Overweight and obesity, and perceptions of body image among female sex workers in Mombasa, Kenya

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Background – Nutritional status

• Overweight and obesity rates are rising at a rate of 5% per year on average (Ziraba, A.K et al. 2009)
• This is associated with numerous health risks (Asfaw A. 2006)
• Several studies done to assess women’s nutritional status in sub-Saharan Africa
• There are no studies focusing specifically on Female Sex Workers (FSW) as a vulnerable sub-population
Background – Body image

• Culture influences how women assess their body image and body weight (Swami V et al. 2010)
• Several studies in Africa suggest that being overweight is a socially desirable body size (Simeon DT et al. 2003)
• One study in Nairobi informal settlements revealed that women desired a larger body size (Ettarh R et al. 2009)
• No studies have been done to assess the ideal body image among Female Sex Workers in sub-Saharan Africa
Study objectives

The aim of this study was;

1. To assess the prevalence of overweight and obesity among FSW in Mombasa, Kenya
2. To assess the perceptions of body image among FSW in Mombasa, Kenya
Methods

• Data collected between September 2016 and May 2017 in Mombasa Kenya
• 882 non-pregnant FSW of reproductive age (16-34 years) were recruited and enrolled
• Baseline cross-sectional data used for these findings
• The weight and height measured and Body Mass Index (BMI) calculated
• Using a validated body image chart (Williamson et al. 1989)* the FSWs identified a) *what their current body image is*, b) *their desired body image* and c) *the image depicting the healthiest woman*
• Descriptive analysis of BMI, current, desired and healthiest body image data was conducted
• We also assessed the sociodemographic and behavioral characteristics associated with overweight and obesity
Validated body image chart

The body chart images 1 through 5 represent women who are underweight, images 6 through 9 represent women of normal weight, images 10 through 13 represent overweight women, and images 14 through 18 represent obese women.
Results – Body Mass Index

Mean BMI – 24.9

Overall BMI Results

- Underweight (Less than 18.5)
- Normal (18.5 to 24.9)
- Overweight (25.0 to 29.9)
- Obese (30.0 and above)
Results – Body image

Perceived current body size compared to actual BMI

Desired body size compared to actual BMI

Healthiest body size depiction compared to actual BMI

- Underweight (image 1-5)
- Normal (image 6-9)
- Overweight (image 10-13)
- Obese (image 14-18)
Results

Sociodemographic and behavioral characteristics associated with overweight and obesity as compared to those who have normal weight. Bivariate analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>BMI ≥25.0</th>
<th>OR (95% CI)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age group</strong></td>
<td></td>
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<tr>
<td>16-20</td>
<td>29/138</td>
<td>1</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>21-25</td>
<td>100/246</td>
<td>2.57 (1.57-4.21)</td>
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<tr>
<td>26-30</td>
<td>160/291</td>
<td>4.59 (2.79-7.54)</td>
<td></td>
</tr>
<tr>
<td>31-34</td>
<td>76/128</td>
<td>5.49 (3.05-9.90)</td>
<td></td>
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<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None or some primary</td>
<td>41/99 (41.4)</td>
<td>1</td>
<td>0.597</td>
</tr>
<tr>
<td>Complete Primary or some secondary</td>
<td>200/431 (46.4)</td>
<td>1.22 (0.79-1.91)</td>
<td></td>
</tr>
<tr>
<td>Complete Secondary or more</td>
<td>127/277 (45.9)</td>
<td>1.20 (0.75-1.91)</td>
<td></td>
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<tr>
<td><strong>Gravidity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>53/173 (30.6)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>102/254 (40.2)</td>
<td>1.52 (1.01-2.29)</td>
<td></td>
</tr>
<tr>
<td>≥2</td>
<td>213/380 (56.1)</td>
<td>2.89 (1.95-4.28)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>HB</strong></td>
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<tr>
<td>&lt;12.0g/dL</td>
<td>182/446 (40.8)</td>
<td>0.65 (0.49-0.86)</td>
<td></td>
</tr>
<tr>
<td>≥12.0g/dL</td>
<td>182/354 (51.4)</td>
<td>1</td>
<td>0.0028</td>
</tr>
<tr>
<td><strong>Consumption of prepared food/meals purchased outside the home per week</strong></td>
<td></td>
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<tr>
<td>5-7 days</td>
<td>63/135 (46.7)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3-4 days</td>
<td>79/188 (42.0)</td>
<td>0.83 (0.53-1.29)</td>
<td></td>
</tr>
<tr>
<td>0-2 days</td>
<td>226/484 (46.7)</td>
<td>1.00 (0.68-1.47)</td>
<td>0.721</td>
</tr>
<tr>
<td><strong>Identification of the healthiest size on chart</strong></td>
<td></td>
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<tr>
<td>1-5(underweight)</td>
<td>82/155 (52.9)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6-9(normal/healthiest)</td>
<td>181/418 (43.3)</td>
<td>0.68 (0.47-0.99)</td>
<td>0.041</td>
</tr>
<tr>
<td>10 -13 (Overweight)</td>
<td>55/132 (41.7)</td>
<td>0.64 (0.40-1.02)</td>
<td>0.058</td>
</tr>
<tr>
<td>14 -18 (Obese)</td>
<td>47/95 (50.5)</td>
<td>0.91 (0.54-1.52)</td>
<td>0.719</td>
</tr>
</tbody>
</table>
Discussion

- A substantial proportion of FSW were overweight and obese
- A large percentage underestimated their body size
- However, more than half expressed desire to reduce their body size
- Majority were also able to correctly identify the healthiest body size
- The characteristics significantly associated with overweight and obesity include age, gravidity and HB below 12
Conclusion

• High prevalence of overweight and obesity among FSW
• Include targeted overweight and obesity interventions among FSW
• Special focus on increasing age, multigravida and low HB
Study limitations

• Random measurement error
• Age range (did not cover older FSWs)
References


