differences between nurses who immigrated to Israel from the former Soviet Union (FSU) countries and those born in Israel or other countries with regard to all practices for both groups of patients, except for 2 practices relating to patients with dementia: More nurses from FSU than the other nurses reported using physical restraints (27.3% and 16.4%, respectively), and this difference was significant ( $\chi^2 = 4.36$ ,

$P < .05$ ); more nurses from the FSU than the other nurses reported asking the family members to hire somebody to be bedside at night (36.4% and 17.5%, respectively), and this difference was significant ( $\chi^2 = 11.52$ ,  $P < .001$ ) as well. Yet, no significant differences were found between nurses with or without academic education for all 11 practices and for both groups of patients.

### Discussion

In brief, the main findings of this study were that nurses use a variety of practices to look after bedbound patients who need extensive personal care and patients with dementia who need surveillance. The most common practices included a combination of paying more attention to both groups of patients and locating them in a room near the nurses' station so that they can "keep an eye" on them, along with asking the patients' families to stay bedside or to arrange for someone to stay with their family members. Use of these practices was, expectedly, more prevalent for ambulant patients with dementia than those who were bedbound. This suggests that families are expected to play a key role during the hospitalization of their older family members who need personal surveillance, sometimes around the clock. However, the reasons for this expectation merit further investigation.

Yet, several significant differences were found with regard to specific practices used for patients with dementia, compared to those who are physically functionally dependent. First, it is more common to locate a patient with dementia near the nurses' station compared to a patient who is bedbound (58.5% and 31.7%, respectively). Second, use of physical and chemical restraints is more common for patients with dementia, while these are hardly used for functionally disabled patients. Thus, for example, while

1.1% used physical restraints for physically functionally disabled patients, 20% used them for patients with dementia; and while 1.1% used sedation for physically disabled patients, almost 32% used this practice for patients with dementia. These findings are similar to those found in the United Kingdom and those reported in other studies.<sup>55,58</sup>

Significant differences were found between hospitals and wards with the prevalence of some practices. The most significant differences were that in the nongovernment hospital, practices related to paying more attention to the physically disabled patients were more common for both types of wards than that of the government hospital. Locating the patients near the nurses' station and asking the family to stay with the patients or hire a paid carer were more common in the government hospital than that in the nongovernment hospital. This difference might be due to understaffing. The research sample shows that the total number of nurses was relatively higher in the nongovernment hospital than in the government hospital. This suggests that when there are more nurses in the wards, they can devote more attention to these specific groups of patients, whereas fewer nurses rely on more help from the patients' families. Yet, in the nongovernment hospital, physical restraints were more common in the geriatric wards than their counterparts in the government hospital, and in the nongovernment hospital's internal medicine wards, physical restraints were less common than in the government hospital. Based on the social-ecological theoretical approach,<sup>36,37</sup> this suggests that there may be specific organizational characteristics as well as medical policies in each type of ward that account for these differences. These policies may have had a great influence on nurses' use of practices that exceeded their personal characteristics such as professional education, cultural background, or demographics. Taking into account that the older population is rapidly growing and that prevalence of dementia and physical disabilities is increasing with advanced age, it is expected that more and more older patients with complex care needs will need extensive care and surveillance. However, an environment that is culturally unprepared, not purpose built for, or insufficiently aware of the essentials of care for older people with functional disabilities and dementia, and where focus is on the acute condition, is not well prepared to care for older people with dementia or those who need extensive nursing care. This leads not only to patient safety issues but also contributes to the burden of care.<sup>15,21</sup> Therefore, these issues merit more in-depth investigation.

It is therefore necessary to challenge these issues and to determine strategies to cope with them. These strategies should include not only expanding staffing but also ensuring that all hospital personnel who encounter people with dementia have the training and skills to work effectively with them.<sup>63</sup> In order to achieve good practice standards of care for patients with dementia, there is a need for specific care for these people to be combined with acute care practices.<sup>64</sup>

There is growing evidence-based knowledge on effective practices in meeting the needs of these patients in acute care settings that should be implemented. These include aspects such as

environment planning, communication, assessment, and care approaches by multidisciplinary teams, which should include family caregivers.<sup>4,15</sup> There is growing evidence that staff education programs for individualized care and standard care protocols can help to meet the needs of people with dementia in acute settings.<sup>15,58</sup> In addition, nursing staff who have not undergone training and lack the necessary skills to cope with caring for patients with dementia, in particular with their behavioral problems, can feel distressed.<sup>65,66</sup> Thus, training programs can increase nurses' ability to use alternative modes of action and thus decrease the use of physical restraint in a hospital setting.<sup>67</sup>

The assistance provided by families must be recognized as indispensably valuable, and relatives must be encouraged, supported, and welcomed. For example, ward staff do not necessarily know that the person has dementia or may lack experience in working with people with dementia. It is therefore helpful that relatives can provide them with information on how dementia is affecting the individual and suggest ways of communicating with the patient. This will make it easier for nursing staff to ensure that the person with dementia is receiving the appropriate attention and to make him or her more comfortable. It is also important to involve family caregivers in the care-plan decisions, support them emotionally, and share with them the tasks of care.

### Limitations

Several limitations to the study should be identified. First, the sample was not randomly selected, although a high proportion of the nurses were surveyed. We could not examine differences between those who participated in the study and those who did not due to anonymity of the questionnaires. In addition, the information given to the nurses on the research purpose may have deterred certain nurses from participating in the study, which may have also biased to some degree the representativeness of the sample and the study results; therefore, representativeness of the sample is unwarranted. Second, the study was conducted in 2 general hospitals and in 2 types of wards; therefore, generalization of the findings is limited. Further studies that include a wider variety of hospitals and types of wards can shed more light on the factors affecting nurses' practices. Third, we asked dichotomous questions regarding use of each practice and did not include important additional questions such as frequency of use of each practice and reasons for use, which may have yielded important information. Fourth, we related only to 11 practices, whereas it might be that there were more practices not included in our list of practices. Therefore, more studies are needed to examine more practices and the validity of the measure. Finally, more variables should be included in further studies to examine additional personal and organizational factors that might be connected with nurses' practices regarding older patients who are physically functionally dependent and those patients with dementia. For example, it is important to include ratio of patients with dementia and ratio of those who are bedridden as a factor that might be connected with practices used by nurses.

## Conclusions

The projections about the rapid growth of the older population suggest a substantial increase in the number of older adults with complex care needs who will be hospitalized and need extensive personal care. Hospitals, therefore, need to prepare themselves and to adopt strategies that will enable them to provide high quality of care. As patients with dementia and those who are physically functionally dependent are a serious challenge to hospital staff, the employees need ongoing support, encouragement, and education. Good practices are not only a matter of staffing and workload but also a matter of determining policies as part of organizational culture. Therefore, a holistic organizational shift in thinking away from what conveniently

suits the institution toward thinking that is person centered and dementia friendly is necessary to create change in this field.<sup>18</sup> But in order to bring change in organizational culture, there is need for commitment and support from executive-level management. Management needs to invest thought and financial resources into structurally changing the way wards are set up in order to address the access of staff to improved patient care.

In any case, further examination is needed to examine the extent to which nurses' practices are connected with additional organizational qualities, such as leadership styles in upper and lower management, organizational culture and values as well as nurses' attitudes toward older adults in general, and in particular those with dementia or who are completely dependent.<sup>31,68</sup>



## Appendix A

### Research Questionnaire

1. Number of questionnaire\_\_\_\_\_ 2. Date\_\_\_\_\_
3. Name of hospital\_\_\_\_\_
4. Type of ward: (1) Internal medicine (2) Geriatric
4. The table below includes a list of practices that may be used when there are patients who are bed-ridden and need extensive surveillance and help with basic activities of daily living. Please indicate for each practice if it is common to use it in your ward when you have a patient who is bedbound and who needs help with activities of daily living.

Practice	Yes	No
(1) We Allocate a personal care worker		
(2) The patient's admission is conditioned on his/her family hiring a paid carer		
(3) We ask the family to hire somebody to be available all the time		
(4) We ask the family to hire somebody to stay bedside at night		
(5) We Ask the family to stay with the patient		
(6) We discharge the patient as soon as possible		
(7) We locate the patient in a room near the nurses' station		
(8) The nursing staff devote more attention to that patient		
(9) We physically restrain the patient, for example binding the patient to the bed or to a wheelchair		
(10) We give medications to calm the patient		
(11) We don't know what to do		

5. The table below includes a list of practices that may be used when there are patients who are cognitively impaired (eg, with Alzheimer or another dementia) and need extensive surveillance and help with activities of daily living. Please indicate for each practice if it is common to use it in your ward when you have a patient with dementia who needs constant surveillance and help with activities of daily living.

Practice	Yes	No
(1) We allocate a personal care worker		
(2) The patient's admission is conditioned on his/her family hiring a paid carer		
(3) We ask the family to hire somebody to be available all the time		
(4) We ask the family to hire somebody to stay bedside at night		
(5) We Ask the family to stay with the patient		
(6) We discharge the patient as soon as possible		
(7) We locate the patient in a room near the nurses' station		
(8) The nursing staff devote more attention to that patient		
(9) We physically restrain the patient, for example binding the patient to the bed or to a wheelchair		
(10) We give medications to calm the patient		
(11) We don't know what to do		

#### Personal details

6. Gender: (1) male (2) female
7. Age\_\_\_\_\_
8. Your professional education: (1) practical or registered nursing with no academic degree, (2) undergraduate nursing student, (3) undergraduate registered nurse, (4) graduate registered nurse
9. In which country were you born?\_\_\_\_\_
10. In what year did you immigrate to Israel?\_\_\_\_\_
11. Marital status: (1) married, (2) widowed, (3) divorced, (4) single, (5) separated
12. How long have you been working in this ward? (indicate months or years)\_\_\_\_\_
13. How long have you been working as a nurse? (indicate months or years)\_\_\_\_\_

**Thank you for your cooperation.**

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