

**Use of complementary and alternative treatment among  
recipients of social benefits related to illness.**

**5.års oppgave  
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## ***Abstract***

**Background:** Many studies in several counties have described CAM users in general and to some extent in subpopulations, but little is known about CAM use in the subpopulation of social welfare benefit recipients.

**Aim of the study:** The objective in the present study is to describe CAM visits in the previous 12 months in recipients of social benefits associated with illness, and compare use in benefit recipients to use in non-recipients.

**Methods:** The population studied is the participants of the 2001 survey of the Tromsø study under the age of 68 who answered the questions on visits to a CAM practitioner within the previous 12 months and social benefits (N=4733).

**Results:** 19,7% of female recipients of social benefits associated with illness had visited a CAM practitioner at least once in the previous 12 months, compared to 11,9% in non-recipients ( $p < 0,001$ ). In men the corresponding percentages were 7,0% and 4,5% ( $p = 0,026$ ).

**Implications:** Physicians should be aware of the high occurrence of visits to CAM practitioners in patients with disease serious enough to qualify for social benefits.

## ***Introduction***

Visitors of practitioners of CAM most commonly suffer from musculoskeletal problems (back problems), allergies, fatigue, arthritis, GI problems and psychiatric problems (1,2). However, little is known about how affected these people are by their illnesses.

There is an association between receiving certain social benefits and degree of illness. Social benefits like sickness benefits, rehabilitation benefits and disability pension imply that the recipient suffers from an illness or impairment that keeps him or her from working for a limited period (sick leave and rehabilitation) or permanently (disability pension). A physician must verify the illness in order for the patient to receive these benefits.

Benefits like old age pension, social welfare, unemployment benefits and temporary benefits for single parents/guardians do not imply illness. There are people with illnesses or impairments in these groups also, particularly among the recipients of old age pension, but the illness is not what makes them eligible for the benefit. Physicians are not involved in the application process of these benefits.

By studying the use of CAM among receivers of social benefits we can shed light on a new aspect of the association between use of CAM and health status. This aspect has been subject to little or no attention earlier.

If recipients of social welfare benefits associated with illness use more alternative treatment than non-recipients, it would indicate that alternative treatment is used by people who suffer from illness that is so impairing that it keeps them from working.

An opposing hypothesis is that people who receive sickness- and rehabilitation benefits or disability pension use less alternative treatment because their problems are currently taken care of by conventional medicine, and therefore there is little need to seek alternative treatment as a means to get better and back to work.

The objective of the present study is to describe CAM use in recipients of illness-associated social benefits, and compare the use in recipients of illness-associated benefits with use among non-recipients.

### ***Material and methods***

The study is based on data from the 2001 survey of the Tromsø Study (Tromsø V). The Tromsø Study is a longitudinal population-based multipurpose study with the first survey in 1974 (Tromsø I). Since then repeated questionnaires and clinical examinations have been administered to certain birth cohorts among citizens of Tromsø municipality. The initial focus was on lifestyle-related diseases. Later, other conditions such as rheumatic-, neurological-, skin- and GI diseases, cancer and osteoporosis have been added. The study also penetrates areas such as diet, cigarette smoking, work, education, use of health services, use of prescription and non-prescription drugs etc.

In the 2001 survey of the Tromsø study, 8128 men and women in the age group 30-89 participated. The study included individuals that participated in the extended Tromsø IV study that were still alive (TU group).<sup>1</sup> In addition all individuals that turned 30, 40, 45, 60 or 75 during 2001 (the SHUS group) were invited to participate. A total of 10419 persons were invited out of which 78% responded. The TU group had a response rate of 89% and the SHUS group had a response rate of 56%. (Some subjects may occur in both the TU groups and the SHUS group).

In the present study only the subjects under the age of 68 (N=7230) who answered the question on visits to a CAM provider within the previous 12 months and to the question on social benefits (N=4733) are included. This comprises 65,5% of all under the age of 68. Age range from 30 to 67 years (mean 52) and there is 56,2% (2661) women in the selection



Data on social benefits are explored together with the main outcome variable “visits to a CAM practitioner within the previous 12 months”. The basic variables age and gender are also included in the analysis. Variables are presented in Table 1.

## **Statistical methods**

All data have been analyzed using SPSS. Since the data are categorical the chi-square test and Fisher’s exact test (where expected value in a cell is less than 5) has been used to test differences between groups. Due to multiple testing only results with a p-value below 0,01 are considered statistically significant.

A variable that assemble recipients of illness-associated benefits into one group and subjects who receive no benefits into a second group was created. Recipients of other benefits were included in the latter.

## **Results**

### **Basic statistics**

19,7% of women on illness-associated benefits (N=812) have visited a CAM practitioner within the previous 12 months compared to 11,9% among women who do not receive benefits (N=1849) ( $p < 0,001$ ). The corresponding percentages for men are 7,0% (N=455) and 4,5% (N=1617) ( $p = 0,026$ ). This difference between recipients of illness-associated benefits and non-recipients persists when splitting into age groups (Table 2) although the difference is not statistically significant in women over the age of 60 and men over the age of 50. In women on benefits use varies from 26,7% in 30 to 39 year olds, escalates to 32,6% in 40 to 49 year olds before descending to 22,5% in 50 to 59 year olds and 13,0% in 60 top 69 year olds. In non-recipients the use varies from 10,0% (60-69 year olds) to 13,5% (50-59 year olds). In men

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<sup>1</sup> The basic Tromsø IV study included the agegroup 25-99, 35443 people out of wich 77% responded. The extended Tromsø IV included all in the agegroup 55-75 and 5-10% of the agegroup 25-54 and 75-85, altogether

CAM use is inversely related to age. In men aged 30-39 that are social benefit recipients, 25,0% have used CAM compared to 6,1% in non-recipients. Use in men on social benefits then falls to 4,6% in 60-67 year olds compared to 3,3% in non-recipients.

### **Illness associated benefits**

In the sickness benefit recipient subgroup 25,3% of women ( $p<0,001$ ) and 9,0% of men ( $p=0,037$ ) have visited a CAM practitioner within the previous 12 months. Figure 1 describes CAM use according to age and shows that women on sickness benefits use significantly more CAM than non-recipients until the age of 50. In men there is no significant difference in use between sickness benefit recipients and non-recipients.

Rehabilitation benefit recipients use more CAM than any other subgroup. 32,6% of women ( $p<0,001$ ) and 22,4% of men ( $p<0,001$ ) have seen a CAM practitioner within the previous 12 months. Figure 2 illustrates CAM use in rehabilitation benefit recipients.

In disability pension recipients CAM use is lower than in the other benefit subgroups. 16,6% of women ( $p=0,003$ ) use CAM while only 3,2% of men ( $p=0,313$ ) are users. Figure 3 illustrates the lower use of CAM among men in the disability pension subgroup. CAM use in men on disability pension is limited to those aged 60-69 and no women aged 30-39 report to have seen a CAM practitioner within the previous 12 months.

When comparing numbers from figures 1-3, women on illness-associated benefits have a similar pattern of use with a peak in age 40-49. Men have a more diverse picture with high use in rehabilitation benefit recipients and very low use in disability pension recipients.

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7965 (78% of the invited) people.

## ***Discussion***

Subjects receiving sickness benefits, rehabilitation benefits and disability pension use alternative treatment significantly more than people who do not receive any benefits. The subjects in this study have been through two levels of selection. The first level of selection is that only participants of the extended survey of the Tromsø study of 94/95 were invited to participate along with the SHUS group. The second selection level is that participation in the study is on a volunteer basis and not all that were invited responded, and not all respondents answered all questions in the survey. When not all invited individuals respond, either to the survey itself or to relevant question, the potential for selection bias is present. When comparing our final study population of 4733 subjects to the total population of individuals under the age of 68 there were small differences in age distribution in men, but no significant differences in age distribution in women. This may cause overestimates in CAM use in men. It should not influence the results on women's use of CAM, as all calculations are gender specific. Although the age distribution is fairly similar, there is, however, no way of completely ensuring that recipients of social welfare benefits or visitors to CAM practitioner are not over- or underrepresented in respondents.

The questionnaire asks for number of visits to a practitioner of alternative medicine, but it does not clearly define what is considered alternative. It is left to the subject to define what he or she considers alternative treatment. This leads to an uncertainty in the actual number of users of alternative treatment, some might include treatments that others leave out. If this should seriously bias our study we would have to claim that it is likely that recipients of social welfare benefits systematically define CAM different from non-recipients. Otherwise the bias is non-differential and will only dilute the reported differences. In this study the bias could actually be non-differential, but it is impossible to quantify. Greater insight could have been obtained in qualitative exploration of the issue. Since the questionnaire asks explicitly for



visits to a practitioner of alternative treatment, other alternative treatments such as over the counter purchases of vitamins and herbal or homeopathic medicine are not included.

Use of alternative treatment is not directly linked to use of social services or to illnesses in the questionnaire. We have no way of knowing exactly which condition a person sought alternative treatment for. It might be different from the disease he or she reports in the questionnaire. The questionnaire only lists a limited number of diseases. It is possible that some of the users of alternative treatment who also receive social benefits, use alternative treatment for a different illness than the one that make them eligible for a benefit. It was therefore impossible to analyze the data according to the illness leading to the illness-related benefit.

The definition of alternative treatment varies between countries, even within the Nordic countries (5,6,6). In Norway use of chiropractor is not considered an alternative treatment since the National Social Insurance reimburses this line of therapy. Use of chiropractor is a separate variable, as is physical therapy. In studies from other countries use of chiropractor is defined as alternative. If use of chiropractor had been included in alternative treatment the percentage of use in women on illness-associated benefits would rise from 19,7% to 25,1%, and in female non-recipients from 11,9% to 16,9%. In men on benefits use of CAM rises from 7,0% to 12,7% and in non-recipients from 4,5% to 12,1%.

Several studies (1,3 ,7) have found that use of alternative treatment is related to income.

People with higher incomes use more alternative treatment. Subjects who receive rehabilitation benefits and disability pension usually have a loss of income and would therefore, if income was the decisive factor, be expected to use less alternative treatment.

According to official Norwegian numbers (NOU 1998:21)(8) there is, however, no evidence for income as a reason for difference in use of alternative treatment in the Norwegian population. The results of the present study therefore support the NOU as sickness- and

rehabilitation benefit and disability pension receivers use more alternative treatment compared to non-receivers. Whether there is an income-related association with use of CAM within recipients of illness-related benefits would be interesting to study, but our data does not have information on income.

Few other studies have been conducted on the subgroup of social benefit receivers. Some articles discuss health insurance coverage of alternative treatment (1,9,11) but not in health insurance holders alone, and not in the context of linking health insurance coverage to CAM use and thereby getting an indirect connection between disease and use of alternative treatment. A study by Gray, CM et al. (10) describes use of CAM among health plan members. In this study there is a higher use among employed subjects (46% CAM users) than unemployed (35% CAM users). If the unemployed are out of the work force because of disease, this result might be in contrast with the findings of the present study.

Some studies have revealed no significant difference between men and women (3) while other studies have shown significant gender difference (1,7). This study show significant gender difference in use of CAM, female recipients of social welfare benefits in Tromsø use alternative treatment more than men.

The results of the present study suggest that recipients of social welfare benefits associated with illness use more CAM than non-recipients. Physicians should be aware of the higher occurrence of CAM use in patients eligible for illness associated social benefits. The higher use in illness-associated benefit recipients indirectly indicate that CAM is used by patients who suffer from diseases severe enough to keep them out of work.

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## Tables

Table 1: Variables

Question	Variables	Response
<b>Do you receive any of the following benefits?</b>	sickness benefit	Yes
	old age pension	No
	rehabilitation benefits	
	disability pension	
	unemployment benefits	
	social welfare	
	temporary benefits for single parents/guardians?	
<b>How many times within the last 12 months have you visited:</b>	a CAM treatment provider?	None
	a chiropractor?	1-3 times
		4 or more times <sup>2</sup>

<sup>2</sup> In all calculation the answers "1-3 times" and "4 or more times" are combined due to small numbers.

**Table 2: CAM use**

CAM use among recipients and non-recipients of illness-associated benefits.								
Age	SEX				Visits to a CAM practitioner within previous 12 months			
					None	One or more visits	Total	
30-39	Women	Benefits	Illness associated benefits	Count	44	16	60	p=0,001
			% within Benefits	73,3%	26,7%	100,0%		
		No benefits	Count	302	38	340		
			% within Benefits	88,8%	11,2%	100,0%		
		Total	Count	346	54	400		
			% within Benefits	86,5%	13,5%	100,0%		
	Men	Benefits	Illness associated benefits	Count	15	5	20	p=0,002
			% within Benefits	75,0%	25,0%	100,0%		
		No benefits	Count	232	15	247		
			% within Benefits	93,9%	6,1%	100,0%		
		Total	Count	247	20	267		
			% within Benefits	92,5%	7,5%	100,0%		
40-49	Women	Benefits	Illness associated benefits	Count	93	45	138	p<0,001
			% within Benefits	67,4%	32,6%	100,0%		
		No benefits	Count	500	74	574		
			% within Benefits	87,1%	12,9%	100,0%		
		Total	Count	593	119	712		
			% within Benefits	83,3%	16,7%	100,0%		
	Men	Benefits	Illness associated benefits	Count	58	10	68	p=0,003
			% within Benefits	85,3%	14,7%	100,0%		
		No benefits	Count	478	27	505		
			% within Benefits	94,7%	5,3%	100,0%		
		Total	Count	536	37	573		
			% within Benefits	93,5%	6,5%	100,0%		
50-59	Women	Benefits	Illness associated benefits	Count	155	45	200	p=0,005
			% within Benefits	77,5%	22,5%	100,0%		
		No benefits	Count	352	55	407		
			% within Benefits	86,5%	13,5%	100,0%		
		Total	Count	507	100	607		
			% within Benefits	83,5%	16,5%	100,0%		
	Men	Benefits	Illness associated benefits	Count	60	3	63	p=0,727
			% within Benefits	95,2%	4,8%	100,0%		
		No benefits	Count	253	10	263		
			% within Benefits	96,2%	3,8%	100,0%		
		Total	Count	313	13	326		
			% within Benefits	96,0%	4,0%	100,0%		
60-67	Women	Benefits	Illness associated benefits	Count	360	54	414	p=0,149
			% within Benefits	87,0%	13,0%	100,0%		
		No benefits	Count	475	53	528		
			% within Benefits	90,0%	10,0%	100,0%		
		Total	Count	835	107	942		
			% within Benefits	88,6%	11,4%	100,0%		
	Men	Benefits	Illness associated benefits	Count	290	14	304	p=0,337
			% within Benefits	95,4%	4,6%	100,0%		
		No benefits	Count	582	20	602		
			% within Benefits	96,7%	3,3%	100,0%		
		Total	Count	872	34	906		
			% within Benefits	96,2%	3,8%	100,0%		



Figure 1: CAM use in sickness benefit recipients

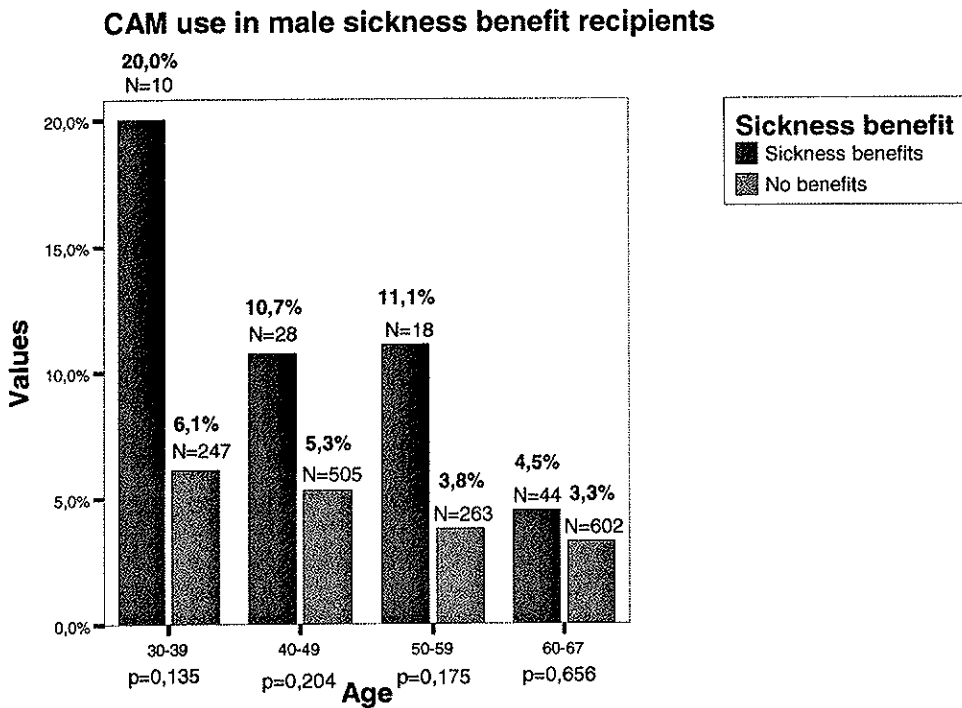
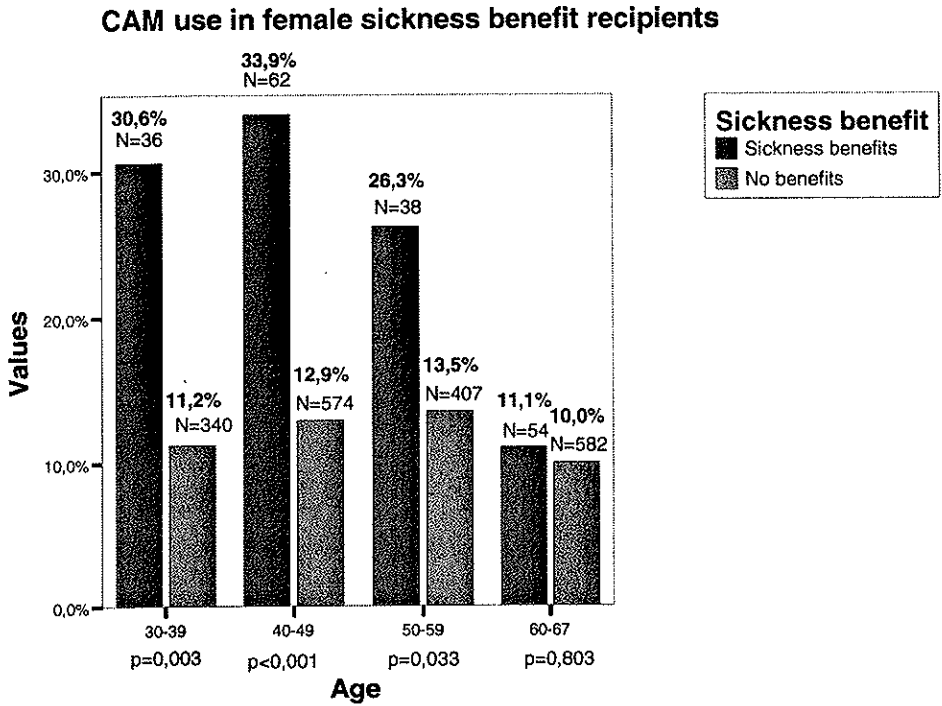


Figure 2: CAM use in rehabilitation benefit recipients

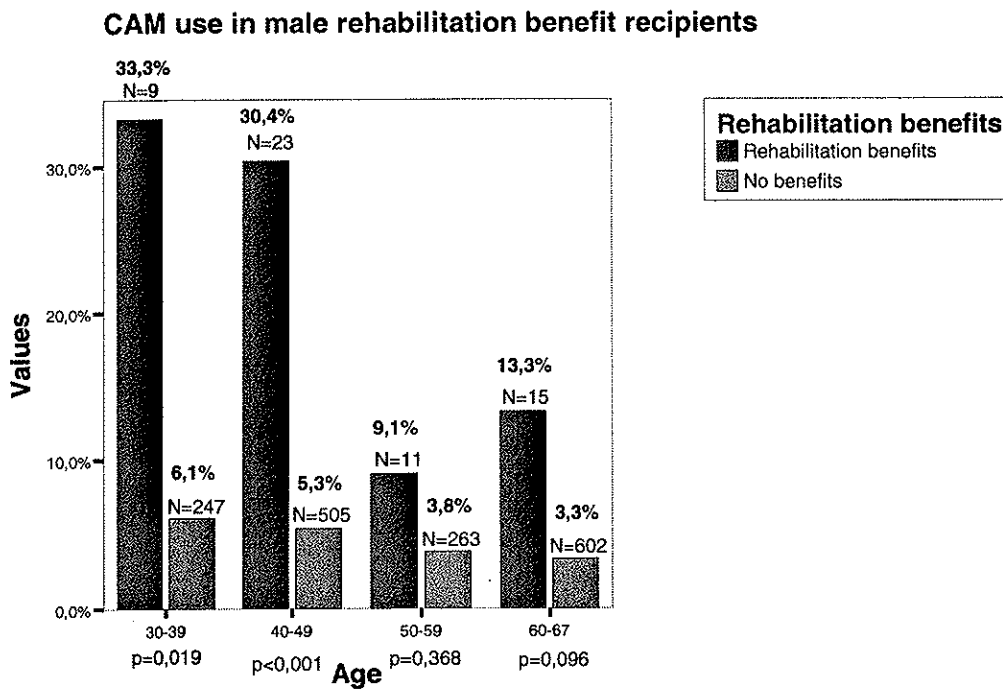
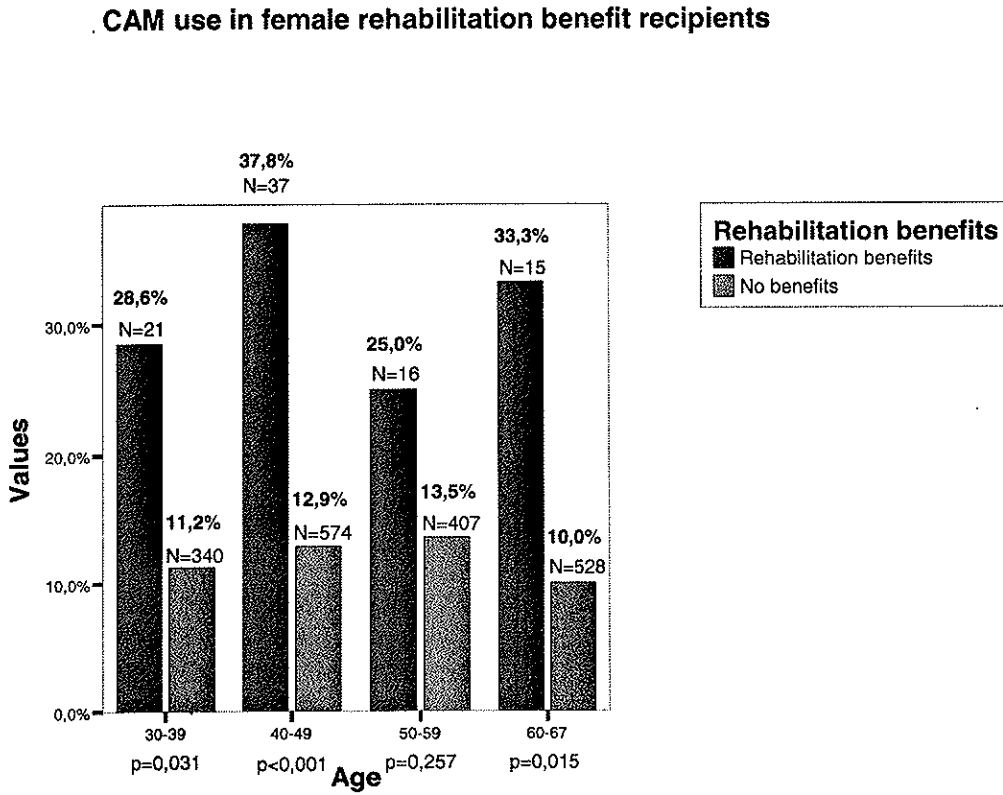
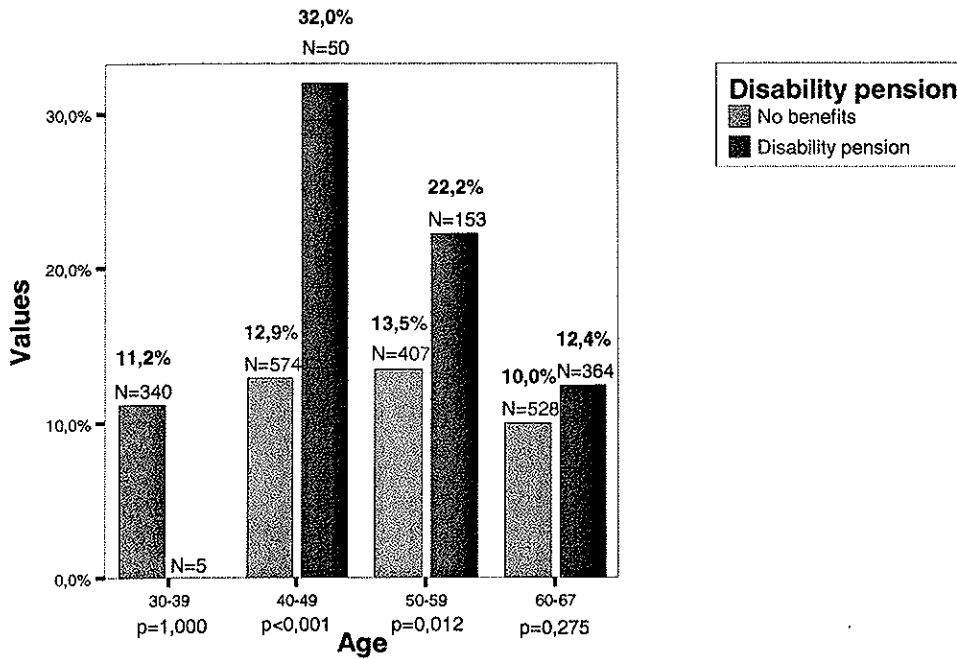


Figure 3: CAM use in disability pension recipients

CAM use in female disability pension recipients



CAM use in male disability pension recipients

