Impact of Research

We believe chronic pain is an important problem to address in this rural region of Ghana, as the World Bank estimates that 50% of Ghana’s population lives in rural areas and that 61% of males and 46% of females living in rural areas are involved in laborious and physically taxing farming occupations. Furthermore, rural workers are more likely than urban workers to experience work related injuries and less likely to seek treatment for these injuries. In addition to loss of income, rural Ghanaians were more likely to report decline in food consumption associated with absence from work.

Methods

Age of Participants with Chronic Pain

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>Percent (1000)</th>
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<tbody>
<tr>
<td>16-29</td>
<td>10</td>
</tr>
<tr>
<td>30-39</td>
<td>15</td>
</tr>
<tr>
<td>40-49</td>
<td>10</td>
</tr>
<tr>
<td>50-59</td>
<td>15</td>
</tr>
<tr>
<td>60-69</td>
<td>10</td>
</tr>
<tr>
<td>70-79</td>
<td>10</td>
</tr>
<tr>
<td>80+</td>
<td>20</td>
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</tbody>
</table>

We surveyed over 600 individuals from the rural Ashanti region of Ghana to assess incidence of chronic pain as well as the impact that this pain has on daily life, including ability to work. We found that 61% of community members ages 18-100 reported some degree of daily chronic pain and that severity of pain directly impacted their ability to work productively. We found that back pain is the leading cause of chronic pain in these communities, but that causes of pain related to pelvic problems produced the highest degree of reported daily pain.

Abstract

We surveyed over 600 individuals from the rural Ashanti region of Ghana to assess incidence of chronic pain as well as the impact that this pain has on daily life, including ability to work. We found that 61% of community members ages 18-100 reported some degree of daily chronic pain and that severity of pain directly impacted their ability to work productively. We found that back pain is the leading cause of chronic pain in these communities, but that causes of pain related to pelvic problems produced the highest degree of reported daily pain.

Figure 1: No significant relationship between the fixed variables of age and chronic pain severity with degree of work productivity interference. However, this may be explained by the discrepancy between pain and reported interference with work productivity in the 50-59 year age group. This group had work interference scores lower than their reported chronic pain scores. In contrast, the 70-79 year age group had the highest interference with work productivity scores within their chronic pain severity group. Significance was reported relating to severity of chronic pain relative to interference with work productivity.

Figure 2: Area of worst pain from lowest to highest frequency in the population of participants with chronic pain.

Figure 3: Area of worst pain corresponding with severity of chronic pain.

CONCLUSIONS

- 61% of participants reported daily chronic pain and this significantly impacted ability to work productively.
- Rural workers maintain laborious occupations into their 70s, as pain causes the highest degree of work interference in this age group, but decreases dramatically after age 79, presumably due to retirement.
- Pelvic pain produces the highest degree of reported pain, but back pain represents the largest overall pain burden.

Future Directions

- Survey assessment of rural work practices including age of retirement, reason for retirement in both low and high intensity labor occupations
- Strategies for implementation of validated interventional pain reduction strategies in rural communities, especially related to back pain
- Exploration of pelvic pain as a cause of lost wages and work days missed

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- Special thanks to co-researchers Marc Harris, Christopher Sparks, and Ashley Birdall

REFERENCES

2. Ghana Demographics and Health Survey. World Bank (2014)