STIGMA and STRESS

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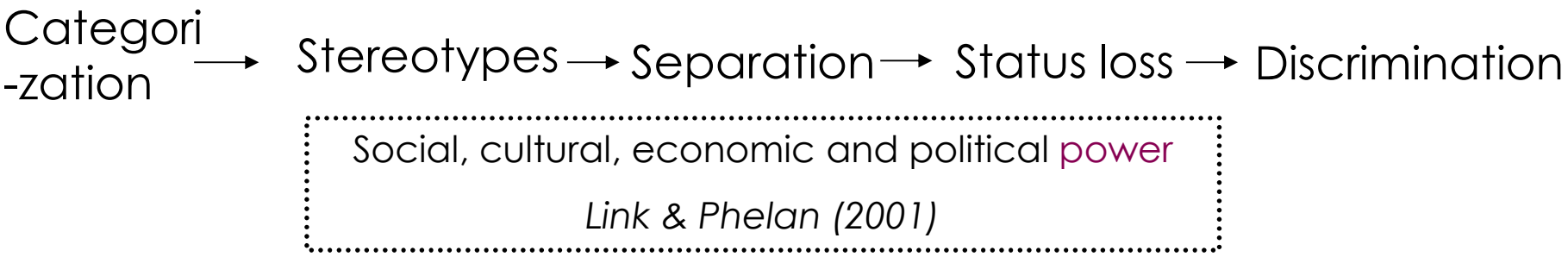
Stigmatization



Three functions of stigma?

Exploitation/domination	*"Keeping people down"*
Norm enforcement	*"Keeping people in"*
Disease avoidance	*"Keeping people away"*

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Stigmatization → Poor access to delivery of health → Elevated risk factors → Morbidity and mortality

Diminished income, education

Reduced use of health care

Diminished self-esteem, perceived inadequacy

Negative impact on physiology

Poor recovery

Psychological disorders

Diminished social support

Types of stigma

Stigma can be experienced at an:

internalized level	e.g. personal beliefs
interpersonal level	e.g. hurtful comments from others
institutional level	e.g. public policy, hiring practice

Outcomes of stigma

Studies show inverse relationship between perceived discrimination and mental health (Williams et al, 2003, Krieger, 1999, Simons et al 2006)

The few prospective studies published confirm this relationship (Brody et al, 2006, Simons et al, 2006, Schulz, 2006)

Some indications of an association between discrimination and hypertension/cardiovascular reactivity (Cozier et al, 2006, King, 2005)

Percived racial discrimination is associated with increased incidence of breast cancer (Taylor et al, 2007)

Cross-sectional studies indicate positive association between discrimination and unhealthy behaviours (Landrine, 2006, Borell et al 2007)

Stress and weight gain

Different kinds of stress have been associated with weight gain and obesity in both animals and humans

Psychosocial stress is hypothezised to result in neuroendocrine-autonomic dysregulation which influences the accumulation of excess body fat (Björntorp, 2001), but may also increase the risk of emotional eating and preference for high energy density food (Dallman et al, 2005)

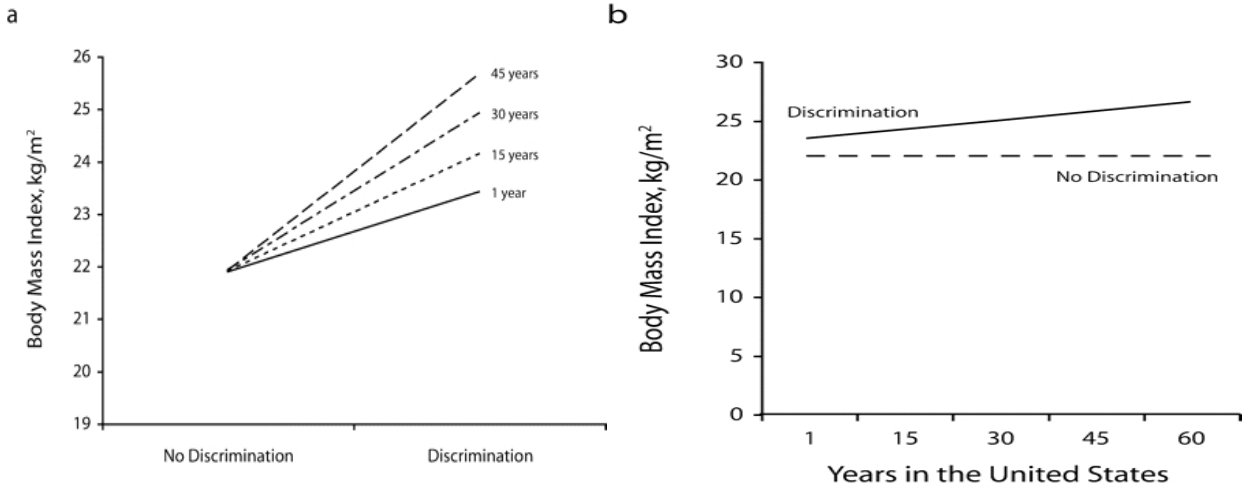
Psychosocial stress associated with low income and low education has been associated with weight gain (Laitinen et al, 1991)

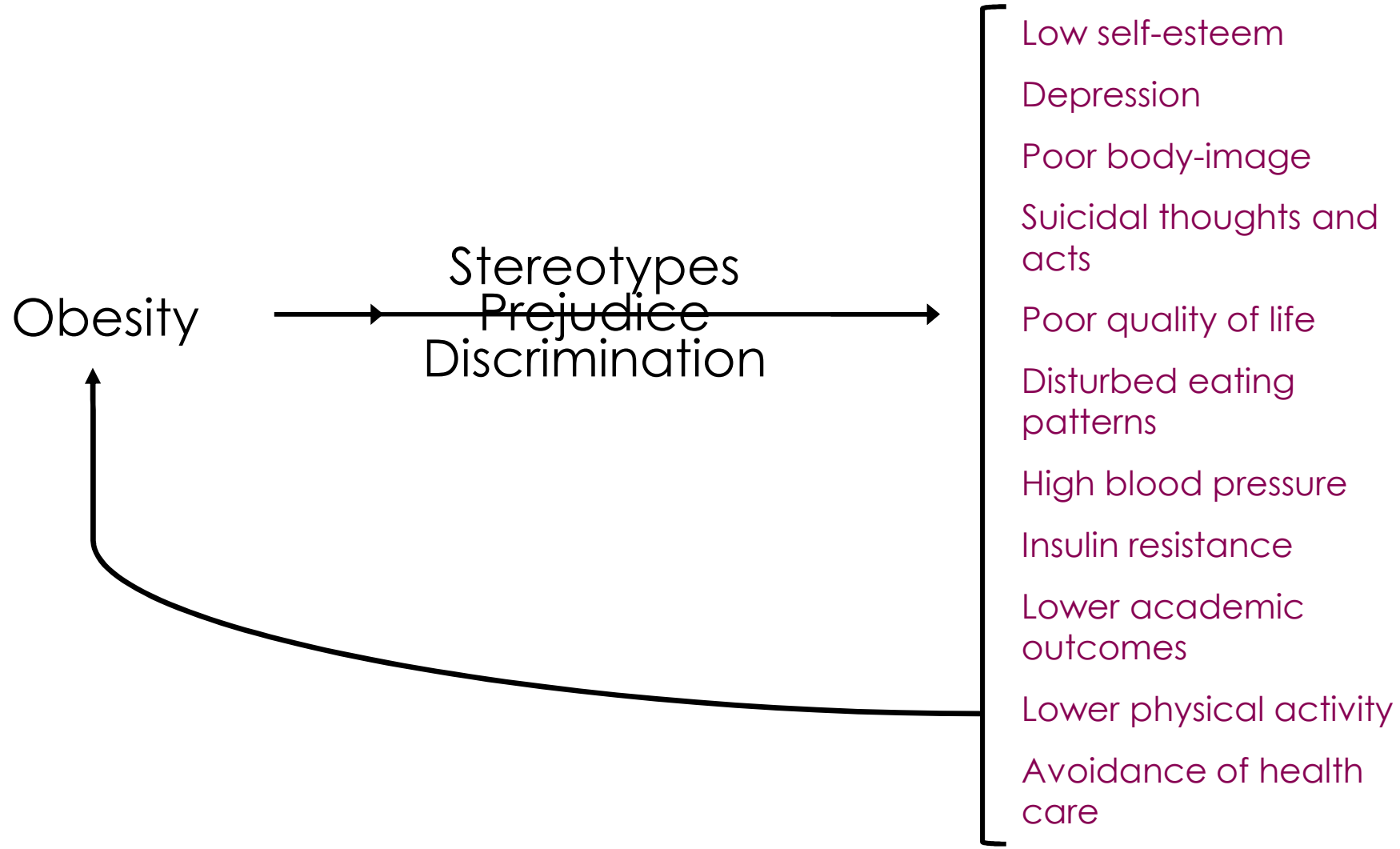
Important to emphasize that stress in the individual may be one pathway whereby discrimination may be associated with obesity. Structural discrimination may have an impact on dietary and physcial activity options.

Stigma and weight gain

Racial discrimination was positively associated with weight gain in 43 000 black women over a 8-year period – *difference in weight change was 0.56 kg and 0.48 kg between the highest and the lowest quartile of everyday interpersonal and lifetime racial discrimination, respectively* (Cozier, 2009)

Racial discrimination was positively associated with increased BMI and strengthened with increasing time in the US - (Gee et al, 2008)




Obesity
Stereotypes
Prejudice
Discrimination
Low self-esteem
Depression
Poor body-image
Suicidal thoughts and acts
Poor quality of life
Disturbed eating patterns
High blood pressure
Insulin resistance
Lower academic outcomes
Lower physical activity
Avoidance of health care

Weight stigmatization

Weight stigmatization has been documented as a risk factor for depression, low self-esteem and body dissatisfaction (Puhl & Heuer, 2009, review)

Experiences of weight stigma increase the likelihood of engaging in unhealthy eating behaviours and lower levels of physical ativity (Puhl & Heuer, 2009, review)

Coping responses in reaction to weight stigma are eating more food, refusing to diet, binge eating, avoid exercising etc. (Puhl & Heuer, 2009, review)

Weight stigmatization

The viscious circle of weight stigmatization:

Peer victimization among 1287 12-13-year-olds predicted weight gain 4 years later in obese females only (Adams & Bukowski, 2008)

Overt weight stigma was significantly associated with poorer weight loss outcomes among 55 overweight adults (Wott & Carels, 2010)

More stigmatizing experiences (50 different situations) predicted greater weight maintenance after six months in treatment among 185 overweight participants (Latner et al, 2009)

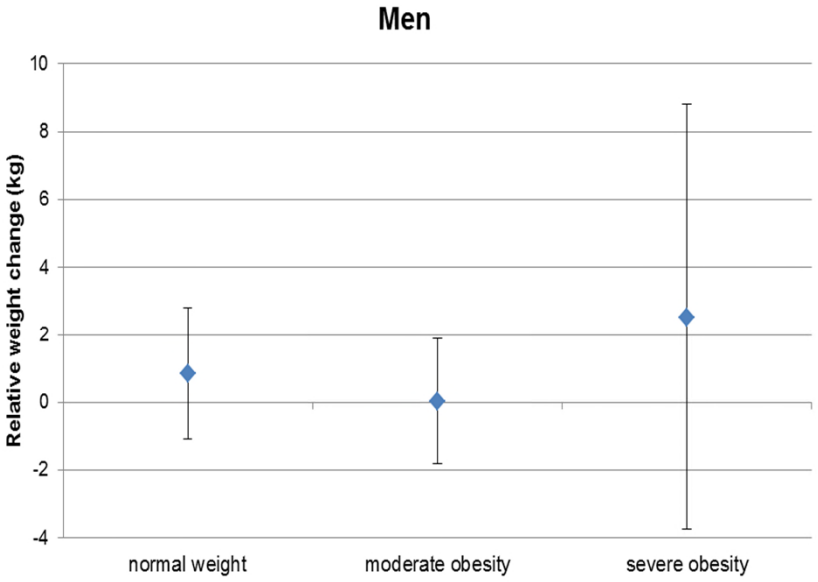
Health care stigma and weight gain

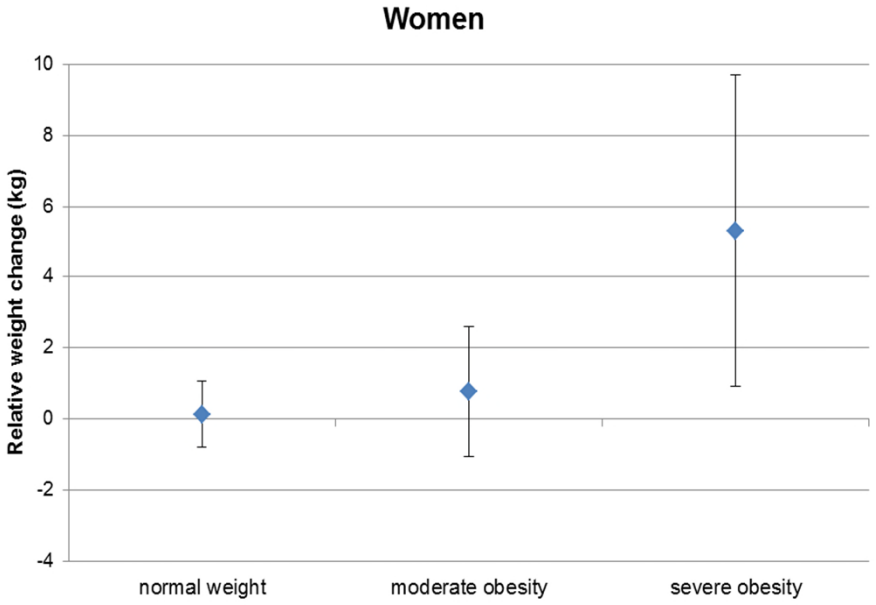
Swedish population-based sample of 1066 normal weight, 1274 moderately obese (BMI 30.0-34.9) and 293 severely obese (BMI 35.0 and more) participants from the ULF-survey 1996-2006

The natural development of weight change in relation to stigmatization in health care

inferior medical care
insulting treatment by doctor
insulting treatment by nurse
avoidance of health care due to fear of insulting treatment

Health care stigma and weight gain





Health care stigma and weight gain

	Men		Women	
	B	95 % CI	B	95 % CI
Provided inferior medical care than others				
Normal weight	**0.7**	-2.1; 3.5	**-0.4**	-2.7; 1.8
Moderate obesity	**-3.1**	-6.3; 0.3	**-1.6**	-4.5; 1.4
Severe obesity	**0.7**	-4.9; 6.3	**3.0**	-5.5;11.5
Insulting treatment by doctor				
Normal weight	**0.5**	-1.5; 2.5	**-0.4**	-1.4; 0.6
Moderate obesity	**0.8**	-1.2; 2.9	**0.4**	-1.4; 2.3
Severe obesity	**3.1**	-3.7; 9.9	**5.7***	1.2; 10.2
Insulting treatment by nurse				
Normal weight	**1.7**	-1.6; 5.0	**0.3**	-1.3; 1.9
Moderate obesity	**0.2**	-2.8; 3.2	**0.8**	-1.9; 3.4
Severe obesity	**3.4**	-6.0; 12.7	**5.5**	-0.6; 11.5
Avoid health care due to fear of insulting treatment				
Normal weight	**0.8**	-2.5; 4.0	**-1.3**	-2.8; 0.2
Moderate obesity	**-0.9**	-4.5; 2.3	**2.8**	-0.2; 5.7
Severe obesity	**8.1**	-1.3; 17.6	**4.2**	-2.6; 10.9

B=beta (regressionscoefficient); CI=confidens interval; *p<0,05

In individualist countries (US, Australia, Poland) a tendency to hold people responsible for their situation is associated with more prejudical attitudes about obesity, but not in collectivist countries (Venezuela, Turkey, India) (Crandall et al. 2001)

- Type of stigmatization
- Chronic or acute stress
- Duration and frequency of exposure (cumulative impact?)
- Coping (social support, feelings of control)
- Characteristics of the stigmatized and the stigmatizer
- What are the confounding variables?
- Complex relationships between different stressors