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Physiotherapists' attitudes towards old and young patients in persistent vegetative state (PVS)

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Abstract

Purpose – *The purpose of this paper is to uncover attitudes of physical therapists (PTs) who treat vegetative state (VS) patients, and to raise awareness to ethical and professional dilemmas: Are PTs influenced by ageist perceptions? Do they consider physiotherapy to be effective or futile?*

Design/methodology/approach – *Ethical questions and complex dilemmas are by and large subconscious and rarely explicitly voiced, but can be identified by revealing implicit therapists' personal and professional approach to patients. A quantitative six-point Likert scale questionnaire was developed, which presented two VS cases – young and old, followed by practical-ethical questions concerning key issues including: treatment choices, quality of life, prolongation of life, futile treatment (n = 101, 68 percent return rate).*

Findings – *The results reveal a complex reality: on the one hand PTs expressed a positive perception of their profession, and consider all treatment components important for VS patients and their families regardless of age; on the other hand, significant preference for treating the younger VS patient was found.*

Practical implications – *There is a need for raising awareness of physiotherapists to the social phenomenon of ageism and its implications on daily professional and ethical conduct.*

Originality/value – *While other studies revealed ageism in various health care settings, this study was original both in its methodology (examining implicit ageism via contrasting vignettes), and its unique context (VS patients) which in theory could be viewed as "ageless" in light of the patients' permanent condition.*

Keywords *Physiotherapy, Vegetative state, Practical ethics, Ageism, Quality of life*

Paper type *Research paper*

Introduction

This research aims to reveal if ageism exists where age is of minor importance, by looking at physical therapists' (PT's) attitudes towards treating old patients in the vegetative state (VS), as opposed to young patients suffering from the same medical and functional condition. Many articles have addressed the ethical dilemmas raised by ageism in healthcare in general, but only a few have explored ageist attitudes of PT's and their implications for treatment. It should be noted, that the issue of ageism among physiotherapists (PTs) was addressed in the early 1990s (French, 1993), but until recently did not gain much attention by practitioners and researchers. In this article, we hope to add to the discussion and contribute to the studies in this field (Duthie and Donaghy, 2009; Giles *et al.*, 2002, and more).

The goal of physiotherapy for VS patients is mainly to maintain their condition and prevent complications yet, to date, there is little empirical evidence to support the notion that physical therapy is effective for these patients (e.g. prevention of pressure sores, contractures, pneumonia). In the past decade, some practitioners and researchers have shifted from the term "treatment" towards "quality management" (von Wild *et al.*, 2007), and literature addressing these issues from PT's perspectives tend to agree (Farmer and James, 2001;

Reddy *et al.*, 2006; Fabbri *et al.*, 2010). Still, the question of rehabilitation, improvement of technology, and creating means to better understand consciousness, are still debated intensively (Lotze *et al.*, 2011; Monti *et al.*, 2010; Owen *et al.*, 2006; Owen and Coleman, 2008).

Our aim was to uncover attitudes of PT's from two aspects: do they consider physiotherapy for VS patients to be effective or futile? And, are they influenced by ageist perceptions? In other words, does age-discrimination exist where treatment might be constant, un-changing and mostly characterized by maintenance?

Ageism in the literature

The term ageism was first coined by Butler (1969, 1975), and defined as “a process of systematic stereotyping of and discrimination against people because they are old”. It is interesting to learn from Butler himself what motivated him to develop the term. He describes how as a medical student he was exposed to a cruel medical lexicon, generally unknown to the public, aimed especially towards older people, including expressions such as Get Out of My Emergency Room (GOMER), and “vegetable” (Butler, 2005). To quote: “. . .The general view of aging was dominated by a sense of futility [. . .], medical practice and research shared our culture’s negativism, hopelessness and apathy about age” (Butler, 1982). Such images, words and negative approaches affect all aspects of life in old age, from family and social relations to employment, income, health and end of life decision making (Butler, 1975, 2005).

Another view of ageism (Palmore *et al.*, 2005) distinguishes between narrow and broad views: according to the straightforward narrow view – ageism is an age-based discrimination, similar to discrimination on the basis of sex (sexism), or skin colour (racism). Of course ageism as a phenomenon is unique and differs in essence from racism or sexism – while these discriminations are aimed at groups with inherent, naturally unchanging characteristics, every person is liable to experience ageism upon reaching old age (Palmore, 2001). The broader definition addresses psychological aspects such as beliefs and fears concerning the process of aging (Bytheway, 2005), termed “implicit ageism” – unconscious, internal attitudes fed by social stereotypes which then lead to discriminatory behaviours (Levy and Banaji, 2004). These hidden negative beliefs are the roots of “rational explanations” for ageism (Cuddy *et al.*, 2005; Greenwald and Banaji, 1995).

Empirical studies show that ageism has direct consequences on the lives of the aged, particularly when subjected to disability or illness (Kane, 2004, 2008; Stewart *et al.*, 2005). For example, Cuddy *et al.* (2005) argue that in medical settings, older patients are chronically disregarded, medical conditions are misdiagnosed or completely overlooked by physicians, and physician-patient communication is less respectful, supportive or engaged when comparing to younger patients. Another prominent example of ageism can be found in the widely discussed dilemmas regarding allocation of resources: should society keep the “justice principle” (Beauchamp and Childress, 1994) and allocate evenly without age-based discrimination, or should more funding be directed to the care of younger people, at the cost of the aged (Day and Fraser, 2000; O’Donnell *et al.*, 2005; Rivlin, 2000)?

Given that ageism is a result of negative social construction and stereotyping of old age, one might ask to what extent ageist attitudes exist where the meaning of age is almost non-relevant? In the case of patients in a non-traumatic VS, after a clear diagnosis, at the edge of the “awareness and functional ability spectrum”, where prognosis and rehabilitation chances are unlikely, and in a state which has been referred to as “worse than death” (Payne *et al.*, 1996) – are ageist attitudes “alive”?

Persistent vegetative state

The term “persistent/permanent vegetative state (PVS)” was coined in Scotland and the USA, by Jennett and Plum (1972), to describe an irreversible state, where one lacks psychological comprehension, does not respond to external stimuli or to internal needs.

Basically, it refers to bedridden patients breathing independently, fed artificially, and who show no capacity or desire to perform more than basic autonomic functions. According to Jennett and Plum's definition, the VS is characterized by "wakefulness without awareness". Note that Jennett (2005) himself corrected the term PVS to VS, in light of uncertainty regarding the extent of permanence. Recently, the European task force on disorders of consciousness changed the name to "unresponsive wakefulness syndrome (UWS)" – in order to diminish the negative connotation inherent in the term "vegetative" (Laureys *et al.*, 2010).

VS is generally a result of a hypoxic ischemic injury (for example, a cardiac arrest), cerebro-vascular accident (stroke) or as a late stage of dementia, and therefore it is more common among the elderly (Jaul and Calderon-Margalit, 2007). Life expectancy is between two and five years, although there have been many reports of survival for ten years, and some of 20-30, and even 40 years. But the chance that a VS patient of any age will return to consciousness is extremely slim (in non-traumatic cases with more than three months duration) (Jennett, 2005; Laureys, 2005; Multi-Society Task Force on PVS, 1994a, b).

Some researchers claim that VS patients have no desire to maintain their biological lives, have lost all forms of personhood, and therefore are not defined as patients requiring treatment (Curry, 2006; Evans, 2007; Veatch, 2004). Those who support this approach suggest changing the Dead Donor Rule, so that patients in the VS could be included in the category of "dead", leading to xenotransplantation – transplantation of living cells, tissues and organs (Ravelingien *et al.*, 2004). One of the rationalizations for this approach is that VS patients will not awaken, feel no pain or discomfort, and have no interest in their continued survival (Curry, 2006). In Israel, some medical experts side with non-extension of life for patients in the VS, and, theoretically support the cessation of feeding for these patients (Reches, 2005). In a recent Israeli qualitative study of caregivers' attitudes towards PVS patients, Bird-David and Israeli (2010) found that nurses and doctors ponder not only about the individual's quality of life and right to die, but also about the patients' ontological status as dead or alive and "subject or object".

These positions raise ethical questions concerning the high percentages of diagnostic mistakes of VS. Researches examining the reliability of VS diagnoses revealed a 35-45 percent rate of error (Andrews *et al.*, 1996; Childs *et al.*, 1993; Gill-Thwaites and Munday, 2004), and even though in the past 15 years there have been advances in diagnostic accuracy, the rate of misdiagnosis among patients with disorders of consciousness has not substantially changed (Schnakers *et al.*, 2009). Apparently, the high rate of error stems from the fact that clinical diagnosis, which is based on the patient's exhibited behaviour, is in itself problematic due to several reasons:

- Physical inability to move or speak are not necessarily signs of unconsciousness (Coleman *et al.*, 2007; Owen and Coleman, 2008).
- The evaluation is subjective and depends on professional experience, on the intensiveness of assessment, and the examiners' worldviews (Gill-Thwaites, 2006; Owen and Coleman, 2008).
- In the majority of cases, there is no consistent involvement of the patients' family during the process of diagnosis, despite the fact that their presence may provide significant information relating to changes in behavioural patterns (Gill-Thwaites, 2006).
- There is a lack of reliable empirical tools for clinical evaluations of these patients.

Diagnosis based on the accepted criteria is carried out using "elimination of behaviours", which needs clear guidelines. The lack of tools is rooted in the absence of a unified and agreed-upon definition of the term "consciousness" (Booth *et al.*, 2004; Coleman *et al.*, 2007; Gill-Thwaites, 2006; Wilson *et al.*, 2008).

We should note that it has been recently suggested to use functional MRI as a legal tool for determining whether to allow withdrawal of life sustaining treatments for VS patients (Skene *et al.*, 2009). It is argued that if a fMRI indicates that the patient has not retained any degree of consciousness, withdrawal is allowed based on the belief that this decision is in the "patient's best interest", taking into account his/her advance decisions or directives.

Physiotherapy for patients in the VS

Physiotherapy for vegetative patients is aimed at “maintenance”, while physiotherapy training is generally focused on rehabilitative approaches. PTs have clinical-ethical awareness of the importance of maintenance treatments for patients and for their family members, yet it is mixed with a deep understanding of the limitations of treatment, which usually does not lead to significant improvement (Chiambretto *et al.*, 2001; Elliot and Walker, 2005; Higgs *et al.*, 2001; Mohindra, 2007). Hence, a “real vs ideal” dialectic tension arises (Koren and Doron, 2009): on the one hand lies an ethical duty to carry out “futile” treatment. On the other hand lies an ethical duty to bring improvement, as part of the PTs’ professional identity and personal preference. The above tension is amplified in light of the growing number of VS patients (Jennett, 2002, 2005; Lamau *et al.*, 1997).

Literature on the subject of physiotherapy for VS patients tends to highlight three main treatment goals:

1. maintaining vital functions, and preventing secondary complications (mainly respiratory and pressure sores);
2. maintaining the muscular-skeletal system (postural management, seating, control of muscle tone and prevention of deformities); and
3. evoking mental response (sensory-motor stimulation) (Andrews, 2005; Pilon *et al.*, 1995; Pope, 2002).

When treating VS patients, the PT performs mainly manual therapy, in other words, *touch* plays a central role. Yet, as in other fields of medicine, there is a gradual introduction of technological means (such as the “patient lifter” for moving patients from bed to chair, an automatic machine for passive movement of lower limbs, and more). Although the use of technology is aimed at improving treatment efficiency, at the same time it diminishes human contact and touch while increasing caregivers’ detachment (Benson and Dundis, 2003; Bernardo, 1998; Higgs *et al.*, 2001; Ohry, 2004). Furthermore, touch acts as the primary and sometimes the sole tool for “communicating” with the VS patient, projecting an empathetic message which can lead to physiological and, maybe, emotional relief (Kolcaba *et al.*, 2006; Connelly, 1999).

Additionally, an inseparable part of treating vegetative patients is the continuing contact with the family (Andrews, 2005). Touch in therapy, reflects attention and encouragement for the patients’ siblings, who then sense they are in “good hands” (Stack, 2006). Thus, when questions arise concerning moving from manual care to technological means, “high touch” comes before “high tech” (Azaria and Ohry, 1996).

Given that the majority of VS patients are old (Beaumont and Kenealy, 2005; Jaul and Calderon-Margalit, 2007), Physiotherapists working in geriatric hospitals and long-term care facilities face dilemmas regarding the treatments of patients who are both vegetative and old.

The research

The purpose of this study was to look at PTs’ attitudes towards treatment for young and old patients in the Vegetative state. The research hypothesis was that PTs’ professional approach is influenced by the patients’ age, in the following ways:

- Compared to old VS patients, physiotherapy for young VS patients is perceived to have greater *importance*.
- The perceived *effectiveness* of physiotherapy is connected to the patients’ age – higher effect for young VS patients.
- A positive connection is to be found between the PTs’ demographic characteristics – seniority, age, religion and the number of VS patients under their care – and their attitudes towards the importance and continuation of treatment.

Method

The study used a quantitative methodology, data were collected using a closed-structured questionnaire, which examined PTs' ethical-professional attitudes towards care of patients in the VS, using two clinical scenarios (similar to the method used by Ashford (2000), Healy and McNamara (2002) and Richardson (1997)). The questionnaires were designed specifically for this study. Content validity was obtained by a group of experts from various clinical and research fields – medicine (both long-term palliative care and rehabilitation), ethics, psychology, and physiotherapy. In order to clarify and crystallize the research tool, we conducted a pilot study ($n = 23$ PTs).

The questionnaire includes four sections:

1. A request for agreement to participate, and a literature-based definition of the VS aimed to create an understanding of the meaning of the term.
2. Socio-demographic items.
3. Introduction of the VS case 1 (Mr Cohen, age 81) and 33 related questions; followed by VS case 2 (Mr Levy, age 32) and the same 33 related questions (in randomized order). Half of the questionnaires introduced case 1 first and the other half began with case 2. Answers were chosen from a six-point Likert scale (“not at all”, “probably not”, “maybe”, “possibly”, “probably”, and “definitely yes”).
4. Eight dichotomous statements regarding social desirability (Ben-Zur, 2002).

Using these questionnaires, we addressed the following issues: perceived functional status; the extent of importance and effectiveness of PT treatment for the patient and his family; continuous interaction between PT and the patient's family; “high touch” vs “high tech”.

Sampling and participants

The research population included Israeli PTs working in general hospitals, rehabilitation centers and long-term care facilities. In total, 150 questionnaires were distributed and 102 were returned (return rate of 68 percent which is reasonable in this kind of research). A summary of demographic characteristics appears in Table I.

As shown in Table I, most of the participants are female secular PTs, treating both young and old patients. This profile matches the general physiotherapy profession profile (according to the National Health Labour Force Series #42, 2006).

<i>Variables</i>	<i>Values</i>	<i>Frequency (%)</i>
<i>Gender</i>	Female	84
	Male	16
<i>Religiosity</i>	Secular	76
	Traditional, religious, ultra-orthodox	24
<i>Type of patients in their care</i>	Mostly young people (<45 years old)	8.2
	Mostly older (aged 45-65)	5.2
	Mostly elderly (>65)	35.1
	Combined	51.5
<i>Number of VS patients treated by the PTs</i>	0 (treated rehabilitation patients)	9
	1-15	41
	16-50	38.8
	51-250	10.2

Note: $n = 102$

Results

In the context of this article, our results will focus on three topics:

1. Perceived patient's functional status.
2. Importance and effectiveness of PT treatment.
3. Persistence of treatment.

Table II presents detailed results of all questions - presented as attitudes towards old vs young vs patients.

Table II Attitudes towards physiotherapy (PT) for VS patients – young and old

	Overall mean (SD)	Old (Cohen) mean (SD)	Young (Levy) mean (SD)	t-value df = 99	p-value
1 To what degree can Mr L. /Mr C. return to his previous functional ability?	1.56 (0.70)	1.51 (0.76)	1.59 (0.79)	- 1.554	NS
2 To what extent can physical therapy extend his life?	3.36 (1.12)	3.19 (1.25)	3.68 (1.20)	- 3.273	$p < 0.01$
3 To what extent can physical therapy effect his quality of life?	3.78 (1.10)	3.55 (1.21)	4.01 (1.19)	- 4.797	$p < 0.001$
4 To what extent can touch benefit with the patient (e.g. hand caressing, soft stroking of the hand)	4.39 (1.15)	4.20 (1.33)	4.58 (1.14)	- 4.088	$p < 0.001$
5 If you knew of an administrative decision to discontinue physical therapy for the patient, to what degree would you accept it?	2.93 (1.30)	3.18 (1.43)	2.70 (1.89)	4.015	$p < 0.001$
6 To what extent is it justified to invest resources in physical therapy for Mr L/Mr C.?	3.90 (1.19)	3.67 (1.21)	4.12 (1.38)	- 4.228	$p < 0.001$
7 If physical therapy for the patient would be discontinued:					
(a) Will the length of the patients life decrease?	3.66 (1.17)	3.63 (1.34)	3.69 (1.30)	- 0.419	NS
(b) Will the patient's family complain?	5.45 (0.60)	5.42 (0.68)	5.48 (0.62)	- 1.000	NS
(c) Will his quality of life decrease?	4.12 (1.23)	4.04 (1.34)	4.21 (1.29)	- 1.890	NS
8 For Mr L/Mr C. and his family, how important are these physical therapy goals of treatment?					
(a) Preserving range of motion and preventing contractures	4.82 (1.01)	4.76 (1.10)	4.89 (1.13)	- 1.369	NS
(b) Adjusting position while sitting	5.40 (0.78)	5.37 (0.83)	5.43 (0.87)	- 0.728	NS
(c) Instructing the family to participate in care-giving	5.12 (0.97)	5.14 (0.94)	5.16 (1.07)	- 0.807	NS
(d) Preventing pressure sores	4.70 (1.11)	4.67 (1.19)	4.74 (1.20)	- 0.882	NS
(e) Providing the family with information about the patient's condition	5.04 (0.88)	5.11 (0.90)	4.97 (1.04)	1.775	NS
9 The patient's family holds high expectations from the physical therapist, seeking therapeutic interventions. To What degree would you advise the PT to do the following:					
(a) Describe realistic treatment outcomes for patients; in the VS	5.12 (0.93)	5.22 (0.93)	5.04 (1.05)	2.439	$p < 0.05$
(b) Encourage the family to participate in physical therapy (like performing passive range of motion exercises)	5.04 (1.09)	5.02 (1.17)	5.12 (1.08)	- 1.714	NS
(c) Increase the number of physical therapy treatment per week	3.01 (1.17)	2.81 (1.29)	3.20 (1.32)	- 3.427	$p < 0.001$
10 To what extent can the patient's functional ability improve?	2.22 (0.83)	2.13 (0.91)	2.33 (0.94)	- 2.449	$p < 0.05$
11 In your opinion, is there meaning to the patient's life?	2.57 (1.36)	2.57 (1.42)	2.57 (1.48)	- 0.424	NS
12 If asked, to what degree would you support performing CPR to the patient?	2.27 (1.41)	2.06 (1.46)	2.43 (1.55)	- 2.905	$p < 0.01$

(Continued)

Table II

	Overall mean (SD)	Old (Cohen) mean (SD)	Young (Levy) mean (SD)	t-value df = 99	p-value
13 If you were in a similar condition, to what extent would you want life preserving treatments for yourself?	1.70 (1.09)	1.60 (1.01)	1.78 (1.33)	-1.647	NS
14 Putting ethical-medico-legal issues aside, to what degree would you recommend to discontinue life preserving treatments for the patient?	3.84 (1.54)	3.95 (1.78)	3.80 (1.76)	0.524	NS
15 If the patient will maintain his medical status, what is the probability the he will live another year?	4.53 (0.91)	4.25 (1.15)	4.83 (1.07)	-4.577	$p < 0.001$
16 To what degree does the patient fit the category of a "dying patient" (up to six months to live)	3.27 (1.08)	3.53 (1.27)	3.01 (1.23)	4.268	$p < 0.001$
17 To what extent can passive motion by a trained physical therapist cause discomfort for the patient?	3.98 (0.97)	3.99 (1.00)	3.97 (1.10)	-0.257	NS
18 When comparing passive treatment modalities given by a physical therapist to technology-based passive motion, to what extent (if any) does manual therapy seem more effective?	4.19 (1.06)	4.09 (1.34)	4.31 (1.23)	-1.528	NS
19 Today, physical therapy is provided once a week for 20 min. Would you recommend technology-based treatments three times a week, for 35 min each?	3.60 (1.29)	3.54 (1.39)	3.67 (1.31)	-1.471	NS
20 If the doctors' rounds would be decreased by 50 percent:					
(a) Will the patient's family complain?	5.20 (0.78)	5.12 (0.89)	5.28 (0.89)	-1.750	NS
(b) Will his quality of life decrease?	3.65 (1.00)	3.66 (1.07)	3.65 (1.13)	0.113	NS
(c) Will the length of the patient's life decrease?	3.78 (1.00)	3.78 (1.09)	3.79 (1.09)	-1.15	NS
21 In case of cutbacks in the nursing staff, leading to a significant decrease in the nurses ability to re-positioning the patient on schedule:					
(a) Will the length of the patient's life decrease?	5.19 (0.86)	5.24 (0.96)	5.14 (1.04)	1.064	NS
(b) Will his quality of life decrease?	5.02 (0.97)	4.96 (1.15)	5.09 (1.04)	-1.054	NS
(c) Will the patient's family complain?	5.38 (1.54)	5.47 (0.79)	5.30 (0.88)	2.178	$p < 0.05$

Notes: Paired sample *t*-test; answer on Likert scale: from 1 = not at all to 6 = definitely yes

Perceived patient's functional status

When asked "will Mr Cohen/Levy return to his previous function?" (item 1), the overall mean was extremely low (1.56 – between "not at all" and "probably not"). The relatively low standard deviation (0.70) and the lack of difference in averages between the young and the old (NS), show the respondents grasped the permanent status of the patients and in this context did not make an age-based analysis. The findings in item 10 support this notion – the respondents thought functional improvement to be non-probable (mean 2.22). On this base, we could further explore the participants answers, knowing they all related to the scenarios with an equal understanding of the permanent VS.

Perceived importance of physical therapy

All physical therapy treatment components and goals were perceived as highly important (at any age). For example, the degree of importance for seating the patient and instructing the family ranged from "probably" to "definitely yes" (mean 5.40 and 5.12, respectively). The low standard deviation (0.78, 0.97) for these items (8b, 8c) emphasises the general agreement as to the importance of these physical therapy roles. Also, preventing contractures and pressure sores (8a, 8d) were "possibly" to "probably" important (mean 4.82 and 4.70, respectively). Furthermore, even though the patients were defined as "vegetative", and the respondents agreed that improvement was not probable, physical therapy was found to have a possible effect on the patients' quality of life (mean 3.78 in item 3, 4.12 in item 7c).

Effectiveness of PT treatment

For both patients, although PT was perceived as important, results show doubt when asked to enlarge the number of given treatments (mean 3.01 on item 9c), in concurrence with the permanency of the VS. This finding is supported by the reluctance to perform resuscitation, at any age (2.27, item 12). Interestingly, alongside these findings, there was a general discomfort when asked to discontinue PT treatments (mean 2.93 on item 5), and life elongating treatments (mean 3.84, on item 14). It should be noted that item 14 raised the highest standard deviation (SD = 1.54), which indicates a large range of answers and attitudes.

While physical therapy was thought to be important at any age, and an equal understanding of permanence was established, the findings still reveal that perceived effect of treatment is significantly higher for the young vegetative patient compared to the old patient: PT had a greater and significant effect on the quality of life of the young patient (mean 4.01) than that of the old patient (mean 3.55, $p < 0.001$) (item 3); touch had a greater benefit for the young patient (mean 4.85) while for the old patient its beneficence was more questionable (mean 4.20, $p < 0.001$) (item 4); the degree of agreement to discontinue PT for the young (mean 2.70) was lower than for the old patient (mean 3.18, $p < 0.001$) (item 5). And, the economic expense for continuing PT for the younger patient was more justified (mean 4.12 vs 3.67, $p < 0.001$) (item 6).

Persistence of treatment

Having “meaning of life” in the VS was perceived to be similarly low for both patients (mean 2.57 – between “probably not” and “maybe”). Nevertheless, there is a clear and significant preference to continue treatment (PT and life sustaining treatments) for the young patient (for example, items 5, 6, 9c). Interestingly, when subjects were asked about their wishes if they were in a similar condition (item 13), they chose not to elongate their own life at any age – either as young or old VS patients (overall mean of 1.70, SD 1.09), and regardless of their own age at the time of the study.

It seems, that even though PTs assume the younger VS patient will live longer (item 15), his perceived “meaning of life” is questionable, his rehabilitation potential is non-probable (items 1 and 10), and for themselves, the therapists would choose to avoid elongation of life at his age – still, they prefer to continue treating the younger patient (PT and Cardiopulmonary resuscitation), as opposed to the older patient (items 4, 5, 9c, 12).

The patient's family – expectations and involvement

In the VS, where the patient is “present absent”, the family might play the role of his “voice”. We found, that interaction with the families of both patients, young and old, is highly important to the PTs (items 8c, 8e, 9a, 9b – total mean of 5.08). Within these items, describing realistic treatment outcomes to family members of the older VS patient, was significantly more important (mean 5.22 for the old vs mean 5.12 for the young, $p < 0.05$). It seems, that PTs found truth telling to be less inconvenient when addressing the old patient, and somewhat more difficult when trying to explain realistic goals to family members with high expectations, at a bedside conversation near a 32-year-old VS patient, even though medical condition and prognosis are in fact, equal.

Interestingly, for both patients PTs thought involving the family in the course of treatment is unarguably important (item 8c, mean 5.14 – old, 5.16 – young, NS). Even though PT treatment has a moderate effect if any (for example, items 2, 7a, 7c), discontinuation would cause complaints from the families. We found this to be repetitive when addressing the same question concerning “cut backs” in doctors’ rounds and nursing staff (items 20a and 21c, means 5.20 and 5.38, respectively).

Correlations between attitudes and demographic characteristics

Only significant correlations are presented below.

Age and seniority. The younger and less experienced the PT is, his/her perception of the meaning of life in VS were more positive, and vice versa – the perception of the older and

more experienced PTs was that life in VS has less meaning. For example, the correlation between seniority, age and their attitude toward the need for resuscitation (question 12) was negative (-0.303) yet significant ($p = 0.003$) – correlation and significance were stronger regarding the young patient.

Gender. Analysis of the correlations between gender and the eight questions shown above (Spearman correlation) resulted in somewhat weak but significant differences between attitudes of men and women, mostly regarding recommendation of resuscitation (women were more reluctant, especially when addressing the old VS patient, -0.219 , $p < 0.05$). When comparing means (independent sample test), we found a significant difference between men and women in perceived meaning of life, but only in regard to the old patient ($t = 2.32$, $p < 0.05$). We should note that since the percentages of men in the study sample were low (16 percent), these findings need further clarification. Also, since in both scenarios patients were men, there might be some bias.

Religiosity. When comparing mean of two groups – secular vs religious PTs, we found only one significant difference, regarding the meaning of life in old age in the VS – the religious group found more meaning in the patient's life (-2.77 , $p < 0.01$), although both means were still very low (secular 1.977; religious 2.617).

Discussion

In this study, we raised professional and personal dilemmas of PTs concerning treatment of patients in the VS. Through questions of practical ethics and professional decisions, we sought to examine whether PTs' are influenced by social construction of old age, i.e. ageism. To answer this question, we designed a research tool using two cases of VS patients, holding constant their clinical diagnosis, prognosis and guidelines for treatment, the difference between them being age (young vs old).

We found that even when dealing with severe neurological impairments, where function, rehabilitation, regaining of consciousness and acting on freewill are almost irrelevant, still there are implied ageist attitudes. As previously mentioned by Vincent (2005, p. 556), "the loss of awareness in a person in a vegetative state [...] could be said to be a loss of human existence [...] are such patients not, in essence, 'dead'?" This perception of life in the VS is widely described in the literature (Bird-David and Israeli, 2010; Curry, 2006; Evans, 2007; Kaufman, 2000; Veatch, 2004), and our results tend to commensurate with these attitudes. We found that PTs feel there is little meaning of life in VS, and that quality of life is hardly existent. Therefore, it was intriguing to find that "implicit ageism" (Levy and Banaji, 2004) is "alive and kicking".

The preference to continue physical therapy for the young VS patient was established through different angles in the questionnaire. These results fall into line with other findings about attitudes of caregivers from different fields of expertise, towards young and old patients in various medical conditions, including severe disabilities and VSs (Bird-David and Israeli, 2010; Kane, 2004, 2008; Stewart *et al.*, 2005). For example, 81 percent of our participants declared they basically do not want to prolong their own life if they were young VS patients, and 83 percent answered similarly when asked to imagine being an old VS patient. These findings correlate with doctors' attitudes towards VS patients (Demertzi *et al.*, 2011; Payne *et al.*, 1996). According to Bird-David and Israeli (2010, p. 58), "[...] treatment can be rehabilitative, palliative, or 'maintainative' — namely, to keep the patient's state as is without trying either to rehabilitate it or allow it to waste away".

It should be emphasized that this study explored attitudes and perceptions but not actual behaviors. There is an interesting gap between the results and supporting literature and the ongoing actual "maintainative" physiotherapy VS patients receive. One might ask what motivates PTs to continue hands-on therapy for these patients. How do they cope with the inner conflict between touching, moving, stretching, etc. and the sense of futility? Why are they reluctant to cease treatment for these patients, especially for the young? One reasonable answer for these questions lies in the very essence of PTs professional identity: touch is perceived to be a symbol of human compassion, beyond the formal treatment goals.

This idea is supported in the literature (Connelly, 1999; Kolcaba *et al.*, 2006; Ohry, 2004). To quote: "In human touch [...] lies empathy, mutual contact and a transfer of feelings and emotions" (Ohry, 2004. p. 84). Still, it seems even human compassion is strained by ageism.

Conclusions

Implicit ageism among caregivers – PTs' and others – together with the ongoing debate about preservation of life for patients with neurological impairments, should raise our awareness to the danger of "a slippery slope": nowadays, there are salient attitudes supporting discontinuation of life for VS patients, at all ages, rationalizing its "in their best interest". This type of argument might lead to new definitions of "life not worth living" and might have an effect on the societal status, opinions, decisions and consequences regarding elderly and disabled patients who suffer alterations in quality of life. PTs' today treat a growing number of elderly patients in a wide spectrum of conditions and functional abilities, thus creating many hands-on interactions, and at the same time facing a range of ethical dilemmas and inner conflicts. Raising awareness of PTs' to the complex ethical dilemmas of their profession, together with acknowledging the social phenomenon of ageism is highly important.

Implications for practice

An "on the job" support and training programme which would:

- raise awareness of the phenomenon of ageism and its ethical dimensions;
- provide practical training including knowledge, understanding and implementation of tools for coping with ethical dilemmas; and
- form a continuous ethical-professional network for caregivers.

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