Climate change and family violence in rural Samoa

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Collaborators

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Anthropogenic Climate Change

- Increasing sea levels
- Increased natural disasters
- Increasing ambient air temperature
- Increased infectious disease
- Increased invasive species
- Ocean acidification
- Biodiversity loss
- Land erosion

Gender-based violence against women (VAW)

- Physical injury
- Femicide
- Sexual abuse
- Emotional abuse
- Coercive control
- Marital rape
- Forced marriage
- Genital cutting
- Economic abuse
- Rape
Research from Oceania


- **Gaps:** SIDS in Oceania are among the most affected, but under-researched countries when it comes to quantifying associations between climate and violence.
Climate change in Samoa
Eve Project

(1) Peer-to-peer interviews conducted by SVSG's village representatives

(2) Co-developing a theory of change for how villages can prevent violence

(3) Conducting a survey in 9 participating villages on violence against women and risk/protective factors with 1,200 people.

(4) Piloting an intervention that engages villages in developing their own strategies based on global evidence with 300 people.
Survey of rural villages

- Data were collected between December 2022 and February 2023
- Randomisation: We used National Census Data (2021) provided by the Samoa Bureau of Statistics to randomly select participating households, and then randomly select individuals from each household
- Survey was administered using RedCap on tablets by trained enumerators
- No questions were mandatory and all participants were compensated $30 tala (~£10) for their time regardless of whether they complete the survey in full
- Ethical approval from the National University of Samoa and UCL; followed the WHO’s ethical and safety recommendations for research on violence (i.e. response protocol, trained counsellors available on the day, follow up questions in the survey)
- A total of 1,169 people completed the survey (450 men and 707 women)
## Demographics

Demographic and other baseline characteristics, associations with disaster experience

<table>
<thead>
<tr>
<th></th>
<th>N (%)</th>
<th>Missing</th>
<th>Disaster N</th>
<th>Disaster % (95% CI)</th>
<th>P value ($\chi^2$ test)</th>
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<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,169</td>
<td>312</td>
<td>26.9 (24.3–29.4)</td>
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<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
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<tr>
<td>Men</td>
<td>450 (38.9)</td>
<td>144</td>
<td>32.3 (25.9–39.3)</td>
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<tr>
<td>Women</td>
<td>707 (61.1)</td>
<td>166</td>
<td>23.6 (18.4–29.8)</td>
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<tr>
<td><strong>Age</strong></td>
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<tr>
<td>15-19</td>
<td>157 (13.4)</td>
<td>36</td>
<td>23.8 (16.7–32.6)</td>
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<td>20-29</td>
<td>257 (21.9)</td>
<td>47</td>
<td>19.7 (13.5–28.0)</td>
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<td>30-39</td>
<td>232 (19.9)</td>
<td>63</td>
<td>29.3 (22.6–36.9)</td>
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<tr>
<td>40-49</td>
<td>204 (17.5)</td>
<td>57</td>
<td>28.3 (21.6–36.1)</td>
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<td>50-59</td>
<td>185 (15.8)</td>
<td>69</td>
<td>38.7 (29.6–48.7)</td>
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<td>60+</td>
<td>134 (11.5)</td>
<td>40</td>
<td>31.0 (23.7–39.5)</td>
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<td><strong>Education</strong></td>
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<tr>
<td>Up to primary</td>
<td>124 (11.0)</td>
<td>48</td>
<td>40.8 (30.2–52.3)</td>
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<tr>
<td>Secondary</td>
<td>823 (73.0)</td>
<td>213</td>
<td>26.7 (22.1–31.9)</td>
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<td>Higher education</td>
<td>180 (16.0)</td>
<td>41</td>
<td>25.1 (16.7–35.9)</td>
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<td><strong>Food insecurity</strong></td>
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<td>&lt;0.001</td>
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<tr>
<td>None</td>
<td>843 (72.1)</td>
<td>201</td>
<td>25.1 (21.1–29.6)</td>
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<tr>
<td>Mild</td>
<td>243 (20.8)</td>
<td>79</td>
<td>33.6 (25.9–42.1)</td>
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<tr>
<td>Moderate to Severe</td>
<td>83 (7.1)</td>
<td>32</td>
<td>40.8 (28.4–53.9)</td>
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<td><strong>Disability</strong></td>
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<tr>
<td>Any</td>
<td>378 (32.3)</td>
<td>127</td>
<td>34.2 (28.3–40.7)</td>
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<tr>
<td>None</td>
<td>791 (67.7)</td>
<td>183</td>
<td>24.0 (20.1–30.7)</td>
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</table>
Climate-disasters and mental health

- If someone had experienced a disaster, they are 63% more likely to have symptoms of depression.
- If they had experienced many disasters (4+), they were almost 200% or twice as likely to have symptoms of depression.
Climate-disasters and IPV (women)

Experienced a disaster once in their lifetime
= More than 2 times as likely to experience IPV
(OR 2.35; CI 1.54-3.56)

Experienced a disaster 2-3 times in their lifetime
= More than 2 times as likely to experience IPV
(OR 2.63; CI 1.86-3.74)

Experienced a disaster more than 4 times in their lifetime
= More than 5 times as likely to experience IPV
(OR 5.68; CI 2.19-14.75)

Percentages and odds ratios for women’s experiences of IPV in the past 12 months by exposure to disaster events
Adjusted for age, education, food insecurity, disability, experience of child abuse. Boldface indicates statistical significance (*p<0.05; **p<0.01; ***p<0.001).
The role of mental health in IPV

- Adjusting for women’s mental health = More than 2 times as likely to experience IPV

- Adjusting for women’s mental health = More than 6 times as likely to experience IPV
Interpretation

Climate-related disasters have an impact on men’s mental health (depression and anxiety) and women’s experience of intimate partner violence (IPV).

More exposure to climate related-disasters increases this risk.

We need better understandings of the incremental impacts of reoccurring and persistent climate change events in the Oceanic region on families.

We need Indigenous frameworks of mental health, climate change and IPV.
Interpretation

HISTORIES OF COLONIALISM
- instruments of power stemming from colonialism that continue to shape Eurocentric rationality and processes of knowledge production

PATRIARCHAL SOCIAL STRUCTURES
- Hegemonic masculinities and high-intensity patriarchy introduced by colonial governments to Indigenous communities

LOSS OF INDIGENOUS KNOWLEDGE
- Indigenous knowledge about living with the land and gender relations are replaced by Eurocentric understandings of nature versus culture, and patriarchal social arrangement between men and women

POOR MENTAL HEALTH
- Solastalgia due to climate change increases conflict and aggression in relationships
- The blame for household food insecurity from climate change is disproportionally placed on women

GENDER-BASED VIOLENCE
- Climate change increases social stressors that contribute to men’s perpetuation of GBV
Recommendations

1. Community led risk assessments: Engage Indigenous women and community leaders in participatory assessments to understand the specific vulnerabilities and risks related to climate change and GBV within their communities.

2. Incorporate GBV prevention and response measures into national climate action plans and disaster risk reduction strategies, co-designed with Indigenous communities.

3. Advocate for the integration of Indigenous customary laws and practices that protect women and girls from GBV into formal legal frameworks.

4. Invest in research to better understand the links between climate change and GBV for Indigenous communities, and to develop effective community-led interventions.
Survey Questions

- Climate change: ‘I lo’u olaga, na ou molimauina pe na ou lavea i faalavelave faalenatura e pei o mafuie, afā, asiosio poo lologa.’ In my life I witnessed or experienced natural events, for example, earthquake, cyclone, tornado or flood.’

- Mental health: 10-item Centre for Epidemiological Studies Depression Scale (CES-D) scale; Generalised Anxiety Disorder Assessment (GAD-7); Alcohol Use Disorders Identification Test (AUDIT)

- IPV in past 12 months (DHS-MICS)
  - 7 acts of physical IPV: being pushed, shaken or having something thrown at them; slapped; arm twisted or hair pulled; punched; kicked, dragged or beaten up; choked or burned; threatened or attacked with a knife.
  - 3 acts of sexual IPV: physically forced sex; physically forced sexual acts; forced with threats to perform sexual acts
  - 3 acts of emotional IPV: humiliated; threatened with harm; insulted or made to feel bad.
  - 5 acts of economic violence: being prohibited from getting a job or earning money; taking earnings against their will; refused money for household expenses; excluded from financial decisions; debt built up under their name.