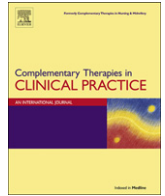




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Anthroposophic health care in Sweden – A patient evaluation

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A B S T R A C T

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This study surveyed patients and their satisfaction with an integrative anthroposophic hospital. The patients were followed up by questionnaires up to six months after a stay in a Swedish clinic. Satisfaction with the care, life satisfaction, and health-related quality of life were measured for 53 patients, 48 women, 5 men, with cancer, pain diseases, and psychosomatic problems. Sampling was consecutive and due to regional reasons. The evaluation of patients' satisfaction from the anthroposophic clinic (AC) was compared to similar questions of patients using conventional hospital care. The stay lasted 7–21 days and was paid by the patients' county councils. Causes for choosing AC were predominantly a positive attitude towards a holistic health view and expectations on being cared for. Less frequently noted was dissatisfaction with conventional care. Satisfaction with health care given after one month by the AC was sample scored more positively than the highest unit in the conventional clinic. This is important because women in conventional clinic report lower satisfaction. The AC sample consisted of 91% women with an average age of 54 years and a higher level of education compared to the sample from the conventional hospital. Health-related quality of life and life satisfaction was, if not significant, moderately increased during the following six months. The AC initiated a new attitude and change in life habits that stimulated the patients into improving their life style habits and hence their overall health. Still challenging is the gender question. Why do middle-aged, well-educated women experience a need for and a satisfaction in complementary and integrative health care?

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This study surveyed patients and their satisfaction with an integrative anthroposophic hospital stay. The patients were followed up by questionnaires up to six months after a clinical stay. The context of the study is a private hospital in Sweden offering anthroposophic health care. This type of care integrates conventional and anthroposophic health care. The hospital has governmental status as a private (non-profit making) clinic with registered physicians, nurses, and other conventionally educated personnel. The majority of patients have their stay paid under an agreement with the county councils. For this reason, we chose not to conceptualize this care and research as belonging to complementary and alternative medicine (CAM), but rather connected to integrative or extended health care.

1. Background

1.1. Anthroposophy as inspiration for medicine

In the beginning of the 19th Century, Rudolf Steiner PhD (1861–1925) was active in Switzerland as a spiritual teacher, expounding his new thoughts on world, life, and man in a philosophy called *anthroposophy*. In his early work *Intuitive thinking as a spiritual path – A philosophy of freedom*,¹ Steiner considered his basic thoughts on man's ability to develop his own thinking to be an instrument for inner and spiritual observations and connections. Based on this work, Steiner developed a view of man as an entity of the physical body, inner life, body, soul (mind and emotions), and spiritual ego (self-awareness). Steiner taught spiritual and esoteric subjects in which the ideas of an existing spiritual world and man's re-incarnation are grounded. In cooperation with people from different professions, he developed practical applications to integrate this extended view on man and nature. This cooperation resulted in Waldorf pedagogy (Steiner schools), curative teaching and social therapy, biodynamic agriculture as well as a focus on art,

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social science, and much more. In 1920, a group of physicians led by Ita Wegman asked Steiner about extended applications for medicine and, after giving a course in the subject, he and Wegman wrote the first book on anthroposophic extensions to medicine.² Wegman also started the first anthroposophic hospital and developed anthroposophic therapies and medicines.

1.2. Anthroposophic medicine – care and therapies

Anthroposophic medicine is grounded in a holistic perspective where a human being is viewed as body, soul, and spirit in balance.³ Body, soul, and spirit are seen as a unit. When a person is ill, the whole person – body, soul, and spirit – is stricken, so everything in therapy or caring has to include this paradigm. When ill, the whole person is therefore perceived as in some ways affected, whereas conventional therapeutic approaches only address various human aspects. Anthroposophic medicine relies on the belief that a human being is not an independent organism. People, so this view propounds, are perpetually dependent on the outside environment as well as their internal constitute. Whereas conventional medicine in some way focuses on “fixing” the part of the physical body that is not functioning, the anthroposophic art of healing prescribes treatment for the whole being through conventional methods in combination with holistic methods. As such, anthroposophic care integrates theories and practices of modern medicine with alternative, nature-based treatments and a spiritual-scientific view of the human being.

An anthroposophic therapy treatment approach is always individually prescribed by a doctor and might include conventional medication accompanied by any of the following complementary therapies: natural remedies (herbs, plant extracts, essential oils, potentized natural substances), therapeutic baths, external compresses and rhythmical body oiling, artistic therapies (clay modelling, painting, music therapy and therapeutic song), therapeutic eurhythmmy (movement therapy), rhythmical massage (a form of light-touch massage), psychological and biographical counselling, and anthroposophic nursing care.^d

1.3. Research on integrative care and CAM

During the last decade, numerous scientific papers have been published on complementary and alternative medicine (CAM) that focus on various aspects such as the frequency of use⁴ characteristics of users,^{5,6} their attitudes and reasons for use,^{7–9} or patient outcome of the use.^{10–12} Many studies point towards the CAM-user as most often being a younger-than-average well-educated female who is coping with serious diseases. Among cancer patients, different studies point to the use of CAM in 17–75% of them.⁷ A report from Scandinavian countries notes that 34–49% of cancer patients had used CAM at least once in 1997.⁴ Definitions of CAM are varied and research methods have been questioned as to why the scientific area is in a developmental stage. Methodological struggles are also discussed,⁸ while randomized controlled trials due to patients' own preferences are difficult to conduct.

1.4. Research on anthroposophic health care

Anthroposophic medicine and care is offered to patients in many countries. Today there are at least 25 hospitals in Europe specialising in anthroposophic medicine and care: 16 in Germany, five in Switzerland, two in the Netherlands, one in Sweden, and one in the United Kingdom.⁹ Hospitals, clinics, outpatient clinics, and therapeutic centres all practise anthroposophic applications to health care.

Although there is a long tradition of clinical use, anthroposophic medicine and care is still in the early stages of scientific evaluation. In 2006, Kienle et al.¹⁰ published a health technology assessment report (HTA report) on anthroposophic medicine. They found 195 clinical studies where 53 are described in detail. For example, a German study on the outcome of anthroposophic therapies among 898 outpatients with chronic diseases found that anthroposophic therapies were associated with long-term reduction of symptoms, improvement of health-related quality of life, and health cost reduction.¹¹ Studies in the Swedish anthroposophic clinic on patients with breast cancer showed, from qualitative as well as quantitative perspectives, signs that the given care had a deeper impact on patients' view of their own lives, life quality, life satisfaction, and impact on illness.^{12,13} In contrast to a matching group and to other studies on patients with breast cancer, these patients increased their satisfaction with quality of life during the year after receiving anthroposophic care. No significant differences were found regarding the survival for the groups after one and five years' follow-up.

1.5. Use of complementary therapies in Sweden

A study on the use of complementary therapies in 2001¹⁴ found that 49% of the Stockholm population had experienced use of complementary therapies. In a later study (2005) in a southern Swedish district, 54% reported CAM use.¹⁵ As in other studies, the users are more often women, they are younger, have higher education, and report a lower self-scored health than the average population.

1.6. The clinical setting – an anthroposophic hospital

In Scandinavia, the clinic under study is the only hospital offering anthroposophic medicine as in-patient hospital care. It has 74 beds in 4 units. Additionally, there are a number of separate outpatient clinics, where anthroposophic medicine and the specific anthroposophic therapies are offered. The clinic has authorisation from the National Board of Health and Welfare to offer hospital care for acute medicine, rehabilitation, and palliative care.

Abbreviations: The anthroposophic clinic under study in the findings section is shortened to AC. The comparative study from conventional health care is referred to as LiÖ.

2. Aim and research questions

The frame of reference is interdisciplinary with a caring science and communicative perspective. The study surveys and evaluates the use of anthroposophic medicine for patients in Östergötland county council in southeastern Sweden. The evaluation is conducted from the perspective of patients. Research questions are based on earlier studies¹² and Eisenberg's aspects on evaluations in CAM¹⁶:

- Who is the patient in anthroposophic care?
- What is reason for the choice?
- How does the patient get information about the type of care?
- Are patients satisfied with the anthroposophic care?
- Does the patient continue to use anthroposophic therapies?
- Does the anthroposophic care lead to other life style changes?
- How is self-evaluated health-related to quality of life/life satisfaction six months from the stay in the anthroposophic clinic?

3. Methods

The study follows all patients from Östergötland County who checked into the anthroposophic clinic for hospital care in 2006. As

^d (<http://www.med.umich.edu/umim/clinical/amc.htm>).

a baseline, the patients had to answer questionnaires – SF-36, LSQ, and F1 – when arriving to the clinic. At follow-up (after 1 month), SF-36, LSQ, and F2 were used. SF-36 and LSQ were also sent out after three and six months (Table 1).

Specifically drawn up for this study, the F1 questionnaire primarily includes the background information. Some of the questions are identical to background questions included in the population survey distributed by the Östergötland County Council in 2006.¹⁷ In addition, a number of open-ended questions were also posed in which the patients themselves were asked to explain why they had sought anthropomorphic care, if they had ever received anthroposophic treatment previously, and about information and recommendation channels.

Devised specifically for this study, the F2 questionnaire was sent to participants one month after they had arrived at then anthroposophic clinic (AC) and was intended to provide an evaluation of the patient's impressions of the care received. A number of questions in the F2 questionnaire were identical to questions in the "Patientundersökning 2005 slutet sjukhusvård" survey¹⁸ and were complemented by other questions about ongoing anthroposophic treatment and any changes in daily life.

The instrument used to evaluate the effects of such treatment on daily life was SF-36, a measurement of health-related quality of life^{19,20} often used for prospective follow-ups. In public health care, SF-36 is frequently used to evaluate measures aimed at promoting health. It includes both daily functioning and well-being, often noted as health-related quality of life (HRQL). The survey consists of 36 questions on how the respondents perceive their own health and their ability to perform various daily activities as well as whether they are impeded or troubled by health problems.

Devised by Carlsson and Hamrin, the "Life Satisfaction Questionnaire" (LSQ)^{21,22} has been used in previous studies on anthroposophic and conventional care as well as in comparisons of the results achieved by anthroposophic and conventional methods of care.¹² The LSQ survey consists of 34 questions on health, how the patients view their current situation, and various aspects of quality of life.

The analysis has been carried out using descriptive statistics in accordance with the instrument's manuals, and the open-ended questions have been analysed using content analysis methods.

3.1. Participation

During 2006, 67 patients came from Östergötland. For practical reasons, only 61 of these were asked to participate and 53 of them agreed (9% external dropout and 15% dropout at inclusion). One man and seven women with ages and diagnoses close to the sampled group declined to participate. The response rate in the follow-ups was falling; we know that six patients died during this six months (Table 1).

3.2. Research ethics

Patient participation was voluntary for all parts of this study. Permission to perform the study was granted by the Regional Ethical Review Board in Stockholm (Dnr. 2006/250-31).

Table 1
Frequency of follow-up and answers.

Instrument	Inclusion AC	1 month	3 months	6 months
SF-36	53 (100%)	41 (77%)	38 (71%)	35 (66%)
LSQ	53	41	38	35
F1	53	44		
F2		42		

Table 2

Illness/complaint that caused patient to seek treatment at Anthroposophic clinic AC (n = 53).

Diagnosis	No.	Percentage
Cancer	20	38%
Fibromyalgia	14	26%
Other illness causing pain, incl. MS	9	17%
Burn-out syndrome or psychosomatic complaints	7	13%
Other	3	6%

4. Findings

4.1. Sample profile

The sample consisted of 48 women (91%) and five men (9%). Their average age was 54 years, range 31–74 years. Education levels among the patients were as follows: 42% college/university-educated; 49% secondary school-educated; and 9% primary school-educated. The patients' primary occupation was given as follows: 18% employed, 18% retired, 52% on sick leave or receiving a subsidy for illness. One student and three participants selected the "other" alternative.

In the F1 questionnaire, the patients themselves were asked to describe the illness or complaint that had led them to seek treatment at the clinic. A number of patients reported that they had several different complaints or diagnoses simultaneously, e.g., fibromyalgia and whiplash, or cancer and chronic fatigue syndrome. In categorising the patients, we decided to allow each patient to belong to only one diagnosis group. We then ranked each category as shown in Table 2.

Twenty of the 53 patients surveyed (38%) reported having been diagnosed with some form of cancer. This figure is somewhat lower than that seen in the clinic's own statistics, which, in 2006, showed that 42% of patients treated suffered from cancer.

4.2. Reason why patients sought complementary anthroposophic care

Patients were asked why they had chosen to "forego" conventional health care in favour of another form of care that they considered preferable. This question was formulated as an open-ended question and the patients were given the opportunity to state their answer in their own terms. Using content analysis, we were able to establish four categories: *Positive towards what the clinic (AC) had to offer*, *Recommendation*, *Dissatisfaction with conventional care*, and *Other*.

Because many of the patients gave reasons that fell into more than one of these categories, a total of 60 answers were collected from 53 patients (Fig. 1). The following are some examples of combinations: "The doctor in charge of managing my pain gave me

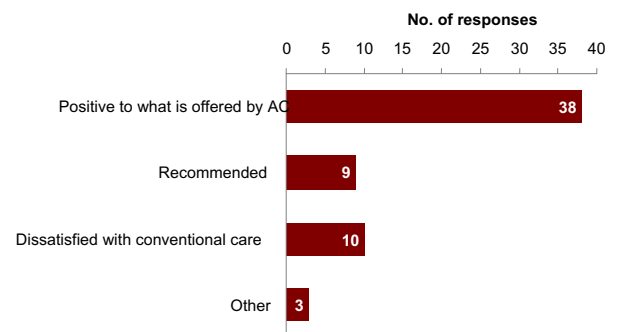


Fig. 1. Primary reason for seeking treatment at Anthroposophic clinic AC (60 responses from 53 patients).

Table 3
Patient Satisfaction Index compared with Anthroposophic clinic AC 2006 and Conventional LiÖ 2005 surveys.

To what extent do you agree with the following statements? (1–5)	AC, 2006	LiÖ 2005
Overall, what are your feelings about your time at the anthroposophic clinic?	4.7	4.3
Imagine what you would consider to be a perfect hospital stay. How close to or how far from this ideal do you feel your experience was?	4.5	4.3
Patient Satisfaction Index (PTI) Max. points = 10	9.2	8.3

a referral to the AC. I believe in a holistic approach to health.” Answers such as this were placed in both the “Recommended” and “Positive” categories.

The analysis indicates that patients see their own positive attitude and expectation about what the clinic has to offer as the primary reason for choosing anthroposophic care. The term “holistic” occurs frequently as do aspects that can be interpreted as expectations of being cared for and of being able to rest: “That they treat the whole person – both body and soul”; “That they treat me with dignity”; and “To be able to recharge my batteries, get rid of a number of my complaints and get the right advice and guidance”.

Patients who expressed dissatisfaction as a reason for their decision to seek alternative care primarily cited a lack of care as the problem. That is, they were not offered any further care by conventional healthcare providers: “Didn’t receive any further care from the county health care system” and “Didn’t get any help from the hospital or urologist in Linköping”.

5. Level of satisfaction with care: follow-up one month after treatment

The period during which patients were to receive treatment at the anthroposophic clinic was decided in advance on the basis of a medical evaluation performed by the clinic’s admitting physician. The average duration of stay was 14.4 days. Seven days was the shortest period of treatment and 21 days the longest.

5.1. Patient satisfaction index comparison with Patientundersökning i LiÖ 2005 survey

The Patient Satisfaction Index (PSI) is a summative measurement of how patients evaluate care, which, due to the way its questions are formulated, is often used for drawing comparisons between different forms of care or different patient groups. The index is based on a combination of two questions: the first occurs in the beginning of the survey and the second at the end: “Overall, what are your feelings about your time at the anthroposophic clinic (AC)?” and “Imagine what you would consider to be a perfect

hospital stay. How close to or how far from this ideal do you feel your experience was?”. Answers were given on a scale of one to five, where four and five were considered “positive” responses.

To facilitate comparison, the project group elected to formulate the questions in the F2 questionnaire in the same way as the *Patientundersökning 2005, slutet sjukhusvård*. The *Landstinget i Östergötland* survey (Temo 2006) was conducted previously.

The Patient Satisfaction Index (PSI) for patients who had visited the AC, as measured one month after their admittance, was 95% positive. The equivalent value obtained in the 2005 patient survey *Sluten sjukhusvård i Landstinget i Östergötland (LiÖ)* (collectively across all divisions) was 74% positive, with an interval ranging from 63% positive at the Women and Children’s Health Care Clinic to 90% positive at the Cardiology Centre (Table 3).

Table 4 shows the average ratings for each question about patient satisfaction.

5.2. Factors: gender, age, and level of education – comparisons

When comparing responses, it is important to factor in participants’ age, gender, and other influential factors. In total, LiÖ’s study surveyed an equal number of men and women; however, 91% of the patients surveyed at the AC were female. With regard to age, participants in the LiÖ study had an average age of 59, while patients in this study had an average age of 54 years. As concerns level of education, the difference between the studies was marked. In LiÖ’s material, 18% of the patients surveyed had completed tertiary education, compared to 42% of patients who received anthroposophic care.

All in all, these figures further serve to confirm what has already been suggested as to complementary care both within Sweden and internationally. A patient who seeks anthroposophic care is more often female, a somewhat younger-than-average patient, and has a higher level of education.

In general, age, gender, and level of education appear to be variables that affect the results of patient surveys. Women, younger patients, and those with higher educational qualifications are considered to be more critical of the care they receive and give

Table 4
Comparison between Anthroposophic clinic AC 2006 and Conventional LiÖ 2005 surveys.

To what extent do you agree with the following statements? (1–5)	AC, 2006	LiÖ, 2005
Felt happy with the care and treatment	4.8	4.5
I received the help with my illness/problems I expected	4.5	4.3
The doctor’s manner towards me was very good	4.7	4.5
The nurses’/therapists’ manner towards me was very good	4.9	4.7
I have great confidence in the care and treatment I received at Vidarkliniken	4.7	4.5
The food and drink served were very good	4.5	4.1
I felt that they physical environment (architecture, colour scheme, and surroundings) were pleasant	4.9	
I feel that my physical health has improved	4.1	
I feel that my psychological health has improved	4.4	
I received sufficient time to speak with the doctors	4.4	3.9
I received sufficient time to speak with the nurses/therapists	4.7	4.3
I was given information about how I could positively contribute to the results of my treatment	4.5	3.6
I felt I was involved in decision-making regarding my care and treatment	4.5	3.7

lower scores when surveyed. In the results of LiÖ's patient survey, it was concluded that women have a lower PSI than men and that younger patients have a lower PSI than older ones. Both of these factors suggest that the PSI figures calculated in the study under consideration here should be viewed as very high. In LiÖ's survey, respondents in the age range 20–44 years registered a particularly low PSI score. In total, they represented 9% of LiÖ's survey population. In this study, patients in this age group comprised 18% of the survey population.

5.3. Evaluation of various aspects of care provided

The patient follow-up was carried out by mailing a questionnaire to patients one month after their admission to the AC. Forty-four patients responded to the survey. The follow-up questionnaire consisted of 13 questions formulated as statements about the care received, which the patients were invited to agree or disagree with based on a scale from one to five, where one represented "strongly disagree" and five represented "strongly agree".

Table 4 shows the combined result for all patients who answered the questionnaire as well as a comparison with the County Council's (LiÖ) result.

The majority of respondents seem to agree that they were happy with the care and treatment they received at the AC, that staff at all levels were pleasant and attentive to their needs, and that the food and drink provided was of a good standard. The external physical environment of the AC facility (i.e., architecture, colour scheme, and surroundings) was rated as positive by 100% of the respondents. They also rated "time allowed for discussion" and their level of involvement in their care as being very good.

Some of the less positive responses were recorded primarily in the areas of physical and psychological improvement. Although the positive responses in these areas still totalled 78 and 96% respectively, a few respondents stated that they strongly disagreed that they had experienced improvement in these areas. Although 88% of respondents rated the statement about having enough time to speak with doctors as positive, this figure was still lower than for the same statement with regard to nurses and therapists.

5.4. Reasons for improvement

For those patients who had reported some improvement in their condition as a result of treatment, the following open-ended question was posed in the follow-up survey: "If you have experienced any change in the state of your health during your stay, what do you believe to be the reason(s) for this change?" Thirty-five of

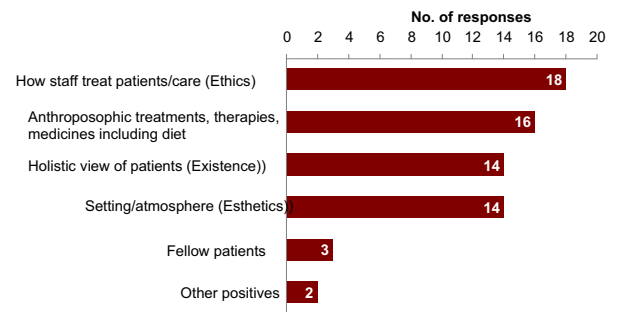


Fig. 2. Reasons suggested by patients for their improved health.

the 44 respondents elected to answer this question. Due to the fact that a number of patients gave more than one answer, the analysis yielded 67 responses (or just under two answers per respondent).

The patient's written responses were often long and highlighted in a concrete way their experience of positive and affirmative care for both body and soul given at the AC. The patients' responses reveal their appreciation for the holistic treatment they received, particularly with regard to the way they were treated by staff and the creation of a complete/holistic care environment.

A quantified content analysis of the responses given resulted in the following categories as outlined in Fig. 2:

5.5. After discharge: therapies and lifestyle

The question posed here asked to what degree the patients continued to use anthroposophic medicines and therapies after they returned home. As seen in Fig. 3, the majority of patients (38 patients or 86%) reported that they had continued to use anthroposophic medicines after discharge, while approximately half of the patients who responded (52%) had also chosen to continue with the therapeutic treatments they had received at the AC (Fig. 3).

Another area of interest for this study was the question of how a period of complementary anthroposophic care might be said to affect patients' lifestyle and habits. One question included in the questionnaire read as follows: "Since your discharge from the anthroposophic clinic, have you made any changes in your daily life?". The majority of respondents stated that they had made changes: thirty-seven patients or 87% answered "yes" to this question, as compared with seven (16%) who answered "no". Those who answered "yes" to the question were asked to specify what changes they had made in an open-ended question (Fig. 4).

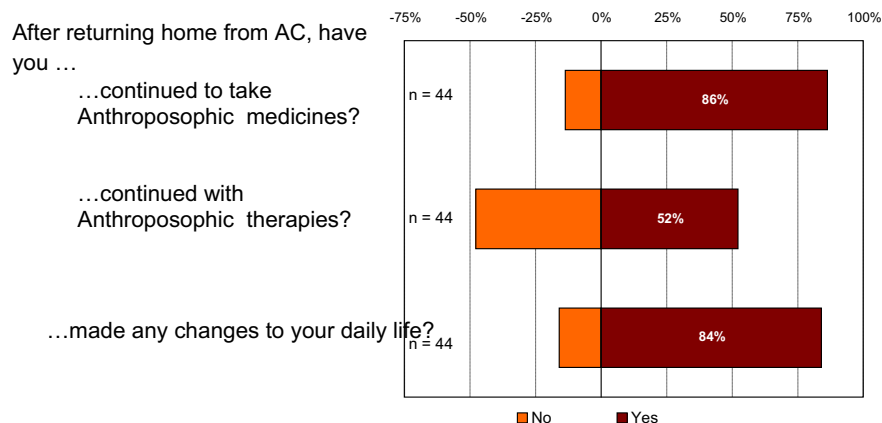


Fig. 3. The use of anthroposophic medicines and therapies after discharge.

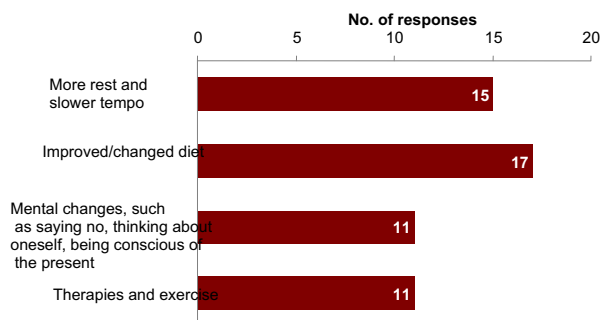


Fig. 4. Changes in lifestyle after anthroposophic clinic stay (37 patients gave a total of 53 responses).

An analysis and synthesis of responses to the open-ended question regarding what changes to their lifestyle patients had made after their stay at the AC resulted in the creation of the following categories:

- *More rest and a more relaxed pace of life.* Here, respondents stated that they had reduced the tempo of their lives in different ways.
- The responses given reveal a number of examples of patients increasing their physical activity after their stay at the AC by walking and other exercise. The anthroposophic motion therapy “eurythmy” is also included in this category. *This aspect seemed primarily to relate to an increased awareness about the importance of diet. A number of respondents reported that they now choose to eat organic foods, and some even chose to switch to a vegetarian diet or at least more vegetables or more vegetarian than previously.*
- *Changes in mentality.* Learning to say “No”, thinking of themselves, and taking time to enjoy life were all attitudinal changes. Although this type of change in lifestyle is subtler, a number of responses suggest attempts to alter ingrained behavioural patterns, habits, and ways of thinking.
- *Therapy and exercise.* The responses given reveal a number of examples of patients increasing their physical activity after their stay at the AC by walking and other exercise. The anthroposophic motion therapy “eurythmics” is also included in this category.

6. Results from measurement using the Life Satisfaction Questionnaire (LSQ)

A self-evaluation of the participating patients’ satisfaction with their life situation and health using the LSQ questionnaire²¹ was performed in line with the design of the study on four occasions: 1) on their arrival at the AC; 2) one month after the first measurement; 3) three months after the first measurement; and 4) six months after the first measurement.

The results have been processed to generate statistical data and are given as mean values for the entire group for each of the different measurement occasions. The 34 questions included in the questionnaire have been compiled in accordance with the recommendations for analysis into the following eight factors: Physical symptoms (PS); Sickness impact (SI); Quality of everyday activities (QDA), which is further divided into fun (QDAF) and meaningful (QDAM); Socio-economic situation (SES); Quality of family relations (QFA); and Quality of Close-friend relations (QFR). The more general analysis consisted of three factors – Physical function (PF), Daily living (DL), and Personal relationships (PR) – as well as item Q34 (LS = overall quality of life).

Table 5
Result, LSQ Anthroposophic clinic AC, 2006 (max. score 100).

Factors	AC, Day 1	1 month	3 months	6 months
Physical symptoms	80.1	79.6	83.5	85.5
Sickness impact	45.7	46.1	50.7	54.8
Quality of everyday activities	60.5	59.2	62.7	67.2
Fun	54.9	54.5	59.0	60.9
Meaningful	64.7	62.7	65.4	71.9
Socio-economic situation	65.1	64.2	63.0	68.0
Quality of family relations	71.4	71.4	72.4	73.3
Quality of relations with close friends	73.8	70.8	74.2	77.6
Physical function	60.3	60.3	64.3	67.2
Daily living	59.6	58.4	61.8	66.2
Personal relationships	61.8	62.0	60.9	64.8
Overall quality of life	65.8	65.4	67.3	71.2

Table 5 shows the eight factors and their rating over time. The highest possible value is 100. The higher the value assigned, the higher the level of self-evaluated well-being and better health and/or reduced impact of the illness. The intervention (i.e., the patient’s stay at the anthropomorphic clinic) falls between the first and second measurement occasion. Because measurement two was taken one month after the start of their stay at the AC, the participants had been home for one to three weeks when they answered the questionnaire.

The values from the LSQ measurement show (without being statistically significant) a weak, although common trend: ratings for a number of the factors (with the exception of quality of family relations) were seen to fall at the one month interval and then to rise again somewhat during the six months that followed the patient’s stay at the anthroposophic facility. The increase in values in the degree to which everyday activities were “meaningful” (QDAM) is clear. Patients also experienced improvement in their physical symptoms. It is also evident that the improvement in the self-evaluated ratings continued from the third to the sixth month.

7. Results from measurement using SF-36

The health-related evaluation instrument SF-36²⁰ is a questionnaire designed to measure physical and psychological health as reported by the patients themselves. According to the analysis manual, the 36 questions included can be divided into eight categories: Physical function (PF), Role limitations due to physical problems (RP), Bodily pain (BP), General health perceptions (GH), Vitality (VT), Social functioning (SF), Role limitations due to emotional problems (RE), and Mental health (MH). More generally, the questions are grouped into two main categories: Physical component summary (PCS) and Mental component summary (MCS). Higher scores indicate better health and quality of life as evaluated by the patients themselves. The highest possible score is 100.

Fig. 5 shows the different categories and the development of the group mean over a six month period and across four measurement occasions (Fig. 6).

The trend seen in the results of the SF-36 survey is similar for all subcategories and points to an improvement in perceived health one month after treatment at the AC. While this reported improvement is seen to diminish over time, ratings for all subcategories still showed a higher level at the last measurement occasion than at the first. The greatest improvement is seen in the two categories measuring perceived role function. Psychological well-being demonstrated an interesting upswing after one month, as did social function. Both these values decreased somewhat after this point. A significant increase in vitality was also seen one month after treatment at the anthroposophic clinic.

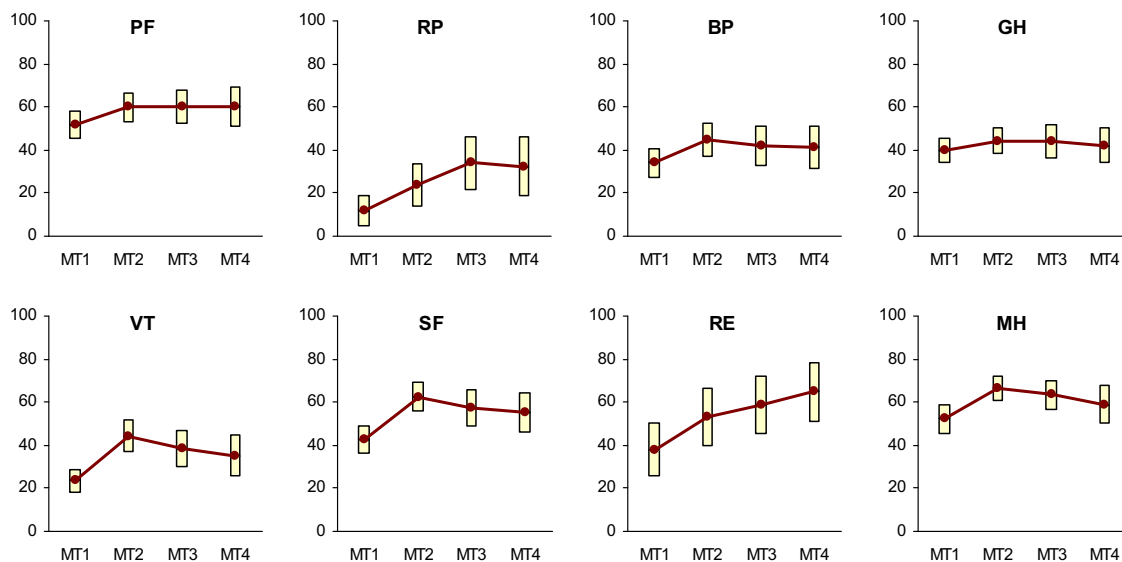


Fig. 5. Results as averages for sub-factors in SF-36. The bar shows a 95% confidence interval. No. of replies (n): MT1: n = 51, MT2: n = 41, MT3: n = 36, MT4: n = 34.

8. Discussion

The anthroposophic clinic studied is primarily visited by middle-aged women with severe illnesses that are difficult to treat, such as cancer, fibromyalgia, pain, and burn-out. Patients sought anthroposophic care either as a result of recommendations from conventional healthcare providers (in almost half of all cases), recommendations from their family or friends, or as a result of previous experience of anthroposophy or anthroposophic care. The patients' motivation for seeking anthroposophic care is primarily seen as a search for complementary care and care that adopts a "holistic" approach to people and to health. Another, although less important reason, can be interpreted as dissatisfaction with conventional healthcare. While in some cases patients have been urged and encouraged by conventional healthcare providers in the County Council's healthcare system to apply for admission to the clinic, the opposite has also occurred. That is, some patients have experienced a certain disinclination on the part of caregivers to provide them with a referral.

On average, patients were admitted to the clinic for a period of two weeks. In the follow-up questionnaires, patients rated their level of satisfaction with the care they received as very good in all aspects. Among these, the manner of the nurses and therapists as well as the physical environment at the clinic (architecture, colour scheme, and surroundings) received the highest ratings. Despite the fact that, as a group, the patients were sufferers of serious illness, they reported experiencing improvement in both their

physical and psychological health. It was clear from their responses that the patients wished to identify the manner and attitude of the staff and the physical environment at the clinic as the reasons for their improvement. The anthroposophic treatment and therapy the patients received at the clinic were also reported to have contributed to the positive result.

We consider the results drawn from the two "quality of life" instruments used to be positive, even though their significance is weak. In a group of patients with such severe complaints and a 40% incidence of cancer, an increase in quality of life is hardly to be expected. For this reason, small improvements coupled with the absence of negative results over a six month period of measurement should be viewed as quite positive.

By comparison, patients at the anthroposophic clinic gave the clinic a higher rating than the very highest patient satisfaction ratings given by patients at conventional care facilities in Östergötland County. This is clearly seen from the results, in spite of the fact that the group included a large number of younger, well-educated women who otherwise tend to give poor ratings for healthcare received. In other words, the least-satisfied group of patients within conventional healthcare became a highly-satisfied group of patients within anthroposophic care.

Perhaps part of the reason is the newness of the approach, which is seen particularly well in this study: the importance of *the way staff treat the patient, the patient's degree of involvement* in their treatment and *changes in personal habits* may be at work here. The fact that the care given at the AC was appreciated by the patients and that it helped them to become engaged in these other aspects may be the key to understanding the link between their stay and the patients' subjective evaluation of an improved quality of life and health. These three factors – the manner of the staff, the patient's involvement in their treatment, and a change in personal habits – have been discussed as goals to strive for within conventional healthcare, where there is both a strong desire and need for improvement in these aspects of care. In this regard, it is not difficult to imagine that the integrative, anthroposophic care is closer to this approach than conventional care.

In integrative care, achieving health is viewed as an undertaking led by the patient's/individual's internal and external reality. In this case, anthroposophic care seems to have acted as a catalyst for improved health. After their stay at the AC, the majority of patients

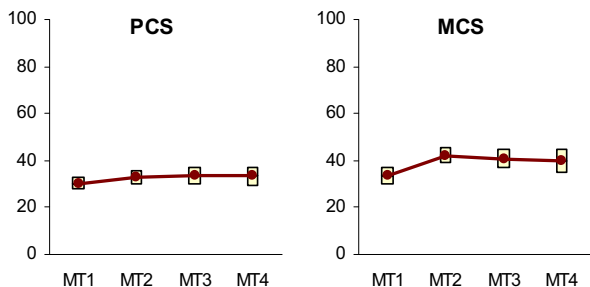


Fig. 6. SF-36 PCS and MCS. The bar shows a 95% confidence interval. No. of replies (n): MT1: n = 51, MT2: n = 41, MT3: n = 36, MT4: n = 34.

continued to use anthroposophic medicines and an even larger number of patients reported that they had made changes in their daily habits. These changes included such things as improved diet, a calmer *pace* of life, changes in mentality (way of thinking), as well as different therapies and exercise. When considered in conjunction with simultaneous increases in life satisfaction and self-evaluated physical and psychological health, a presumed relationship appears in which the patients themselves, with the help of anthroposophic care, seem to enter an active and positive health spiral. Initiating health-promoting changes in people's daily habits is considered to be a highly complex and difficult task for conventional healthcare providers. Based on this investigation, it seems pertinent to ask what ideas and knowledge found within anthroposophic care might be used as sources of inspiration for achieving this goal within conventional healthcare.

8.1. The significance of gender

Given that such a large number of patients are recommended/remitted by doctors/social workers, the question of how it happens that the same patient profile with regard to diagnoses, age, level of education, and gender is so often seen among anthroposophic patients is an interesting one. It leads us to ask whether or not those who recommend anthroposophic care are perhaps influenced by the notion that this form of care is well suited to middle-aged, well-educated women.

If this is the case, one suggestion might be that integrative care's ability to help other kinds of patients needs to be better promoted. It may also be the case that middle-aged women experience greater dissatisfaction, on average, with conventional care, and that well-educated patients have a greater ability to effectively present their wishes/demands *vis-à-vis* receiving alternative treatment.

In this follow-up of patients who sought anthroposophic care, women are grossly over-represented: in 2006, 91% of patients from Östergötland were female. In total, women represented 86% of all patients treated at the anthroposophic clinic in 2006. This pattern corresponds with previous Swedish and international studies that investigated the use of CAM, although the results of this study support, and in some cases, even go beyond previous findings. In Sweden in 2010, where society is considered to be relatively gender-equal, an active discussion should be held as to the possible reasons why the gender balance within the anthroposophic patient population is so heavily skewed towards women. What motivates women to seek anthroposophic care? Why do men lack the motivation to seek anthroposophic care?

How do the circumstances of women's lives with regard to work, family, and the community affect their health? There are indications of hidden gender bias (bias = prejudice or distortion) within healthcare that cause women's symptoms to be misdiagnosed and lead to women feeling that they are not taken seriously.²³ Considering current healthcare from the standpoint of gender can provide a background against which to view the question of why, in particular, women seek holistic, anthroposophic care at the AC; i.e., they have needs that are either not recognised or that are not addressed by conventional healthcare system.

8.2. Discussion of method and limitations

Invariably, the incidence of dropout constitutes a weakness in a study's reliability. The aim of including all patients from Östergötland who were treated at the anthroposophic clinic during 2006 was appropriate. The "overlooking" of six patients on their arrival at the clinic was completely random and did not constitute any systematic error or conscious disqualification. Instead, human error was the cause. Those eight patients who were asked to participate, but who

declined, have been analysed from the standpoint of gender, age, and diagnosis and are considered to be comparable with the study group.

The incidence of dropout during the course of the study at the time of follow-up after one, three, and six months was anticipated and is not especially noteworthy in comparison with other follow-up studies performed. We consider the rate of response to have been very good (77% after one month), taking into consideration the severe nature of patients' medical complaints. The death of nine patients (16%) after six months was also taken into account when determining morbidity.

Comparisons between different groups comprise part of the methodological requirements of research. In this study, in the first instance, a comparison was made with the patients themselves and with their own progress over the course of six months. Indirect comparisons have also been made with other studies that employed either similar or identical methods.

The credibility of surveys depends on the proven validity and reliability of the questionnaire. In this study, we have primarily used questionnaires tried and tested through use in earlier studies. We view this as lending strength and credibility to our study. Using the same questions and analytical methods as those used in the patient survey conducted by the County Council in Östergötland proved to be successful. The open-ended questions we formulated independently added to the questionnaire provided very useful information, although in hindsight we now realise that these could have been better expressed and differentiated.

8.3. Conclusion

The level of satisfaction of the patients who received anthroposophic care exceeded the highest ratings given by patients receiving conventional healthcare. This was the case despite the fact that the group consisted of younger and well-educated women who otherwise report the lowest levels of satisfaction with conventional healthcare. Moreover, in spite of their severe illnesses, patients treated at the AC reported significant improvements in both their physical and psychological health. Health-related quality of life and life satisfaction increased and remained at levels higher than the initial rating even after six months had passed since treatment. In their responses to the open-ended questions posed, patients cited reasons for the improvement in their health as the manner and attitude of the staff, anthroposophic treatments, and the physical environment. The time they spent at the AC had given rise to a new attitude and improved habits and had ushered the patients into an active upward spiral towards better health.

One critical question that remains unanswered is the question of the role gender plays in healthcare. What is it within the healthcare system that causes well-educated, middle-aged women to feel a much greater need than men to seek complementary care outside of the conventional healthcare offered by the public system?

Author contribution

MA was responsible for the design of the study. Data collection was carried out by authors ASH and AK. The analysis of data was carried out in a team led by MA. The drafting of the manuscript was performed by MA.

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References

1. Steiner R. *Intuitive thinking as a spiritual path. A philosophy of Freedom*. Hudson NY: Anthroposophic Press; 1995.
2. Steiner R, Wegman I. *Grunderna för hur antroposofin berikar läkekonsten*. Stockholm: Kosmos förlag; 1978.
3. Arman M, Ranheim A, Rehnsfeldt A, Wode K. Anthroposophic health care – different and homelike. *Scand J Caring Sci* 2008;**22**(3):357–66.
4. Hanssen B. Use of complementary and alternative medicine in the Scandinavian countries. *Scand J Pri Health Care* 2005;**23**(1):57–62.
5. Astin JA. Why patients use alternative medicine. Results of a national study. *J Amer Med Assoc* 1998;**279**(19):1548–53.
6. Davidsson R, Georghean L, McLaughlin L, Woodward R. Psychological characteristics of cancer patients who use complementary therapies. *Psycho-Oncol* 2005;**14**:187–95.
7. Astin JA, Reilly C, Perkins C, Child W. Breast cancer patients perspective and use of complementary medicine: a study by the Susan G. Komen breast cancer foundation. *J Soc Integ Oncol* 2006;**4**(4):157–69.
8. Hamre HJ, Kiene H, Kienle GS. Clinical research in anthroposophic medicine. *Alternat Ther Health Med* 2009;**15**(6):52–5 [Review] [59 refs].
9. Therkleson T. Anthroposophical nursing. *Austral J Holist Nurs* 2005;**12**(2):43–50.
10. Kienle GS, Kiene H, Albonico H-U. *Anthroposophic Medicine. Effectiveness, utility, costs, safety*. Stuttgart, New York: Schattauer; 2006.
11. Hamre HJ, Becker-Witt C, Glockman A, Ziegler R, Willich SN, Kiene H. *Anthroposophic therapies in chronic disease: the anthroposophic medicine outcome study (AMOS)*; 2004.
12. Carlsson M, Arman M, Backman M, Flatters U, Hatschek T, Hamrin E. Evaluation of quality of life/life satisfaction in women with breast cancer in complementary and conventional care. *Acta Oncol* 2004;**43**(1):27–34.
13. Arman M, Backman M. A longitudinal study on women's experiences of life with breast cancer in anthroposophic (complementary) and conventional care. *European Journal of Cancer Care* 2007;**16**(5):444–50.
14. Eklöf M, Tegern G. *Stockholmarna och den komplementära medicinen*. Linköping: Linköpings Universitet, Tema hälsa och samhälle; 2001.
15. Krona H. *Komplementär och alternativ medicin. En inventeringsstudie: Rapport. 2*. Blekinge FoU-enhet; 2005. 2005.
16. Eisenberg DM. The institute of medicine report on complementary and alternative medicine in the United States – personal reflections on its content and implications. *Alternat Ther* 2005;**11**(3):10–5.
17. Walter L, Noorlind Brage H. *Östgötens hälsa 2006*. Linköping: Folkhälsovetenskapligt centrum, Landstinget i Östergötland; 2006.
18. Landstinget i Ö. Patientundersökning slutna vård. http://www.liose/upload/6821/Rapport_Li%C3%96_Slutenv%C3%A5rdpdf2006; 2005.
19. Sullivan M, Karlsson J. The Swedish SF-36 Health Survey III. Evaluation of criterion-based validity: result from normative population. *J Clin Epidem* 1998;**51**(1005–1113).
20. Sullivan M, Karlsson J, Taft C. *SF-36 Hälsoenkät. Svensk manual och Tolkningsguide. (Swedish manual and Interpretation Guide)*. 2nd ed. Göteborg Sahlgrenska University Hospital; 2002.
21. Carlsson M, Hamrin E. Measurement of quality of life in women with breast cancer. Development of a Life Satisfaction Questionnaire (LSQ-32) and a comparison with the EORTC QLQ-C30. *Qual Life Res* 1996;**5**:265–74.
22. Carlsson M, Hamrin E. Evaluation of the life satisfaction questionnaire (LSQ) using structural equation modelling (SEM). *Qual Life Res* 2002;**11**:415–25.
23. Sveriges Kommuner och Landsting DA. *Vård på (o)lika villkor - en kunskapsöversikt om sociala skillnader i svensk hälso- och sjukvård*. Stockholm: Sveriges Kommuner och Landsting; 2009.