A Quantitative Evaluation of Planim Save Kamp Strongpela Intervention to Prevent Gender Based Violence and Build Peace in Bougainville, Papua New Guinea

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ACKNOWLEDGEMENTS

The questionnaire for the evaluation research was adapted from the Family Health and Safety Survey,[1] which is part of the UN Multi-country Study on Men and Violence in Asia and the Pacific developed by the Partners for Prevention Joint Programme in partnership with the Medical Research Council of South Africa.

The protocol for the evaluation study was developed by Aník Gevers, Kathy Taylor, Angela Kelly-Hanku, Sister Loraine Garasu and Julius Otim. Luisa Schneider of Partners for Prevention contributed to the literature review for the development of the protocol.

Scott Johnson designed the iPod application for data collection. Awotash Tefera, Chetpon Changcharoen, Lisa Nilsson of Partners for Prevention and Julius Otim, Beatrice Tabeu, Aileen Sagolo and Jane Kurika, UN Women PNG, prepared the iPods for fieldwork.

Aník Gevers and Kathy Taylor of Partners for Prevention trained and supported the data collection teams in Bougainville.

The following *Planim Save Kamap Strongpela* project staff, facilitators and counselors; Nazareth Centre for Rehabilitation staff; local authorities and chiefs; and UN Women staff tirelessly supported the data collection at the baseline and/or endline:

Planim Save Kamap Strongpela Project Staff: Meredith Betitis, Sr. Patricia Hito, Robert Ikilai, Bibiana Siru, Chris Tsilohin and Agnes Wasas.

Planim Save Kamap Strongpela facilitators and counselors: Patrick Hayu, Peter Hiro, Francis Hiro, Rex Hurokoli, Helen Ikilai, Xavier Kamuai, Paul Kanoropa, Albert Karepa, Veronica Kauma, Maria Kauma, Joyline Kenso, Wallace Kopar, Thomas Kopar, Maria Kopiku, Anthony Korike, Bernard Korike, Concillia Kumba, Joseph Kupumma, Petrus Lenha, Elwin Matane, Tony Mauga, Stanley Merekua, Paul Minnou, Severina Moruko, Elizabeth Nabuai, George Naguo, Jennifer Name, Margret Nokup, Melvin Nokup, Susan Pakoi, Rodney Pakoi, Sabina Pauru, Magdalene Pitau, Maria Pitehe, Ane Rangai, John Wesly Samporo, Lawrence Sianai, Leo Suamaro, Michael Taguba, Margaret Tiden, Wayne Tompot, Rose Turi, John Turimbo and Tony Unatah.

Local authorities and chiefs: Mr. Martin Tumuki, Mr. John Itano, John Nomorake, David Mikisa, Francis Kakapumi Buabake, Chief William Motoi of Hire and Chief James Wape.

UN Women: Jane Kurika, Christine Leonard, Julius Otim, Aileen Sagolo and Beatrice Tabeu.

Awotash Tefera and Shanae Kemen of Partners for Prevention cleaned the data sets. Celeste Marin of Princeton University analyzed the data. Henrica Jansen, Pauline Gulliver, Sujata Tuladhar and Ingrid Fitzgerald reviewed and provided valuable comments to this report.

Sister Loraine Garasu, Director, Nazareth Centre for Rehabilitation and Jeffrey Buchanan, Representative, UN Women PNG provided leadership to this initiative.

We would like to thank all the men and women in south Bougainville who participated in the *Planim Save Kamap Strongpela* intervention and evaluation research.

1 Jewkes, R., Fulu, E. & Sikweyiya, Y. 2015. Family Health and Safety Study: Autonomous Region of Bougainville, Papua New Guinea. Summary report by Partners for Prevention: Bangkok, Thailand. Available from http://www.partners4prevention.org/about-prevention/research/men-and-violence-study/papua-new-guinea

2 Fulu, E., Warner, X., Miedema, S., Jewkes, R., Roselli, T. & Lang, J. 2013. *Why do some men use violence against women and how can we prevent it? Quantitative findings from the United Nations Multi-country Study on Men and Violence in Asia and the Pacific.* Bangkok, Thailand: UNDP, UNFPA, UN Women and UNV.

ACRONYMS

ARB	Autonomous Region of Bougainville
AUDIT	Alcohol Use Disorders Identification Test
CES-D	Center for Epidemiological Studies Depression Scale
GEM	Gender Equitable Men
HIV	Human Immunodeficiency Virus
NCFR	Nazareth Centre for Rehabilitation
NGO	Non-Governmental Organization
PTSD	Post-Traumatic Stress Disorder
STI	Sexually Transmitted Infection
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNV	United Nations Volunteers
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
VA	Village Assembly (communities within districts)
WHO	World Health Organization

EXECUTIVE SUMMARY

Background

Violence against women is a worldwide public health, human rights and societal problem. Common forms of violence against women include intimate partner violence and non-partner sexual violence. The Family Health and Safety Study[3] conducted in the Autonomous Region of Bougainville, Papua New Guinea (PNG), as part of the UN Multi-Country Study on Men and Violence in Asia and the Pacific found that 85 percent of men had perpetrated physical, sexual or frequent emotional or economic violence against a partner in their lifetimes. In the same study, three-quarters of the women interviewed reported experiencing the same types of violence in their lifetimes. Men also reported high levels of non-partner rape: 40 percent of men reported having raped a woman who was not their partner. Among women, 15 percent reported that they had been a victim of non-partner rape in their lifetime. The findings of this and other studies indicate extremely high levels of violence that men and women experience in Bougainville, suggesting an urgent need for interventions informed by local culture and history, including recognizing a decade-long civil war.

The Nazareth Centre for Rehabilitation (NCFR) led by Bougainvillean religious leader, Sister Lorraine Garasu, and in consultation with stakeholders developed the *Planim Save Kamap Strongpela* (Plant Knowledge and Grow Strong) intervention. This is an innovative four-module intervention that addresses gender-based violence; gender and human rights; trauma and healing; and peace-building through the format of community conversations. The implementation of this intervention in two districts of South Bougainville was supported by UN Women PNG; the monitoring and evaluation was supported by Partners for Prevention, UN Women PNG and the PNG Institute of Medical Research. The project was funded by the Secretary-General's Peacebuilding Fund's second Gender Promotion Initiative (GPI2).

This evaluation study sought to investigate the experiences of participants through a multimethod study with intervention participants. The quantitative aspect of the study is reported here; the qualitative aspect of the evaluation study conducted by the PNG Institute of Medical Research is described in a separate report.[4]

Objectives

The overall objective of this pilot study was to function as a monitoring and evaluation tool to understand the experiences and impact of the *Planim Save Kamap Strongpela* intervention.

Specifically, the study investigated the following outcomes among intervention participants:

a) Men's and women's gender equity attitudes

b) Men's perpetration of violence against women in the past 12 months

c) Women's experiences of violence against women victimization in the past 12 months

d) Men's and women's awareness of violence against women services

e) Men's and women's symptoms of depression

Methodology

This pilot study was a formative evaluation (i.e. an evaluation that took place while the activities were in progress). The study used a pre-test post-test design that only allowed for comparison within groups between the baseline (pre-intervention) and the endline (immediately following the intervention, 12 months after the baseline). The intervention was implemented over a period of 12 months. The design was chosen based on available capacity, funds and resources. It was non-experimental, meaning that there was no control group to compare effects and reliably attribute changes specifically to the *Planim Save Kamap Strongpela* intervention, nor was there random selection and assignment of participants to conditions as location and recruitment (which was

3 Jewkes, R., Fulu, E. & Sikweyiya, Y. 2015. Family Health and Safety Study: Autonomous Region of Bougainville, Papua New Guinea. Summary report by Partners for Prevention: Bangkok, Thailand. Available from http://www.partners4prevention.org/about-prevention/research/men-and-violence-study/papua-new-guinea

4 Kelly-Hanku, A., Mek, A., & Nake Trumb, R.N. 2017. Planim Save Kamap Strongpela: A Qualitative Evaluation of an Intervention to build peace and reduce gender-based violence in South Bougainville, Papua New Guinea. UN Women, Papua New Guinea.

dictated by the implementing partner's operational plans) so generalizing conclusions to the population is limited.

NCFR recruited community members from villages in the implementation area for the intervention. If they were recruited into the intervention, they were eligible to participate in the study. All the study participants were age 18 years and older. Participation in the study was voluntary with all respondents providing written informed consent prior to participation. Respondents' identities were not linked to any of their responses. The self-administered questionnaire – available in *Tok Pisin*[5] and English – was completed in a group setting (data collection sessions) with each respondent completing their own questionnaire on a specially designed application on a tablet device (an iPod Touch). The application was audio-enhanced so that every item with possible response options could be read or listened to by the respondent in either Tok Pisin or English. Data collection sessions were facilitated by *Planim Save Kamap Strongpela* project staff. The data on the iPod devices could not be linked in any way to participants or to their signed consent forms, ensuring the confidentiality of the responses.

ANOVA analyses were conducted to assess change between baseline and endline measures. The ANOVA included terms for district and for number of modules completed per Village Assembly (VA). Data from male and female respondents were analysed separately.

Ethical clearance for this study was granted by the Papua New Guinea Institute for Medical Research Institutional Review Board and the Medical Research Advisory Committee of the National Department of Health of the Government of Papua New Guinea. The *Planim Save Kamap Strongpela* project was approved by the Autonomous Bougainville Government.

Results

The intervention participants included 716 men and 814 women; 705 men and 750 women were enrolled into the study at baseline data collection. The non-probability sample of matched baseline and endline cases analysed for this study included 344 men and 407 women.

Gender equitable attitudes: There were no significant changes in gender attitudes between baseline and endline among women or men.

Intimate partner violence and non-partner rape perpetration in the past 12 months: Overall, the proportion of men reporting physical intimate partner violence perpetration decreased significantly between baseline (58%) and endline (48%, p=0.01). There were no significant changes in their reporting of emotional, economic or sexual intimate partner violence or non-partner rape perpetration between baseline and endline.

Intimate partner violence and non-partner rape victimization in the past 12 months: Overall, women reported significantly lower intimate partner violence victimization at the endline compared to the baseline for all types of violence: emotional (86% vs 80%, p=0.02), economic (78% vs 68%, p<0.01), physical (75% vs 58%, p<0.01), and sexual (65% vs 52%, (p<0.01). There was no significant change in women's reporting of non-partner rape victimization between baseline and endline.

Awareness of services for violence against women: The proportions of both men and women who were aware of available services for violence against women significantly increased between baseline (69% of men; 65% of women) and endline (77% of men, p=0.02; 81% of women, p<0.01).

Depression: Among men and women, there was no significant change in the proportion reporting significant symptoms of depression between baseline and endline.

Limitations

Owing to the limited timeframe for project implementation, and funding and capacity restraints, a non-experimental evaluation design was chosen for this pilot study. There was no control group and no random selection or assignment. This significantly limits the conclusions that can be drawn. The lack of a control group limits the ability to attribute findings solely to the intervention. The lack of randomization limits the generalizability of the findings.

Nevertheless, this pilot study is valuable to docu-

5 Tok Pisin is the national language of Papua New Guinea and is the most commonly spoken language. It was developed from a mixture of languages. There are multiple dialects of Tok Pisin and not everyone speaks and understands every dialect well.

ment the experiences of intervention participants. It indicates that the intervention shows promise and warrants further investigation and evaluation. With only baseline and endline measures, it is not possible to know whether the changes experienced will be maintained or attenuated over time. Further, it is possible that some changes may only be detectable after some time as participants integrate new ideas and learnings into their daily lives and build on these with the support of their communities. The qualitative impact study conducted in the same locations as the quantitative study showed a significant increase in positive behaviour among respondents as a result of the *Planim Save Kamap Strongpela* intervention.[6]

Challenges with recruitment into the intervention and into the study at baseline resulted in levels of participation that were lower than expected. This was exacerbated by high levels of attrition of participants in the study, primarily due to the relocation of participants, non-participation in the intervention, and unexplained loss to follow-up.

Implementation of the four-module intervention did not proceed uniformly in all 19 VAs. Information is available for the average number of modules completed in each VA, but not for how many modules any individual study participant participated in.

The Tok Pisin translations of the questionnaire used for this study were taken from the Family Health and Safety Study;[7] however, during the baseline data collection, project staff noted that the local dialect differed from the Tok Pisin used for the translations. Therefore, project staff offered clarifications and explanations to participants as needed during the administration of the questionnaire.

Conclusions

It is very encouraging to see the significant positive changes between baseline and endline measures on physical intimate partner violence perpetration; emotional, economic, physical and sexual intimate partner violence victimization; and men's and women's awareness of support services for violence against women. In addition, the qualitative endline study showed very positive behavioural and attitudinal changes among respondents. Several findings are useful to inform strengthening the intervention and its implementation. An experimental study with longer-term follow-up is recommended to strengthen the local and international evidence base and determine the effectiveness of this intervention. The findings of this study suggest that the *Planim Save Kamap Strongpela* intervention shows great promise in making relationships, homes, and communities in the South Bougainville safer and less violent.

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6 Kelly-Hanku, A., Mek, A., & Nake Trumb, R. 2017. Planim Save Kamap Strongpela: A Qualitative Endline Evaluation of an Intervention to build peace and reduce gender-based violence in South Bougainville, Papua New Guinea. UN Women, Papua New Guinea. (forthcoming)

7 Jewkes, R., Fulu, E. & Sikweyiya, Y. 2015. Family Health and Safety Study: Autonomous Region of Bougainville, Papua New Guinea. Summary report by Partners for Prevention: Bangkok, Thailand. Available from http://www.partners4prevention.org/about-prevention/research/men-and-violence-study/papua-new-guinea

INTRODUCTION

Violence against women is a worldwide public health, human rights and societal problem. Common forms of violence against women globally are intimate partner violence and non-partner sexual violence. Research spanning several decades has shown that nearly one-third (30%) of women aged 15 and over globally experience physical or sexual intimate partner violence in their lifetimes.[8] This global prevalence figure masks considerable variation between countries: in the World Health Organization (WHO) multi-country study on women's health and domestic violence, the range of lifetime prevalence of physical or sexual violence was reported as between 15 percent and 71 percent of ever-partnered women.[9]

The health consequences of violence for women and girls are varied. Abused women have a 16 percent greater likelihood of having a baby of low birthweight, more than twice the likelihood of having an abortion, and almost twice the likelihood of having depression. Some research has found that women exposed to intimate partner violence are 1.5 times more likely to acquire HIV, compared to women who have not experienced partner violence.[10] Globally, 38 percent of all murders of women are committed by intimate partners.[11] Research also indicates that the prevalence of substance abuse, depression, suicidality and anxiety among women who have been raped or trafficked is much higher than those who have not.[12]

Children who have been physically or sexually abused have a greater risk of depression, suicidality, post-traumatic stress disorder, unwanted pregnancy, alcohol dependency and sexually transmitted infections.[13] Exposure to abuse and neglect as a child increases the risk of developing anti-social and violent behaviour. For boys, this includes rape perpetration in later life.[14]

Violence against women in Bougainville, Papua New Guinea

Violence against women is an acute problem in Papua New Guinea. This violence has been extensively documented in work and research on health, gender and human rights.[15] One of the first and most widely cited studies conducted for the Law Reform Commission in 1985 reported that 67 percent of women

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in rural areas and 56 percent of women in urban areas had been physically abused by their husbands.[16] The Sexual and Reproductive Health Survey undertaken by the PNG Institute of Medical Research in the 1990s showed the presence not only of rape in PNG but the perpetration of group rape.[17] More recent research shows that adolescent girls and women continue to commonly experience violence and coercion, including verbal threats and forced sex, in their intimate relationships. For example, Lewis et al. found that 114 of 415 women, 27.5 percent, attending antenatal, STI and HIV voluntary counselling and testing clinics in 4 provinces had experienced sexual abuse before the age of 16 years.[18] A recent publication illustrated the diversity of violence in PNG across the country and among different women.[19] Violence related to women being accused of sorcery is one of the most serious forms of violence experienced by women in PNG.[20]

In what is now the Autonomous Region of Bougainville, colonization and the decade-long civil war promoted men's authority and power over women even in traditionally matrilineal parts of Bougainville.[21] In addition, the Panguna mine increased gender inequality as women's voices were often marginalized in male-dominated negotiations around the opening and operation of the mine. The Bougainville conflict had a significantly negative effect on gender relations, because it largely undermined women's authority within the traditional matrilineal system of descent. During the conflict, violence against women and girls, particularly rape and sexual violence, was widespread.[22] Many women were gang-raped.[23] Violence of this nature did not cease with the end of the conflict. As documented in the Family Health and Safety Study, levels of intimate partner and sexual violence remain high.[24]

The Family Health and Safety Study,[25] conducted in Bougainville, as part of the UN Multi-country Study on Men and Violence in Asia and the Pacific by Partners for Prevention presents findings from interviews with 864 men and 879 women on violence against women. This study measured violence against women according to the WHO methodology that asks about several specific behavioural acts that are then combined and categorized by researchers according to standard methodology.[26] The findings show that 85 percent of men had ever perpetrated physical, sexual or frequent emotional or economic violence against a partner,[27] and three-quarters of the women reported experiencing this. The prevalence of violence occurring in the year prior to the survey was also very high: 28 percent of women experienced emotional intimate partner violence and 32 percent of men had perpetrated such violence; 23 percent of women had experienced economic intimate partner violence and 29 percent of men perpetrated it; 22 percent of women experienced physical intimate partner violence and 19 percent of men perpetrated it; and 24 percent of women had experienced sexual intimate partner violence and 22 percent of men disclosed perpetrating such violence.

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27 A partner is considered anyone with whom the respondent has had an intimate relationship, such as a boyfriend or girlfriend (either cohabiting or not), husband or wife. Such violence is also known as intimate partner violence.

It is important to note that the trend of women reporting less violence than men report perpetration may reflect women's desire not to be seen as disloyal to their partners, or that some women may be victimized multiple times in their lifetime by different perpetrators. Men also reported high levels of non-partner rape. Specifically, 40 percent of men had raped a woman who was not a partner in their lifetime and 12 percent had done so in the past year. Among women, 15 percent had reported being a victim of non-partner rape in their lifetimes and 8 percent during the past year. Multiple perpetrator or gang rape was reported by 14 percent of men. A history of sexual coercion was experienced by many women: one-fifth were raped the first time they had sex and among those who had their first sex before age 16, one-third report that it was coerced. Only 9 percent of women who had been physically abused had ever reported it to the police and in only 20 percent of these reported cases did it result in the arrest of the perpetrator. Women were more likely than men to mention it to their families; three-quarters of those who did so received support from them.

The health consequences of intimate partner violence on women were also documented in the Family Health and Safety Study.[28] Women who had experienced physical or sexual violence by an intimate partner assessed their health as worse than those who had not. Two-thirds of women who reported experiencing physical violence had been injured, usually on multiple occasions. Depression, suicide and post-traumatic stress were much more common among women who experienced partner violence than women who had not. They were also much more likely to have had a miscarriage (at times as a result of being beaten or raped during pregnancy), a sexually transmitted infection and to have been prevented from using contraception than women who had not experienced violence.

Other findings of note reported from the study include:

- Gender-inequitable attitudes are widely held by both women and men: 72 percent of women and 85 percent of men agreed that a woman should obey her husband; 45 percent of women and 60 percent of men agreed that if a woman does something wrong her husband has a right to punish her.
- Men and women reported traumatic conflict (civil war) experiences and continue to experience negative consequences of the conflict: one-third of women and half of all men interviewed had seen someone killed during the conflict. One-third of men and 13 percent of women had witnessed a woman being raped. One-third of men had themselves fought in the conflict, and one in five men had engaged in acts of violence against women (rape or beatings). More than one-third of those interviewed indicated that strife persisted in their community and one-quarter that it persisted in their family. One-third of those interviewed described difficulty controlling aggression, an inability to trust anyone, and continuing disordered social relations in their community.
- Experiences of childhood abuse and trauma (before age 18) were commonly reported by most men and women: 85 percent of men and nearly one-half of women were subject to harsh physical punishment at home and in school as children. Two-thirds of men and women had experienced emotional abuse, with over one-half having witnessed their mothers being abused by a partner. Three in four men and four in ten women had experienced some form of emotional neglect. One-third of men had experienced sexual abuse and 12 percent had been forced into sex as a child. This was less often reported by women, but 13 percent of women had experienced sexual violence, including 6 percent raped as a child.
- Very many women and men are struggling with mental health problems: one-third of women and one-quarter of men had very high levels of symptoms of depression with nearly 1 in 5 women and 1 in 15 men having attempted suicide in their lifetime. One-third of men had a problem with drinking too much alcohol. Across the population, 25 percent of men and 15 percent of women had Post-Traumatic Stress Disorder (PTSD).

28 Jewkes, R., Fulu, E. & Sikweyiya, Y. 2015. Family Health and Safety Study: Autonomous Region of Bougainville, Papua New Guinea. Summary report by Partners for Prevention: Bangkok, Thailand. Available from http://www.partners4prevention.org/about-prevention/research/men-and-violence-study/papua-new-guinea

The study identified various factors that drive and exacerbate violence against women in Bougainville, as well as the patterns and risk factors associated with the perpetration of violence against women. Problematic constructions of gender including hegemonic masculinities are a central factor. This refers to the ways in which men and women are socialized in their families and society through gendered roles and expectations based on their biological sex. Melanesian men and women – people from the subregion of Oceania including those in Bougainville – are often socialized from a young age to see violence as a normal masculine trait, and an acceptable form of resolving conflict and expressing anger. Violence is also commonly seen as an appropriate measure for disciplining wives.[29]

The UN Multi-country Study on Men and Violence in Asia and the Pacific[30] which was implemented in six countries across nine sites found that the strongest risk factors and structural drivers of intimate partner violence perpetration by men are childhood emotional abuse, including witnessing violence against one's mother, and childhood sexual abuse. Men who had PTSD as an enduring impact of conflict were more likely to be violent to their partner. Two–thirds of men who committed rape did so for the first time as a teenager and more than one-half had done so more than once. The most common reasons why men committed rape were because they were seeking fun or felt sexually entitled to do so. Anger and punishment were also acknowledged as motivations. Alcohol is often blamed for rape, and it was a feature in one in five of the last rapes, with men who abused alcohol more likely to perpetrate rape than men who did not. The risk factors for rape perpetration included: masculine ideals that emphasized sexual dominance over women and displays of toughness with other men; men's childhood experience of sexual and physical abuse; and experience of poverty and hunger.

Rationale for the intervention

The findings of the studies summarized above illustrate the extremely high levels of violence that women and men are currently experiencing in Bougainville. This suggests an urgent need for violence prevention interventions. The levels of violence are likely influenced by the experiences of many people of high levels of trauma and the residual effects of the violent conflict. By understanding this context and the specific risk factors and structural drivers associated with violence against women, interventions can strategically address them to increase their likelihood of effectively preventing violence against women in the long term.

The Nazareth Centre for Rehabilitation (NCFR) led by Bougainvillean religious leader Sister Lorraine Garasu and in consultation with stakeholders had begun development of an innovative intervention that aimed to address gender-based violence, gender and human rights, trauma and healing, and peace building: the *Planim Save Kamap Strongpela* (Plant Knowledge and Grow Strong) intervention. Formalization of this intervention was supported by UN Women PNG and Partners for Prevention. Implementation of this intervention was supported by UN Women PNG. The evaluation was supported by Partners for Prevention, UN Women PNG, and the PNG Institute of Medical Research.

All involved in the *Planim Save Kamap Strongpela* project felt that it was important to document the experiences of the intervention and evaluate the changes among the men and women who participated. It was a unique opportunity to understand the potential to prevent violence against women through a locally developed community-based group intervention that addresses the risk factors identified in research on violence against women.

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29 Brown, P. 1986. Simbu Aggression and the Drive to Win. *Anthropological Quarterly,* 59, 165–170. Counts, D. 1990. Domestic Violence in Oceania: Conclusion. *Pacific Studies,* 13, 225–254. Haley, N. & Muggah, R. 2005. Jumping the Gun? Reflections on Armed Violence in Papua New Guinea. *African Security Review,* 15, 38–55. Josephides, L. 1994. Gendered Violence in a Changing Society: The Case of Urban Papua New Guinea. *Journal de la Societé des Oceanistes,* 99, 187–196. Mcdowell, N. 1990. Person, Assertion, and Marriage: On the Nature of Household Violence in Bun. *Pacific Studies,* 13, 171–178. Mcleod, A. 2005. Violence, Women and the State in Papua New Guinea. *Development Bulletin,* 67.

30 Fulu, E., Warner, X., Miedema, S., Jewkes, R., Roselli, T. & Lang, J. 2013. *Why do some men use violence against women and how can we prevent it? Quantitative findings from the United Nations Multi-country Study on Men and Violence in Asia and the Pacific.* Bangkok, Thailand: UNDP, UNFPA, UN Women and UNV.

Therefore, this study was designed to investigate changes among intervention participants through a multimethod study. The quantitative aspect of the evaluation study measured attitudes, knowledge, and behaviour and is reported here. The qualitative aspect of the evaluation study was conducted by the PNG Institute of Medical Research (IMR) and is described in a separate report.[31]

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Objectives

The overall objective of this pilot study was to function as a tool for monitoring and evaluation to understand the experiences and impact of the *Planim Save Kamap Strongpela* intervention.

Specifically, the study investigated the following outcomes among intervention participants:

a) Men's and women's gender equity attitudes

b) Men's perpetration of violence against women in the past 12 months

c) Women's experiences of violence against women victimization in the past 12 months

d) Men's and women's awareness of services for violence against women

e) Men's and women's symptoms of depression

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31 Kelly-Hanku, A., Mek, A., & Nake Trumb, R. 2017. Planim Save Kamap Strongpela: A Qualitative Endline Evaluation of an Intervention to build peace and reduce gender-based violence in South Bougainville, Papua New Guinea. UN Women, Papua New Guinea.

METHODOLOGY

Intervention implementation

The *Planim Save Kamap Strongpela* programme consisted of four modules: gender-based violence; gender and human rights; trauma education; and peace-building and conflict resolution. The intervention was conceptualized as a participatory community conversation with counselling services lead by NCFR and shelter in a safe house available for participants who needed it. It was intended that two facilitators and one counsellor work as a team in each Village Assembly (VA). Approximately 50 community members (men and women) were trained over four weeks as facilitators and counsellors. A one-week refresher training was held for the facilitators and counsellors (46 attended). The intervention was implemented in 19 VAs across two districts in Southern Bougainville, 8 VAs in District 1 and 11 VAs in District 2. At the time of conducting the endline data collection, not all VAs had completed all four modules of the intervention. Table 1 shows the average number of modules completed per VA. VAs had between one and four sites depending on their size.

Table 1. Intervention module completion rates per Village Assembly

District	VA #	Average Number of Modules
1	VA 1	3.25
	VA 2	3.50
	VA 14	2.00
	VA 15	4.00
	VA 16	4.00
	VA 17	4.00
	VA 18	3.33
	VA 19	4.00
2	VA 3	4.00
	VA 4	4.00
	VA 5	3.75
	VA 6	3.50
	VA 7	3.67
	VA 8	3.50
	VA 9	3.00
	VA 10	1.75
	VA 11	4.00
	VA 12	3.00
	VA 13	3.50

As evidenced in this summary, the implementation of the intervention was delayed and did not proceed as planned. This was documented by numerous reports and observers: monitoring reports submitted by project staff, facilitators and an international consultant who supported the project in the last two months of implementation, as well as in the qualitative evaluation report. The reasons for delays included logistical challenges with transport and disbursing funds for refreshments (i.e. food and drink for intervention meetings), community mobilization challenges related to distrust of the intervention or assumptions that it was only for Catholics, poor retention of facilitators leaving a high workload for those remaining, and challenges with scheduling sessions because participants were busy. It was also reported by the international consultant and in the qualitative evaluation report that low levels of literacy made it difficult to use the manual effectively, and that while, according to observations by UN Women PNG, early sessions were more participatory as intended, toward the end of the implementation period with few facilitators remaining and time running short, facilitators resorted to didactic or lecture-style methodologies.

Study design

The pilot study,[32] the formative evaluation of this intervention, had a one group, pre-test post-test design that only allowed comparison within groups between the baseline (pre-intervention) and the endline (immediately following the intervention, 12 months after the baseline). The intervention implementation period of 12 months was agreed with NCFR and UN Women. This non-experimental design was chosen based on the available capacity, funds and resources.

Study participants

All intervention participants age 18 years and older recruited to join in the intervention by NCFR (through invitations and community mobilization by the trained facilitators) were eligible to participate in the study. Participation in the study was voluntary and respondents' identities were not linked to their data, thus the confidentiality of their responses was assured. All respondents provided informed consent. The self-complete questionnaire – available in Tok Pisin and English – was administered in a group setting with each respondent completing their own questionnaire on a specially designed application on a tablet device (an iPod Touch). This application was audio-enhanced so that every item with possible response options could be read or listened to by the respondent in either Tok Pisin or English. Data collection sessions were facilitated by project staff.

Questionnaire and data analysis

The questionnaire was adapted from the Family Health and Safety Study[33] and included the following measures:

1) Background information including sex, age, education, relationship status, family/household socio-economic status, childhood adversity, community- and conflict-related violence and trauma, and personal consequences of conflict.[34]

2) Gender-equitable attitudes measured by 2 scales: the 8-item Gender Equitable Men Scale (GEM[35]) and the 10-item gender equitable attitudes.[36] Cronbach's alpha[37] for the GEM scale in this study was 0.60 for men and 0.63 for women; for the gender-equitable attitudes, it was 0.63 for men and 0.65 for women. These levels are similar to those reported in the Family Health and Safety Study.[38]

3) Violence against women perpetration (among men and reported by men) and victimization (among women and reported by women) including emotional, economic, physical, and sexual forms of intimate part-

32 There were no previous studies of this intervention.

33 Jewkes, R., Fulu, E. & Sikweyiya, Y. 2015. Family Health and Safety Study: Autonomous Region of Bougainville, Papua New Guinea. Summary report by Partners for Prevention: Bangkok, Thailand. Available from http://www.partners4prevention.org/about-prevention/research/men-and-violence-study/papua-new-guinea

34 Bernstein, D. P., Fink, L., Handelsman, L., Foote, J., Lovejoy, M., Wenzel K, Sapareto E & Ruggiero, J. 1994. Initial reliability and validity of a new retrospective measure of child abuse and neglect. *American Journal of Psychiatry,* 151, 1132–6. Jewkes, R., Penn-Kekana, L., Levin, J., Ratsaka, M. & Schrieber, M. 2001. Prevalence of emotional, physical and sexual abuse of women in three South African provinces. *S Afr Med J,* 91, 421–8 (an adaptation).

35 Pulerwitz, J., Gortmaker, S. & Dejong, W. 2000. Measuring Sexual Relationship Power in HIV/STD Research. *Sex Roles,* 42, 637-660.

36 Jewkes, R., Penn-Kekana, L., Levin, J., Ratsaka, M. & Schrieber, M. 2001. Prevalence of emotional, physical and sexual abuse of women in three South African provinces. *S Afr Med J,* 91, 421–8 (an adaptation).

37 Cronbach's alpha – a measure of internal consistency of a scale – is an indicator of scale reliability or how coherent or cohesive a set of items are as a measure of a single construct. Scores above 0.7 are considered acceptable and those above 0.6 should be interpreted with caution.

38 Jewkes, R., Fulu, E. & Sikweyiya, Y. 2015. Family Health and Safety Study: Autonomous Region of Bougainville, Papua New Guinea. Summary report by Partners for Prevention: Bangkok, Thailand. Available from http://www.partners4prevention.org/about-prevention/research/men-and-violence-study/papua-new-guinea

ner violence and non-partner rape are items from the instrument developed in the World Health Organization's multi-country study.[39]

4) Mental health and substance use measured by a 10-item short form of the Center for Epidemiological Studies Depression Scale (CES-D) scale is used to assess depressive symptomatology;[40] questions on suicidality;[41] and questions on alcohol use adapted from the Alcohol Use Disorders Identification Test (AUDIT) scale. Cronbach's alpha for the CES-D in this study was 0.81 for men and 0.81 for women.

5) Knowledge related to violence against women items were adapted from the International Men and Gender Equality Survey (Images).

6) Questions about intervention content (peace-building, trauma and healing, and gender) were developed specifically for this study by the study team.

All items in the questionnaire were previously validated in Bougainville for the Family Health and Safety Study,[42] except for specific questions on the intervention content; therefore, there is strong precedence for their validity and acceptability as well as being adequately understood by the study population who were recruited for this study. Further, the Tok Pisin translations used for the Family Health and Safety Study were the ones used in this pilot study. However, during the course of this study it was noted that local dialects differed at times from Tok Pisin, so field staff were asked to explain vocabulary where necessary. No challenges related to language or dialect were reported for the Family Health and Safety Study.

This questionnaire was administered immediately before the intervention was implemented (baseline or pre-intervention) and 12 months later (endline) at the end of the intervention implementation period. The questionnaire was self-administered using audio-enhanced, multilingual applications developed specifically for this study on iPod Touch devices. Participants were taught by project staff to use the device and then were able to hear individual items read aloud to them and also read them on the screen in either English or Tok Pisin. This user-friendly technology has been successfully used in multiple violence against women research studies and in multiple settings with different population groups including the sexual violence questions in the Family Health and Safety Study[43] conducted in Bougainville. It was used in this study again successfully with a very similar population in Bougainville. This methodology ensures a high level of confidentiality and anonymity essential to such sensitive research, while also accommodating participants with very low levels of literacy. Further, the devices offer a secure way to store and upload data to researchers. Researchers then stored and analyzed data in password-protected files on secure, password-protected computers.

The data was pooled and individual respondents were matched between baseline and endline using the randomly assigned study code provided to each respondent at baseline data collection. These codes were securely stored by the project team and returned to participants at endline data collection sessions according to standard procedures that did not allow individual anonymity to be compromised. After comparing baseline values for cases that did and did not have endline matches, only matched cases were analysed for this evaluation. Data from male and female respondents were analysed separately.

To assess whether there was a significant change in each of the key outcomes from baseline to endline, a separate analysis of variance (ANOVA) was conducted for each outcome, using Stata 13.0. ANOVA is a test for comparing means that has similar assumptions to linear regression, but is more appropriate when factor (or "control") variables are categorical rather than continuous. An F statistic with a p-value of less than 0.05 was considered to be a significant difference from baseline. The ANOVA included terms for district and for VA-level average module completion of the

39 Garcia-Moreno, C., Jansen, H. A. F. M., Ellsberg, M. & Watts, C. 2005. WHO Multi-country Study on Women's Health and Domestic Violence Against Women: Initial results on prevalence, health outcomes and women's responses. Geneva, Switzerland: World Health Organization.

40 Radloff, L. 1977. The CES-D Scale: A self report depression scale for research in the general population. *Applied Psychological Measurement,* 1, 385-401.

41 Jewkes, R., Penn-Kekana, L., Levin, J., Ratsaka, M. & Schrieber, M. 2001. Prevalence of emotional, physical and sexual abuse of women in three South African provinces. *S Afr Med J,* 91, 421–8.

42 Jewkes, R., Fulu, E. & Sikweyiya, Y. 2015. Family Health and Safety Study: Autonomous Region of Bougainville, Papua New Guinea. Summary report by Partners for Prevention: Bangkok, Thailand. Available from http://www.partners4prevention.org/about-prevention/research/men-and-violence-study/papua-new-guinea.

43 Ibid.

intervention, to account for differences in local characteristics and the extent of the intervention actually offered within a VA, either of which could affect the level of change. Because some VAs had very different baseline levels, the VA was initially used instead of district in the analysis. However, the sample sizes of some VAs were too small; therefore, district and average module completion at the VA level were used as control variables for the comparison of outcomes of interest. The average number of modules completed was recoded into three categories for the dose variable: 2 (1.75 – 2 modules completed), 3 (3 – 3.5 modules) and 4 (3.75 – 4 modules).

A separate ANOVA was conducted for each type of intimate partner violence (emotional, economic, physical and sexual), and non-partner rape, comparing the proportion of respondents who reported any abuse in the previous 12 months from baseline to endline. The precedents of previous studies of violence against women were followed, including the Family Health and Safety Study[44], by categorizing outcomes as any violence in the previous months or none. A person who responded 'yes' to any item of a particular type was classified as experiencing that type of abuse. A person who reported 'no' to ALL items of that type of intimate partner violence was classified as not experiencing that type of abuse.

Ethical considerations

Ethical clearance for this study was granted by the Institutional Review Board of the Papua New Guinea Institute for Medical Research and the Medical Research Advisory Committee of the Papua New Guinea National Department of Health.

This pilot study included a number of sensitive topics. The potential for harm to participants in research on violence against women has been well established, when researchers are not well trained and sensitive to the issues facing women who have experienced violence. Staff involved in this study were well trained to minimize any such impacts. The most important concerns related to the risk of revictimization, retribution or stigmatization of participants and the risk of psychological distress to participants through being asked to remember traumatic events.

The World Health Organization developed guidance on safety in conduct of research in this area.[45] Guidance for the safe conduct of research on male perpetration of sexual violence has been developed by the Sexual Violence Research Initiative.[46] Additionally, Partners for Prevention developed its own ethical and safety guidelines based on these two documents.[47] Research has shown that if these guidelines are followed, the risks related survey research on gender-based violence are minimized.[48]

These documents recommend that the nature of violence against women research be concealed from non-interviewees until after the completion of fieldwork. This is done by framing the study in more general terms; indeed, although two of the five quantitative indicators of interest in this study are related to violence against women, the study was interested in a broader range of experiences and feedback as it focuses on documenting and understanding people's experiences of and transformation related to an intervention. The study guarded against the risk of retribution against or stigmatization of any participant because of their answers by using self-completed questionnaires, not including any identifying data linked to the questionnaire responses, and voluntary participation.

Research from diverse global settings (such as Nicaragua and South Africa) has shown that female victims of violence are saddened by talking about their exposure to violence but that they overwhelmingly welcomed the chance to talk. Many described their interviews with researchers as a life-changing occurrence.[49] At the end of the survey, all participants were

44 Ibid.

45 World Health Organization 2001. Putting Women First: Ethical and Safety Recommendations for Research on Domestic Violence Against Women. WHO Press: Geneva, Switzerland. World Health Organization 2007. WHO Ethical and Safety Recommendations for Researching, Documenting and Monitoring Sexual Violence in Emergencies. WHO Press: Geneva, Switzerland.

46 Jewkes, R., Dartnall, E. & Sikweyiya, Y. 2012. Ethical and Safety Recommendations for Research on Perpetration of Sexual Violence. Sexual Violence Research Initiative, Medical Research Council, Pretoria, South Africa.

47 Fulu, E. And Lang, J. 2013. Replicating the UN Multi-country Study on Men and Violence: Understanding why some men use violence against women and how we can prevent it. Ethical and safety guidelines for research on gender-based violence: Bangkok, Thailand.

48 Sikweyiya, Y. M. And Jewkes, R. 2011. "Disclosure of child murder: A case study of ethical dilemmas in research." South African Medical Journal 101(3): 4461. Sikweyiya, Y. And Jewkes, R. 2012. "Perceptions and Experiences of Research Participants on Gender-Based Violence Community Based Survey: Implications for Ethical Guidelines." PloS one 7(4): e35495.

49 Ellsberg M., Heise L., Peña R., Agurto S., & Winkwist, A. 2001. Researching violence against women: methodological and ethical considerations. Studies in Family Planning 32 (1): 1–16. Salazar, M., et al. 2009. "Ending Intimate Partner Violence after pregnancy: Findings from a community-based longitudinal study in Nicaragua." BMC public health 9(1): 350. Sikweyiya, Y. And Jewkes, R. 2012. "Perceptions and Experiences of Research Participants on Gender-Based Violence Community Based Survey: Implications for Ethical Guidelines." PloS one 7(4): e35495.

given the same sheet of information about sources of help so that no individuals would be suspected of being subject to violence against women or stigmatized. The project staff were prevented knowing what issues individuals reported in the questionnaire as they were self-administered and anonymous. Nevertheless, the project staff was available to the study participants after the session to discuss specific issues individuals wanted to discuss; these project staff were trained to provide initial support and link participants to appropriate referrals as needed.

Participation in this study was voluntary. Verbal and written informed consent were sought from participants prior to any engagement in research activities. Participants were able to consent to all or some of the research activities. They were able to withdraw at any stage without providing a reason, and they were able to skip any question. There were no adverse consequences of choosing not to participate in any or all research activities, or withdrawing or skipping any questions. Individuals could participate in the intervention without participating in the pilot study.

All participants were assured that the information they provided in the study would be handled with complete anonymity. The data held on the iPod devices could not be linked in any way to participants or to the consent form that they signed.

It was impossible for someone who looked at an iPod to see any answers to any items in the questionnaire. This was because the iPod questionnaire application only allows a person completing a questionnaire to go back one screen and once an interview had been completed the responses cannot be viewed on the iPod. Furthermore, no identifying information was recorded within the questionnaire. The responses (data) can only be accessed through the upload procedure, which requires internet access to send the data to a secure repository that can only be accessed by the application developer and the Principal Investigator.

In order to link an individual's questionnaire responses across the two time points, a randomly assigned seven-digit numeric code was used. Only participants were able to link their names to the code during the study and this information was destroyed after the completion of endline data collection; therefore, there is no existing recording that can ever link an individual's identity to the study code. Data collection sessions were conducted in groups within each VA. Participants in the group data collection sessions likely knew one another and may have assumed other participants' involvement in the study. However, given that the intervention was delivered in group settings and there was no way of a participant knowing how or even whether other participants answered any items on the questionnaire, this administration method was not seen as a threat to confidentiality or anonymity in this study.

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RESULTS

Description of final sample

The project initially planned to reach 1,440 men and 1,440 women, but due to various challenges (documented in consultant and project staff reports), 716 men and 814 women participated in the intervention. At baseline, 705 men and 750 women were enrolled into the study. The sample of matched baseline and endline cases analysed for this study included 344 men and 407 women. The sample size data are presented in Table 2 showing sample size per VA and per district for baseline-only and matched cases.

Descriptive data of the participants are presented in Table 3 and discussed here. At baseline, the male participants were between 18 and 82 years old with a mean age of 36 years. Most men had completed some schooling with 37 percent completing primary school and 21 percent secondary school; 24 percent of men had no schooling or only partial primary school and 5 percent had partial or full tertiary education. Most men (61%) were currently married to a woman or in a relationship with a woman (a girlfriend) though not married to them (23%). In most men's households, the main income provider was either both partners (38%) or themselves (37%) whereas 19 percent relied on income from their parents, and 4 percent on their partner's income. Over one-half of the men (56%) had earned money in the last 12 months; 60 percent of these men earned between 31 and 300 Kina[50] (local currency) per month, most (68%) through farming, fishing, manual labour, trading or other self-employment. Up to 67 percent of men reported working only seasonally, once in a while or never. Food insecurity affected 23 percent of men and 60 percent reported they would have difficulty finding 50 Kina[51] for a health emergency.

Among female participants, the average age at baseline was 35 years (range: 18–83 years). The majority of women in the sample had completed some schooling with 37 percent completing primary school and 31 percent having partial or full secondary education. Almost one-quarter (23%) of women had no or partial primary education and 11 percent had either partial or completed tertiary education. Most women (66%) were married with a further 19 percent in a relationship with a man (a boyfriend) but not married to them and 15 percent reporting being single at the time of the baseline questionnaire. The main source of income in female participants' households was from both partners contributing equally (38%), women reporting themselves to be the primary income provider (27%), or their partners being the primary financial provider (21%). Some women (12%) reported their parents as the primary source of income. Over one-half of the women in the sample (55%) reported working and earning money in the past 12 months. Most of these women earned money through farming, fishing or trading (78%) and most (60%) earned between 31 and 300 Kina (local currency) per month. It is notable that only 41 percent of women reported working for money throughout the year whereas most worked only once in a while, seasonally, or never. While most women reported that their partners were either formally (30%) or informally (27%) employed, over one-third (34%) reported that their partners were unemployed. Just over one in five (21%) of women reported experiencing food insecurity, but most (69%) would find it difficult to find 50 Kina for a health emergency in their family.

Follow-up vs no follow-up

There were significant challenges during the baseline recruitment of male and female participants. Although the study originally planned to recruit the majority of the 1,440 men and 1,440 women who were going to participate in the intervention, only 705 men and 750 women participated in the baseline. By the endline, only 344 men (48% of baseline) and 407 women (54% of baseline) were retained in the study. Reasons for loss to follow-up among men included: 1 percent declined participation; 39 percent did not participate in any intervention modules; 15 percent relocated; 1 percent were deceased (events unrelated to the study); and 30 percent could not be contacted. Among women, the reasons for loss to follow-up included: 32 percent did not participate in any intervention modules; 20 percent relocated; 0.3 percent were deceased (events unrelated to the study); and 35 percent could not be contacted.

A comparison of the follow-up and loss to follow-up

50 On 20 February 2017, US$1 is the equivalent of about 3.17 Kina according to www.xe.com. Therefore, the range of 31 to 300 Kina is approximately US$9.77 to US$94.50.

51 At the current exchange rate, 50 Kina is approximately US$15.75

groups on demographic and outcomes measures was conducted (Table 3). There were no significant differences between the men's groups in age, marital status, primary income source at home, average monthly earnings, type of work, work frequency, food insecurity or access to emergency cash. However, men lost to follow-up were significantly more likely to have lower levels of primary and secondary education but higher levels of tertiary education compared to those retained in the study. This finding indicates a bias of greater retention of men with somewhat more education because there were so few men with tertiary education that it was unlikely to have had a big influence on retention patterns or affect future implementation plans.

Furthermore, men who were lost to follow-up were more likely to have worked in the past 12 months compared to those who were retained; it is possible that men who found employment during the course of the intervention and study were unable to find time to attend the intervention or to attend the data collection sessions. Among men, there were no significant differences on baseline measures of the outcomes between these two groups except on the two scales measuring gender attitudes. At baseline, men who were retained in the study had significantly higher gender-equitable attitudes than those who were lost to follow-up. This difference may indicate some bias in the dropout pattern among male participants, suggesting that the programme should strengthen its strategies for engaging and retaining men, particularly those who hold very conservative, traditional gender-inequitable attitudes.

Among women who were retained in the study or who were lost to follow-up, there were no significant differences in age, education level, marital status, working in the past 12 months, average monthly earnings, type and frequency of work, food scarcity or access to emergency cash. However, there were significant differences between the groups of women on primary income source in the home and the employment status of women's partners. Women who were lost to follow-up were significantly more likely to be supported primarily by parents and less likely to contribute equally to a dual-income home or be supported by a partner compared to those who were retained in the study. It appears that women making greater financial contributions in their homes were more likely to remain in the study, suggesting a potential bias in retaining women who may have more agency to choose to participate in the intervention and attend data collection sessions. Women in the lost to follow-up group were more likely to have partners who were students and less likely to have partners who were either formally or informally employed compared to those retained in the study.

On outcome measures, there were only significant differences between the two women's groups on the physical intimate partner violence victimization measure. Women who were retained in the study were more likely to report experiencing physical intimate partner violence victimization (70%) at baseline compared to those who were lost to follow-up (64%, p=0,0017). It should be noted that the women in the lost to follow-up group still reported very high levels of physical intimate partner violence victimization. Although this significant difference indicates some bias in the dropout patterns of female participants, it is encouraging that female victims of violence were able to remain in the study.

Outcomes

The outcomes results are shown at the end of this report in Table 4 for men and Table 5 for women. All the following analyses compared outcome measures at baseline and endline, and controlled for district and VA-level average module completion.

Gender attitudes

Men showed no statistically significant change on either measure of gender attitudes between baseline and endline. There were no statistically significant changes in gender attitudes between baseline and endline among women.

Violence against women

Intimate partner violence and non-partner rape perpetration: Overall, men's reported rates of physical intimate partner violence perpetration showed a statistically significant decrease between baseline (58%) and endline (48%, p=0.01). There were no other significant differences between baseline and endline of the proportion of men reporting any other types of intimate partner violence perpetration or non-partner rape perpetration.

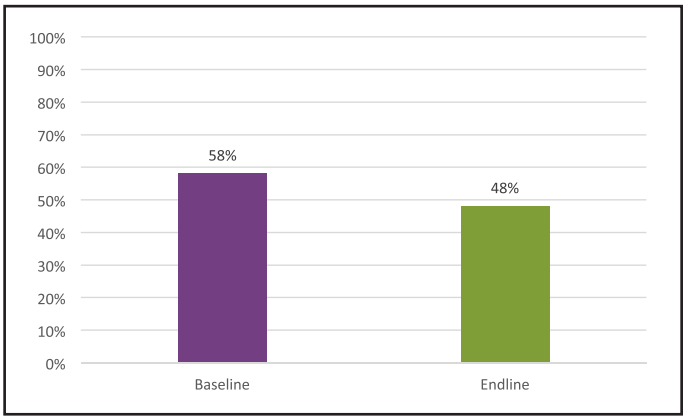

Figure 1. Physical intimate partner violence perpetration

Intimate partner violence and non-partner rape victimization

Overall, the proportion of women reporting emotional, economic, physical and sexual intimate partner violence victimization was significantly lower at endline compared to baseline. Specifically, emotional intimate partner violence victimization decreased from 86 percent to 80 percent (p=0.02); economic intimate partner violence victimization decreased from 78 percent to 68 percent (p<0.01); physical intimate partner violence victimization decreased from 75 percent to 58 percent (p<0.01); and sexual intimate partner violence victimization decreased from 65 percent to 52 percent (p<0.01). There was no significant change in the proportion of women reporting non-partner rape from baseline to endline.

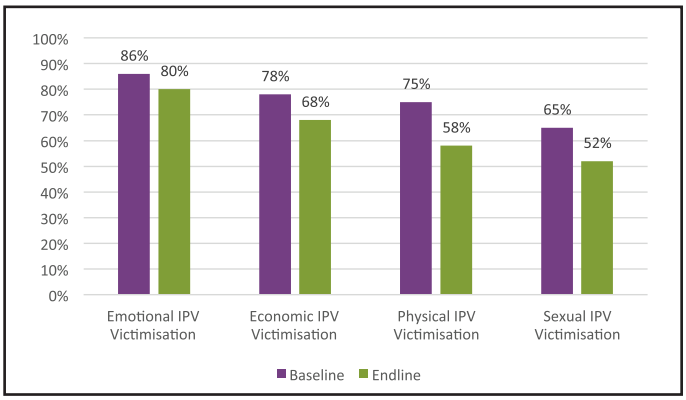

Figure 2. Intimate partner violence victimization

Awareness of violence against women services

Male participants reported a significantly increased awareness of violence against women services between baseline (69%) and endline (77%, p=0.02). Similarly, among women there was a significant improvement of violence against women support services awareness between baseline (65%) and endline (81%, p<0.01).

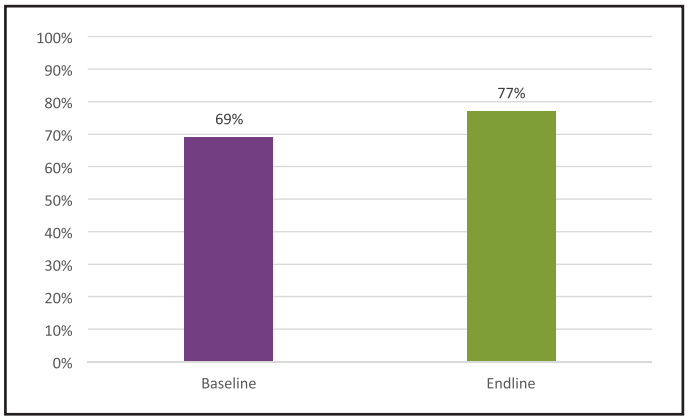

Figure 3. Proportion of men reporting awareness of violence against women services

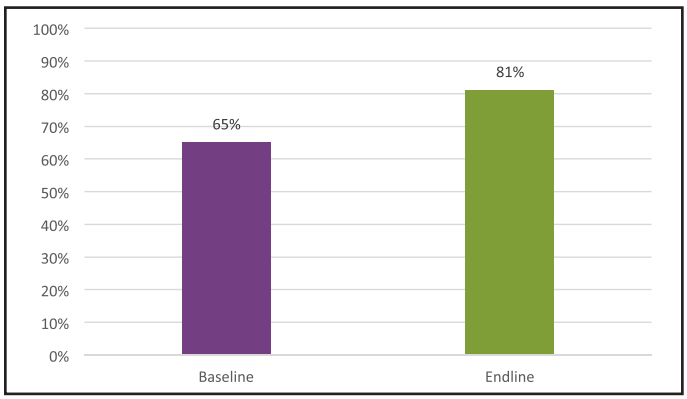

Figure 4. Proportion of women reporting awareness of violence against women services

Depression

Among men and women, there were no significant changes in the proportions of men or women reporting significant symptoms of depression between baseline and endline.

LIMITATIONS AND CHALLENGES

There are several limitations to this study. Owing to funding and capacity restraints as well as the limited timeframe of the full project, a non-experimental evaluation design was chosen for this pilot study. Specifically, standardized and validated measures were administered to intervention participants at baseline (prior to the start of the intervention modules) and endline (one year later). The instrument used in this study was originally developed as a population-based survey to measure prevalence of violence against women and not for a pilot evaluation of an intervention. However, the strength of using such an instrument is that it is internationally validated and the data are comparable to the data collected in the Family Health and Safety Study[52] conducted in Bougainville.

There was no control group and no random selection or assignment. This significantly limits the conclusions that can be drawn from this study. The lack of a control group limits the ability to attribute findings to the intervention. The lack of randomization limits the generalizability of the findings. Nevertheless, this pilot study is valuable to document the changes in attitudes, knowledge and behaviour of intervention participants and indicates that the intervention shows promise and warrants further investigation and evaluation.

Challenges with recruitment for the intervention and for the study resulted in lower than expected levels of participation. This was exacerbated by high levels of attrition of participants in the study. At baseline, 98 percent of male intervention participants and 92 percent of female intervention participants were enrolled into the study. The male matched cases are approximately 49 percent of the baseline sample, and the female matched cases are approximately 54 percent of the baseline sample. Further, analyses comparing lost to follow-up and retained participants indicates some bias in dropout patterns on both demographic and outcomes variables. However, these patterns provide useful information to consider for implementation organizations in terms of strengthening their engagement with particular groups – particularly men at higher risk of perpetrating violence against women. Significant differences between those who were retained and those who were lost to follow-up were noted but not seen to significantly compromise this pilot study.

Implementation of the four-module intervention did not proceed uniformly in all 19 VAs. Information is available about the average number of modules completed in each VA but not how many modules any individual study participant received. This is typical in group intervention evaluations. In this analysis, the average number of modules completed was a control variable. The effects of individual modules or number of modules were not assessed.

The significant changes found in this study indicate that the intervention shows great promise. These changes need to be investigated further. With only baseline and endline measures, it is not possible to know whether the changes experienced will be maintained or attenuated over time. Furthermore, it is possible that some changes may only be detectable after some time as participants integrate new ideas and learnings into their daily lives and build on these with the support of their communities. Follow-up measures will be very important in future investigations to understand the effects and long-term impact of the intervention. The qualitative data illustrates some examples of community volunteerism activities that have grown out of the *Planim Save Kamap Strongpela* experience, as well as a desire to retain and build on this intervention's benefits. These examples suggest a potential long-term impact.[53]

The Tok Pisin translations of the questionnaire used for this study were taken from the Family Health and Safety Study;[54] however, the UN Women and NCFR staff working on this project noted that the local dialect differed from the Tok Pisin used for the translations. Unfortunately, these differences were only raised during the training session for baseline data collection when it was impossible – owing to budget and schedule constraints – to amend the questionnaire. The project staff who administered the survey where fluent in Tok Pisin and local dialects; therefore, they offered clarifications and explanations to participants as needed during the administration of the questionnaire. Sister Lorraine Garasu supported this strategy. No challenges with language or dialect were reported by the Family Health and Safety Study.

52 Jewkes, R., Fulu, E. & Sikweyiya, Y. 2015. Family Health and Safety Study: Autonomous Region of Bougainville, Papua New Guinea. Summary report by Partners for Prevention: Bangkok, Thailand. Available from http://www.partners4prevention.org/about-prevention/research/men-and-violence-study/papua-new-guinea.

53 Kelly-Hanku, A., Mek, A., & Nake Trumb, R. 2017. Planim Save Kamap Strongpela: A Qualitative Evaluation of an Intervention to build peace and reduce gender-based violence in South Bougainville. UN Women, Papua New Guinea.

54 Jewkes, R., Fulu, E. & Sikweyiya, Y. 2015. Family Health and Safety Study: Autonomous Region of Bougainville, Papua New Guinea. Summary report by Partners for Prevention: Bangkok, Thailand. Available from http://www.partners4prevention.org/about-prevention/research/men-and-violence-study/papua-new-guinea

DISCUSSION AND CONCLUSIONS

Overall, significant positive changes between baseline and endline measures were recorded on physical intimate partner violence perpetration; emotional, economic, physical and sexual intimate partner violence victimization; and, men's and women's awareness of violence against women support services. It appears that women benefited more from the intervention than men. This effect may be due to influences or characteristics that were beyond the scope of this study. For example, there may have been changes in the frequency or severity of intimate partner violence perpetration, but this study analysed any perpetration vs no perpetration as is common with other prevention intervention evaluation studies.[55] It is possible that men experienced other benefits or that their demonstration of broad changes in behaviour, attitudes and awareness may be slower and not immediately detectable at the end of the intervention implementation. Global evidence clearly recommends engaging both men and women in violence against women prevention efforts. Thus, it is recommended that the *Planim Save Kamap Strongpela* team considers way to strengthen their work with men.

The stories of change reported in the qualitative research suggest a decrease in multiple kinds of violence in homes against wives/girlfriends and children and in the community in general.[56] It is encouraging to see significant decreases in past-year intimate partner violence perpetration and victimization over the course of the study, but should still be noted that the rates of past-year intimate partner violence remain very high. Specifically, intimate partner violence perpetration is still reported by 84 percent of men for any type of intimate partner violence, and between 36 percent and 72 percent for specific sub-types of intimate partner violence; 89 percent of women report any intimate partner violence victimization during the past year and between 52 percent and 80 percent for specific sub-types of intimate partner violence. These current levels of intimate partner violence occurring during the past 12 months is of extreme concern and indicate the need for both intensive prevention programming and response services in South Bougainville. Within this context of high levels of violence, it is encouraging to see that women in particular gained significant awareness of services for survivors of violence against women.

Although this quantitative evaluation did not find significant changes in men's or women's gender attitudes, the qualitative report indicates that participants' ideas about gender roles are transforming.[57] However, also noted in this same report and in various project monitoring reports are deeply held gender inequitable beliefs; a few informants believed that the intervention goes against cultural norms and traditions around gender. However, most participants appeared to be open to engaging with the gender transformative content of the intervention. Given the association between gender-equitable attitudes and violence against women in theoretical models of primary prevention of violence against women,[58] it is essential to continue to address this issue. Gender attitudes are often deeply held and integrated into an individual's world view and personal identity as well as how a community or culture organizes itself. Measuring gender equitable attitudes is complex and an issue with which the broader field of intimate partner violence research is grappling. There is a clear need for both an internationally comparable but also culturally nuanced and overall reliable tool.

Programming findings from studies of other gender transformative violence against women prevention interventions such as SASA![59], IMAGE[60] and Stepping Stones[61] suggest that such transformation requires

55 Abramsky, T., Devries, K., Kiss, L., Nakuti, J., Kyegombe, N., Starmann, E., Cundill, B., Francisco, L., Kaye, D., Musuya, T., Michau, L., & Watts, C. 2014. Findings from the SASA! Study: a cluster randomized controlled trial to assess the impact of a community mobilization intervention to prevent violence against women and reduce HIV risk in Kampala, Uganda. *BMC medicine 12*(1): 122. Jewkes, R., Nduna, M., Levin, J., Jama, N., Dunkle, K., Puren, A., & Duvvury, N. 2008. Impact of Stepping Stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: cluster randomised controlled trial. BMJ 337: a506.

56 Kelly-Hanku, A., Mek, A., & Nake Trumb, R. 2017. Planim Save Kamap Strongpela: A Qualitative Evaluation of an Intervention to build peace and reduce gender-based violence in South Bougainville UN Women, Papua New Guinea.

57 Ibid.

58 Fulu, E., Warner, X., Miedema, S., Jewkes, R., Roselli, T. & Lang, J. 2013. *Why do some men use violence against women and how can we prevent it? Quantitative findings from the United Nations Multi-country Study on Men and Violence in Asia and the Pacific.* Bangkok, Thailand: UNDP, UNFPA, UN Women and UNV. Jewkes, R. 2002. "Intimate partner violence: causes and prevention." Lancet 359(9315): 1423–1429.

59 Abramsky, T., Devries, K., Kiss, L., Nakuti, J., Kyegombe, N., Starmann, E., Cundill, B., Francisco, L., Kaye, D., Musuya, T., Michau, L. & Watts, C. 2014. Findings from the SASA! Study: a cluster randomized controlled trial to assess the impact of a community mobilization intervention to prevent violence against women and reduce HIV risk in Kampala, Uganda. *BMC medicine 12*(1): 122.

60 Pronyk, P. M., Hargreaves, J.R., Kim, J.C., Morison, L.A., Phetla, G., Watts, C., Busza, J., & Porter, J.D. 2006. Effect of a structural intervention for the prevention of intimate-partner violence and HIV in rural South Africa: a cluster randomised trial. *Lancet 368.*

61 Jewkes, R., Nduna, M., Levin, J., Jama, N., Dunkle, K., Puren, A., & Duvvury, N. 2008. Impact of Stepping Stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: cluster randomised controlled trial. *BMJ 337: a506.*

interventions that are participatory and intensive, and engage with gender issues multiple times and in multiple ways over a long period of time (e.g. about 12 months). Indeed, although theoretical models of violence against women indicate the core role of gender-inequitable attitudes and practices in feeding this violence, the results from this limited study suggest that the relationship is not necessarily linearly dependent. That is, change in attitudes is not the key precursor to changes in violence. It is possible that attitude change may be instrumental in maintaining and further decreasing violence but follow-up studies would need to determine this relationship.

The role of mental health in violence against women and primary prevention of violence against women has only been briefly and theoretically explored; however, there is an association between depression and perpetration of violence against women and it has been recognized that interventions need to address mental health concerns.[62] The *Planim Save Kamap Strongpela* intervention promoted healing from trauma primarily through reconciliation, referral counselling and safe houses for serious cases.

Given the unchanging, high levels of depression affecting many participants in this study and PTSD in the Family Health and Safety Study,[63] it appears that Bougainvilleans have a high unmet need for mental health support. It is possible that symptoms of depression may ease as communities, homes, and relationships become safer and less violent, more reconciliation takes place, and individuals continue to contribute to community cohesion through volunteerism and collective efforts. However, this effect is theoretical. Additional data would be necessary to understand whether the intervention has a long-term impact on depression and what particular parts of the intervention can contribute to reducing depression.

This quantitative study and the qualitative endline study were important to indicate the value of the *Planim Save Kamap Strongpela* intervention. Future studies could further strengthen the evidence base by building on the successes and learnings of these studies. Specifically, an experimental study with longer-term follow-up would be recommended to determine the effectiveness of this intervention, as well as additionally measuring community-level change and transformation, and conducting a factor analysis to understand the potential differential impact between the modules of the intervention. Future studies and intervention implementation projects should also consider appropriate solutions to the challenges faced by this study, especially in terms of mobilizing communities and how to train and support facilitators. The findings of this study suggest that the *Planim Save Kamap Strongpela* intervention shows important promise in decreasing intimate partner violence perpetration and victimization in south Bougainville and in increasing people's knowledge of where to receive violence against women services. These changes have the potential to contribute to safer, happier and less violent relationships, homes, and communities across Bougainville.

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62 Fulu, E., Warner, X., Miedema, S., Jewkes, R., Roselli, T. & Lang, J. 2013. *Why do some men use violence against women and how can we prevent it? Quantitative findings from the United Nations Multi-country Study on Men and Violence in Asia and the Pacific.* Bangkok, Thailand: UNDP, UNFPA, UN Women and UNV. Gevers, A. & Dartnall, E. 2014. "The role of mental health in primary prevention of sexual and gender-based violence." Global health action 7: 10.3402/gha.v3407.24741.

63 Jewkes, R., Fulu, E. & Sikweyiya, Y. 2015. Family Health and Safety Study: Autonomous Region of Bougainville, Papua New Guinea. Summary report by Partners for Prevention: Bangkok, Thailand. Available from http://www.partners4prevention.org/about-prevention/research/men-and-violence-study/papua-new-guinea

TABLES

Table 2. Sample size

District	VA	Male N		Female N	
		Baseline only	Matched cases	Baseline only	Matched cases
1	1	41	36	31	36
	2	33	12	26	44
	14	11	5	17	10
	15	28	48	22	36
	16	5	11	9	15
	17	21	34	27	27
	18	10	9	10	5
	19	18	21	30	14
Total District 1		***167***	***176***	***172***	***187***
2	3	29	37	22	42
	4	13	37	25	42
	5	28	24	34	31
	6	14	4	8	4
	7	16	7	15	16
	8	13	6	11	16
	9	12	4	7	5
	10	39	13	24	18
	11	15	19	6	21
	12	8	7	10	11
	13	7	10	9	14
Total District 2		***194***	***168***	***171***	***220***
Total N		**361**	**344**	**343**	**407**

Table 3. Descriptive data of study participants with baseline–endline comparisons

Variable	Male (N=344) Baseline Value		P*	Female (N=407) Baseline Value		P*
	Baseline only	Matched cases		Baseline only	Matched cases	
Age (mean)	36 years	36 years	ns	34 years	35 years	ns
Highest Grade Completed						
No Schooling	5%	4%		3%	4%	
Primary School Incomplete	20%	20%		17%	19%	
Primary School Complete	32%	37%		38%	37%	
Secondary School Incomplete	15%	12%	0.001	14%	19%	ns
Secondary School Complete	14%	21%		13%	12%	
Tertiary Education Incomplete	4%	2%		2%	4%	
Tertiary Education Complete	10%	3%		13%	7%	
Marital status						
Currently married to a woman/man	62%	61%		61%	66%	
Living with woman/man, not married	8%	9%	ns	11%	7%	ns
Girlfriend/boyfriend, not living together	14%	14%		15%	12%	
No relationship	16%	16%		13%	15%	
Who provides the main source of income in your home?						
Self	40%	37%		27%	27%	
Partner	4%	4%		18%	21%	
Both equally	38%	38%	ns	32%	38%	0.044
Parents	15%	19%		20%	12%	
Other	3%	2%		3%	2%	
Have you worked or earned money in the last 12 months?						
Yes	65%	56%	0.019	52%	55%	ns
No	35%	44%		49%	45%	
How much do you earn per month?						
Less than 30 Kina	8%	13%		9%	10%	
31–100 Kina	26%	35%		30%	39%	
101–300 Kina	27%	25%		22%	21%	
301–500 Kina	14%	9%	ns	15%	14%	ns
501–800 Kina	10%	8%		10%	8%	
801–1,000 Kina	5%	5%		6%	1%	
1,001–2,000 Kina	7%	3%		4%	4%	
2,001 Kina or More	3%	3%		5%	3%	

What kind of work do or did you normally do?						
Professional: Doctor, Nurse, Teacher	8%	5%		12%	9%	
White Collar: Secretary, Office Worker	4%	1%		2%	3%	
Blue Collar: Factory Worker, Waiter	2%	1%		1%	3%	
Trading, Business, Self-Employed	9%	12%		17%	16%	
Manual Labour	15%	15%	ns	7%	7%	ns
Farmer, Fishing	39%	41%		50%	55%	
Security: Police, Army	6%	7%		1%	1%	
Driver, Taxi Driver	4%	4%		0%	1%	
Sex Worker	1%	0%		0%	0%	
Never Worked, Student	12%	14%		10%	6%	
How often would you say that people in your home go without food because of lack of money?						
Every week	8%	10%		14%	11%	
Every month but not every week	11%	13%	ns	8%	10%	ns
Less than every month	38%	37%		49%	51%	
Never	43%	40%		30%	29%	
If a person became ill in your home and 50 Kina was needed for treatment or medicine, how easy would you say it would be to find the money?						
Very Difficult	22%	24%		22%	28%	
Somewhat Difficult	35%	36%	ns	38%	41%	ns
Somewhat Easy	27%	28%		25%	20%	
Very Easy	16%	12%		15%	12%	

*p <0.05 was considered statistically significant.

ns denotes the values at baseline and endline are not statistically significantly different and are considered statistically equivalent.

Table 4. Comparisons on outcome measures at baseline and endline for male participants

	Baseline	Endline	P*
GEM Gender Equitable Attitudes Both scales are measured on a scale of 1 to 4 with 1 = least equitable/most inequitable and 4 = most equitable/least inequitable	2.3 2.6	2.4 2.6	ns ns
Emotional Intimate Partner Violence Perpetration **Economic Intimate Partner Violence Perpetration** **Physical Intimate Partner Violence Perpetration** **Sexual Intimate Partner Violence Perpetration** **Non-partner Rape Perpetration** Measure indicates percentage of participants who reported perpetrating at least one act of violence against women (separated by type) within the past 12 months	75% 68% 58% 34% 25%	72% 63% 48% 36% 22%	ns ns 0.01 ns ns
Awareness of Violence Against Women Services Measure indicates percentage of participants who reported awareness of available violence against women-related services	69%	77%	0,02
Depression Measure indicates percentage of participants who scored above the cut-off indicative of significant depressive symptomology	78%	80%	ns

*p <0.05 was considered statistically significant.

ns denotes the values at baseline and endline are not statistically significantly different and are considered statistically equivalent.

Table 5. Comparisons on outcome measures at baseline and endline for female participants

	Baseline	Endline	P*
GEM **Gender Equitable Attitudes** Both scales are measured on a scale of 1 to 4 with 1 = least equitable/most inequitable and 4 = most equitable/least inequitable	2.3 2.5	2.3 2.5	ns ns
Emotional Intimate Partner Violence Victimization **Economic Intimate Partner Violence Victimization** **Physical Intimate Partner Violence Victimization** **Sexual Intimate Partner Violence Victimization** **Non-partner Rape Victimization** Measure indicates percentage of participants who reported being victims of at least one act of violence against women (separated by type) within the past 12 months	86% 78% 75% 65% 21%	80% 68% 58% 52% 18%	0.02 <0.01 <0.01 <0.01 ns
Awareness of Violence Against Women Services Measure indicates percentage of participants who reported awareness of available violence against women-related services	65%	81%	<0,01
Depression Measure indicates percentage of participants who scored above the cut-off indicative of significant depressive symptomology	71%	70%	ns

*p <0.05 was considered statistically significant.

ns denotes the values at baseline and endline are not statistically significantly different and are considered statistically equivalent.


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WOMEN


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for prevention
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Aid