

Results of a healthcare worker (HCW) survey on environmental awareness as an instrument for the preparation of an environmental report for the University Medicine Greifswald

Ergebnisse einer Mitarbeiterbefragung zum Umweltbewusstsein zur Vorbereitung der Erstellung eines Umweltberichtes für ein Klinikum

Abstract

Background: Environmental reporting is increasingly important for medical facilities. Currently, hospitals can determine the content of an environmental report as they see fit.

Objective: To examine the utility and scope of an employee survey as an instrument for the preparation of an environmental report at the University Hospital Greifswald.

Method: For this purpose a questionnaire was developed with a focus on environmental behaviour and the significance attached to the protection of the environment.

Results: The employees of the University Medicine Greifswald attach an unexpectedly high significance to the protection of the environment. Based on this finding, this potential should be used to promote the optimal implementation of ecological-economic behaviour within the University Medicine.

Conclusion: An employee survey is a useful instrument in the preparation of an environmental report.

Keywords: environmental report, protection of the environment, university medicine, questionnaire, employee motivation, certification

Zusammenfassung

Hintergrund: Für medizinische Einrichtungen gewinnt die Umweltberichtserstattung zunehmend an Bedeutung. Derzeit ist der Inhalt eines Umweltberichtes für ein Klinikum Ermessenssache.

Zielsetzung: Zweckmäßigkeit und Umfang einer Mitarbeiterbefragung als Bestandteil eines Umweltberichts sollten untersucht werden.

Methode: Hierfür wurde ein Fragebogen mit den Schwerpunkten Umweltverhalten und Stellenwert des Umweltschutzes entwickelt.

Ergebnisse: Der Umweltschutz nimmt einen unerwartet hohen persönlichen Stellenwert bei den Mitarbeitern der Universitätsmedizin Greifswald ein. Davon ausgehend gilt es, dieses Potential für die optimale Umsetzung ökologisch-ökonomischen Handelns der Universitätsmedizin zu nutzen.

Schlussfolgerungen: Die Befragung der Mitarbeiter ist ein sinnvoller Bestandteil eines Umweltberichtes.

Schlüsselwörter: Umweltbericht, Umweltschutz, Universitätsmedizin, Fragebogen, Mitarbeitermotivation, Zertifizierung

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Introduction

For companies in highly industrialised countries, high environmental standards and the responsible use of environmental resources are the norm. Particularly for companies operating on a regional level, such as healthcare facilities, public perceptions are increasingly important. In this context, the presentation of ecological behaviour within the company is assuming greater importance [1]. Various instruments exist to demonstrate the willingness of a company to operate in an ecologically responsible manner to the general public, and promote environmental protection within the company. These instruments include certification, e.g. the EU EMAS (Environmental Management and Audit Scheme) on the basis of ISO 14000 [2], the use of eco-labels, e.g. corporate social responsibility [3], [4], or environmental reporting [5], [6]. Environmental reporting, a prerequisite for certification, documents and communicates the relationship of a company to environmental protection and its activities in this regard. It is therefore a critical systemic component in the certification of a company [7], [8].

The growing number of companies issuing environmental reports shows that there is an increasing discourse on environmental protection within companies [9]. Unfortunately, relatively few healthcare facilities have issued environmental reports, and these vary widely in terms of scope and quality [10], [11], [12], [13], [14], [15], [16], [17], [18].

The University Medicine Greifswald has been working on the publication of an environmental report for a number of years. To this end, several projects have been carried out to investigate the suitability of ecologically relevant topics for environmental reporting purposes. The motivation and commitment of HCWs are a decisive factor in the implementation of corporate ecological responsibility. In this regard in the first instance it is necessary to assess the existing significance attached to ecological behaviour by staff, in order to then promote ecological awareness and ecologically responsible behaviour in a targeted manner. For this reason we conducted, in consultation with the medical director/CEO, an employee survey on environmental behaviour and the value attached to the protection of the environment.

Method

Copies of a questionnaire with a demographic section, 12 items relating to environmental behaviour and 10 items relating to the significance attached to the protection of the environment, were left in a central place highly frequented by staff on randomly selected wards (n=10) and in randomly selected departments (n=2). The given return period was one week. The staff received no specific instructions.

Results

Of the 363 questionnaires distributed, 188 completed questionnaires were returned.

This represents a response rate of 51.8%.

The results of the items relating to environmental behaviour are shown in Table 1 and the results for the significance attached to the protection of the environment are given in Table 2.

Discussion

As no suitable questionnaire for healthcare facilities was found in the literature, the questionnaire was developed in collaboration with the Institute of Psychology. We decided to include a demographic section, items relating to environmental behaviour and items relating to the significance attached to the protection of the environment by staff. As symbolic motivation a piece of chocolate was attached to the questionnaire.

The response rate of 51.8% did not meet expectations, but can nonetheless be considered representative given that responses were made during normal business and on a purely voluntary basis. The share of responses from females, 77%, corresponds approximately to the overall employment structure of the University Hospital.

The responses of staff to the questions asked were predominantly positive. Only one HCW criticized that the questions were too intuitive.

The most interesting and perhaps most surprising outcome was that 97.3% of those questioned considered ecologically responsible behaviour to be one of the duties of a hospital. Therefore there is high potential to promote ecological awareness and ecologically responsible behaviour in the University Medicine Greifswald.

With regard to the use of paper, 76.6% of respondents did not use recycled paper. We subsequently discovered that recycled paper was not available to staff in sufficient quantities, so that the use rate for recycled paper can certainly be increased. Only 43.1% of respondents printed paper on both sides and 31.9% of respondents used paper on both sides for note taking etc. Dual use is avoided in part due to data protection considerations.

There is a high level of acceptance for the sorting of rubbish, as 77.7% of respondents sort their waste. Nonetheless there is room for improvement here too. Therefore as a next step, we will investigate whether staff has sufficient time and facilities for sorting rubbish.

The item relating to the use of ecological writing utensils such as pencils proved to be irrelevant for assessment of environmental behaviour. More than 92% of staff used biro pens because data protection and documentation regulations stipulate the use of permanent ink. Consequently this item should be left out in future surveys.

Almost 90% of respondents use ecologically preferable glasses and ceramic mugs/cups rather than paper or plastic cups for hot drinks.

Table 1: Responses to items relating to environmental behaviour

		no	mainly not	mainly yes	yes
1	Do you consider environmentally responsible behaviour to be one of the tasks of a hospital?	0.5%	2.1%	24.5%	72.9%
2	Do you write mainly with:	no preference	ball point	pencil	fountain pen
		3.7%	92.1%	2.1%	2.1%
3	Do you regularly use recycled paper?	no	mainly not	mainly yes	yes
		15.4%	61.2%	19.1%	4.3%
4	Do you print paper on both sides?	12.8%	44.1%	35.7%	7.4%
5	Do you print on the unprinted side of letters, reports and other documents to save paper?	18.6%	49.5%	22.9%	9.0%
6	Do you correctly sort rubbish on a regular basis?	6.4%	15.9%	46.8%	30.9%
7	For hot drinks do you mainly use:	paper cups	plastic cups	glasses/cups/mugs	
		0.5%	10.1%	89.4%	
8	When not in use, electronic equipment is:	turned on	in stand-by	turned off	
		6.4%	48.9%	44.7%	
9	Crockery is washed:	by hand (despite dish washer)	by hand (no dish washer)	in the dish washer	
		2.7%	16.5%	80.8%	
10	If a dish washer is used, is it fully loaded?	no dish washer	rarely	mostly	always
		7.4%	2.1%	38.3%	52.2%
11	If coffee is provided for staff, is this:	other	in a thermos flask	left on the warming plate of the coffee machine	
		19.3%	71.0%	9.7%	
12	Do you bring snacks and packed lunches or other meals in:	aluminium foil	cling film	grease-proof paper	lunch box
		26.3%	14.5%	4.3%	54.9%

Table 2: Responses to items relating to the significance attached to the protection of the environment

		unimportant	relatively unimportant	very important	self-evident
13	How important is the protection of the environment for you personally?	0%	9.6%	50.0%	40.4%
14	To what degree do environmental considerations influence your lifestyle?	rarely	frequently	always	
		18.6%	71.8%	9.6%	
15	Have you received training in environmental issues?	no		yes	
		75.0%		25.0%	
16	If you have not received training, how interested are you in receiving such training?	not at all	not very	quite	very
		4.8%	37.2%	30.3%	2.7%
17	Do you apply your knowledge about protecting the environment in the work place?	never	rarely	almost always	always
		1.1%	36.2%	56.4%	5.3%
18	Do you think that environmentally responsible behaviour can save money?	no	probably not	possibly	yes
		1.6%	10.1%	48.4%	39.4%
19	To what degree is your work place environmentally responsible?	not at all	un-satisfactorily	sufficiently	exemplary
		5.3%	33.0%	56.4%	4.3%
20	Do you see room for improvement?	no	relatively little	improvement is always possible	yes
		1.1%	12.1%	58.9%	25.8%
21	Does your employer promote environmentally responsible behaviour in the work place?	never	sometimes	often	yes
		18.4%	40.5%	34.2%	4.2%
22	How motivated are you personally to improve the environmental situation in your place of work?	not at all	not really	quite	very
		3.7%	12.6%	73.7%	8.4%

* There were drop outs at questions 16, 17, 18, 19, 20, 21 and 22 because of missing answers.

That 48.9% of respondents leave electronic equipment in stand-by mode when not in use is unsatisfactory.

More than 80% of respondents clean their crockery in a dishwasher, which is only ecologically acceptable if the machine is fully loaded.

As far as the items relating to the significance attached to the protection of the environment are concerned, more than 90% of respondents replied that the protection of the environment was important for them. This allows us to draw an important conclusion for the hospital management and for the environmental report: the protection of the environment should not be neglected!

Furthermore, 81.4% of respondents claim that their own lifestyle is ecologically responsible. This indicates that ecological behaviour is an important aspect for employees.

Just 25% of respondents had previously received training in environmental matters, which provides significant potential for improvement, even if only 42% of respondents expressed interest in such training. One reason for this is certainly the heavy burdens on the time of staff, which is lower in age than the average, due to family and shift working.

Further potential for improved environmental protection can be deduced from the answers to item 17. Whilst 61.7% of respondents claimed to apply their knowledge relating to the protection of the environment in the work place, the remainder did not. For almost 40% of the sample we need to analyse what prevents them from applying their environmental knowledge. This could be due to a lack of opportunities in the work place and/or a lack of time. In this regard, the aforementioned training measures are important to raise awareness of the importance of environmental considerations in the work routine. A further aspect that should not be underestimated is that 87.8% of respondents assume that ecologically responsible behaviour leads to financial savings. This can be interpreted positive as the commitment of staff to economic efficiency on the one hand, or as still unharnessed ecological and economic potential on the other hand. The responses to the final question show that the employees have a positive attitude towards that environment. Amongst the respondents 82.1% are motivated to work towards an improved environmental situation within the University Hospital Greifswald. This is a huge resource that obliges the hospital management to use and develop this potential in a responsible manner. An environmental ideas competition could bring many concrete improvements and further sensitise staff to the environmental issues.

Conclusions

With the exception of question 2 the used questionnaire was suitable to survey environmental behaviour and the significance attached to the protection of the environment amongst the staff of medical facilities. Regularly conducted surveys would allow the identification of trends. Thus,

the survey is an instrument to sensitise staff. The questionnaire could easily be further expanded.

The results of the survey show that the protection of the environment was of unexpectedly high personal importance to staff within the University Medicine Greifswald. Based on this finding, this potential should be used to promote the optimal implementation of ecological-economic behaviour within the University Hospital.

Notes

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Competing interests

The authors declare that they have no competing interests.

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