The Laundry Bag Project

- gender inequalities that are not just skin deep

Stockholms läns landsting

Stockholm County Council

“Why are the laundry bags in the men’s showers always fuller and need emptying more often than the bags in the women’s showers?”

A nurse asked this question when gender equality was discussed at a meeting of the Cooperation Group at the Department of Dermatology at Danderyd Hospital. This study was carried out in answer to this question. We found previously undetected inequalities both when it came to the treatment prescribed to and the treatment actually administered to women and men when they have been diagnosed as psoriasis or eczema sufferers. Men received more skin lubricants and more UV treatment at the hospital. In connection with treatment, patients use the hospital showers and throw their used towels in the laundry bags, hence the dirty laundry bags in the men’s showers.
We have chosen to apply a cost-comparative perspective in order to examine the extent to which the publicly financed healthcare budget (represented in this case by the Dept of Dermatology’s budget) provides for women and men respectively.

Abstract

Background: Psoriasis and eczema are common dermatological diseases that occur with approximately equal frequency in men and in women.

Objective: To determine whether men and women with dermatological diseases in need of UV treatment receive equal care

Methods: We conducted a retrospective analysis of records all patients referred to and seen at our clinic during 2003 with diagnoses of psoriasis or eczema. We performed a gender-based analysis of the number, type, and estimated cost of the treatments given to each patient. We evaluated similar data from a Swedish Psoriasis Association (SPA) treatment centre and from the state pharmacy monopoly (Apoteksstatistiken).

Results: Men with eczema or psoriasis received more help with emollients than did women and were given a greater number of UV treatments. At our clinic and at the SPA centre, women constituted 37 percent and 42 percent, respectively, of the individuals who received UV-treatment, yet they received only 34 percent and 36 percent of the treatments, respectively. Women were prescribed self-care more often than men, with 61 percent of prescriptions for emollients and 48 percent of specific topical treatments for psoriasis dispensed to women. **If women are the norm for treatment of psoriasis there will be a 22% reduction of cost.**

Conclusions: We discovered large and previously unrecognized gender differences in standard dermatological treatment for common diagnoses at our hospital. To ensure optimal care for each patient, treatment disparity should be recognized when planning dermatological health care. We recommend that similar gender-based analyses be carried out at other institutions and in other areas of health care.

Background

Psoriasis is reportedly about as common among women as among men. Hand eczema is more common among women. Studies of self-rated quality of life using DQLI (dermatological quality of life index) have shown different findings; women and younger people with eczema and psoriasis had poorer self-rated quality of life than others in one study[1] whilst two other studies from different parts of Sweden did not reveal any differences in self-rated quality of life. [2, 3]. Ultra-violet radiation (UV) treatment is often an effective way of treating eczema and psoriasis. Nowadays, treatment is primarily administered in the form of narrow-spectrum UVB phototherapy (309 nm). PUVA (psoralen-UVA) therapy has decreased considerably in recent years within the field of dermatology as a whole, due to the well-documented increased risk of skin cancer it entails. The way psoriasis sufferers are taken care of at the unit we studied (the Dept of Dermatology at Danderyd Hospital, referred to hereinafter as DH-Derm) is in line with common dermatological outpatient care practice. When the patient first visits the department, the doctor makes an assessment and prescribes a course of treatment, e.g. a series of UV treatments at the hospital, normally 2-3 times a week for 6-8 weeks. All patients are prescribed some form of topical treatment (e.g. local steroids and Calcipotriol cream) and moisturisers. Topical treatment is always prescribed, either to supplement hospital treatment or as a stand-alone treatment. Patients can obtain help on how to apply medications when they visit the hospital for any UV treatment that has been prescribed. A similar assessment is made in cases of hand eczema or other types of eczema and the patient receives a prescription and might also be prescribed UV treatment.

This cost-comparative analysis can serve as a methodological example in the field of what is known as gender budgeting. Gender analyses of public sector budgets and surveys of the effect of these budgets on the lives, opportunities and financial situations of women and men have gained considerable international currency. [4-6]. The analysis is also built on medical and business competence - i.e. a more gender-medical perspective. The number of gender-medical studies has also increased dramatically over the last ten years. [7-9]

Method

Study population and variables

The department studied (DH-Derm) is one of four such dermatology departments in Stockholm. It has a catchment area of about 350,000 inhabitants and receives about 15,000 outpatient visits each year. To see whether our data could demonstrate a general pattern, we compared it with data from Swedish Psoriasis Association (SPA) treatment centres in Stockholm. SPA centres do a similar number of UV treatments to DH-Derm but are also open in the evenings. The centres are run by the Psoriasis Association and are publicly financed. The vast majority of patients coming to DH-Derm are referred from primary care, whereas people visiting SPA centres during the survey period did not need a referral.

DH-Derm has a databased medical records system called Melior.

The Cliq view programme was used to analyse data from the medical records of 2003 and 2004. The search words analysed were “diagnosis”, “prescription”, “UV treatment” divided up into different wavelengths, and “bathing”. The comparative data between 2003 and 2004 was for psoriasis vulgaris (plaque psoriasis) and we have reviewed all the medical records for this diagnosis. At the SPA centres, the number of men and women treated during a twelve-month period and the number of treatments each patient received have been compiled by SPA centre employees from the medical records. It was not possible to carry out a financial analysis on the SPA centre data.

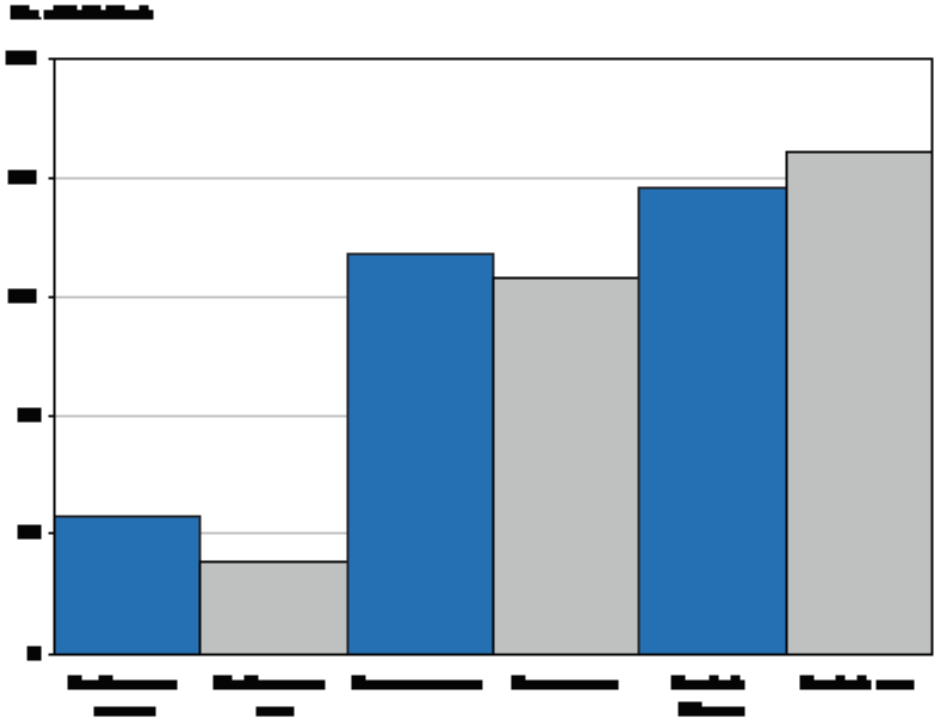
We have also performed gender analyses on Apoteket’s (Sweden’s state pharmacy monopoly) statistics on dispensed medications for topical skin treatment. The medications analysed were analysed were moisturisers, cortisone creams, special medications for the topical treatment of psoriasis and Oxsoralen (used in PUVA treatment).

Findings

Analysis on the individual level

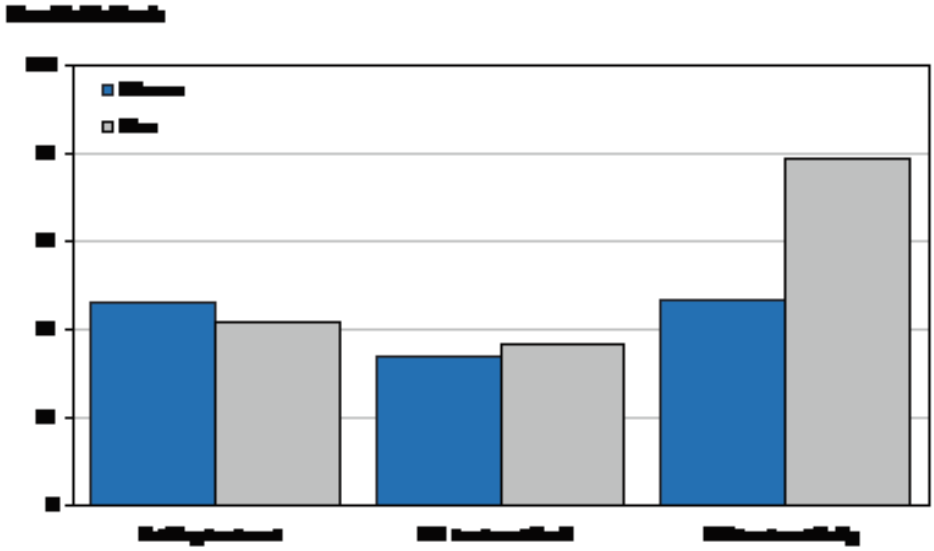
As a first step in the analysis, we examined how many patients of each gender had visited DH-Derm and been diagnosed as either hand eczema, eczema or psoriasis sufferers in 2003 (a total of 663 patients, see Fig 1). These diagnoses were chosen as they can be treated in different ways; the two alternatives being bathing and/or UV treatment at the hospital or self-treatment in the home. A general medical assessment does not indicate any gender inequalities regarding the degree of difficulty of the diagnoses discussed here.

Fig 1. 663 patients diagnosed with hand eczema (n=77), eczema (n=260) and psoriasis (n=326) at DH-Derm in 2003. (n=number of individuals). More women than men had been diagnosed as "hand eczema" and "eczema" sufferers, whereas slightly more men had been diagnosed with "psoriasis".



We then analysed how many patients of each gender, who had been diagnosed with one of these ailments, had received hospital treatment (Fig 2).

Fig 2. Number of women and men receiving bathing treatment, UV treatment for the hands and UV treatment for the whole body, DH-Derm, 2003.



UV treatment for the whole body was administered on 2,140 occasions to 126 patients diagnosed with psoriasis or eczema. The most pronounced difference is in UV treatment for the whole body. In this treatment category, 37 per cent of the patients were women and 63 per cent men. UV treatment for the hands was administered on 1,201 occasions to 71 patients with hand eczema. Bathing treatment was administered 456 times to 88 patients. Slightly more women received bathing treatment. Slightly more men received UV treatment for hand eczema, although the diagnosis is more common among women.

Number of treatments per individual with psoriasis

A closer inspection of the data revealed that the gender imbalance did not just concern the number of women and men receiving treatment at DH-Derm but also the number of times they each received treatment. At DH-Derm, 37 per cent of the individuals who received UV treatment for the whole body were women and they received 34 per cent of the treatments when we considered all UV treatments for psoriasis and eczema.

To make our figures comparable with the world at large, a sub-group analysis was performed; number of treatments per individual diagnosed with psoriasis vulgaris (L400), i.e. “common” psoriasis, the numerically largest group (Table 1). Here we saw that women constituted 44 per cent of the individuals receiving UV treatment and that women received 38 per cent of the administered treatments.

Table 1. Treatment of women and men with psoriasis, DH-Derm 2003

Gender distribution for treatments of patients with psoriasis vulgaris at DH-Derm in 2003				
	Number of individuals	Percentage	Number of treatments	Percentage
Women	38	44%	768	38%
Men	48	56%	1244	62%
Total	86	100%	2012	100%

The Swedish Psoriasis Association's (SPA) treatment centres

Since more men received treatment at DH-Derm, we wanted to see whether more women received treatment at SPA centres or whether the gender-distorted treatment statistics at DH-Derm might be a general pattern (Table 2). A total of 646 individuals received treatment and 15,081 treatments were performed at SPA centres. Forty-two per cent of the individuals who received treatment were women whilst 36 per cent of the treatments were performed on women. At both the units studied, we saw then that fewer women than men were prescribed UV treatment for the whole body and that women also received fewer of the treatments. In other words, we could see the same inequalities here as we saw at DH-Derm.

Table 2. Treatment of women and men with psoriasis, SPA centres 2003

Gender distribution for treatments of patients with psoriasis vulgaris at SPA treatment centres in 2003.				
	Number of individuals	Percentage	Number of treatments	Percentage
Women	273	42%	5369	36%
Men	373	58%	9712	64%
Total	646	100%	15081	100%

Follow-up

The data was discussed with DH-Derm employees at various meetings during 2003. A follow-up was performed regarding UV treatments carried out on psoriasis patients during 2004. We can see a more even gender distribution of patients being prescribed UV treatment by the doctor, but the number of treatments is still higher for men (Table 3).

Table 3. Treatment of women and men with psoriasis, DH-Derm 2004

Gender distribution for treatments of patients with psoriasis vulgaris at DH-Derm in 2004				
	Number of individuals	Percentage	Number of treatments	Percentage
Women	54	49%	1062	46%
Men	56	51%	1235	54%
Total	110	100%	2297	100%

Financial analysis of the number of treatment episodes

Using Diagnosis Related Group (DRG) codes, we 'priced' the relevant treatments. These codes are based on standard cost calculations for various types of treatment and are used by hospital dermatology clinics in Stockholm but not by SPA centres or private care providers. Total treatment costs for men were higher than for women. Eczema and psoriasis diagnoses were overall just as common among the women and men visiting DH-Derm in 2003. As we have seen, hand eczema was more common among women.

Table 4. Treatment costs for women and men at DH-Derm in 2003.

Total treatment costs (in SEK) calculated from the number of times diagnosed eczema, hand eczema and psoriasis sufferers received treatment (treatment episodes), DH-Derm, 2003.			
Treatment	Women	Men	Total, row
Bathing Treatment	142 324	130 364	272 688
UV treatment, hand	192 891	214 248	407 139
UV treatment, whole body	244 419	481 041	725 460
Total, Column	579 634 SEK	825 653 SEK	1 405 287 SEK

Analysis of Apoteket's statistics on dispensed medications

The alternative to hospital treatment, combined with self-care, is for the patient to carry out all skin treatment in the home and not receive any UV treatment at the hospital at all. Prescriptions for topical treatment are issued to all patients diagnosed with the ailments discussed here, but we can assume that those who do not receive hospital treatment use more of these medications that those who do receive hospital treatment. Since men receive more hospital treatment than women, one theory was that women buy more skin medications from Apoteket.

Table 5 shows the total costs for dispensed prescriptions (where patients have actually collected their prescriptions from the pharmacy) issued by DH-Derm and Stockholm County Council (SCC) doctors for moisturisers, local steroids and medications for the topical treatment of psoriasis. Moisturising creams and local steroids are prescribed for many different symptoms. Psoralen tablets are prescribed as part of PUVA treatment.

The total value of medications dispensed to women was greater than to men, the greatest discrepancy being in moisturisers. The newer, more expensive and more effective medications in the DO5AX group were dispensed more to men, whereas more women received Oxsoralen for PUVA, a course of treatment that is prescribed much less nowadays due to its serious side-effects.

Skin medications were prescribed by DH-Derm to women totalling SEK 140,540 more than the same medications dispensed to men, not taking cost maximisation into account.

Table 5. Dispensed medications prescribed by DH-Derm and within Stockholm County Council (SCC)

Total cost of different medications, calculated from dispensed prescriptions issued by DH-Derm and other SCC doctors, in SEK.				
Type of medication	Women	Men	Total	Percentage of women
Moisturisers	380 404 (28 710 886 SEK)	239 063 (15 407 701 SEK)	619 467 (44 118 587 SEK)	61% (65%)
Cortisone cream	262 651 (17 593 176 SEK)	252 215 (15 527 124 SEK)	514 866 (33 120 300 SEK)	51% (53%)
D05AX topical treatment for psoriasis	164 194 (5 426 634 SEK)	179 433 (7 388 241 SEK)	343 627 (12 814 875 SEK)	48% (42%)
Oxsoralen (psoralen tablets for PUVA treatment)	4803 (100 862 SEK)	801 (76 046 SEK)	5604 (176 908 SEK)	86% (57%)
Total	812 052 (51 831 558 SEK)	671 512 (38 399 112 SEK)	1 483 564 (90 230 670 SEK)	55% (57%)

Compared to Stockholm County Council (SCC)

SCC consists of 26 municipalities and has 1.9 million inhabitants. In some respects, the figures for the whole of the County Council were even more distorted than what we saw at DH-Derm regarding dispensed medications for topical skin treatment. More women than men received moisturisers, with the difference being greater than what we had seen at DH-Derm (women received 65 per cent within SCC and 61 per cent at DH-Derm of all prescribed moisturisers) and with a similar age distribution. More moisturisers were dispensed to boys than girls in the 0-10 years age group, but otherwise women outweighed men in all other age groups with the highest values in the 20-40 and 51-60 age groups. More cortisone creams (53 per cent within SCC and 51 per cent at DH-Derm) were also dispensed to women, whereas more DO5AX (other topical treatments for psoriasis) were dispensed to men (58 per cent for SCC and 52 per cent at DH-Derm). More Oxsoralen was dispensed to women than to men in SCC, but the number of individuals was too small at DH-Derm to be able to carry out an analysis. In total, the relevant medications in question were dispensed for SEK 13,432,446 more to women than to men in Stockholm County Council.

Discussion

Our study indicates considerable gender imbalances when it comes to hospital treatment of psoriasis in SCC and the costs thereof. If women received the same number of treatments per individual as men, the resources put into women's treatment would increase by 61 per cent. In 2003, women received treatment worth SEK 353,143 "too little" if you compare with the costs for men's treatment and taking the diagnoses into account, i.e. 25 per cent of the total treatment budget. Assuming women administer more self-care in the home than men, we can express this in terms of women who treat themselves at home subsidising 25 per cent of the publicly financed dermatology department budget for the treatment of the diseases discussed here. If we take the number of treatments administered to women as standard and treat the same number of men, this would save SEK 310,316 per year, the equivalent of 22 per cent of the treatment budget outlined here.

Pharmacy (Apoteket) statistics

The statistics we present here are for medications prescribed as treatment for the diagnoses studied. They are, however, prescribed for a number of other conditions and the figures cannot be said to reflect the volumes received by this particular group. Neither do the statistics cover medications for systemic treatment, e.g. metothrexate and cyklosporin, which are prescribed to the 5-10 per cent most serious psoriasis sufferers. We

have therefore not been able to provide an overall picture of the "cost" of psoriasis treatment and neither have we been able to highlight any gender inequalities there might be among the most seriously ill patients.
However, the pharmacy statistics (from the state pharmacy monopoly, Apoteket) reinforces our impression of the fact that medical skin treatment for women differs from that administered to men. The pharmacy statistics on the dispensing of skin medications within SCC were more distorted than those for DH-Derm. In total, women were dispensed skin medications to a value of SEK 13.5 million more than men within SCC. Much of the cost for treatment and for medications is financed from public money. Further research is necessary, however, to establish the amounts women and men actually pay for their treatments and their medication in monetary terms. We know, however, that cost maximisation for medical care is set at SEK 900. Cost maximisation for medical prescriptions is twice as high, i.e. SEK 1,800. Thus, individuals treated in hospital might be better off financially speaking than those who administer self-care in their own homes. A visit to the doctor (@SEK 120) and 11 UV treatments (@SEK 70) qualifies the patient for medical care cost maximisation.
Hospital treatment is often given in working hours whereas self-care in the home is administered in the patient's spare time. Consequently, a possible conclusion is that men are more detrimental to workplace productivity since they receive more of their treatment at the hospital (in work time). This suggests that the gender inequalities we have discovered may also have a purely socio-economic effect. Women administer considerably more of their treatment themselves in their free time. Swedish time consumption studies [10] categorise the way people spend their time. The "personal care" category covers time spent on personal hygiene and general care of the body. Women spend 146 hours per year more than men on "personal care", i.e. four full-time working weeks, or 24 minutes a day every day, 365 days a year, more than men. It is likely that the time consumption study covers to some extent the self-care women administer to a greater degree in the home compared to men.

Theoretical implications

The gender paradigm, in which we live today, reinforces the importance of women keeping their skin clean, soft, smooth and fragrant using soaps, razors and skin creams from a very early age. This message is conveyed to them through society's model examples, advertising and mass media. Society's idea of manliness, to which boys and men are expected to conform, does not contain this requirement for self skin care to anywhere near the same extent as for girls and women. Change is in the air, however. The cosmetics industry has recently started to concentrate more on skin care for men, and men's awareness of a physical male ideal has increased. [11, 12]. It is feasible that these gender constructions are being perpetuated more or less consciously by both hospital personnel and

patients and are causing the gender imbalances in the treatment we have analysed. We do not know whether the inequalities we have seen are just local or exist internationally. A recent review of UV treatment for psoriasis from the United Kingdom indicates an equal number of men and women receiving hospital treatment but the corresponding figures have otherwise yet to be analysed. [13].

In a survey of what patients themselves think causes their psoriasis, more women than men identified stress as a contributory or aggravating factor. [14]. Women may well feel that treatment 2-3 times a week is more stressful than men do. On the other hand, the same group found no difference between women and men when examining how psoriasis sufferers felt the treatment affected their quality of life. [15].

In all likelihood, the patterns we have found are reflected in the planning and implementation of clinical research as well as clinical trials of skin medications. Patients involved in clinical trials are often recruited from those who regularly receive treatment, and it is therefore feasible that more men are recruited to the trials than what would be reasonable based on incidence and prevalence.

The gender inequalities in the treatment of women and men, which occur at the departments/centres studied and according to our analyses also seem to form a general pattern, can be viewed in a wider perspective. Gender theorists talk of the gender order betraying asymmetries between women and men in a number of different areas.[16-18]. For example, there are asymmetries regarding access to resources and regarding the division between paid and unpaid work. Our findings are an example of this. Public resources go towards financing men's treatment of skin diseases to a far greater extent than they go towards financing women's treatment of the same diseases. Instead, women treat themselves in the home without the support of public resources to a far greater extent than men. This self-care is also invisible in economic terms since it is not covered in the Swedish National Accounts and Sweden's GDP calculations. On the other hand, men's treatment is considerably more visible since it is administered at a public institution (the hospital), using publicly salaried employees and is reflected both in the healthcare budget and in Sweden's GDP calculations. A study from northern Sweden indicated that the distance to the hospital/clinic was a key factor in the patient's choice of treatment, whereas high treatment costs at the dermatology department/clinic was one reason cited more by women than men for breaking off the treatment. [3] It is interesting to evaluate whether financial reasons are cited more by women in Stockholm, despite the difference in proximity to the treatment centre/clinic.

Dermato-venereological reference literature, medical specialist training and treatment recommendations for psoriasis and eczema are mostly gender-neutral. In other words, doctors have not been trained to treat male and female psoriasis and eczema sufferers differently. That this seems nevertheless to be the case seems to be a continuing blind spot. Our findings have been discussed during the last twelve months and the

follow-up indicated a change had occurred, namely that UV treatment is now prescribed basically to an equal number of female and male psoriasis sufferers at the department. We have as yet, however, not targeted any information or training at the patients, and the number of treatments for male psoriasis sufferers also remains on a higher level than for female sufferers during the years studied. A feasible way to help change the figures we have reported would be to set up eczema and psoriasis 'schools', where men and women learned the importance of regularly applying lubricant on their skin and of undergoing UV treatment. There are already 'eczema schools' at dermatology clinics for children with eczema and their parents, and we were unable to see the same inequalities in prescribing patterns in the children's group we studied. We have not analysed the treatment of children at dermatology clinics/departments in Stockholm from a gender perspective but our theory is that this is not distorted either. We have continued the analysis by sending questionnaires to eczema and psoriasis patients who have undergone UV treatment at DH-Derm. The idea is to examine how the patients experience their treatment and whether these experiences differ between men and women. Personal interviews are planned in order to find out more about the opinions of the patients and how they explain the existing gender inequalities. We are also planning to extend our treatment programme for different skin diseases with 'psoriasis schools' and cognitive counselling. A working group has been appointed to analyse treatment statistics at all the dermatology clinics/departments in Stockholm.

Literature

1. Zachariae R, Zachariae C, Ibsen H, Mortensen J, Wulf H. Psychological symptoms and quality of life of dermatology outpatients and hospitalized dermatology patients. Acta DermVenereol. 2004; 84(3):205-12.
2. Lundberg L, Johannesson M, Silverdahl M, Hermansson C, Lindberg M. Health-related quality of life in patients with psoriasis and atopic derma titis measured with SF-36, DLQI and a subjective measure of disease activity. Acta Derm Venereol 2000; 80:430-4.
3. Uttjek M, Dufåker M, Nygren L, Stenberg B. Determinants of Quality of Life in a Psoriasis population in Northern Sweden. Acta Derm Venereol 2004; 84:37-43.
4. Colomé D, Meguro Y, Yamamoto T. A Gender Agenda: Asia-Europe Dialogue New Visions and Perspectives for women and Men. Singapore; 2001.
5. Budlender D, Elson D, Hewitt G, Mukhopadhyay;T. Gender Budgets Make Cents. Understanding gender responsive budgets. London, Commonwealth Secretariat; 2002.
6. Judd K, editor. Gender Budget Initiatives Strategies, Concepts and Experiences. New York: UNIFEM; 2002.
7. Hovelius B, Johansson E, editors. Kropp och genus inom medicinen. 1 ed. Lund: Studentlitteratur; 2004.
8. Hammarström A. Genusperspektiv på medicinen -Två decenniers utveckling av medvetenheten om kön och genus inom medicinsk forskning och praktik. Stockholm: Högskoleverket; 2004.
9. Schenck-Gustafsson K. Kvinnohjärtan -hjärt- och kärlsjukdomar hos kvinnor. Lund: Studentlitteratur; 2003.
10. SCB. Living Conditions, Time for Everyday Life Women's and men's time use 1990/91 and 2000/01: SCB; 2003.
11. Shilling C. The body and social theory. In: The body and social theory. London: Sage Publications; 1993. p. 31-34.
12. Featherstone M. Consumer culture and postmodernism. In: Consumer culture and postmodernism. Bristol: J.W. Arrowsmith Ltd; 1991. p. 83-94.
13. Langan S, Heerey A, Barry M, Barnes L. Cost analysis of narrowband UVB phototherapy in psoriasis. J Am Acad Dermatol 2004;50(4):623-6.
14. Fortune D, Richards H, Main C, Griffiths C. What patients with psoriasis believe about their condition. J Am Acad Dermatol 1998;39:196-201.
15. Richards H, Fortune D, O´Sullivan T, Main C, Griffiths R. Patients with Psoriasis and their compliance with medication. J Am Acad Dermatol 1999; 41:581-3.
16. Hirdman Y. "Genussystemet", Demokrati och makt i Sverige. Stockholm: SOU; 1990.
17. Hirdman Y. Konstruktion och förändring - genus som vetenskap. Kvinnovetenskaplig tidskrift 1998;19(3-4):4-15.
18. Thyrén B-M. Om styrka, räckvidd och hierarki, samt andra genusteoretiska begrepp. Kvinnovetenskaplig tidskrift 1996;17(3-4).

Contact & Information:

Ingrid Osika, postgraduate student, Theme: gender,
Linköping University, Linköping.

Birgitta Evengård, associate professor,
senior consultant, university lecturer,
Karolinska Institute and
Gender Equality Officer, Group Executive Staff,
Stockholm County Council.

Lena Waernulf, Counsellor, Dept of Dermatology,
Danderyd Hospital, Stockholm.

Filippa Nyberg, MD, senior consultant,
Head of the Dept of Dermatology,
Danderyd Hospital, Stockholm
Phone: +46 8 655 55 87
Fax: +46 8 755 71 72)
E-nail: filippa.nyberg@ds.se

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Stockholms läns landsting
Stockholm County Council

Box 22550, 104 22 Stockholm
Tel. +46 (0) 8 - 737 25 00