Hochschule für Technik und Wirtschaft Berlin
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European Commission

iBenC

Loneliness of clients of home care services in six European countries

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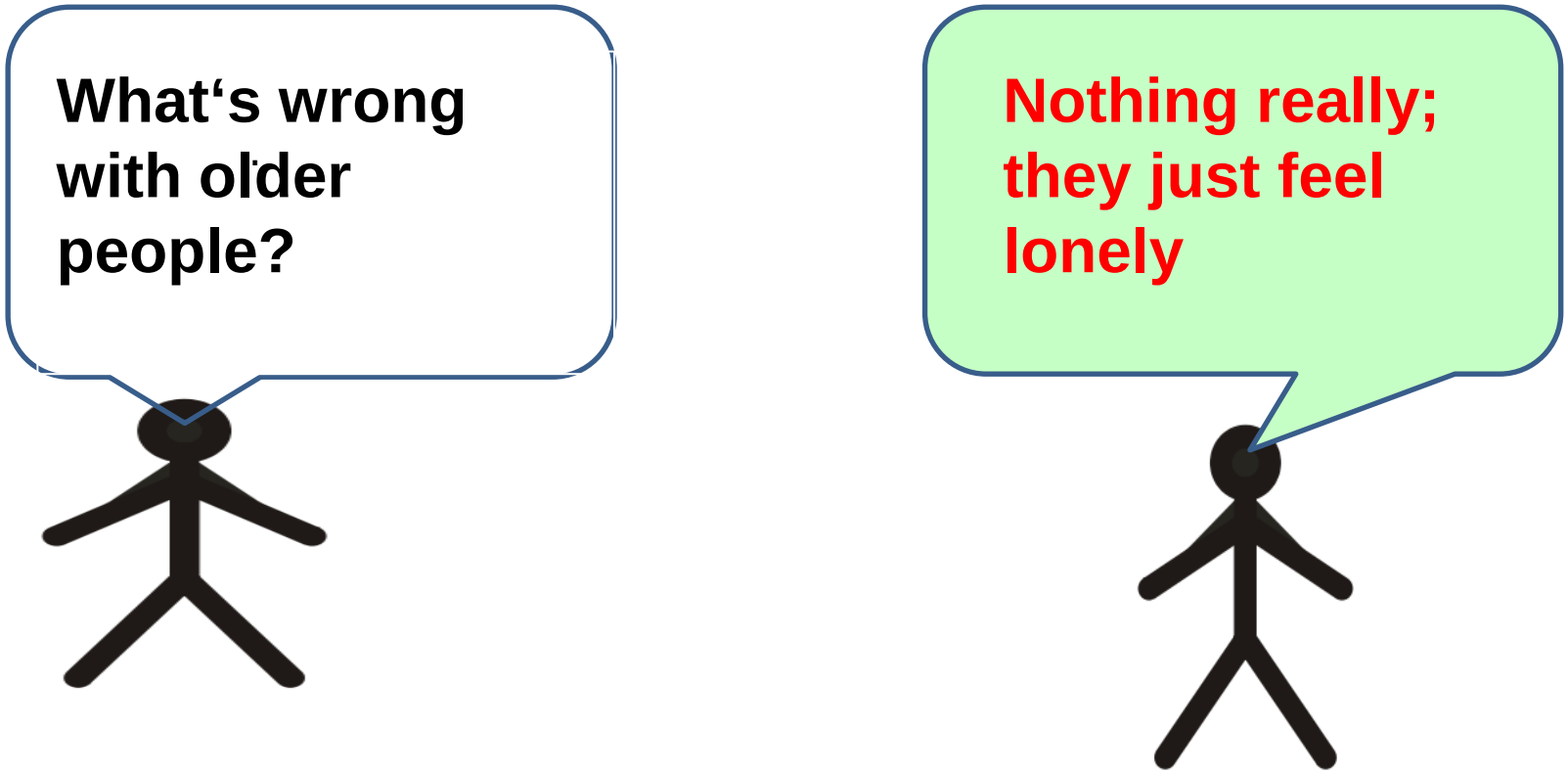
IBENC: Identifying Best Practices for Care-Dependent Elderly by Benchmarking Costs and Outcomes of Community Care

Widespread Public Opinion:



Loneliness: A major problem of older people?

- **Estimates of prevalence**
  in the population 65+ years: 12% to 40%
  (Victor et al., 2002; Findlay, 2003; Hawkley & Cacioppo,2010)
- **Inconsistencies** of concepts (Loneliness vs. social isolation) and methods *(Tijhuis 1999; Drennan et al.,2008; Blangsdóttir et al., 2010)*
- **International studies** on original data = relatively rare; mainly reviews of national studies with national/regional samples (Dykstra, 2010; Finlay, 2003), rather than a use of original and international data *(De Jong Gieveld & Tilburg, 1999).*

Research Questions

Which characteristics determine loneliness?

- How prevalent is “feeling of loneliness” of HC-clients?
- Are health (diseases) & disability the predictors of loneliness?
- Does loneliness depend on the provision of services ?
- Does the feeling of loneliness remain stable over time? Or does it change in association with the provision of services?

Methods

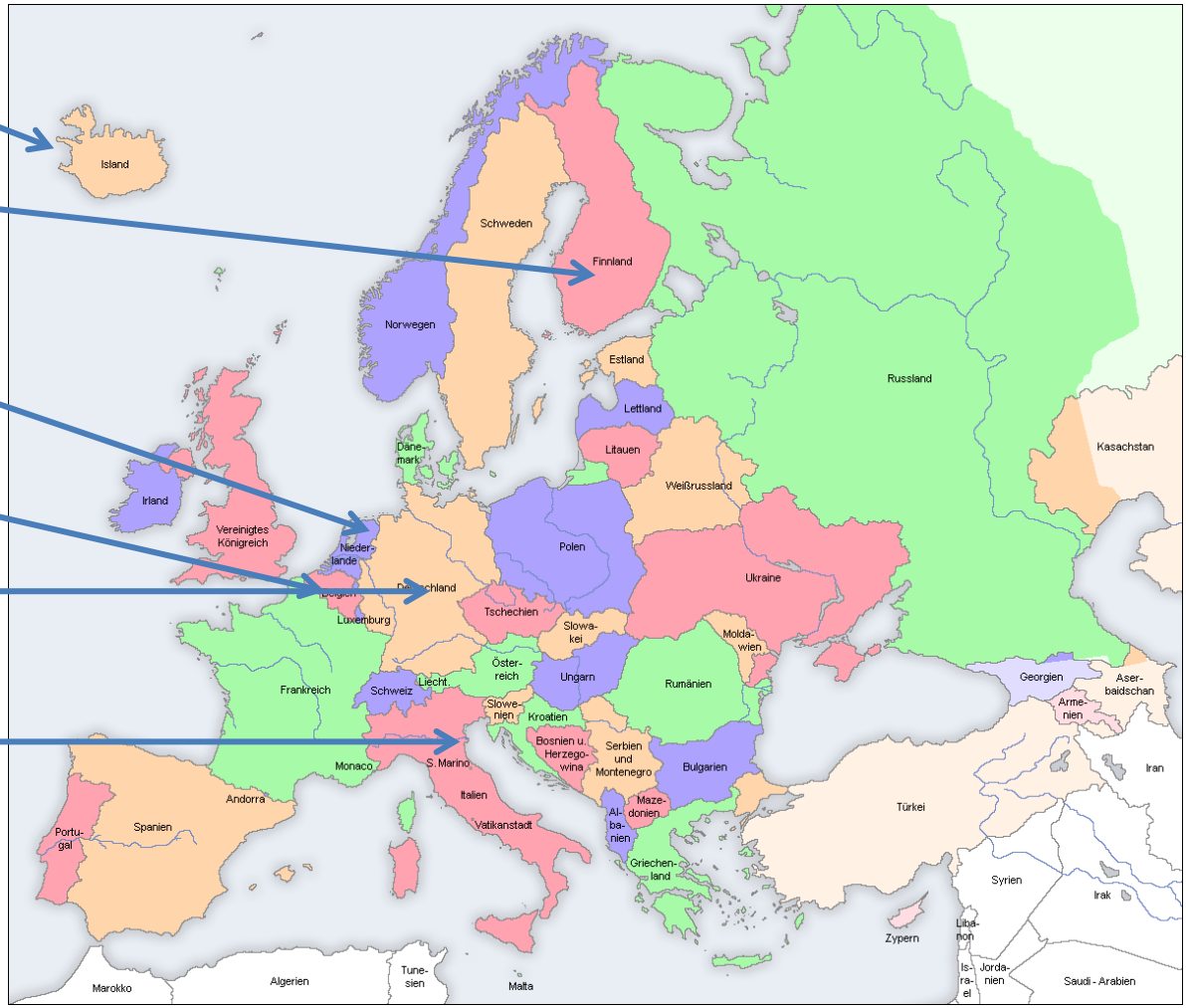
- **Assessment data** (interRAI HC) from IBenC-project
- Collected by **professional nurses** (special training) supported by research nurses
- In some countries **routine** data were used.
- **Baseline** n_{T0}=2,796, two re-assessments after 6 months each
- I**nclusion**: 65+ years, at least 14 days in service, prospectively „long-term clients“

Methods - continued

- **Exclusion:** short term care provision (interpretation country specific)
- Data represent nearly the **population of clients**, not the general population!
- This presentation is based only on T_0 and T_1 (n_{T1}=2,398), T_2 still in preparation.
- Analysis: descriptive statistics (χ^2; t-test) & predictors (logistic regressions with „feeling of loneliness“ as dependent variable)

Loneliness in Countries

Ice	20.2%
Fin	26.3%
Be	25.6%
NL	31.2%
De	28.0%
It	12.5%
Ø all	20.3%

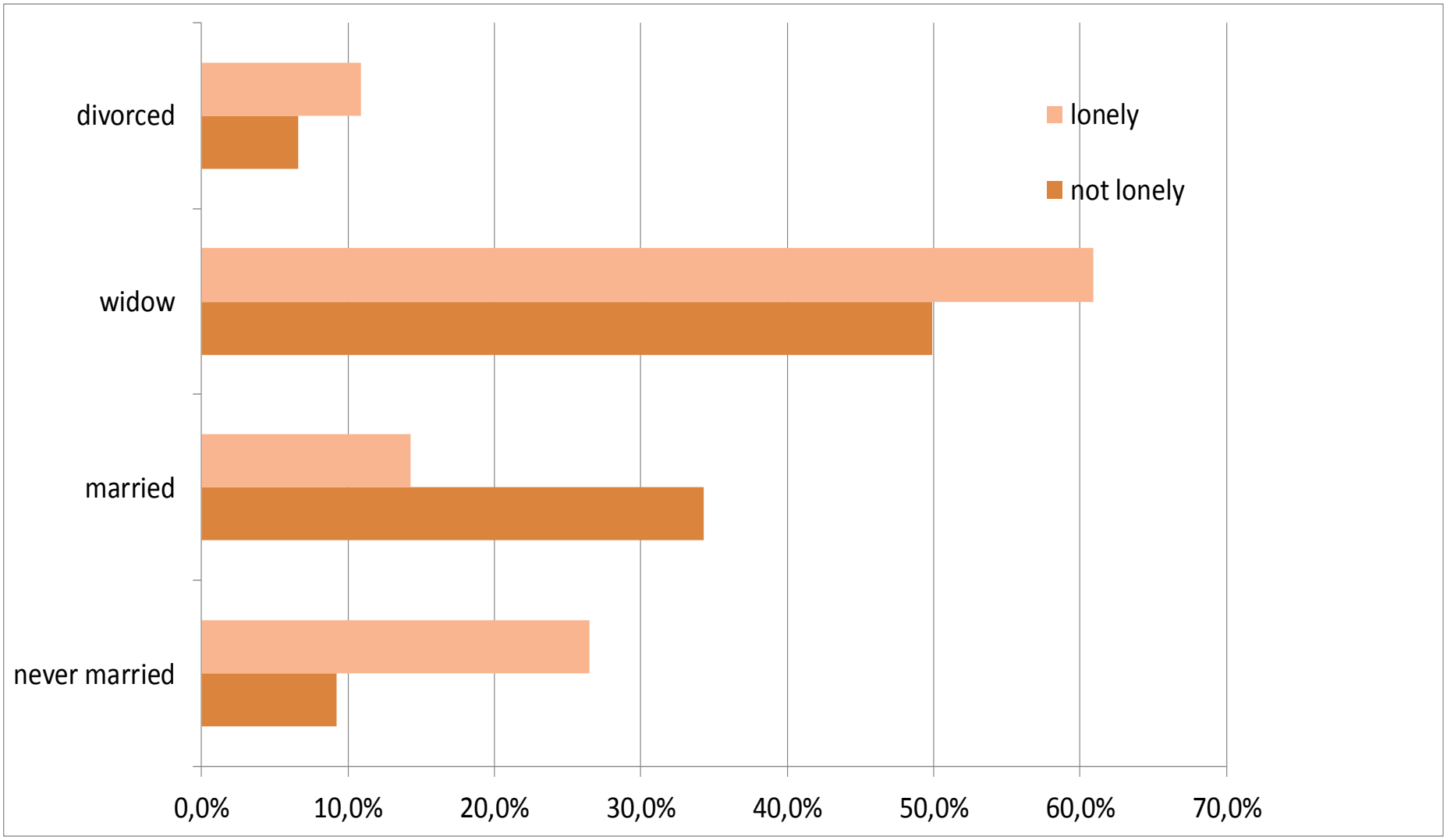


Demographics: Age/Gender

Indicates that he/she	feels lonely	feels not lonely	
Age in years	82.9	83.1	n.s
Oldest person/years	101	108	
Female	26.2%	73.8%	.001
Male	20.3%	79.7%	

Demographics: Marital Status

chi-square <001



Marital Status and Loneliness

The likelihood of **not feeling** lonely is high in partnership (married/non-married): Exp(B)=1.220; p=.000

For these clients, the likelihood of feeling lonely is lower than for singles:

- **either for never married clients: Exp(B)=0.481; p<001,**
- **or widowed clients: Exp(B)=0.458; p<.001.**

No differences between widowed, never married or divorced/separated.

„Living Arrangement“ and Loneliness

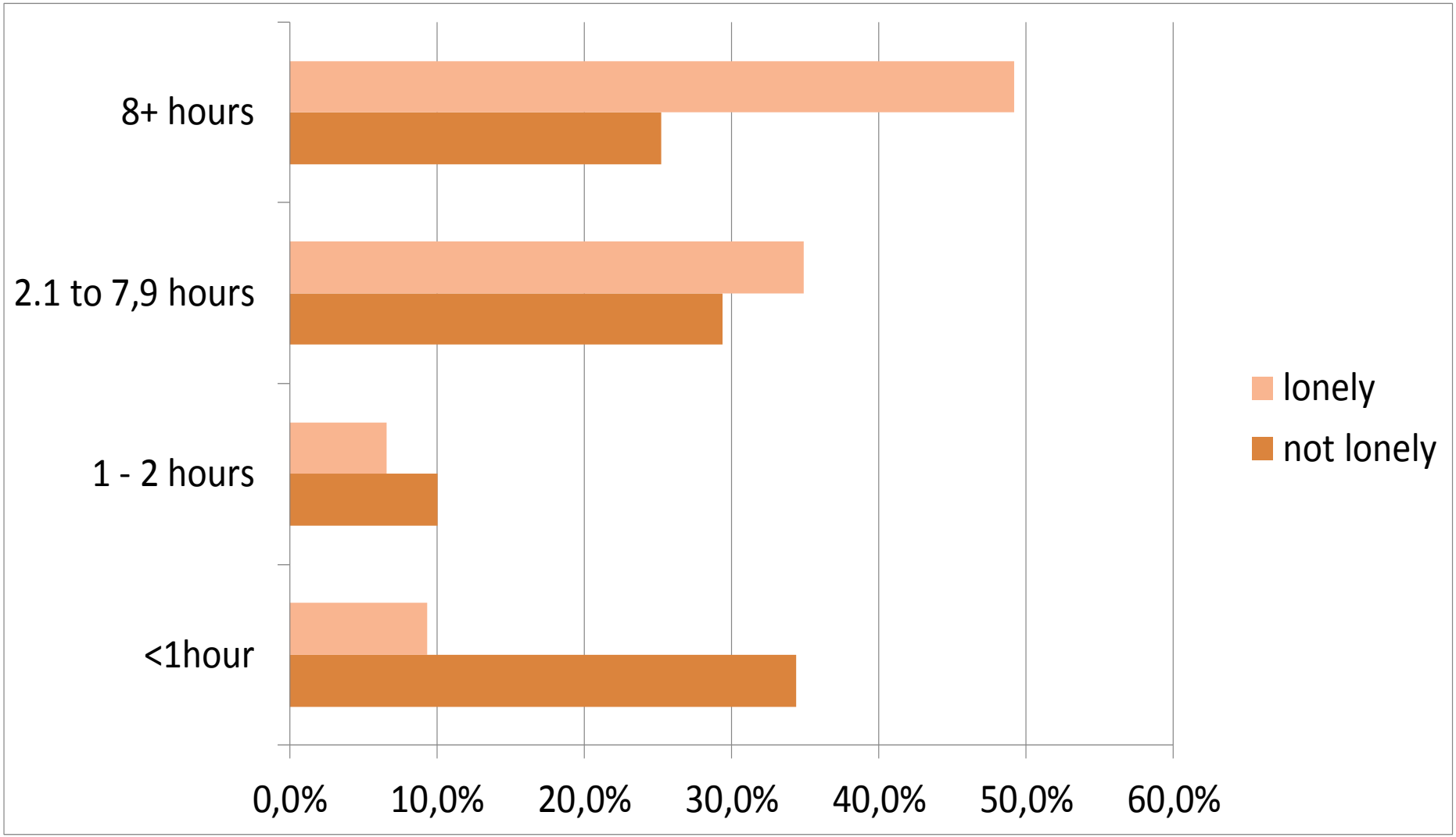
When clients live alone, the likelihood of loneliness is the highest: Exp(B)=2.024, p<.02.

For **all other living arrangements** applies that the likelihood of loneliness
is lower than “alone”

- with spouse/partner: Exp(B)=0.399; p<.001
- with „nuclear family“: Exp(B)=0.304; p<.001
- with „extended reference network“: Exp(B)=0.515; p=.004.

Living with someone is essential: No differences exist beween different living arrangements.

Time Spent Alone
n=2,765; .p <.001



„Social Variables“ in one Model

„Marital status + living arrangement + time alone“

Only “time spent alone” is a significant predictor Exp(B)=1.898, p<.001

Compared to <1hour solo, the feeling of loneliness is more likely, if the client is “solo” for

- 8+hours: Exp(B)=6.417; p<.001
- 2-8 hours: Exp(B)=4.204; p<.001
- 1-2 hours: Exp(B)=2.763; p<.001

Indicators to answer the Research Questions

Health as predictor

- Health/Diseases: DRS, sPain, sPURs, sChESS, aMaple, ∑Multimorb, BMI
- Functional: ADL-L, IADL-P, IADL-C, CPS, sCom, aSRI (self reliance)

Provision of home services

- Formal care: HC, HN, HH; Frequency (# Days in 7 days); Amount: (# Minutes in 7days)
- Informal care (hours/3days)

Health/Diseases

	Exp(B)	p
sDRS	1.258	<.001
sPAIN	1.196	<.001
sPURS	0.759	<.001
aMaple	0.951	.207
sChess	1.076	.135
∑Multimorb	0.970	.377
BMI	1.009	.104

Functional health

ADL (L, h, S), IADL-P, IADL-C:

- **Only ADL plays a role: in separate models as well as in a common model** Exp(B)=.974; p<.001 *(Higher score, i.e., impairment=lower likelihood for loneliness).*

Cognition-CPS & Communication sCOM

- **CPS** Exp(B)=.901, p<.001
- **sCom** Exp(B)=.910, p<.001

CPS and sCOM together with ADL: only ADL is a sign. Predictor: Exp(B)=.980, p=.001

Some country differences!

Care Provision

No. of Days / 7 days

- Home Care / Exp(B) = 1.035, <.05
- Home Nursing / Exp(B)=1.025, >.05, n.s.
- HH Exp(B)=.997, >.05, n.s.

No. of Minutes

- Home Care / Exp(B) = 1.001, <.001
- Home Nursing / Exp(B)=1.0 >.05, n.s.
- HH Exp(B)=.1.001, =.001

Effects of care provision are practically irrelevant.

Country differences, e.g.:

- Effects of HC provision are stronger in Italy than in Germany: Exp(B)=1.228, p=.032
- Effects of Nursing on loneliness in Finland is the opposite compared to Germany: Exp(B)=.854; p=.024

Informal Care: #Hours/3days

- The more hours people have, the lower the likelihood that they feel lonely
- Exp(B)=.978; p<001

What is really important?

Most important predictors of each category were included in one model:

- *„Functional health:* ADL
- *Health:* DRS, sPain, sPUR
- *“Social“:* Time alone

(Resulting predictors: only health scales + ADL!)

Professional Care: practically irrelevant

Different Picture if Interaction Effects are Analyzed

Predictors in different categories of „time alone“ are different, e.g.

- **alone 8+ hours:** the higher the PURs-score, the smaller the likelihood of loneliness (Exp(B)= .555, sig. <.04);
- **alone 2-8 hours:** the more hours of informal care, the higher the likelihood of loneliness (Exp(B)=.943; sig. < .01);
- **alone <1hour** – informal care not important

Change after 6 Mo. (chi-square=.000)

	T_0: Lonely	Lonely in T_0+T_1	T_0: were not, became lonely at T_1
Be	**25.6%**	**23.8%**	**5.2%**
FIN	**26.3%**	**24.1%**	**6.1%**
De	**28.0%**	**8.1%**	**25.7%**
Ice	**20.2%**	**18.3%**	**3.8%**
It	**12.5%**	**12.2%**	**0.0%**
NL	**31.2%**	**30.6%**	**1.6%**

Discussion

- Studies identified a strong association between poor health and loneliness (Penningx et al.,1997; Barg et al., 2006; Cacioppo et al.,2010)
- Our study: Only some indicators (DRS, Pain) show the same effects. The higher impairment of „functional health“, and higher PURs-score show lower likelihood of loneliness!
- Feeling of loneliness is a cultural phenomenon. **Thus, it is understandable that considerable differences between countries exist**. We will analyze them more closely in a future step.

Limitations

- **Work in progress**
  – time interval of 6 Mo. too short
- Home care (aids) different meaning in countries
- No questionnaire, but evaluation & rating by nurses

Conclusion

- Extremely important predictor for loneliness: absence of company during the day.
- It seems that very impaired clients do feel less lonely.
- The frequency of visits of professional caregivers and amount of care seem to be irrelevant.
- Future perspective: Loneliness as risk predictor.

Thanks to members of the international IBenC-Team!

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