Insights and learning experiences from cardiovascular health promotion in Nepal

SYM20: Primordial prevention of cardiovascular disease and beyond in the African continent: opportunities and challenges

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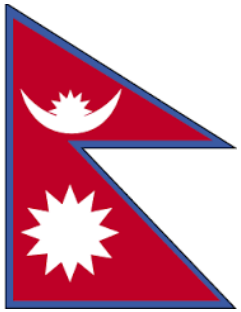
WORLD CONGRESS OF EPIDEMIOLOGY 2024

Overview

- Background: Nepal
- Why cardiovascular health promotion in Nepal?
- Study setting
- Examples of interventions: HARDIC and HRIDAYA
- Challenges
- Learning outcomes

Background: Nepal



- Population: 30,55 million
- 126 ethnic groups
- 3 ecological belts (Terai, Hills, Mountains)
- 7 provinces and 77 districts

Why cardiovascular health promotion in Nepal?

- Cardiovascular disease (CVD) prevalence increasing – contributes to 24% of total deaths and 11.9% of total DALYs
- High prevalence of CVD risk factors, but lack of knowledge, poor attitude, and inadequate practice for CVD prevention in the population
- Resource-limited setting: health promotion better value than disease prevention and/or curative approach
- Habits related to diet and physical activity established in early childhood and carried into adulthood

Study Setting: Jhaukhel-Duwakot Health Demographic Surveillance Site

- 15 km outside Kathmandu, Bhaktapur district, semi-urban
- Established 2010 by the Nordic School of Public Health, Kathmandu Medical College and Nepal Medical College
- A platform for future interventions to improve community health and capacity buildning
- Knowledge, attitude and practice regarding cardiovascular health poor
- High prevalence of risk factors

HARDIC

Heart-Health Associated Research, Dissemination and Intervention in the Community

PhD-thesis of
Natalia Oli
University of Gothenburg 2018

- Health promotion usually considers adults, but rarely children
- Exposure to risk factors begins in early life
- The family food environment affects children's lifestyle
- The mother is the key person responsible for children's lifestyle
- Peer education approach involving mothers can be useful

Intervention tools: Flip chart and manual

- **Module 1**: Heart disease, food and cardiovascular health
- **Module 2:** Fibers, fruits and vegetables
- **Module 3:** Fats
- **Module 4:** Salts
- **Module 5:** Sugar, juices and soft drinks
- **Module 6:** Obesity
- **Module 7:** Physical activity

HARDIC

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Intervention

HARDIC

Peer mothers TRAINING

Fellow mothers CLASSES

HRIDAYA

Heart-related Research Intervention with Digitalization Among Young Adolescents

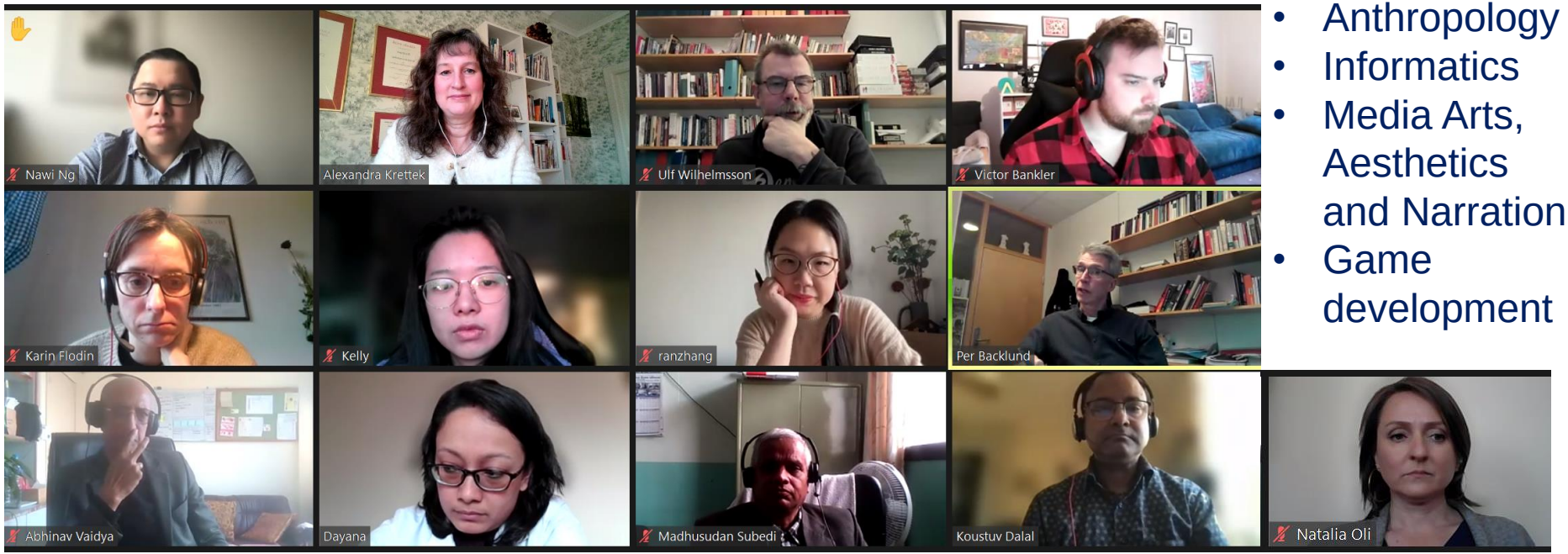
PhD-thesis of
Dayana Shakya
University of Gothenburg, expected 2026

- Targeting adolescents for CVD awareness needs a user-friendly medium
- A mobile-based intervention could be useful to reach this technologically inclined group
- Assess if digital prerequisites like smartphone and internet access exist
- Investigate feasibility, acceptability, and effectiveness of such an intervention in a developing country

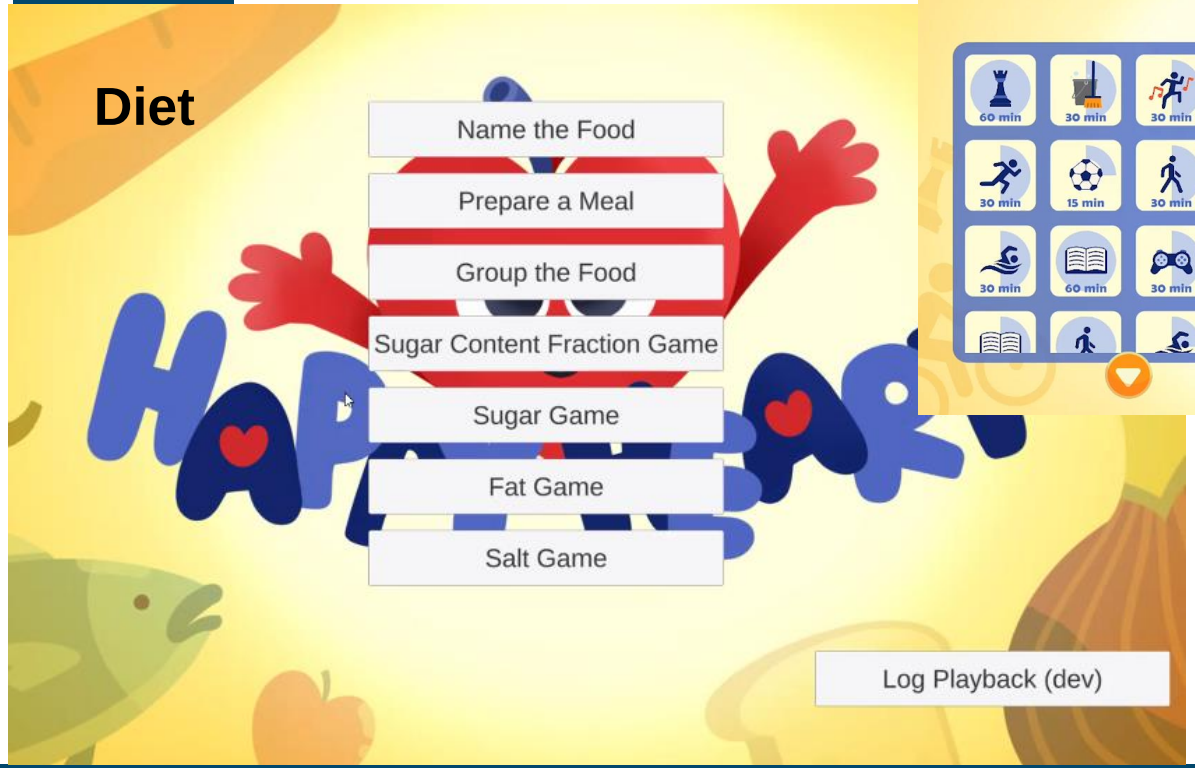
Digital health promotion in schools

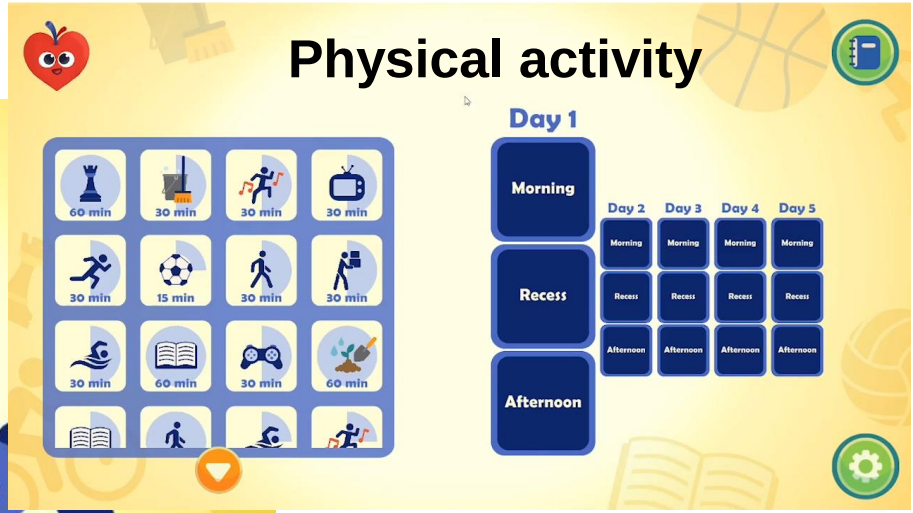
– a serious games approach for cardiovascular health education in Nepal

- Public Health
- Community Medicine
- Anthropology
- Informatics
- Media Arts, Aesthetics and Narration
- Game development



Intervention tool: Digital game





HRIDAYA
Heart-related Research Intervention with Digitalization Among Young Adolescents

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Intervention

HRIDAYA
Heart-related Research Intervention with Digitalization Among Young Adolescents

Adolescents, grades 8-10 public & private schools

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- Political focus and instability
- Disasters: Earth quakes, pandemic, war…
- Funding - limited resources
- Sustainability for long-term effect
- Infrastructural challenges
- Cultural issues: adaptation, stereotypes, norms
- Collaboration between disciplines

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Learning outcomes

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- Possible to use/develop interventions of cardiovascular health education for both adults (mothers) and adolescents in a low-income setting
- Working together from different disciplines is necessary but requires more time than expected
- Always take context into account and do not assume anything

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Thank you for your attention

Extra slides
(if needed during Q & A)

Trash Bin

Vitamins & Fibres

Carbs

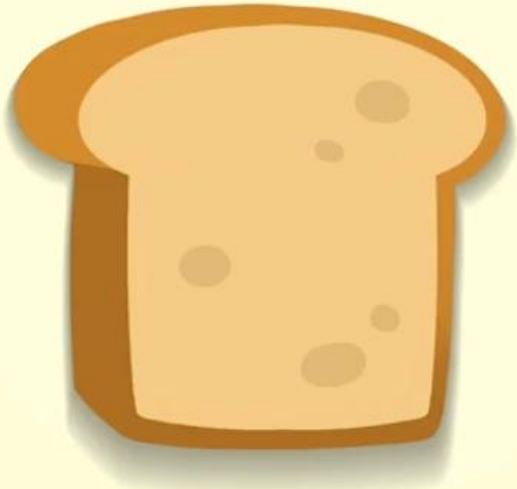
Protein

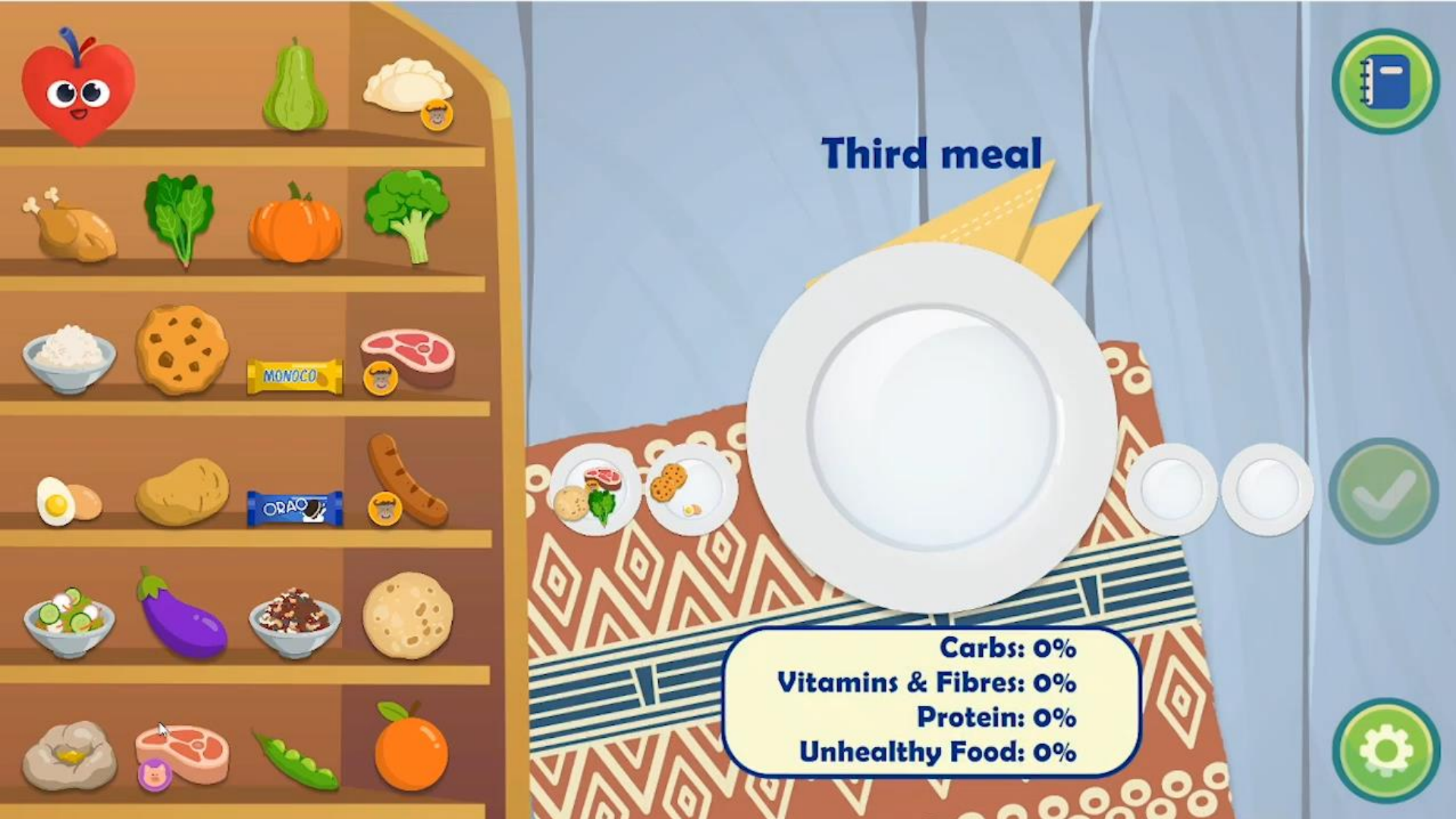
Fats

Unhealthy Food

Calcium

0%




Third meal
MONOCO
ORAO
Carbs: 0%
Vitamins & Fibres: 0%
Protein: 0%
Unhealthy Food: 0%

Carbs: 33%
Vitamins & Fibres: 33%
Protein: 33%
Unhealthy Food: 0%

Carbs: 0%
Vitamins & Fibres: 0%
Protein: 33%
Unhealthy Food: 66%

Carbs: 0%
Vitamins & Fibres: 66%
Protein: 33%
Unhealthy Food: 0%

Carbs: 0%
Vitamins & Fibres: 25%
Protein: 75%
Unhealthy Food: 0%

Carbs: 50%
Vitamins & Fibres: 50%
Protein: 0%
Unhealthy Food: 0%

All meals

Carbs: 13%
Vitamins & Fibres: 33%
Protein: 40%
Unhealthy Food: 13%

Try to achieve 5 stars and unlock Time Challenge mode!

Day 1

	Day 1
Morning	
Recess	
Afternoon	

Day 2	Day 3	Day 4	Day 5
Morning	Morning	Morning	Morning
Recess	Recess	Recess	Recess
Afternoon	Afternoon	Afternoon	Afternoon