Psychosocial determinants of oral health inequalities

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International Centre for Oral Health Inequalities Research & Policy
International Centre for Oral Health Inequalities Research and Policy (ICOHIRP)
Launch Conference
In Partnership with Public Health England
Outline

• Concepts and definitions
• Current research
• Theoretical challenges
• Methodological challenges
• Promising approaches
• Final remarks
Definitions of ‘psychosocial’

“pertaining to the influence of social factors on an individual’s mind or behaviours and to the interrelation of behavioural and social factors”

Oxford English Dictionary
In the context of health research can be seen as

1. Mediating the effect of social structural factors on health outcomes

2. Conditioned and modified by the social structures and contexts in which they exist

Psychosocial epidemiology

Health inequalities result from the experience of chronic and acute psychosocial stressors through two mechanisms

1. Alter host susceptibility or became directly pathogenic (individual level)

2. Induce health damaging behaviours (individual level)

Current research in health

How has this term been used in the literature?

Psychosocial is used as an umbrella term

✓ Diverse research inquiries
✓ Without consideration on the pathways
✓ It refers to everything and nothing in particular

Psychosocial pathways

Psychosocial pathways

Ownership and control of the land and business
Legal and welfare structures
Distribution of income and other resources

Psychosocial pathways

Religious institutions
Family
Firm
Club

Psychosocial pathways

Psychosocial pathways

Current level of evidence on psychosocial factors role in oral health inequalities

Pubmed Search (n=253)

Title and abstract screening

Number of relevant studies (n=54)

Excluded (n=17)

Finally included in review (n=37)

Theoretical Studies: (n=7)

Empirical studies: (n=30)

(n=5): Language other than English

(n=5): Full text could not be retrieved

(n=5): Observed not relevant to research question after full text review as psychosocial factors neither considered as exposure or pathways

(n=2): Qualitative study and systematic review
# Theoretical papers

<table>
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<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Publication Details</th>
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Summary of empirical studies

✓ Recent

✓ 10 USA; 5 Brazil; 4 UK; 2 Australia; 2 Japan; 2 Romania; 1 Lithuania, NZ, Korea, Canada, and India

✓ Children, adolescents, adults, older people

✓ 4 Case control; 26 Cross sectional

✓ Social capital, social support, social cohesion ↑ mental well being, stress, anxiety, depression, psychosocial stressors ↓

✓ 21 exposure, 6 pathway, 3 exposure and pathways
Summary of empirical studies

- 8 contextual, 22 individual

- dental caries (11), SROH (9), perio (6), remaining teeth, plaque, toothache, bad breath, fracture, dental care utilisation (1 each)

- 22 regression modelling, 3 multilevel analysis, 4 descriptive statistics, 1 SEM

- 16 studies supporting that unfavorable psychosocial factors are associated with worse oral health

- 9 studies assessed mediation of SEP → oral health
  - 4 found not mediation
  - 5 found partial mediation
Theoretical challenges

✓ Are they (psychosocial) independent causes of diseases? Or mediators of macro level social factors?

✓ If they are (partial) mediators then which other theoretical pathways should be considered and tested?

✓ Social capital or social network (construct or representational methodology)

✓ Social capital and social cohesion as population level psychosocial assets (Krieger 2001)
Methodological challenges

✓ Limitations of multilevel modelling with causal modelling

✓ Abstract definition leading difficulty of choice variables

✓ Definition of social structure and its measurement affecting the relative explanatory power of theoretical pathways

✓ Lack of longitudinal studies
Promising approaches

- Deeper understanding of the origins of the theoretical pathways

- Building consensus and agreements on terminologies and definitions – robust measurements

- Longitudinal studies and venture into causality – DAGs and counterfactual modelling, MSM

Maika et al. 2014
Final remarks (instead of conclusion)

✓ The need of specifying theoretical causal relationships

✓ Psychosocial approaches as a pathway – mediating the influences of social determinants on health

✓ Other approaches – life course, neo-materialist, Ecosocial

✓ Data analysis is fruitless in the absence of good theory
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