Environmental, social, and structural constraints for health behaviour
Perceptions of young urban Black women during the preconception period — a Healthy Life Trajectories Initiative

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Background

- Developmental origins of health and disease perspective - risk factors for NCDs (e.g. diet, obesity) affect the at-risk individual and her offspring

- Hypertension in pregnancy increases risk for:
  - Preeclampsia, caesarean delivery, preterm delivery, low birth weight, admission to neonatal unit, perinatal mortality, congenital heart defects

- Interventions to modify preconception risk are critical
  - Healthier diet patterns and higher physical activity levels in pregnancy associated with decreased gestational weight gain >> better birth and infant outcomes

Background

- Urbanisation and built environment factors contribute to obesity, especially in LMICs
  - Influences obesity-related behaviours (e.g. poor diet, decreased physical activity)
  - But why and how this happens is not well understood

- Many detrimental behaviours exist in pregnant women >> intergenerational transfer of metabolic disease risk
**Background - South Africa**

- Rapid urbanisation: decreased physical activity, increased consumption of nutrient-poor foods
- Highest obesity prevalence in Africa:
  - 68% of women >15y overweight/obese
  - Higher in urban vs rural
- ~50% of women have hypertension
- ~10% of adult population has diabetes
- <1 in 5 hypertension or diabetes cases are controlled with medication
- 43% of female deaths in 2010 resulted from NCDs
- 50% of women have first child by 22y
- 60-80% of pregnancies are unplanned

**How best to intervene in the preconception period in SA?**

- Focus on preconception period is novel in South Africa - no previous interventions developed and tested
- Need to understand the range of social, environmental and structural factors that influence everyday behaviours
- Situate this within a theoretical behaviour change framework to inform intervention strategies
Study aim

- To examine young, nulliparous South African women’s perceptions of health and contextual factors influencing health behaviour
- Qualitative approach
  - Emic perspective of young women
  - Behaviour Change Wheel framework
    - Incorporates a range of intervention types, policies and behaviour change models
    - Recognises that individuals operate within a broader external environment
  - Formative work for the Healthy Life Trajectories Initiative

Healthy Life Trajectories Initiative

- 4-country study (South Africa, Canada, India and China)
- Aims to develop and evaluate an integrated continuum of care intervention
  - Preconception
  - Pregnancy
  - Infancy
  - Early childhood
- Ultimate goal is to reduce childhood adiposity and risk for NCDs
- HeLTI South Africa site: Soweto, Johannesburg
Soweto

- Rich political history, still many economic challenges
- 60% of pregnant women present as overweight/obese at first antenatal visit
- High intake of energy-dense, processed, high-sugar or fat foods
- ~50% of women exposed to intimate partner violence, high levels of substandard housing, food insecurity and HIV risk
- ~3rd of women have first child by 19y
- ~25% women present with gestational diabetes
- Site of the Birth to Twenty Plus cohort study – Africa’s largest and longest running study of child and adolescent health and development

Methods

- Sample of 29 young women (29±2y) from Soweto
- Recruited using pamphlets handed out at research centre + snowball sampling
- Inclusion criteria:
  - Female
  - 18-24y
  - Reside in Soweto
  - No children / not pregnant
  - Written informed consent
  - Received transport reimbursement and refreshments
Methods

- 4 focus groups conducted with 6-10 participants/group
- 2-2.5 hours in duration
- Facilitated by female research assistants of a similar age, same ethnicity, and fluent in local languages
- Conducted in English, with flexibility for participants to use vernacular languages
- Aim of focus groups was to:
  - Obtain information about perceived barriers and facilitators to healthy living in Soweto
  - Seek young women’s perceptions regarding what and who could best support young women to make healthier choices in this context
  - Obtain young women’s perspective regarding a proposed intervention in the community

Methods

- Topic guide:
  - Context
  - Healthy living
  - Obesity and diabetes
  - Support from community health workers
  - Support from family
  - Education material
  - Intervention content
Methods

- Data analysed using grounded theory ‘lite’ approach
- Thematic analysis by 2 authors to identify recurring themes according to Braun and Clarke’s 6-phase guide:
  - Familiarisation with data
  - Generating initial codes
  - Searching for themes
  - Defining, refining and naming themes
  - Producing report
- After authors were familiar with transcript, developed initial in vivo codes

Methods

- Open coding and constant comparison resulted in agreed themes
- Reliability of themes involved moderation by 1 other author
- Coding framework then applied to transcripts
- Data discussed with Behaviour Change Wheel framework – capability, opportunity, motivation system for behaviour
  - An individual must have the necessary skills and intention, as well as no environmental constraints to prevent that behaviour
- Data thus collected from emic perspective of young women and interpreted within the central COM-B model
Results - Main themes

Diet

- Physical activity

Perceptions of...

Body size & shape

Behaviour change

Perceptions of diet

- Access to healthy / unhealthy food
  - Financial, social and environmental barriers
  - Young women have little influence over decisions about what is cooked and consumed in the home – did not contribute financially to groceries; person purchasing food doesn’t necessarily know what is healthy
  - Cost, availability and proximity of food businesses in the neighbourhood have a large influence on food choice
    - Unhealthy foods generally perceived to be cheaper and more accessible
    - Some believed healthier foods were not necessarily more expensive, but not as readily available as unhealthy foods
“What makes it harder to lead a healthier lifestyle is small business that are opening up in my community and they all sell fries, literally they just all sell fries.”

“A packet of potato is R5, packet of onion or packet of lettuce is R5 or R7. So, I think it’s based on us that we are lazy to cook; we want fast, fast things. So, that is why we are going to go more for quarters, we are going to go for Vetkoek, stuff like that.”

“. . . Junk food: it’s just, here it’s readily available... Just get out of the gate or the house and it’s just here. But with healthier food, or as much as it’s reasonable, you have to walk all the way up there and you want to eat now, you are hungry, you want to eat now, so we settle for it.”

Perceptions of diet

- Knowledge of healthy diets
  - Knowledge gap between food, body shape and health, specifically quantities of macronutrients required for a healthy weight and how to measure them
  - Obtaining knowledge about how to grow foods at home would enable access to healthier foods in a financially sustainable way
  - Misconceptions, e.g. only organic food was healthy food, fat
“It’s a misconception again that if you eat too much fat, you get fat. Actually, in actual fact, fats fight with fats. So, you can’t say fats cause you to be obese. They say in the Banting program, fats causes you to lose weight, so fats are good.”

Perceptions of diet

- Impact of the social environment on food choice and eating behaviour
  - Facilitates and prevents healthier eating, e.g., role models of healthy eating, but not wanting to be disrespectful to older women in the home by wanting to eat differently from them
  - Some wanted to be role models for others
  - Eating as a coping strategy for stress and loneliness
  - Peer pressure also drives food choices
  - Dietary socialisation and food culture impact on perceptions of food and eating habits, e.g., “veggies are for whites, blacks can’t afford veg”, energy-dense foods (regularly consumed) are more satisfying (than vegetables)
"I know it's going to sound cliché, but my mother. I draw inspiration from her. I want to live a healthier lifestyle because I saw what happened to her when she was leading a healthy life."

"So, how can I eat veg?...It's hard if they [older women in household] are not leading by example. So, I will follow what they are doing because I feel it is right. So, it's hard to do my own thing on my own side."

"Friends will come to you and say, “Hey friend, I’m hungry. I want chips and vetkoek,” and then you’ll also go, even though you know that you’re not hungry. You’ll say to your friend, “Let’s go,” because you know that you’ll eat."

"As a black kid, I was raised to eat like pap, meat, and sweets. So, when I try to make a meal and make it a little bit healthier, like, I don’t get full, I just eat."

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**Perceptions of physical activity**

- **Barriers and facilitators to PA related to access and the social environment**
  - Some access to gyms, sports grounds, parks and free aerobics classes at community halls
  - Some reported not having access or not knowing about facilities in their area
  - Safety is a major barrier to accessing facilities and walking in the community
  - Crime directly affected their ability to exercise or even walk outside – facilities often vandalised, and they are particularly vulnerable as women
  - Uncomfortable being in public in exercise clothes because of verbal insults or abuse from men based on clothing choice
“That tomorrow morning, they open it and then it’s ruined by the horrible boys or whatever, they want to use it to go sell it for their drugs.”

“Sometimes I don’t feel safe because if I don’t have money to take a taxi, I have to walk.”

“No, I don’t feel safe because we have drug addicts, traffic, women trafficking: it’s not safe for us to walk in the streets.”

“That is the case, safety for me. Not just only physical safety, like, I can’t, I’m scared to go out.”

Perceptions of physical activity

- Barriers and facilitators to PA related to access and the social environment (cont.)
  - Local community has low levels of structured PA
  - Families felt PA was less important for girls as they become older, more pressure to prioritise education instead
  - Young women saw sports as a way for individuals who were less academically inclined to excel
  - Community viewed certain activities as not relevant to them
  - But peer groups can be supportive and sometimes good role models
“In Soweto, chances for men and sports opportunities are very huge. But for women, are, there are no chances at all.”

“Others are not doing well in terms of academics, but if maybe they can have, like, soccer clubs or any kinds of sports or any kind of sports development. Then they can do something better with their lives.”

“I leave the house early in the morning at 5 and tell myself, you know what? I’m going to jog today. I’m going to start this diet thing. The minute you walk out, there are people that literally laugh at you. She is acting like a white person, she is running, she is jogging, what is she doing?”

Perceptions of physical activity

- Intrinsic and extrinsic influences of activity choices
  - Negative intrinsic: Being lazy, lack of motivation or time, ignoring information or facilities for PA, perception that PA has no obvious benefit or financial gain – strong motivating force
  - Positive intrinsic: desire to be a role model for others
  - Positive extrinsic: competitions with rewards, TV shows with fitness sessions / tips
  - Some thought it was the responsibility of others to motivate them; others recognised that behaviour change is their choice
“They should bring in equipment to exercise that you can use, and you know what would motivate us, if they supplied us with such programs...I think that will motivate people to look at their health.”

“If we can change our attitudes, then we are good to go.”

“Like a friend or a family, like, someone who can motivate you, ‘Let’s wake up and go run, let’s go gym,’ so if it was someone close to me.”

“I’m not going to get money out of this, so I would rather do something that is going to benefit me.”

Perceptions of body size & shape

- Meaning of being overweight
  - Various labels: “huge”, “big”, or “fat”
    - “medium big” / “normal fat” vs “too fat”
  - Overweight and obesity viewed as prevalent and normal, and for Black Africans generally
  - Confusion regarding the term ‘obesity’
  - Overweight perceived differently for men and women
    - Men: sign of success
    - Women: socially acceptable, but desirability of excess body weight depended on body shape and how much excess
  - Confidence, happiness, and beauty were desirable traits associated with being overweight
  - Conflicting views about whether weight gain was in their control (healthy habits) vs underlying disease, medication or genetics
Perceptions of body size & shape

- Impact of being overweight
  - Often faced social embarrassment, name-calling from peers
  - Social impacts (positive and negative) of being overweight discussed more frequently than health impacts
  - Link between weight gain and mental health

“There is, like, social things that come with being fat...There is the name-calling...When you get to the taxi rank, you are told that you need to stay in the seat right there by the door.”

- Causes of overweight
  - Only 1 participant mentioned link between obesity and heart disease
  - Link between obesity and diabetes not clearly established
    - Diabetes causes obesity

“There is nothing they can do about [obesity]. It’s genetic.”

“I feel like it’s a lot of factors. It could be stress, depression, and a lot of physiological factors can lead to obesity. Which, because if you have stress in your job, it’s usually the best place to go to, is food. So, you end up gaining the weight.”

“I don’t know the name of the diseases, but there is one for people, that pick up weight and cannot lose it easily.”
Perceptions of behaviour change

- Understood as a need to change habits and perceptions
- Body weight alone rarely perceived to be a reason to change behaviour
- Engaging in healthy behaviour was a personal choice and could not be enforced by others
- Social norms and role models influence behaviour (in context of constraints of their physical environment)
- Need support for these changes, e.g. government, but must be sustainable

“I think it’s a personal choice. I need to decide if I want to live a healthy lifestyle.”

“Sometimes it’s a matter of not really knowing yourself; you just do what another person is doing because that is what you know.”

“They bring people from outside and after 6 months, those people just disappear, they just leave you hanging.”
Discussion

- First study in South Africa to examine impact of broader social and structural environment on young women’s health choices before conception, from the perspective of young women
- Some worrying results from a challenging urban environment, given the importance of preconception health
- Women understand the importance of health diet and PA
- But, lacked knowledge about the impact of overweight and obesity on health and disease - concerning given high rates of overweight and obesity in South African women

Behaviour Change Wheel

- Rules that govern behaviour: capability, opportunity, motivation
  - An individual must have the necessary skills and intention, as well as no environmental constraints to prevent that behaviour
  - Capability: psychological (knowledge, comprehension and reasoning) and physical capacity (skills)
  - Women wanted more knowledge, felt limited by lack of knowledge about healthy lifestyles, e.g. how much exercise is needed, how much of food group to eat to control weight
  - Misconceptions about diet from misinformation or misinterpretation in the media
  - Not connecting obesity and diabetes
  - Obesity seen as normal and socially acceptable, unavoidable
  - But, shifting beliefs to more Westernised body shape
Opportunity: physical (in one’s environment) and social (within groups, communities and cultures)

Food choices affected by both physical opportunity (easy access to high-fat, energy-dense, cheap foods; lack of finances) and social opportunity (peer pressure, social norms)

Healthy diet not financially prioritised, owing to prevalence of food insecurity - challenging to address given almost instant availability and low cost of unhealthier foods

Improving skills could help mitigate some of these costs, e.g. reading food labels, make cost-effective substitutes

Policy changes, e.g. sugar tax, salt legislation, may not be influencing pricing or composition of local, informal food

Opportunity

Constraints for outdoor exercise - crime, targeting of young women for human trafficking, physical and/or verbal abuse

Fewer opportunities for women

Changing behaviour for health reasons is not an imperative

Limited agency to make changes in their home environment

Peer pressure: negative for diet behaviour, positive for PA

Lived experiences sit within broader economic, legal and political organisation of their social world which perpetuates inequalities among different groups to cause harm - structural violence

Supported by previous findings on exposure to violence in this setting
Behaviour Change Wheel

- Motivation: conscious reflective processes (decision-making, goals, plans, intentions) and automatic processes (habits, emotional responses, impulses)
  - Health risk of overweight/obesity not sufficient motivation
  - Some not motivated to change behaviours: felt lazy or did not have enough time
  - Not motivated unless health was a major concern
  - Ownership of behaviour changes: want financial reward, want others to be encouraging, financing and motivating these behaviours
  - Some knowledge needed (but not sufficient) to motivate behaviour change
  - Role models can influence motivation positively and negatively, inside and outside the home

Recommendations

- Involve families in interventions
- Support young women to take ownership of their health and health behaviours
- Address issues of agency for behaviour change
- Tailoring of information for young women in Soweto
- Offer rewards or incentivisation; must be financial?
- Involve role models – find the right ones!
  - Look to ‘positive deviants’
- May need involvement of wider community to properly address barriers related to structural violence, e.g. law enforcement, policy makers and town planners
- Promote equitable access to health
Limitations and strengths

- Possible selection bias with snowball sampling
- Did not collect individual socioeconomic status data
- Findings specific to Soweto; cannot assume findings would be similar in other settings (even if similar)
- Consistencies with other research, including in South Africa

Conclusions

- Essential to consider the broader contextual (obesogenic) environment in which young women operate when planning interventions in order to understand their capacity, opportunity and motivation for specific health behaviours
- Young women want contextually relevant and accurate information to address knowledge gaps and misconceptions
- May need specific skills to act on this information
- Must be sensitive to cultural belief systems
- Financial rewards may be needed to increase capacity for behaviour change in these contexts
Young women in Soweto say healthy living is hard. Here’s why

June 6, 2019 3:43 pm SMT

Women in Soweto said going out in exercise clothes made them vulnerable to treatment and assault. "I wear white clothes, 3/9/2020

Thank you

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