Complementary and Integrative Medicine: Sex and gender differences

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**Complementary and Integrative Medicine**

**Terminology**

- **Alternative medicine**: Treatments used instead of conventional treatments
- **Complementary medicine**: Treatments used in addition to conventional treatments
- **Integrative medicine**: Evidence-based treatments used in addition to conventional treatments

**Examples for therapies**

- Acupuncture
- Phytotherapie
- Osteopathy
- Mindfulness techniques
- Dietary supplements

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Complementary and Integrative Medicine: Sex and gender differences (Thomae, Canella, Huber, Witt) March 2023
**Situation in Switzerland**

- **Usage of complementary medicine**
  - Numbers present odds ratio: 2.6
  - Reference: Klein et al. PLOS One, 2015

- **Supplementary health insurance for complementary medicine**
  - Numbers present odds ratio: 1.7
  - Reference: Klein et al. PLOS One, 2015

- **Complementary and integrative medicine non-medical providers**
  - Numbers present percentage: 82.5%
  - Reference: Barth et al. European Journal of Integrative Medicine, 2020

- **Complementary and integrative medicine non-medical providers**
  - Numbers present percentage: 17.5%
  - Reference: Barth et al. European Journal of Integrative Medicine, 2020
Profiles of adults visiting practitioners in Norway

- General practitioner and Complementary medicine practitioner: 9.9% (female), 6.5% (male)
- General practitioner only: 68.5% (female), 58.6% (male)
- Complementary medicine practitioner only: 1.4% (female), 1.7% (male)

# Example cancer: Demographic predictors of complementary medicine use

<table>
<thead>
<tr>
<th>Demographic factor</th>
<th>Relevance</th>
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<tbody>
<tr>
<td>Female sex</td>
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<tr>
<td>Higher education</td>
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<tr>
<td>Younger age</td>
<td></td>
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<td>Higher income</td>
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<tr>
<td>Previous use of complementary and alternative medicine</td>
<td></td>
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</tbody>
</table>

Keene et al. Complementary Therapies in Clinical Practice, 2019
Example pain:
Usage of complementary therapies in patients with knee arthrosis

- Acupuncture: 0.6% (N=1562)
- Yoga/Tai Chi/Chi Gong/Pilates: 7.7% (N=1562)
- Relaxation techniques: 4.5% (N=1116)
- Dietary supplements: 32.5% (N=1562)

- Acupuncture: 0.7% (N=1116)
- Yoga/Tai Chi/Chi Gong/Pilates: 3.0% (N=1116)
- Relaxation techniques: 2.1% (N=1116)
- Dietary supplements: 31.2% (N=1116)

Numbers present percentage

Europe: Genderspecific use of specific complementary therapies

- Acupuncture
- Osteopathy
- Phytotherapy
- Homoeopathy
- Dietary supplements
- Relaxation
- Aromatherapy

Considerably higher usage in women
Higher usage in women
Comparable usage in both sex/gender

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Effectiveness, safety and adherence of complementary therapies: Examples

- **Effectiveness**: Higher benefit in women with chronic pain
  - Schwenger et al. BMC Complement Altern Med, 2019

- **Safety**: Considerably higher reporting of adverse reactions by women
  - Mikolasek et al. JMIR Mhealth Uhealth, 2016

- **Adherence**: Considerably higher adherence to a digital mindfulness and relaxation intervention in women with cancer

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Knowledge on complementary and integrative medicine in cancer patients

Knowledge on…

Physical activity

Autogenic training

Phytotherapy

99.5%

66.9%

81.4%

89.4%

56.5%

53.2%

Numbers present percentage

Rogge et al. Cancer 2021 (Supplemental non-published data)
Take home messages

– Complementary medicine is defined as treatments used in addition to conventional treatments. Integrative medicine is defined as evidence-based treatments used in addition to conventional treatments.
– Female sex is a relevant predictor of complementary medicine use.
– Genderspecific differences in usage can vary for specific complementary therapies.
– There is first evidence of gender-specific aspects regarding the effectiveness and side effects of complementary therapies.
These slides are based on

**Witt, Canella, Huber, Thomae:**
Factsheet Complementary and Integrative Medicine: Sex and Gender Differences.
University of Zurich, March 2023

- Illustrations of complementary therapies: Tara von Grebel, Central IT, Multimedia & E-Learning Services, University of Zurich
- Icons: University Hospital Zurich