Development of a culturally responsive questionnaire to assess determinants of triple negative breast cancer in Nepalese women

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Background

- Although estimates indicate that breast cancer (BC) is the second most common malignancy among Nepalese women, early population-based cancer registry data from the Kathmandu valley in Nepal suggests that BC may be emerging as the most common cancer site for women in Nepal (IARC, 2019; Giri et al., 2018).
- Multiple studies show high prevalence of aggressive triple-negative (TN) BC in Indian women, and early studies in Nepal suggest similar patterns (Acharya et al., 2012; Thakur et al., 2018; Singh et al., 2014).
- Little is known about the etiology of TNBC Nepal and is the basis for our study (Giri et al., 2018).

Objective

- To create a culturally responsive questionnaire to understand why Nepalese women may have some of the highest rates of TNBC worldwide.

Methods

- A systematic literature review was performed to assess TNBC prevalence and associated determinants in Nepal.
- An international research team was developed and met remotely over the course of a year to develop the study and to create an interview questionnaire.
- We worked to develop measures of socioeconomic, comorbid, anthropomorphic, environmental, and reproductive factors that may contribute to TNBC using survey tools from Nepal and worldwide by tailoring them appropriately to the Nepalese context.

Examples

- Calendar: Bikram Sambat is an official calendar that is used across Nepal and is ahead by 56 years and eight months from the Gregorian calendar used in the USA. During analysis dates will be adjusted accordingly.
- Age: Date of birth (dd/mm/yy): [ ] [ ] [ ] [ ] [ ] [ ] [ ] Age (completed years): [ ] [ ]
- Healthcare: What is your regular source of healthcare?
  - Government Sector: Government hospital/ clinic
  - Private Medical Sector: Private hospital/nursing home
- Transportation: How do you travel to the hospital?
  - By car
  - By public transport

References

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Drinking water

- In Nepal, there are several sources of water depending upon the geographical location, settlement areas and cultural value. On April 25, 2015, Nepal was struck by a massive earthquake with a magnitude of 7.8, reaching 9009 deaths to 22,000 injured casualties, changing water sources over time.

Water and Pollutants

<table>
<thead>
<tr>
<th>Is the majority source of your household drinking water protected?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Yes</td>
</tr>
</tbody>
</table>

Over the course of your life, what have been your main sources of drinking water?

- Piper water
- Public tap /Standpipe
- Tube well or Borehole
- Dug well protected well
- Spring water
- Surface water (river/dam/lake/pond/stream/canal)
- Water jars or Bottled water

If more than one source listed, Of the sources you listed, what has been your most common source of drinking water?

- Do you do anything to the water to make it safer to drink?
  - Yes | 2. No | 3. Not sure |

If yes, what do you usually do to make the water safer to drink?

- Healthcare: What is your regular source of healthcare?
  - Government Sector: Government hospital/ clinic
  - Private Medical Sector: Private hospital/nursing home
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Calendar

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| Age (completed years): | [ ] [ ] |

Examples

- Indoor air pollution: For the majority of your life, has the cooking usually been done in the house, in a separate building, or outdoors?
  - In the house in the same room as living quarters
  - In the house in a different room as living quarters
  - In a separate building
  - Outdoors

If the participant answers in the house:

- What, if anything, do you do to help circulate air flow while cooking?
  - Use exhaust fan
  - Open windows/doors
  - Chimney

If yes to What has been your caste for the majority of your adult life?

- Socioeconomic Status: To measure constructs of socioeconomic status we used questions from Kuppuswamy’s Socioeconomic Status Scale adapted for Nepal in 2019

Next Steps

- International research collaborations demonstrate that, “we all work together” to create data collection instruments that are most likely to elicit data that best represents diverse communities.
- Next steps in the project include translating the questionnaire and pilot testing it to use in an upcoming case-control study in Nepal.