



**Kinder- und Jugend-
psychiatrie / Psychotherapie**
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Is there an impact of weight phobia on daily well being in patients with Anorexia nervosa?

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Introduction

- more than two thirds of all patients with an AN: at least one life time diagnosis of an anxiety disorder, mostly prior to a severe depressive disorder (Godart et al. 2006)
- anxiety as a classification criterium of the eating disorder, a potential trigger (form of expression) of motor hyperactivity, part of alexithymia and body image disturbance
- perfectionism and obsessional symptoms linked to the need for exactness and symmetry: not only premorbid, but also after weight restoration (Kaye et al. 2005)

→ **anxiety is not a transitory phenomenon**

a subgroup of patients:

(like) a “personality trait” → complications during long time course, restrictions concerning therapeutic approach





Hypotheses

The diagnosis „Anorexia nervosa“ (AN) is not an „uniform“ dress, it cannot be generalized concerning its details.

A subgroup of patients is suffering of trait anxiety: in every day life, they are more scared than others.

This greater anxiety corresponds to personality traits.

The amount of weight related anxiety correlates to patient satisfaction and subjective states (mood, attention, motivation).



Aim of the study

Is there a subgroup of patients with AN who suffers from trait anxiety?

Is there a correlation between trait anxiety and personality traits also in children and adolescents with AN?

Is there a correlation between weight phobia and subjective states?



Sample: (n=25*; n=29) black: Ulm/Ravensburg, blue: Würzburg

age (years, sd)	14,67 (\pm 1,84) 14.54 (\pm 1.89)
BMI ad admission (kg/m ² , sd)	14,18 (\pm 1,49) 14.26 (\pm 1.50)
Intelligence (IQ) (number of patients)	113,71 (\pm 13,40) 105,97 (\pm 10,02) very high: 2 above average: 6 average: 17
observation period (days, sd)	36,12 (\pm 14,27) 84.93 (\pm 44.35)
marital status (parents)	living together: 72% - 86% divorced: 20% - 10% death of a partner: 8% - 4%

* Medication:

SSRIs 7

Neuroleptics 2

- both: 1



Methods

Questionnaire: **subjective states** (Keller et al., 2008)

Questionnaire: **weight associated anxiety** (Schulze and Keller, submitted)

Rating scale: **subjectively perceived anxiety** (between 0 and 100)

EDI-2: **eating disorder psychopathology** (Thiel et al., 1997)

STAI: **state and trait anxiety** (Laux et al., 1981)

SPAIK: **social phobia** (Melfsen et al., 1999)

JTCI 12-18: **personality traits** (Schmeck et al., 1995)

TAS-26: **alexithymia** (Kupfer et al., 2001)





Anorexia nervosa: Pictures





Results: EDI-2

EDI-2 subscale	sample	m (sd)	t (df)	p
drive for thinness	AN (n=25)	23,0 (8,9)	3,05 (206)	0,003
	AN II (n=28)	25,46 (10,6)	3,44 (30,5)	0,002
	*controls (n=183)	18,4 (6,8)		
ineffectiveness	AN (n=25)	29,4 (9,2)	3,04 (206)	0,003
	AN II (n=28)	26,50 (11,0)	0,68 (29,8)	0,499
	controls (n=183)	25,0 (6,4)		
interoceptive awareness	AN (n=25)	27,9 (9,6)	4,17 (206)	<0,001
	AN II (n=28)	27,25 (10,3)	2,59 (29,8)	0,015
	controls (n=183)	22,1 (6,0)		
maturity fears	AN (n=25)	28,6 (7,6)	5,76 (206)	<0,001
	AN II (n=27)	23,63 (5,8)	1,47 (32,2)	0,150
	controls (n=183)	21,9 (5,1)		

* = Thiel et al. 1997



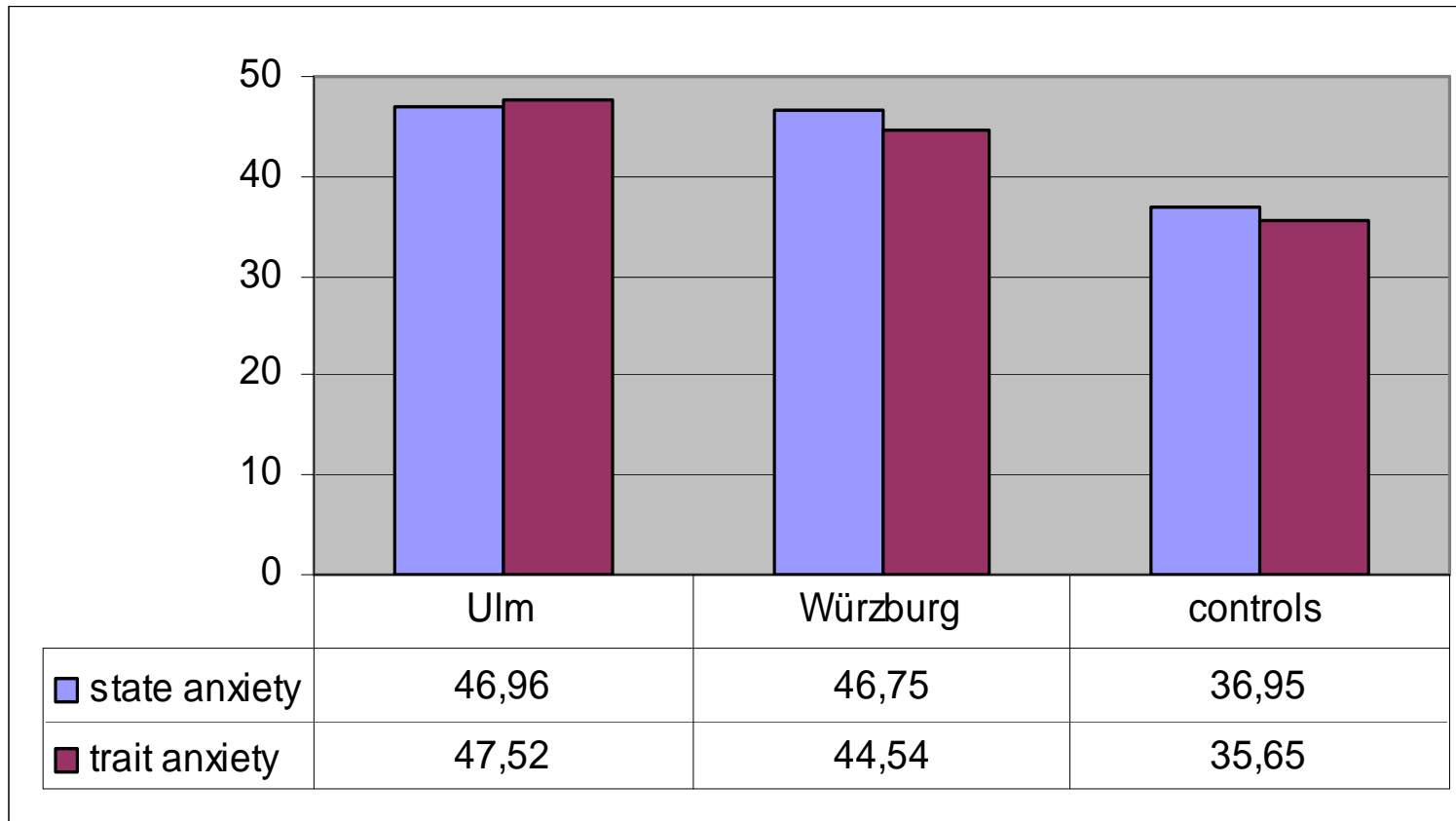


Results: AAS (Anorexia Anxiety Scale; Schulze and Keller, in revision)

How terrified are you in front of the scales?	AN (n=24) m (sd)	Controls (n=372) m (sd)	t (df)	p
to overshoot with your weight?	4,9 (2,2)	3,17 (1,87)	4,21 (394)	<0,001
that you are only able to gain weight?	4,6 (2,4)	2,81 (1,98)	4,22 (394)	<0,001
everybody immediately perceives your gain in weight?	4,1 (2,5)	2,92 (1,92)	2,94 (394)	0,004

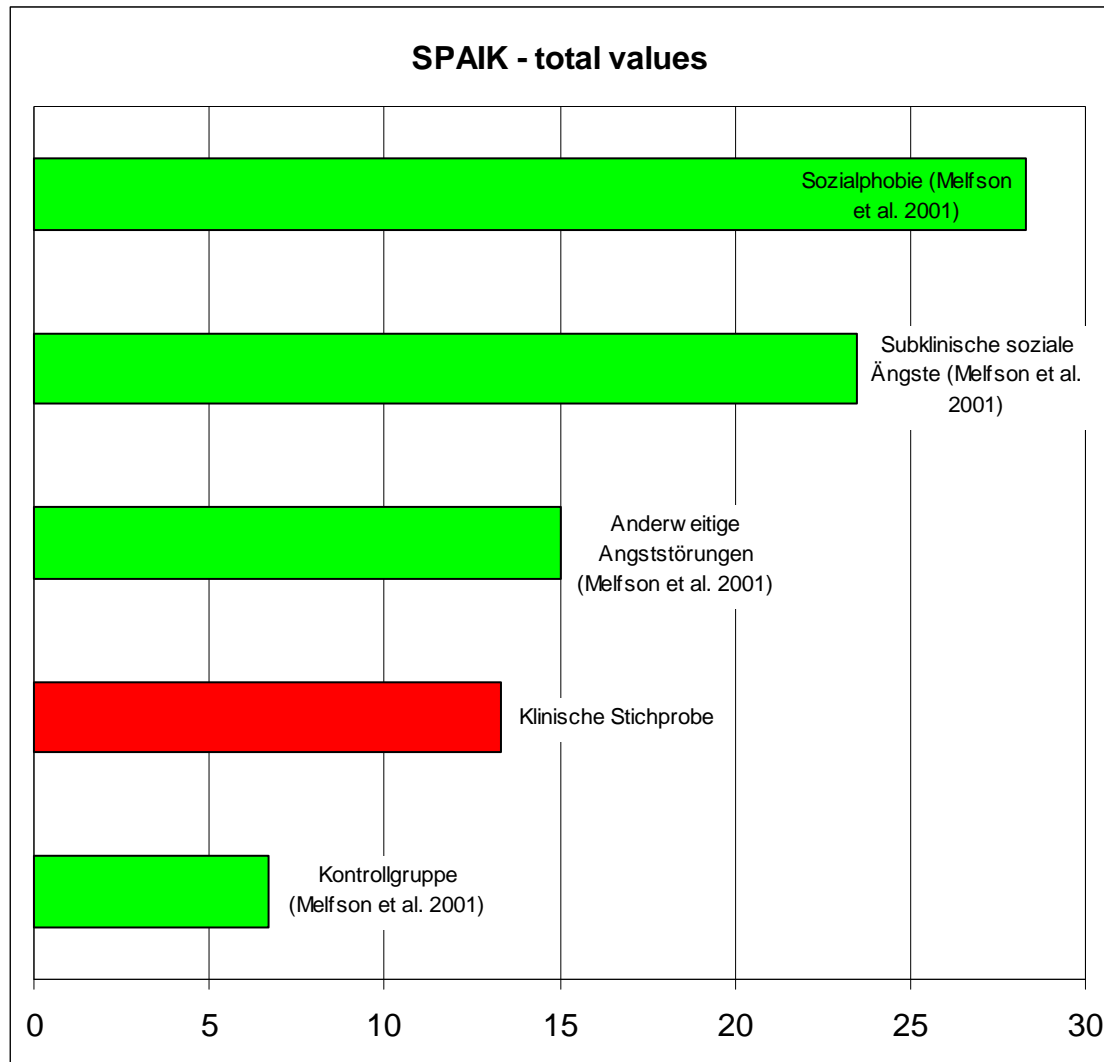


Results: STAI





Results: SPAIK



cut-off >20 -
24% (6/25) of
our patients;
44% (8/18) of
the Würzburg
patient group

Clinical sample
(Melfsen et al. 2001)
(n=145 psychiatric
inpatients, 7-18
years; Controls
(Melfsen et al. 2001)
(n=1197, 8-16 years)



Results: TAS-26 (cut off >54 – 28% of our patients)

	AN (n=25) m (sd)	Controls (n=2047) m (sd)	t (df)	p
TAS1 to identify	17,20 (7,14)	14,14 (5,39)	2,84 (2070)	0,005
TAS 2 to prescribe	15,00 (4,43)	13,00 (3,80)	2,61 (2070)	0,009
TAS 3 external orientated way of thinking	15,76 (2,91)	16,38 (4,02)	0,75 (2070)	0,455
TAS total score	47,96 (11,35)	43,56 (9,54)	2,30 (2070)	<u>0,022</u>



Results: JTCI

JTCI dimension	AN I (study group) (n=25) m (sd)	AN II (Hueg et al. 2006) (n=29) m (sd)	Healthy controls (Goth 2001) m
novelty seeking	18,5 ($\pm 5,1$)	14,6 ($\pm 4,9$)	21,5
harm avoidance	18,6 ($\pm 8,0$)	17,7 ($\pm 7,4$)	19
reward dependence	19,1 ($\pm 4,1$)	19,2 ($\pm 4,6$)	19
persistence	18,0 ($\pm 3,2$)	17,1 ($\pm 3,3$)	14,6
self-directedness	24,3 ($\pm 5,3$)	26,2 ($\pm 5,9$)	27
cooperativeness	31,2 ($\pm 5,8$)	31,5 ($\pm 4,0$)	29
self-transcendence (spiritual acceptance)	16,8 ($\pm 5,8$)	16,6 ($\pm 4,3$)	19



EDI-2 subscales

- **ineffectiveness**: feelings of worthlessness, uncertainty, lack of control about its own live...
- **interoceptive awareness**: concerns about perception and „correct“ assessment of emotional states, identification of hunger and satiety
- **asceticism**: self-discipline, negotiation of the self, control about physical needs
- **impulse regulation**: tendency to impulsive behavior, alcohol misuse, destructive behavior against oneself and others
- **social insecurity**: negative convictions concerning relationships (insecure, noth worthy, generally of low quality...)



Results: Correlations (*p<0,05 **p<0,01 ***p <0,0002 (α-adjustment/Bonferroni))

EDI-2	State anxiety	Trait anxiety	SPAIK
Drive for thinness		0,719***	-0,153
Bulimia			
Body dissatisfaction	0,47*	0,38(*)	
Ineffectiveness	0,60**	0,65** 0,723***	0,563
Perfectionism			0,35(*)
Interpersonal distrust	0,37*	0,49* 0,755***	0,52** 0,795***
Interoceptive awareness	0,51**	0,67** 0,869***	0,432
Maturity fears	0,45*	0,56**	0,35*
Asceticism	0,38(*)	0,59**	0,61**
Impulse regulation	0,47*	0,68**	
Social insecurity	0,39(*)	0,64**	0,49*





Results: Correlations: II

	TAS total	JTCI 1	JTCI 2 harm avoidance	JTCI 3 reward de- pendence	JTCI 4	JTCI 5 self-direc- tedness	JTCI 6	JTCI 7
EDI 1								
EDI 2		-0,35(*)						
EDI 3				-0,61**		-0,47*		
EDI 4	0,56*		0,62**	-0,41*		-0,55**		
EDI 5		-0,37(*)	0,43*					0,35(*)
EDI 6	0,77***		0,70***	-0,47*	-0,30	-0,68**		
EDI 7	0,66**		0,64**	-0,43*		-0,63**		
EDI 8	0,51*		0,48*	-0,34(*)		-0,34		
EDI 9	0,75***		0,77***	-0,35		-0,65**		
EDI 10 A IR	0,63**		0,59**	-0,40*		-0,54**		
EDI 11 SI	0,76***		0,74***	-0,44*		-0,81***		



Results: Correlations III

	State anxiety	EDI 1 - drive for thinness	EDI 3 - body dissatisfaction
Subjectively perceived anxiety	0,42*	0,59**	0,58**

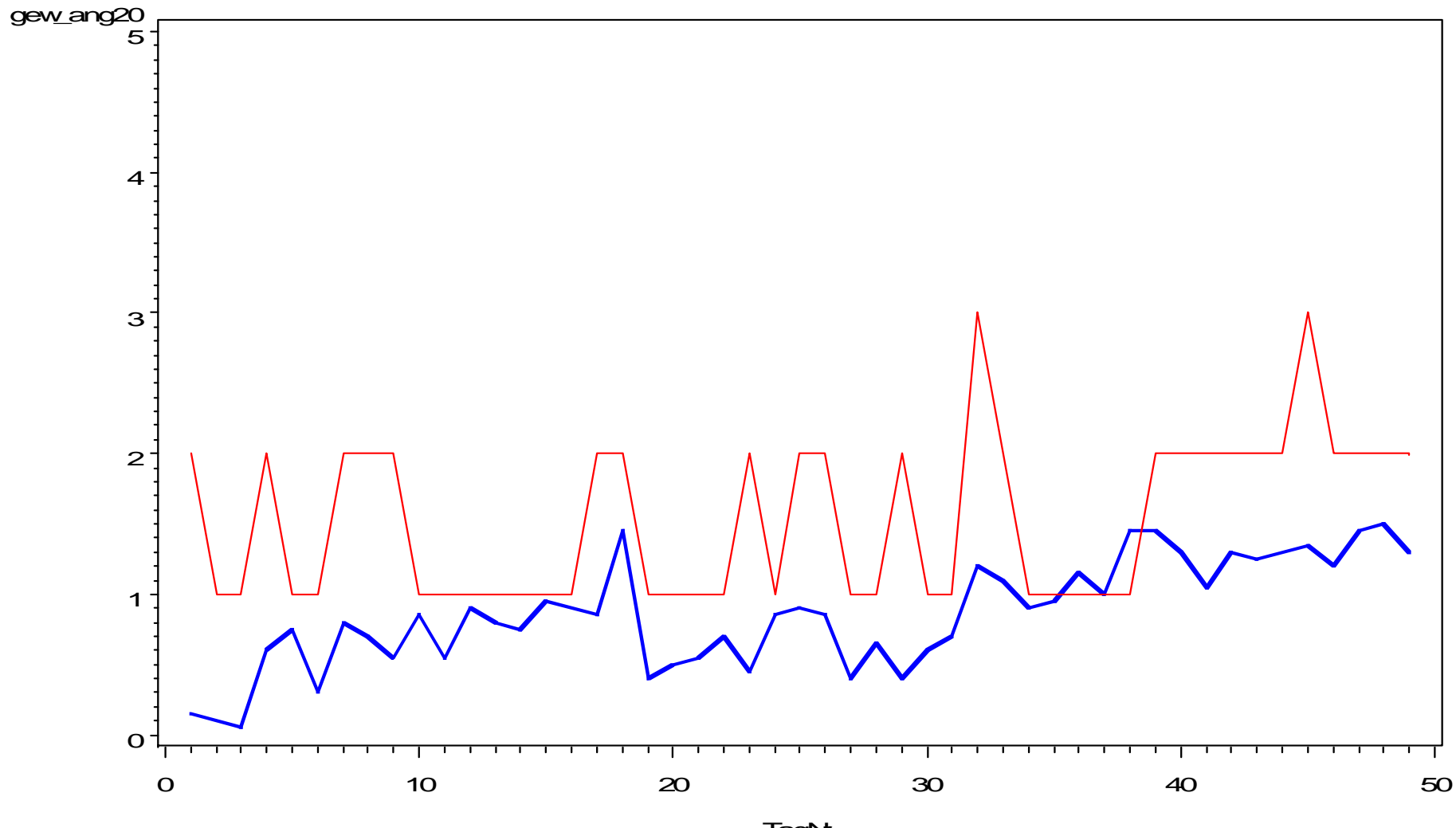
→ correlations between the subjectively perceived anxiety (concerning weight gain), state anxiety and eating disorder symptoms

→ correlations between anxiety and subjective states (I'm feeling vulnerable, I'm sad, I'm angry, I'm feeling attractive and likeable...)



Subjectively perceived anxiety
compared to „I am aggressive“ –
increasing anxiety – increasing
aggression?

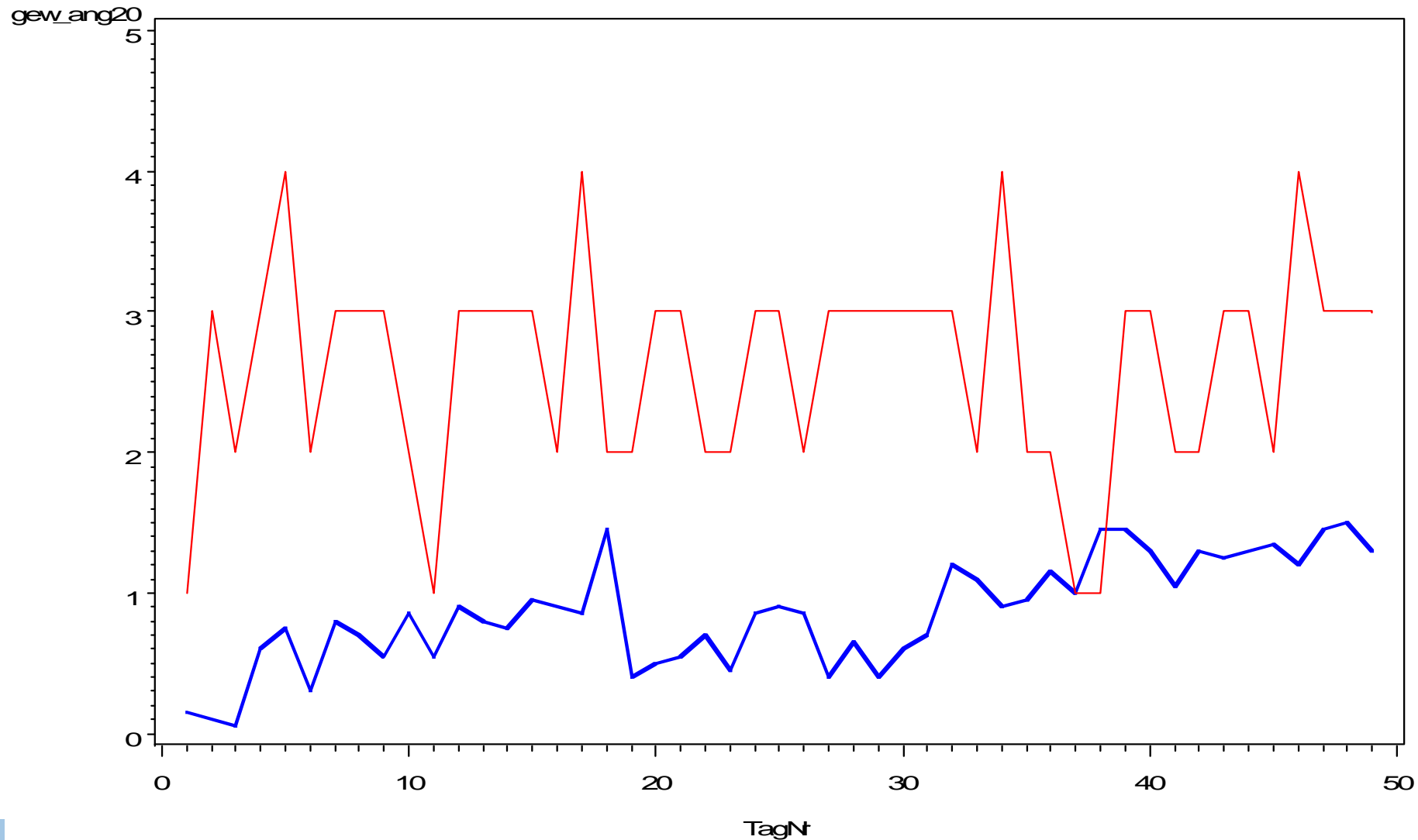
Person 122





Subjectively perceived anxiety compared to „I'm feeling anxious“ – weight associated anxiety perceived as general anxiety?

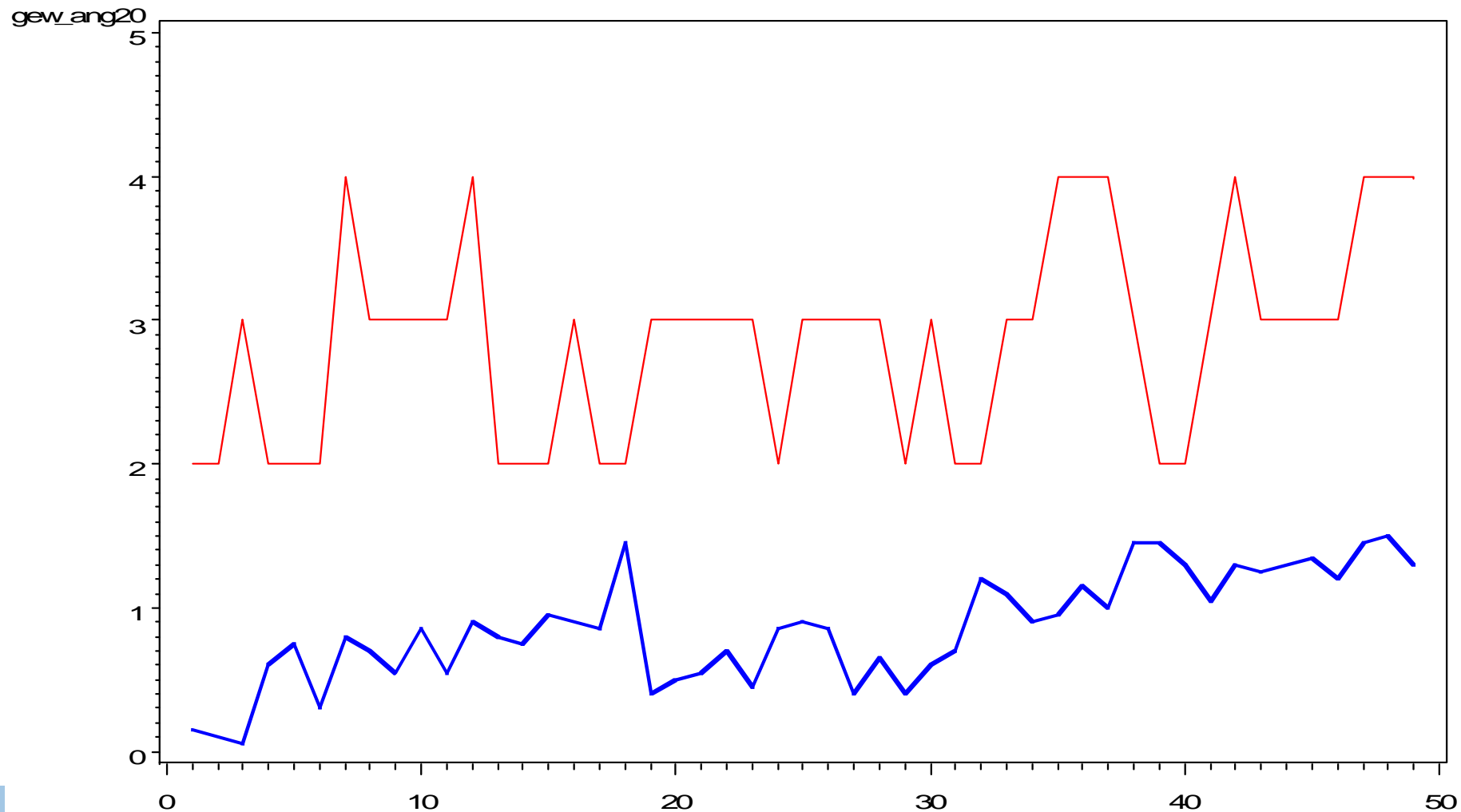
Person 122





Subjectively perceived anxiety compared
to „I'm feeling attractive and likeable“ –
the more weight associated anxiety the
fewer attractive?

Person 122





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