Addiction treatment services and research, research cooperation and training in Germany and Europe with a focus on gambling disorders

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Seoul, Republic of Korea, 08 January 2015

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Topics

1. **Germany**
   - 1.1 Treatment service structure
   - 1.2 Monitoring needs, services and outcome
   - 1.3 Research capacity building
   - 1.4 Gambling research topics
2. **European Union (EU)**
   - 2.1 EU programme: alcohol
   - 2.2 EU programme: tobacco
   - 2.3 EU programme: illicit drugs
   - 2.4 European Monitoring Centre for Drugs and Drug addiction (EMCDDA)
   - 2.5 EU programme: gambling

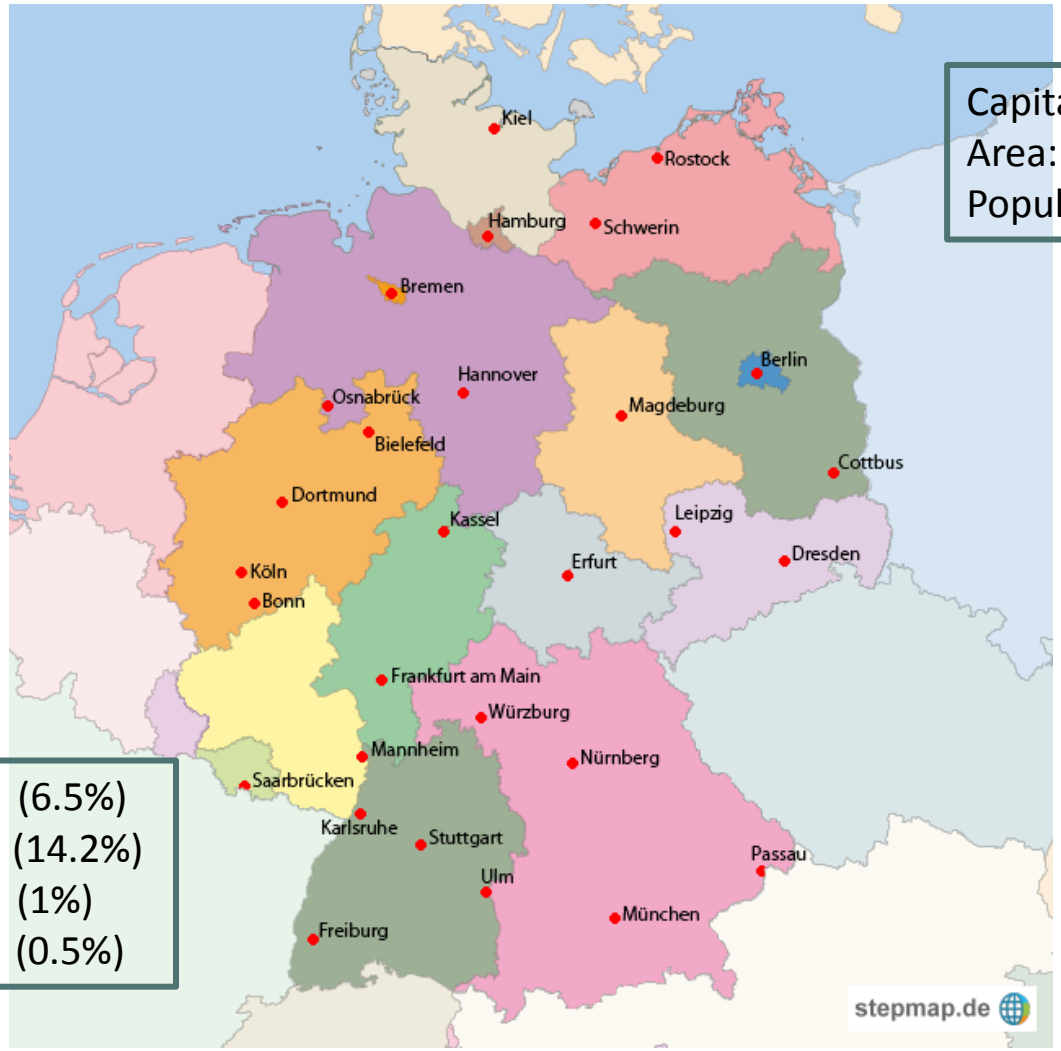
Topics

3. Gambling research and selected results

- 3.1 EU research project Alice Rap
- 3.2 Gambling disorder classification
- 3.3 Gambling disorder prevalence
- 3.4 Differences and communalities between SUD and GD
- 3.5 Risk factors for GD
- 3.6 Integration of risk factors into a heuristic model
- 3.7 Challenges for research

4. Conclusions

1. Germany



Capital: Berlin
Area: 357 168 km²
Population: 80 716 000

3.4m	AUD	(6.5%)
8.0m	Risky AU	(14.2%)
0.5m	CUD	(1%)
0.25m	GD	(0.5%)

1. Germany

1.1 Treatment service structure I

	Outpatient	Inpatient
(1) Total	1402	364
(2) Sample (2013)	**822**	**200**
(3) Ownership charity public commercial	 88% 9% 4%	 57% 13% 30%
(4) Staff	social workers, physicians, psychologists	
(5) Cases (yr.)	334 000	47 000

1. Germany

1.1 Treatment service structure II

	Outpatient	Inpatient
(6) Diagnoses		
Alcohol	53%	73%
Opioids	16%	7%
Cannabis	14%	6%
Gambling	6%	3%
Others	11%	11%
(7) Age (yrs.)		
Alcohol	45	
Opioids	34	
Gambling	37	
(8) Characteristics	high unemployment high comorbidity low education	
(9) Treatment duration (m)	6-8	2-3
(10) Regular discharge	50-65%	55-85%

1. Germany

1.2 Monitoring needs, services and outcome

(1) National population surveys

- age: 14-25 (since 1973) and 18-64 (since 1980)
- monitoring: disorders, needs, trends and policies/ opinions

(2) National treatment monitoring system

- about 1000 facilities
- monitoring: facility characteristics, staff, patient characteristics, interventions, outcome
- annual regional and national reports

(3) Utilization (examples)

- demonstration projects to improve services
- implementation of new taxes, other youth protection measures
- interventions for intoxicated adolescents
- improved funding

1. Germany

1.3 Research capacity building I

(1) Aim: to develop a competitive addiction research structure in Germany

(2) First research funding programme 1994 - 1998

- topic: etiology, to provide better basis for prevention and treatment
- 10 research networks and 18 single projects
- funding: 24 million Euros

(3) Second research funding programme 2004 – 2010

- topic: to provide improved treatment options
- 4 large research networks
- 2 new chairs of addiction research
- funding: 18 million Euros

(4) Currently about 10 university based, decentralized research structures

(5) Since 2010: addiction research funding via regular science funding

1. Germany

1.3 Research capacity building II

(6) European Graduate School of Addiction Research (ESADD)

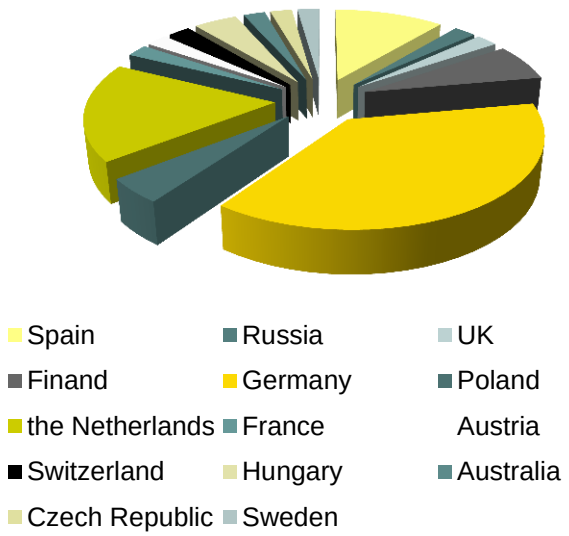
- aim: to promote excellence in addiction research
- based at the University of Dresden (since 2008)
- participants: doctoral students with a theses in addiction research
- students continue to work at their home university
- 6 one-week seminars in Amsterdam, Barcelona and Dresden
- interactive homework
- research stay in a foreign research group
- topics:
  - etiology, neurobiology, disease patterns
  - epidemiology, prevention, treatment
  - public health, policy
  - academic skills
- final examination
- duration: 2 years

1. Germany

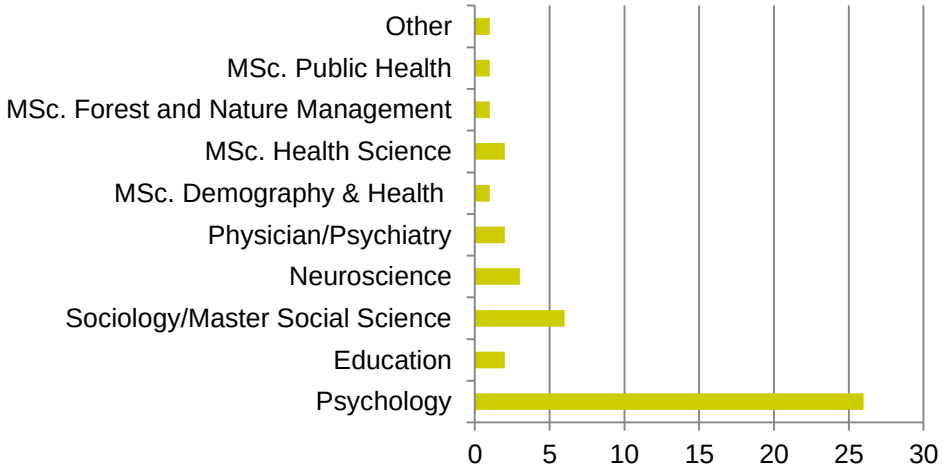
1.3 Research capacity building III

European Graduate School of Addiction Research (ESADD)
Overview Participants ESADD 1-3 (N=45)

Country of current PhD/MD institute



Highest completed level of education



1. Germany

1.4 Gambling research topics I

(1) Etiology

- genetic influence
  - impaired reward systems: e.g. dopamine, serotonin, opioid system
- personality traits
  - impulsivity, sensation seeking
- learning impairments
  - increased reward seeking
  - decreased learning from negative consequences
- cognitive impairments
  - impaired cognitive control
  - dysfunctional decision making
  - impaired conflict monitoring
- impaired motivation
  - increased, related to gambling stimuli: e.g. attentional bias
  - decreased, related to other stimuli

1. Germany

1.4 Gambling research topics II

(2) Epidemiology

- population figures, trends
- risk probabilities (compared to substances)
- clinical monitoring: cases, interventions, outcome

(3) Treatment research

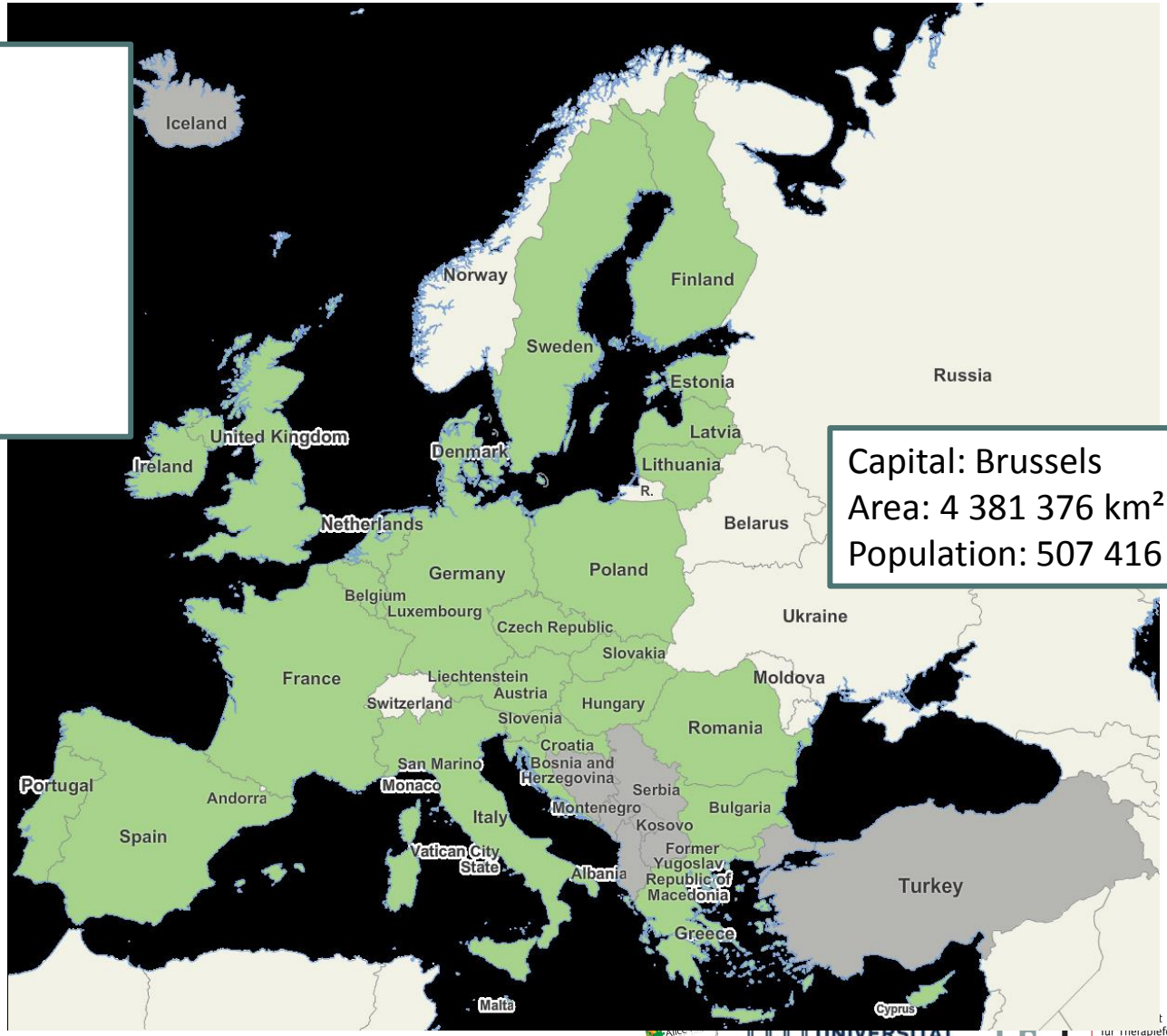
- early interventions
- online interventions

(4) Policy research

- impact of regulations
- prevention-oriented regulations

2. European Union

14m	AUD ♂	(9.1%)
6m	AUD ♀	(2.0%)
96m	TobU	(32%)
18m	CU	(5.3%)
3m	CocU	(0.9%)
1.5m	AmphU	(0.4%)
1.3m	OpU	(0.4%)
1.5m	GD	(0.5%)



Capital: Brussels
Area: 4 381 376 km²
Population: 507 416 607

2. European Union

2.1 EU programme: alcohol

EU alcohol strategy (since 2006)

(1) Alcohol-related burden

- 7.4% premature death cases
- 10% (female) resp. 25% (male) of mortality cases in age 15-29
- 10 000 deaths in alcohol related traffic accidents

(2) Five priority themes/ ten aims

- protect young people, children and unborn child
- reduce injuries/ death from traffic accidents
- reduce alcohol-related harm/ death among adults in general and at the workplace
- raise awareness on negative consequences and on appropriate consumption patterns
- develop/ maintain a common evidence base

(3) Actions by EU and MS

- e.g., Action Plan on youth drinking and heavy episodic drinking 2014-2016

→ Need for research!

2. European Union

2.2 EU programme: tobacco

EU approved WHO Framework Convention on Tobacco Control (FCTC) (since 2005)

(1) Tobacco-related burden

- 30% smokers
- 0.7m death cases (16%)
- 13m serious diseases
- 50% of all smokers die prematurely (14 yrs earlier)

(2) Eight guidelines

- protection of tobacco control against commercial interest
- price and tax measures
- protection of exposure
- content of products
- packaging and labeling
- education and public awareness
- advertising and promotion
- demand reduction measures

(3) Various tobacco control measures

- e.g. Tobacco Control Directive (2014)

→ Need for research!

2. European Union

2.3 EU programme: illicit drugs

EU Drugs Strategy (2005-2012; 2013-2020)

(1) Drug-related burden

- 1.3m opioid users (0.4%)
- 3.1m cocaine users (0.9%)
- 7000 drug-related deaths

(2) Aims

- to reduce supply of drugs
- to reduce demand for drugs
- to encourage MS and international cooperation and coordination
- to improve dissemination of research, monitoring and evaluation results

(3) Principles for actions

- evidence-based, scientifically sound, cost-effective, measurable results
- actions must have time-tables, performance indicators, responsible parties
- EU relevance and added value

(4) 47 priority fields of action

(5) Two EU Action Plans 2013-16 and 2017-20

(6) EU agency: EMCDDA

→ Need for research!

2. European Union

2.4 European Monitoring Centre for Drugs and Drug addiction (EMCDDA) I

(1) Characteristics (2014)

- founded: 1995 in Lisbon, Portugal
- budget: 16.3m Euro
- staff: about 100
- national monitoring centre: ≈30
- publications: 75 in up to 23 languages

(2) Mission

- to provide “factual, objective, reliable and comparable information” on drugs, drug addiction and consequences

2. European Union

2.4 European Monitoring Centre for Drugs and Drug addiction (EMCDDA) II

(3) Activities

- develop EU wide key indicators and standard procedures for collection and analysing relevant data on
  - drug supply
  - drug demand (drug use, problems)
  - treated cases, outcome
  - costs
- collect and analyse
  - drug market structures and trends
  - drug policies
  - best practice: prevention and treatment
  - research activities and outcome
- dissemination of results
  - reports, publications
  - conferences
  - training activities

→ Need for research!

2. European Union

2.5 EU programme: gambling

“Towards a comprehensive European Framework for online gambling” (14 July 2014)

(1) Gambling-related burden

- 0.1-0.8% with gambling disorders (GD; ≈ 1.5m)
- 0.1-2.2% potentially risky gambling

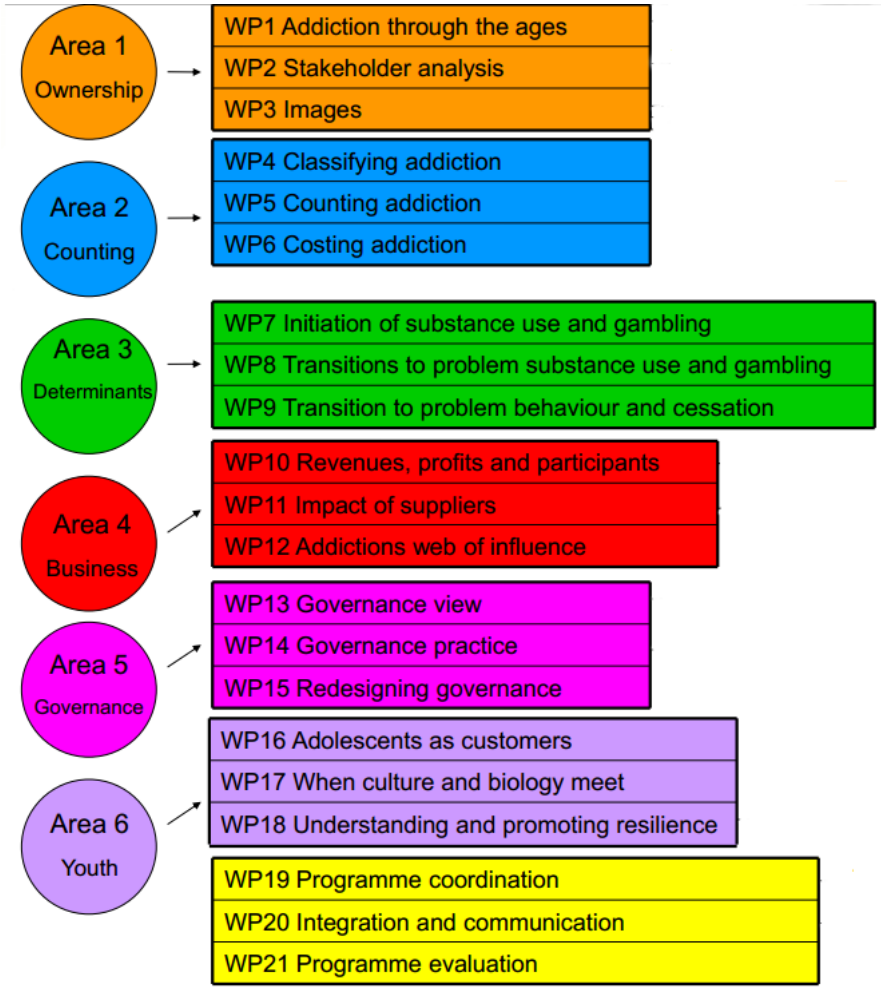
(2) Suggestions for 51 MS standard requirements

- information for gamblers
- protection of minors
- player registration and account
- player activity and support
- time out and self-exclusion
- commercial communication
- sponsorship
- education and awareness
- gambling authorities
- reporting by MS to the Commission and evaluation

→ Need for research!

3. Gambling research and selected results

3.1 EU research project Alice Rap



ALICE RAP: **A**ddictions and **l**ifestyle **i**n **c**ontemporary **E**urope – **R**eframing **a**ddictions **p**roject

- 31 countries
- 43 institutions & 107 staff members
- Timespan: 5 years (2011-2016)
- Budget: 7,978,226.00 €

3. Gambling research and selected results

3.2 Gambling disorder classification I

DSM-IV-TR	DSM-5
	(1) Substance-Related and Addictive Disorders
(1) Substance-Related Disorders	(1.1) Substance-Related Disorders
(1.1) Substance Use Disorders • Abuse • Dependence	(1.1.1) Substance Use Disorders
(1.2) Substance Induced Disorders • Intoxication • Withdrawal • Substance-Induced Mental Disorders - Delirium, Dementia - others	(1.1.2) Substance Induced Disorders • Intoxication • Withdrawal • Other Substance / Medication-Induced Disorders
(2) Impulse Control Disorders • **Pathological Gambling**	**(1.2) Non-Substance-related Disorders** • **Gambling Disorder**

3. Gambling research and selected results

3.2 Gambling disorder classification II

Non-substance-related Disorders: Gambling Disorder (312.31)

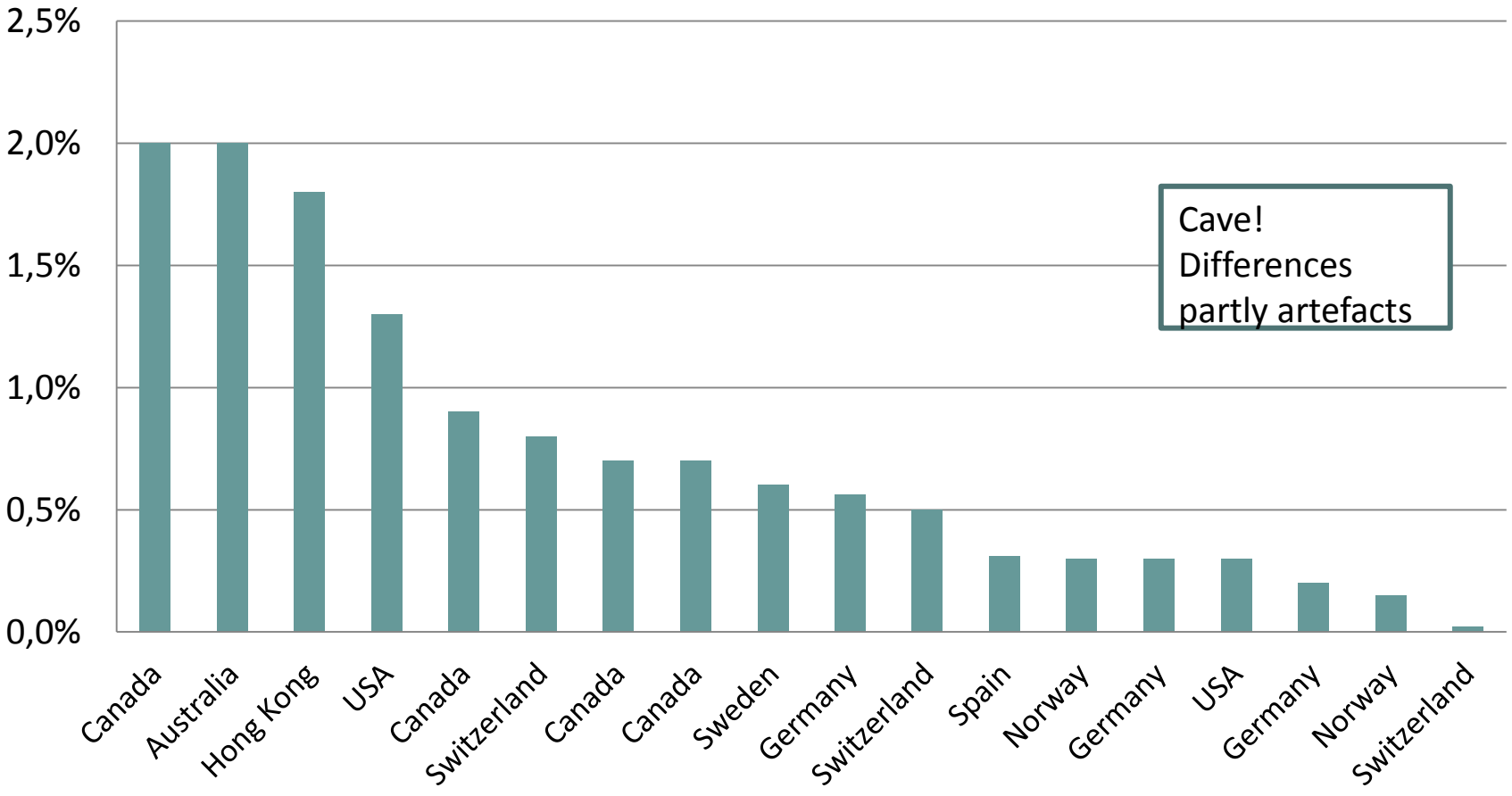
- Impairment or distress through persistent and recurrent problematic gambling
- 4/9 criteria in a 12 month period:

1. **Increasing amounts of money** to achieve desired excitement
2. **Restless or irritable** when cut down or stop gambling
3. **Unsuccessful efforts** to control, cut back or stop gambling
4. **Preoccupation** with gambling
5. Often gambles when **feeling distressed**
6. **Returns to gambling** to get even („chasing“ one‘s loses)
7. **Lies** to conceal the extent of involvement
8. **Jeopardized or lost significant relationships**, job, etc.
9. Relies on other‘s **financial support**

Mild: 4 - 5 criteria
Moderate: 6 - 7 criteria
Severe: 8 - 9 criteria

3. Gambling research and selected results

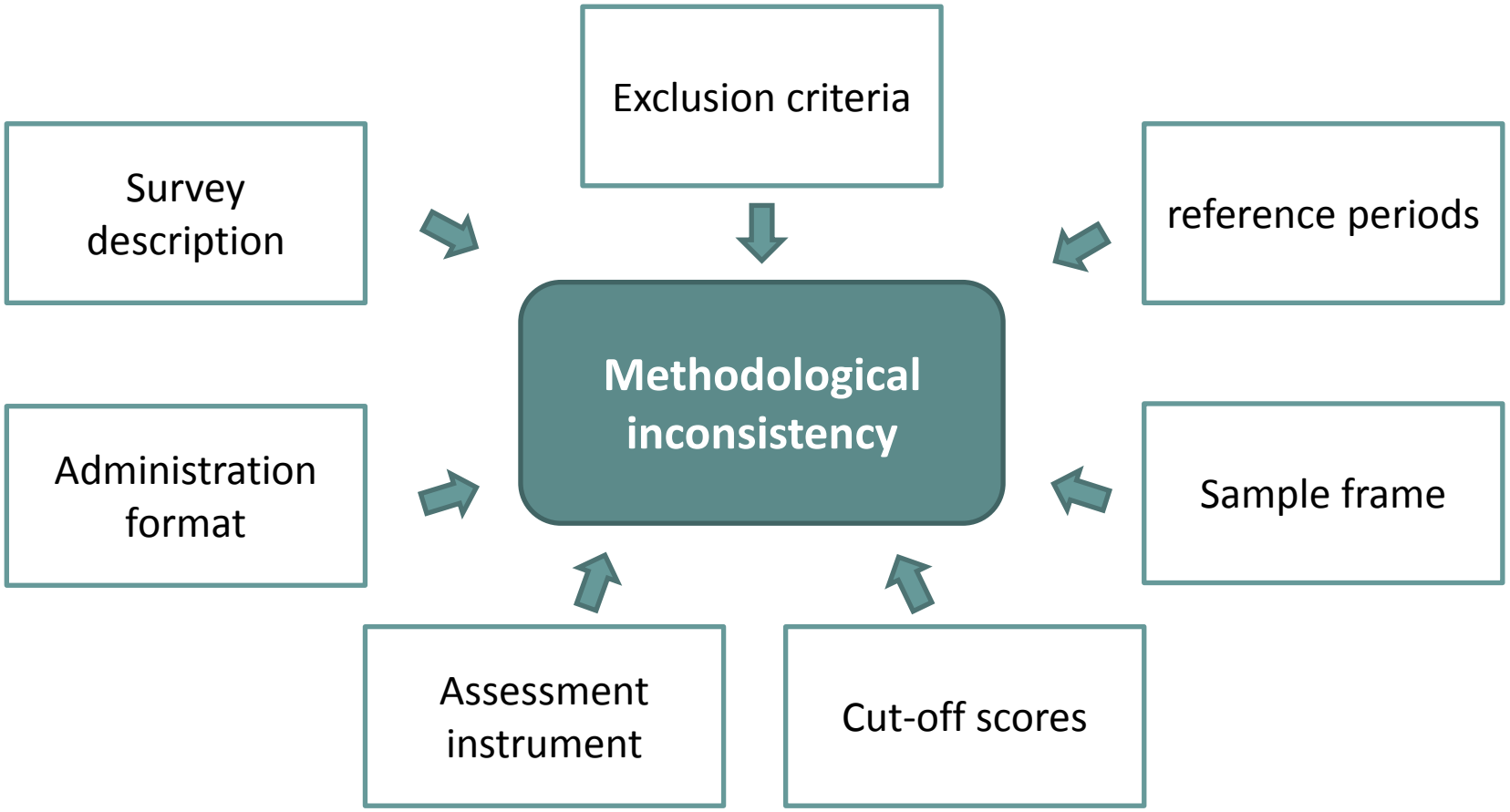
3.3 Gambling disorder prevalence I



(Sassen et al., 2011)

3. Gambling research and selected results

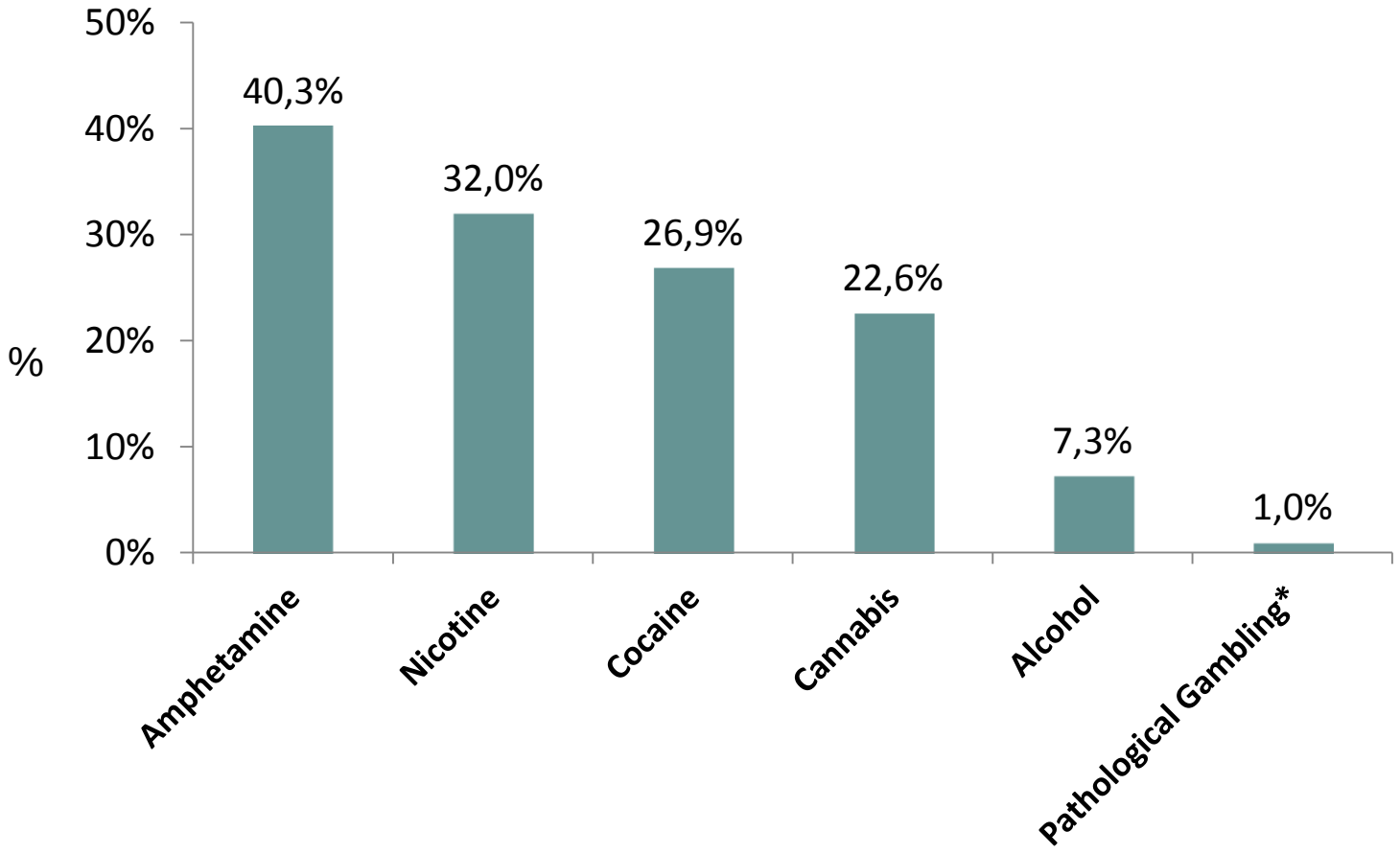
3.3 Gambling disorder prevalence II: low comparability



(Sassen et al., 2011a)

3. Gambling research and selected results

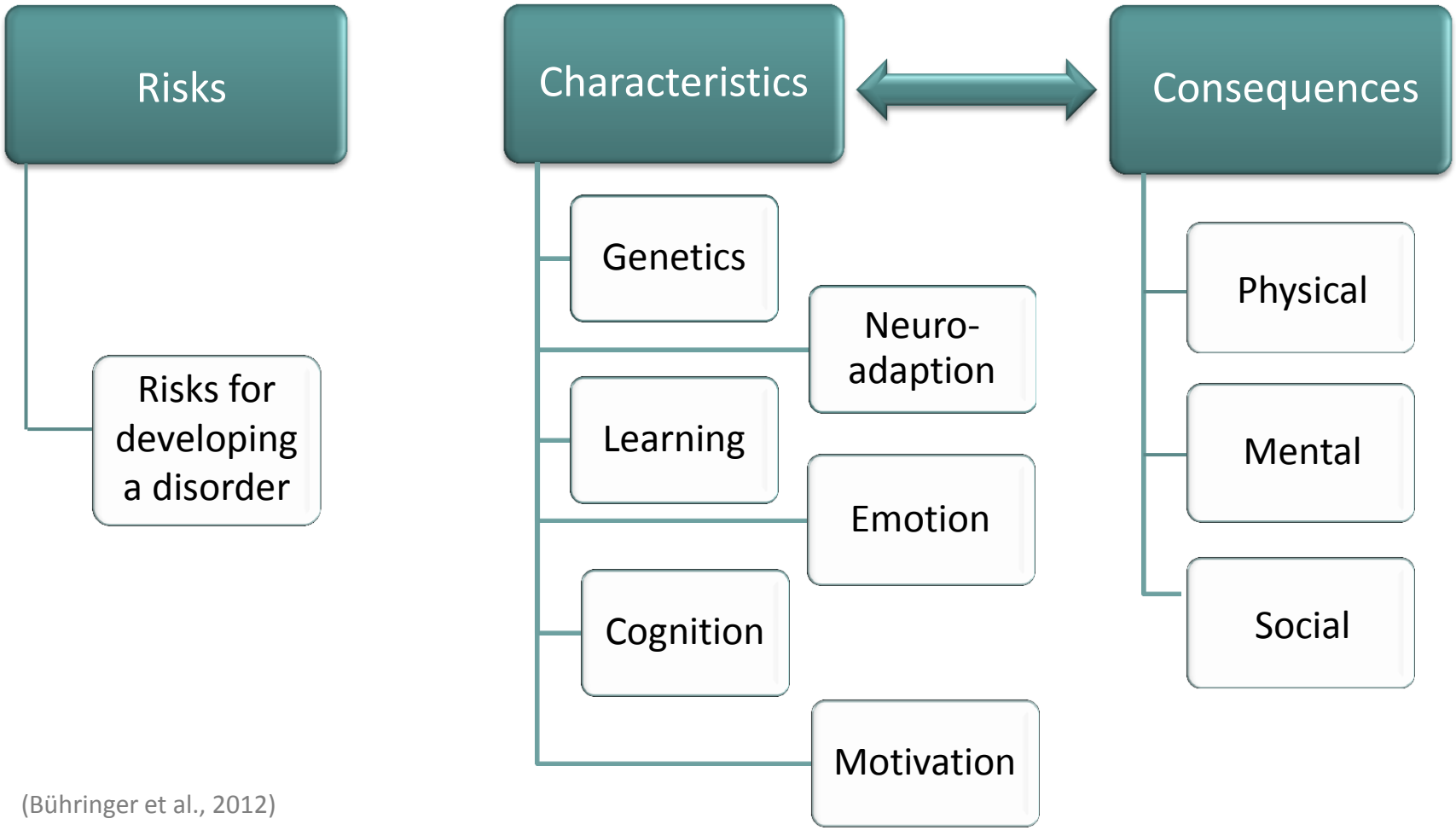
3.4 Differences and communalities between SUD and GD I: risk differences



*SOGS; based on BZgA, 2014

3. Gambling research and selected results

3.4 Differences and communalities between SUD and GD II



(Bühringer et al., 2012)

3. Gambling research and selected results

3.5 Risk factors for GD

(1) Social environment

- Large GD prevalence differences
- Social acceptance
- Gambling policy: e.g., availability, regulations

(2) Gambling characteristics

- Large GD differences between games
- Size of gains and losses
- Speed of games and payout of wins
- Other characteristics: “near misses”, reinforcement schedule, sounds, light

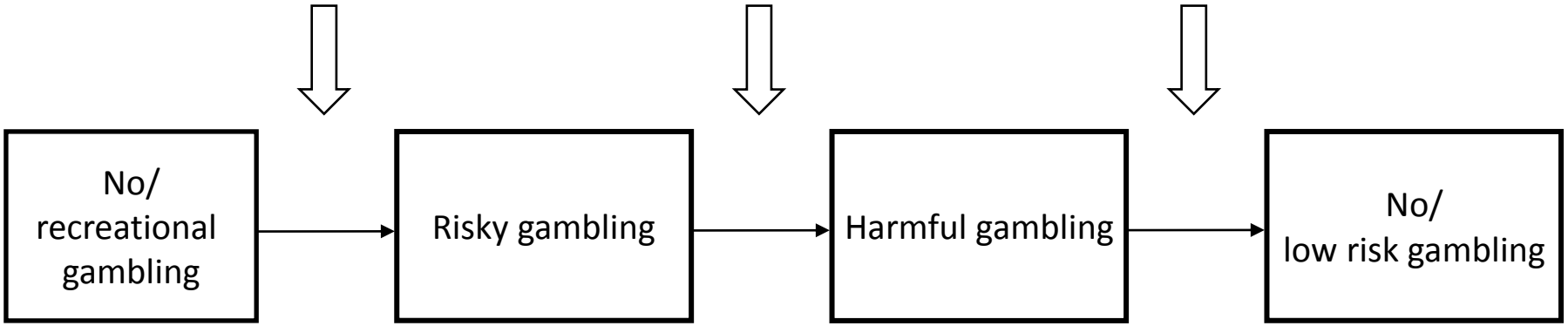
(3) Gambler‘s characteristics (vulnerability)

- Low risk for GD
- Personality traits: impulsivity
- Impaired cognitive control: e.g. risk assessment
- Impaired reward circuitries: e.g. reduced dopamine, serotonin, endorphin levels
- Impaired reward/ punishment sensitivity
- Comorbid mental disorders (onset before GD)

3. Gambling research and selected results

3.6 Integration of risk factors into a heuristic model I

Determinants of transitions to the three stages of problem development



Disciplines

public policy, economics, sociology, youth studies, anthropology, psychology, neurobiology, marketing, genetics, gambling research, European addiction studies, history

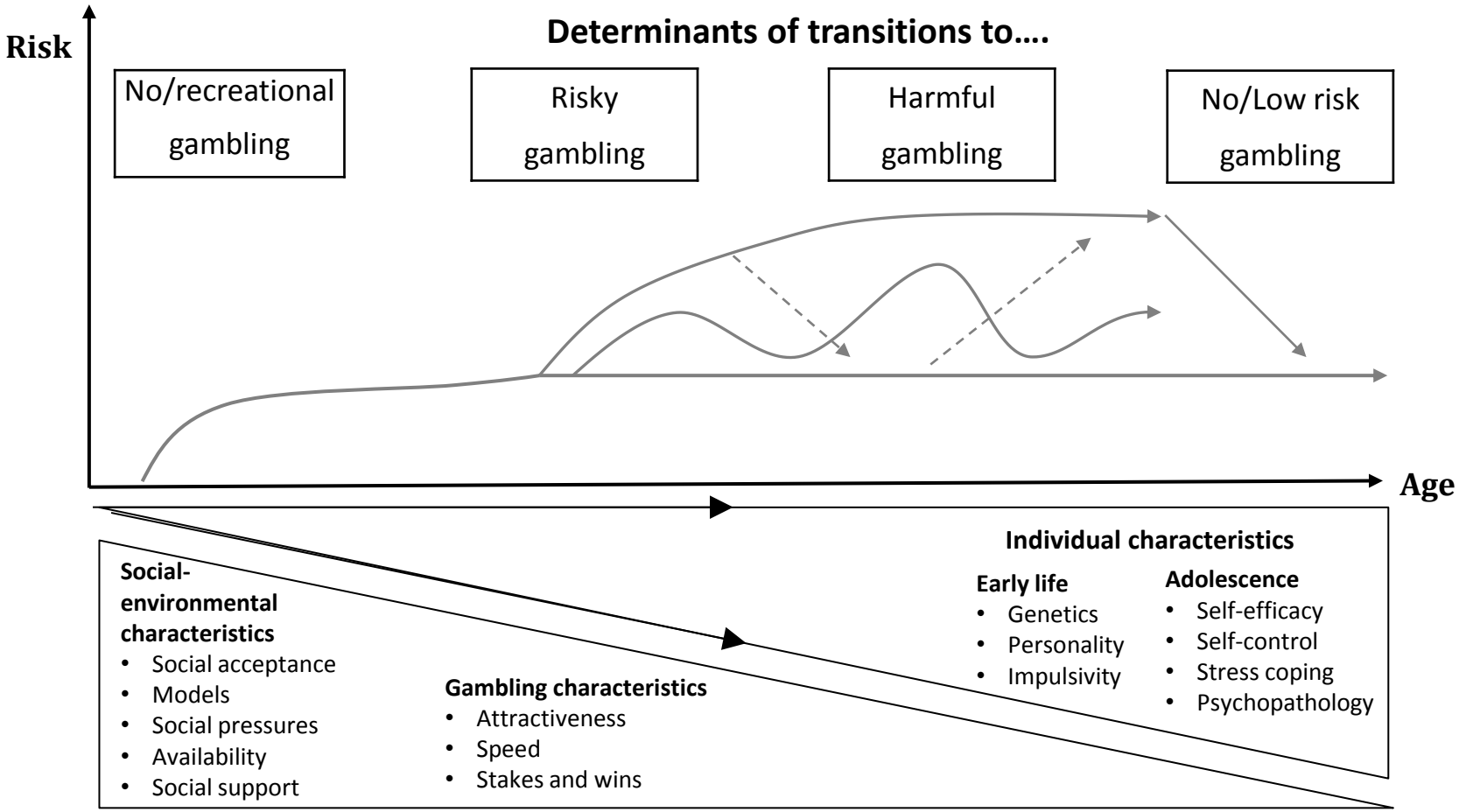
Determinants

social, economic and political environment
individual characteristics
cellular and molecular factors (including substance/gambling characteristics)

(www.alicerap.eu)

3. Gambling research and selected results

3.6 Integration of risk factors into a heuristic model II



(Bühringer et al. 2013)

3. Gambling research and selected results

3.7 Challenges I

(1) Population-based epidemiology

- Gambling types and numbers differ between MS
- Instruments differ which has an impact on prevalence figures
  (e.g. SOGS based figures are constantly higher than DSM-IV/-5 based figures)
- Inclusion and exclusion criteria differ
- No guidelines for „problem gambling“

→ Need for guidelines and standards

(2) Clinical epidemiology

- Mostly very brief contacts (lack of data)
- Probably many contacts outside addiction care system
- Evidence that many subjects change their problem behaviour without formal intervention

→ Need for guidelines and standards

→ Need for broad monitoring

3. Gambling research and selected results

3.7 Challenges II

(3) Mesurement of supply

- Gambling types and names differ between MS
- Online gambling difficult to monitor

→ Need for guidelines and standards

(4) Supply reduction

- Need for public discussion on the availability of gambling
- (illegal) online gambling hard to restrict
- Large differences between MS

→ No agreement between MS

→ Difficult to develop supply reduction measures

3. Gambling research and selected results

3.7 Challenges III

(5) Demand reduction: treatment

- Brief treatment contacts
- Services outside addiction system

→ Difficult to collect treatment concepts and outcome data

(6) Demand reduction: prevention

- Universal prevention:
  information on stakes, wins, losses , behavioural risks; further interventions unclear
- Selective prevention:
  Some target groups (adolescents, young male adults, migrants), but lack of concepts
- Indicative prevention:
  First concepts for online and land-based prevention

→ Need for concept development

3. Gambling research and selected results

3.7 Challenges IV

(7) Gambling policy

- Lack of agreement between State and private providers, scientists and help system
- Lack of society involvement on the size/ type of gambling opportunities, regulations and control

→ Walk through a shark tank

4. Conclusions

(1) High burden by problem substance use and gambling

- high need for effective policy and treatment interventions
- need for staff training

  need for research

(2) Research capacity must be and can be systematically developed and strengthened

- long-term funding of larger groups/ topics
- university structures
- academic training
- international coordination and cooperation (ICARA)