



# Peacekeeper perpetrated sexual exploitation and abuse, and life satisfaction: A cross-sectional study in Haiti

Mackenzie Maskery<sup>1</sup>, Melanie Walker<sup>2</sup>, Heide Glaesmer<sup>3</sup>, Stéphanie Etienne<sup>4</sup>, Sabine Lee<sup>5</sup>, Susan A Bartels\*<sup>2</sup>

## ABSTRACT

Peacekeepers from the UN Peacekeeping Operation 'Mission des Nations Unies pour la stabilisation en Haïti' (MINUSTAH) have been accused of widespread sexual exploitation and abuse throughout their time in Haiti. However, victims have not received adequate reparations, support, or justice. To date, no research has been done to quantifiably examine how peacekeeper-perpetrated sexual exploitation and abuse (PP-SEA) has affected the lives and well-being of those who have experienced it.

Using multivariate linear regression analysis, this research examines the association between PP-SEA and Satisfaction With Life (SWL) among Haitian community members. Among those who shared third-person micronarratives (n=1588), experiencing PP-SEA was associated with higher average SWL scale scores compared with those who did not. There was no association between PP-SEA and SWL among individuals who shared first-person micronarratives (n=887). Potential contextual factors that may have contributed to these findings were examined, e.g. the occurrence of transactional sex, nuance in peacekeeper-civilian relationships, and other negative experiences with MINUSTAH within the unexposed group. These results highlight the complexity of the relationship between PP-SEA and SWL in the Haitian context and provide direction for future research.

**Keywords:** Haiti, MINUSTAH, Peacekeeping, Satisfaction With Life (SWL), Sexual Exploitation and Abuse (SEA), United Nations

GJMEDPH 2023; Special Issue | OPEN ACCESS

1 Department of Biomedical and Molecular Sciences, Queen's University, Kingston, Canada; 2 Department of Emergency Medicine and Public Health Sciences, Queen's University, Kingston, Canada; 3 Department of Medical Psychology and Medical Sociology, University of Leipzig, Germany; 4 Komisyon Fanm Viktim pou Viktim (KOFAVIV), Port-au-Prince, Haiti; 5 Department of History, University of Birmingham, UK

\*Corresponding author: Susan A Bartels, Department of Emergency Medicine and Public Health Sciences, Queen's University, Kingston, Canada, [susan.bartels@queensu.ca](mailto:susan.bartels@queensu.ca)

**Conflict of Interest**—none | **Funding**— Research was funded by the Arts and Humanities Research Council (grant # AH/P008038/1, Principal Investigator, Sabine Lee) and the Social Sciences and Humanities Research Council (grant # 890- 2016-0110, Principal Investigator, Susan A Bartels).

© 2023 The Authors | Open Access article under CC BY-NC-ND 4.0



## INTRODUCTION

From 2004-2017, the UN Peacekeeping Operation 'Mission des Nations Unies pour la stabilisation en Haïti' (MINUSTAH) was active for the purposes of stabilizing the political environment as well as

reducing gang presence and drug-related crime in Haiti.<sup>1</sup> Following the 2010 earthquake, the role of MINUSTAH peacekeepers expanded to include human rights protection & humanitarian assistance.<sup>2</sup>

MINUSTAH personnel have been accused of widespread sexual exploitation and abuse (SEA) throughout their time in Haiti, including rape, prostitution, sex trafficking, transactional sex, child prostitution, and child molestation.<sup>3</sup> The UN has declared peacekeeper-perpetrated SEA (PP-SEA) to be the most significant risk to peacekeeping operations,<sup>4</sup> and allegations against MINUSTAH peacekeepers make up ~26% of all PP-SEA allegations, despite MINUSTAH only representing 7% of UN peacekeepers globally.<sup>5</sup> As of April 2022, 121 SEA allegations against MINUSTAH peacekeepers have been formally reported to the UN, in addition to 38 paternity claims related to PP-SEA.<sup>6</sup> These numbers are believed to be gross underestimates as PP-SEA is widely underreported due to stigma, an environment of impunity for peacekeepers, and the breakdown of the rule of law in Haiti.<sup>7-9</sup>

### Peacekeeper-Perpetrated SEA

The UN defines sexual abuse as: "Actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions. All sexual activity with a minor (a person under the age of 18) is considered as sexual abuse."<sup>6</sup> Sexual exploitation is defined as: "Any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. This includes acts such as transactional sex, solicitation of transactional sex, and exploitative relationships."<sup>6</sup> The UN's zero-tolerance policy prohibits these acts of SEA and strongly discourages all sexual interactions between UN staff and beneficiaries of assistance (for example, local women/girls) due to the inherently unequal power dynamics in these relationships.<sup>10</sup>

Violation of this policy could result in disciplinary measures, up to and including summary dismissal of the UN staff involved.<sup>10</sup> However, accountability for PP-SEA is complicated by agreements between troop-contributing countries and the UN, which outline that military peacekeepers can only be prosecuted by their own country's military justice

system.<sup>11</sup> With many countries unable or unwilling to conduct criminal investigations into PP-SEA allegations, this creates an environment of impunity for peacekeepers.<sup>12</sup>

Previous studies on this topic have primarily been qualitative, examining community perceptions of PP-SEA in Haiti,<sup>13</sup> gendered differences in perceptions of civilian-peacekeeper sexual interactions,<sup>14</sup> and how experiences of PP-SEA affect the desire to engage with MINUSTAH.<sup>15</sup> Moreover, analyses of the lived experiences of women/girls who are raising a peacekeeper-fathered child,<sup>8,12,16,17</sup> and experiences of transactional sex,<sup>3,16</sup> have been published. Financial and material support was commonly identified as a key element of sexual interactions between local women/girls and peacekeepers,<sup>13,14,16</sup> and it was found that most women who engaged in transactional sex did so to fill unmet economic needs.<sup>3</sup> Many abusive interactions were also documented in these studies, including PP-SEA committed against children and other vulnerable individuals.<sup>13</sup> Women/girls were found to face stigma, discrimination, and damaged reputations as a result of PP-SEA, especially those raising a peacekeeper-fathered child.<sup>8,17</sup> Moreover, it was found that women who are raising a peacekeeper-fathered child are typically not supported financially by the peacekeeper father when he is repatriated to his home country, leaving the mother and child in exacerbated poverty.<sup>8,12</sup> This is confirmed by a recent UN report which revealed that 273 of 305 paternity and child support claims associated with PP-SEA allegations have still yet to be resolved.<sup>18</sup>

### Response to Peacekeeper-Perpetrated SEA

The UN has made some attempts at providing assistance and support to survivors of PP-SEA and children fathered by peacekeepers, including the implementation of a voluntary Trust Fund;<sup>19</sup> however, this has failed to meet the needs of many affected women and children and fails to recognize their legal entitlements. Due to widespread underreporting of PP-SEA, especially in Haiti,<sup>9</sup> many victims do not benefit from the UN Trust Fund's programmes.

Additionally, the Trust Fund does not provide funds directly to the affected individuals or their children,<sup>20</sup> but rather intends to provide vocational training to those affected by PP-SEA to allow for income generation. For women who are raising a peacekeeper-fathered child in poverty, this type of support may not be as useful as receiving child support payments. Consequently, the attempted support from the UN is inadequate to remedy victims of PP-SEA in Haiti. When advocating for reparations for those affected, quantitative data about the impact of PP-SEA on Haitian's lives and well-being is valuable; however, no research on this has been done to date.

### Satisfaction With Life

Examining Satisfaction With Life (SWL) is one way to assess well-being. SWL is an integral component of subjective well-being that is associated with a variety of outcomes including mental and physical health, academic success, and quality of social relationships.<sup>21,22</sup> Higher overall SWL is also inversely correlated with several clinical distress measures and is predictive of suicide risk, with lower SWL indicating a higher risk of suicidal behaviors.<sup>21</sup> Furthermore, studies have shown that experiencing trauma (including sexual abuse) is associated with lower life satisfaction.<sup>23-25</sup> Considering this, SWL measured by the Satisfaction With Life Scale (SWLS) can provide a useful quantitative measure of how people's lives have been affected by PP-SEA. This scale has demonstrated validity and been applied across a diverse range of geographical settings and populations, including those who have experienced trauma.<sup>26-28</sup>

In addition to traumatic experiences, other circumstances have demonstrated an association with SWL. Higher income and education levels are associated with higher SWL,<sup>29,30</sup> as is being female. In contrast, being unmarried, divorced, or separated,<sup>31</sup> living in poverty,<sup>32</sup> and living in rural areas of low and middle-income countries is associated with lower SWL.<sup>33</sup> Age does not demonstrate a linear association with SWL, however several studies have found that individuals between 40-60 years old tend to have the lowest SWL scores of all age groups.<sup>31</sup>

The nature of the SWLS allows individuals to evaluate their lives according to their own criteria and beliefs, making it an effective tool for assessing life satisfaction in different contexts.<sup>28</sup>

The current study aims to utilize SWLS to address the present gap in literature regarding the impact of PP-SEA on affected individuals in Haiti.

### Objectives

The current analysis has two objectives:

- 1) To evaluate the association between PP-SEA and SWL among Haitian community members. It is hypothesized that those who shared a micronarrative about PP-SEA will have lower SWLS scores compared with those who did not share such a micronarrative.
- 2) To examine whether the association between PP-SEA and SWL among Haitian community members differs when stratified by who experienced the PP-SEA. It is hypothesized that the association between PP-SEA and SWLS scores will be stronger among those who directly experienced PP-SEA in comparison with those with indirect experience.

## METHODS AND MATERIALS

### Study Design and Setting

This is a secondary analysis of raw data collected from a larger mixed-methods, cross-sectional study conducted in 2017.<sup>12</sup> The parent study was conducted in 11 Haitian communities located within 30km of MINUSTAH bases, including Cité Soleil, Charlie Log Base, Tabarre, Gonaïves, St. Marc, Hinche, Léogâne, Port Salut, Morne Cassé, Fort Liberté, and Cap Haïtien (see Appendix A). Between June and August 2017, a total of 2541 micronarratives were collected about interactions between local women/girls in these communities and MINUSTAH peacekeepers using Cognitive Edge's SenseMaker tool. The parent study did not ask about PP-SEA specifically, and as such not all micronarratives collected were about this topic.

## Study Participants

Individuals aged  $\geq 11$  living in the above-mentioned Haitian communities were eligible to participate in the parent study. Potential participants were recruited through convenience sampling in public locations (for example, markets, shops, transportation hubs, and parks) during the daytime. To be included in the current analysis, participants had to have complete information on the exposure and outcome variables of interest ( $n=2521$ ).

## Survey Instrument

Cognitive Edge's SenseMaker is a mixed-methods tool that allows for the collection of micronarratives using audio recordings and subsequent interpretation of these micronarratives by participants through a series of pre-defined questions.<sup>34</sup>

At the beginning of the survey, participants were asked to share a brief narrative (referred to as a micronarrative) about the experiences of women/girls interacting with MINUSTAH peacekeepers in their communities. The experience could be first-hand or about a family member, friend or neighbour, or something that the participant had heard about in their community.

After audio recording the micronarrative, participants interpreted the shared experience by responding to a series of questions, including several multiple-choice questions used to contextualize and understand the micronarrative.

## Exposure

The exposure of interest is PP-SEA. Individuals who shared micronarratives that mentioned PP-SEA and/or a peacekeeper-fathered child were included in the exposed group ( $n=586$ ). This was indicated by the research assistant facilitating the interview through their response to multiple choice questions asking whether the experience shared was about/mentioned PP-SEA and/or about/mentioned a peacekeeper-fathered child. The unexposed group consisted of those who did not share such a micronarrative ( $n=1935$ ).

## Outcome

SWL is the outcome of interest, measured using the SWLS.<sup>35</sup> Participants were asked to rank their agreement with each of five statements, with options ranging from 1– strongly disagree, to 7 – strongly agree (see Appendix B). Other studies utilizing this scale treat SWL as a continuous numerical variable using the sum scores across the five statements, which can range from 5–35, with higher scores reflecting higher SWL.<sup>35</sup> The psychometric properties of the SWLS have been tested in numerous studies, the unidimensional structure has been supported and internal consistency has been proven.<sup>35–37</sup>

## Covariates

Marital status, gender, age, income, education, and location have demonstrated an association with SWL,<sup>29–31,33,38</sup> and were therefore considered as potential confounders on the association of interest. These demographic data were collected in the parent study (see Appendix C for relevant survey questions).

## Analysis

The exposure variable (PP-SEA) was treated as a binary categorical variable, with the options of “yes” or “no” indicating whether the participant shared a micronarrative about PP-SEA. Earlier studies utilizing the SWLS have typically used the mean scores across participants in their analyses.<sup>31,39,40</sup> As such, this outcome was measured by mean SWLS scores. To evaluate potential confounding, bivariate analyses including t-tests, chi-square tests, and Fisher exact tests were used to examine the differences between the exposed and unexposed groups for each covariate of interest. Fisher tests were used for the variables of gender and age as some of their expected values were too small for conventional chi-squared tests.<sup>41</sup> Those covariates that had p-values lower than 0.1 were then evaluated using the change-in-estimate (CIE) approach to create the final multivariate model.<sup>42</sup>  $P < 0.1$  was chosen as the threshold for the bivariate tests to reduce the possibility of potential confounders being removed prematurely.<sup>43</sup> In marital status, the groups “Divorced/Separated from spouse” and “Widowed” were collapsed as both had small

sample sizes (n=21 and 16, respectively) and similar definitions. The new variable used throughout analysis was “Disrupted marriage” to be consistent with existing literature that combines these groups.<sup>44</sup> The locations used in the initial study were also collapsed based on geographic proximity (see Appendix A).

To assess which variables produced the largest change in the effect estimate, a full model was first created that included all potential confounders identified in the bivariate analysis. Subsequent linear models with one less covariate each were generated, and the relative difference in effect estimates between these and the full model were individually computed. Only variables that changed the effect estimate by >10% were kept in the model as this was considered indicative of confounding<sup>45</sup>.

Ultimately, a linear model that controlled for all significant confounders was created to evaluate the primary objective.

For the secondary study objective, a stratified analysis was undertaken based on who experienced the events of the micronarrative shared. Direct experiences included those who indicated in the survey that their micronarrative was “about me” (n=887), while indirect experiences included micronarratives designated as being about someone other than the participant (n=1588). Those who responded that they “prefer not to say” who their micronarrative was about (n=46) were excluded from this analysis.

Stratified linear regression was used to evaluate the associations between direct/indirect experiences of PP-SEA and mean SWLS scores while controlling for the confounding variables identified in the primary analysis. R software was used for data analysis and  $P < 0.05$  was considered statistically significant.

### Ethics

The Queen’s University Health Sciences and Affiliated Teaching Hospitals Research Ethics Board approved

the parent study in which the data was collected (protocol # 6020398), in addition to this sub-analysis (protocol # 6035394). Informed consent was obtained from all participants and no identifying information was collected. As the survey was brief, no compensation was offered for participation.

This study was designed and implemented in partnership with three Haitian partner organizations: Enstiti Travay Sosyal ak Syans Sosyal (ETS), Komisyon Fanm Viktim pou Viktim (KOFIV), and Bureau des Avocats Internationaux (BAI), as well as BAI’s US-based partner Institute for Justice & Democracy in Haiti (IJDH).

## RESULTS

### Characteristics of Study Participants

Table 1 summarizes the demographic characteristics of the study participants. Of the 2521 micronarratives included, 586 (23.2%) were about PP-SEA against Haitian civilians. Despite intention to recruit roughly equal numbers of men and women, males made up the majority of participants (70.9%). Most participants were single (60.8%) and reported having an average household income (63.7%). Participants were most frequently between the ages of 25-34 (33.0%), located in Port-au-Prince (22.8%), and had completed some secondary education (38.0%). Those who shared a micronarrative about PP-SEA had statistically significantly higher mean SWLS scores than those who did not share such a micronarrative. Bivariate testing indicated that gender, education level, income level, and location differed significantly between the exposed and unexposed groups. More males than females shared micronarratives about PP-SEA, and individuals living in Port Salut shared more micronarratives about PP-SEA than any other location. While not being perfect linear relationships, generally those with higher income and education levels shared more micronarratives about PP-SEA than those with lower income and education levels. Based on the CIE confounder selection approach, education was the only covariate controlled for in the linear regression analyses.

Table 1 Bivariate Analysis Comparing Those Who Did and Did Not Share a Micronarrative about PP=SEA

Characteristic	Shared a Micronarrative about PP-SEA			P value
	All Participants [n(%)]	Yes [n(%)]	No [n(%)]	
<b>Gender</b>				
Male	1788 (70.9)	429 (24.0)	1359 (76.0)	0.02*
Female	731 (29.0)	155 (21.2)	576 (78.8)	
Prefer not to say	2 (0.1)	2 (100)	0 (0)	
Total	2521 (100)	586 (23.2)	1935 (76.8)	
<b>Age (Years)</b>				
11 – 17	238 (9.4)	50 (21.0)	188 (79.0)	0.15
18 – 24	583 (23.1)	142 (24.4)	441 (75.6)	
25 – 34	833 (33.0)	215 (25.8)	618 (74.2)	
35 – 44	432 (17.1)	92 (21.3)	340 (78.7)	
45 – 54	234 (9.3)	42 (17.9)	192 (82.1)	
> 55	138 (5.5)	28 (20.3)	110 (79.7)	
Prefer not to say	61 (2.4)	17 (27.9)	44 (72.1)	
Missing	2 (0.1)	0 (0)	2 (100)	
Total	2521 (100)	586 (23.2)	1935 (76.8)	
<b>Marital Status</b>				
Married/living together	911 (36.1)	201 (22.1)	710 (77.9)	0.21
Disrupted marriage	37 (1.5)	11 (29.7)	26 (70.3)	
Single never married	1534 (60.8)	369 (24.1)	1165 (75.9)	
Prefer not to say	39 (1.5)	5 (12.8)	34 (87.2)	
Total	2521 (100)	586 (23.2)	1935 (76.8)	
<b>Education Level</b>				
No formal education	125 (5.0)	12 (9.6)	113 (90.4)	< 0.01*
Some primary school	283 (11.2)	62 (21.9)	221 (78.1)	
Completed primary school	279 (11.1)	59 (21.1)	220 (78.9)	
Some secondary school	959 (38.0)	239 (24.9)	720 (75.1)	
Completed secondary school	492 (19.5)	101 (20.5)	391 (79.5)	
Some post-secondary school	279 (11.1)	82 (29.4)	197 (70.6)	
Completed post-secondary school	104 (4.1)	31 (29.8)	73 (70.2)	
Total	2521 (100)	586 (23.2)	1935 (76.8)	
<b>Income Level</b>				
Poor	745 (29.6)	169 (22.7)	576 (77.3)	< 0.01*
Average	1606 (63.7)	361 (22.5)	1245 (77.5)	
Well-off	170 (6.7)	56 (32.9)	114 (67.1)	
Total	2521 (100)	586 (23.2)	1935 (76.8)	
<b>Location</b>				
Port-au-Prince	576 (22.8)	128 (22.2)	448 (77.8)	< 0.01*
Léogâne	354 (14.0)	50 (14.1)	304 (85.9)	
St. Marc / Gonaïves	361 (14.3)	89 (24.7)	272 (75.3)	
Port Salut	364 (14.4)	170 (46.7)	194 (53.3)	
Hinche	359 (14.2)	76 (21.2)	283 (78.8)	
Cap Haïtien	287 (11.4)	52 (18.1)	235 (81.9)	
Morne Cassé / Fort Liberté	220 (8.7)	21 (9.5)	199 (90.5)	
Total	2521 (100)	586 (23.2)	1935 (76.8)	
<b>SWLS Score</b>				
	<b>Mean (SD)</b>	<b>Mean (SD)</b>	<b>Mean (SD)</b>	
Mean SWLS Score	21.19 (6.0)	22.26 (5.8)	20.87 (6.0)	< 0.01*
Total	2521 (100)	586 (23.2)	1935 (76.8)	

*SD Standard Deviation \* Statistically Significant*

**Table 2 Unadjusted and Adjusted Results of Multivariate Linear Regression Analysis Comparing Average SWLS Scores of Those Who Shared a Micronarrative about PP-SEA and Those Who Did Not**

	Unadjusted results (n=2521)		Adjusted Results (n=2521)	
	Coefficient <sup>#</sup>	95% CI	Coefficient <sup>#</sup>	95% CI
Intercept	20.87*	20.60*, 21.14*	22.49*	21.35*, 23.63*
Exposed to PP-SEA	1.39*	0.83*, 1.94*	1.12*	0.58*, 1.67*

CI Confidence Interval \*Statistically Significant # Adjusted for Education Level

**Table 3 Results of Stratified Multivariate Linear Regression Analysis Comparing Average SWLS Score Between Those Who Shared a Micronarrative about PP-SEA and Those Who Did Not, Stratified by Whether it was a Direct or Indirect Experience**

	Direct Experience (n=887)		Indirect Experience (n=1588)	
	Coefficient <sup>#</sup>	95% CI	Coefficient <sup>#</sup>	95% CI
Intercept	21.94*	20.28*, 23.60*	22.79*	21.22*, 24.35*
Exposed to PP-SEA	0.65	-0.81, 2.10	1.19*	0.57*, 1.81*

CI Confidence Interval \*Statistically Significant # Adjusted for Education Level

**Table 4 Results of Multivariate Linear Regression Analysis Comparing Average SWLS Score Within the Exposed Group of Those Who Shared a PP-SEA Micronarrative Involving a Peacekeeper-Fathered Child and Those who Shared a PP-SEA Micronarrative That did not Involve a Peacekeeper-Fathered Child (n=586)**

	Coefficient <sup>#</sup>	95% CI
Intercept	24.96*	22.93*, 26.99*
Mentioned Peacekeeper-Fathered Child	-0.87	-1.85, 0.12

CI Confidence Interval \*Statistically Significant # Adjusted for Education Level

#### Association between PP-SEA and SWL

In the adjusted multivariate linear regression analysis, sharing a micronarrative about PP-SEA was associated with higher mean SWLS scores (Table 2).

#### Association Between PP-SEA and SWL Stratified by who Experienced the PP-SEA

The results of the stratified linear regression analyses evaluating SWL among participants with direct and indirect exposure to PP-SEA are shown in Table 3. Among participants who shared first-person (direct) experiences (n=887), there was no association between mean SWLS scores and experiencing PP-SEA when compared with those who did not experience PP-SEA. However, among participants who shared third-person (indirect) experiences

(n=1588), sharing a micronarrative about PP-SEA was associated with higher mean SWLS scores in comparison to those who did not share about PP-SEA.

#### Association Between Having a Peacekeeper-Fathered Child and SWL

Table 4 includes the results of a *post hoc* linear regression analysis within the exposed group of those who mentioned a peacekeeper-fathered child in their micronarratives (n=196) and those who did not (n=390). Those who shared a micronarrative about PP-SEA and a peacekeeper-fathered child had lower average SWLS scores than those who shared PP-SEA micronarratives that did not involve a peacekeeper-fathered child; however, this difference was not found to be statistically significant.

## DISCUSSION

In this secondary data analysis evaluating the association between PP-SEA and SWL in Haiti, sharing a micronarrative about PP-SEA was associated with higher average SWLS scores. This finding was consistent among those who shared micronarratives about indirect experiences, but not those who shared about direct experiences.

Based on these unexpected results, an additional *post hoc* linear regression analysis was conducted to examine whether the association between PP-SEA and SWL varied based on whether a child was conceived and born from the PP-SEA. This decision was based on previous literature that found many women experience extreme economic hardship and stigma as a result of raising a peacekeeper-fathered child.<sup>12</sup> No significant association was found between whether a PP-SEA micronarrative involved a peacekeeper-fathered child or not and SWL.

These findings are inconsistent with both our hypotheses and existing literature which has found that exposure to trauma (including sexual trauma) is generally associated with lower life satisfaction.<sup>23-25</sup> The findings do, however, support some literature that has found exposure to moderate lifetime adversity/trauma predicts higher life satisfaction over time, likely due to the resilience it fosters.<sup>24,25</sup> Though information regarding time since the events of the micronarrative was not collected as part of the parent study, it is possible that resilience over time could be contributing to the observed results. This may be an area to explore in future studies.

There are also several contextual circumstances that may help to explain these unexpected results. Primarily, many experiences of PP-SEA involved transactional sex, which is the exchange of sex for money, material goods, protection, or other benefits.<sup>46</sup> Since transactional sex with peacekeepers is often motivated by poor economic circumstances,<sup>3,16</sup> and poverty is associated with reduced SWL,<sup>32</sup> it is possible that participants who experienced transactional sex faced such economic deprivation that the ability to meet their basic needs

through transactional sex resulted in higher SWL. Moreover, women who engage in transactional sex or other sexual relationships with peacekeepers may not necessarily view these experiences as traumatic, but rather as a means of survival or simply the norm.<sup>16</sup> Additional nuance in the nature of sexual relationships between Haitian women and MINUSTAH peacekeepers should also be considered, as the UN definition of PP-SEA includes relationships that may be perceived by affected women as romantic in nature.<sup>16</sup> In these cases, an individual's SWL may not have been negatively impacted by these relationships, despite it technically being considered PP-SEA according to the UN definition. In future studies, distinguishing transactional sex and romantic relationships from other forms of PP-SEA could provide more comprehensive insights around how these sexual interactions impact SWL.

Many micronarratives shared in the unexposed group discussed negative experiences with MINUSTAH unrelated to PP-SEA, including violent events and cholera. As such, it is possible that these other experiences greatly reduced the SWL in this group. This may also help to explain the findings of the stratified analysis. The lack of significant association between PP-SEA and SWL for direct micronarratives could be due to other non-PP-SEA traumatic experiences in both the exposed and unexposed groups. Among the indirect micronarratives, it is difficult to confidently attribute the reported SWL to the experiences shared, as the SWL scores were for the narrator rather than the individual who experienced the events of the micronarrative. As such, a variety of other contextual and personal factors could have impacted this association. One possible explanation for the observed association between PP-SEA and SWL among those with indirect experience of PP-SEA is that the events of the micronarratives shared in the unexposed group could have posed greater physical harm to the individuals involved than in the exposed group. Extreme injury, illness, death of a loved one from violence, or cholera may have had a greater impact on their life and subsequent SWL than would the PP-SEA of such an individual.



### LIMITATIONS AND STRENGTHS

Due to the cross-sectional design of the parent study, it is not possible to make causal inferences. Additionally, the convenience sampling reduces the generalizability of this study, and the study sample was not representative of the Haitian population overall due to women, children, and older adults being underrepresented. Convenience sampling may also have introduced a potential selection bias, affecting the study's internal validity.<sup>47</sup> The limited number of first-person micronarratives about PP-SEA in this study may have impacted the results, as we hypothesize that those micronarratives would provide the most accurate assessment of the association between PP-SEA and SWL.

Since the current study is a secondary data analysis, assessment of confounding variables is limited to the demographic data collected in the original study. It is possible that other cultural or contextual factors contribute to the associations but were not considered here, such as occupational status, smoking status, overall perception of one's health, and mental illness.<sup>31</sup> A final limitation is the potential for misclassification of exposure, as participants were never directly asked if they had been exposed to PP-SEA. It is therefore possible that some participants who were designated as unexposed could have experienced PP-SEA but chose not to share it in their micronarrative. This would have resulted in a decrease in the SWLS scores of the unexposed group thereby obscuring the true association.

The study also had several strengths, including SenseMaker's mitigation of three types of bias. Interpretation bias is greatly reduced as participants were asked to interpret their own micronarratives.<sup>48</sup> Social desirability bias is also reduced as SenseMaker questions are designed in such a way that the possible responses for any given question are all positive, negative, or neutral,<sup>48</sup> therefore there is no response that is more clearly socially acceptable or desirable. Finally, not prompting for micronarratives about PP-SEA reduced reporting bias, as participants were not led to share such micronarratives. Another key strength of this study is that six of the most common

covariates for SWL identified in the literature were assessed as potential confounders.

Future studies that aim to evaluate the impacts of PP-SEA on SWL could mitigate some of the above-mentioned limitations by collecting more direct narratives and specifically asking about PP-SEA to ensure accurate exposure allocation. Expanding demographic questions to include other variables could allow for further evaluation of other potential confounders.

### CONCLUSIONS

The relationship between PP-SEA and SWL in the Haitian context is complex and transcends other studies, which have concluded that increased trauma leads to lower SWL. Further research is needed to better understand why those with exposure to PP-SEA reported higher average SWL than those who did not. Additional research should examine the perceptions and effects of transactional sex in Haiti, specifically on the SWL of those affected.

The results of the current study do not minimize, in any way, the serious and damaging effects of PP-SEA. Instead, the findings encourage consideration of contextual factors that may play a role in the relationship between PP-SEA and SWL, in addition to providing direction for future research that may contribute to a more adequate response to meeting the real needs of PP-SEA victims in Haiti.

### ACKNOWLEDGEMENTS

We would like to express our gratitude to all who participated in this study. We are also immensely thankful to the research assistants, and to BAI, KOFIV and the former ETS for their support and guidance in conducting this work.

We appreciate Laurie Webster's assistance with implementation and oversight of the data collection.

The project would not have been possible without the financial support of the Social Sciences and Humanities Research Council and the UK Arts and Humanities Research Council.

**ACRONYMS****BAI** Bureau des Avocats Internationaux**ETS** Enstiti Travay Sosyal ak Syans Sosyal**IJDH** Institute for Justice & Democracy in Haiti**KOFAVIV** Komisyon Fanm Viktim pou Viktim**MINUSTAH** Peacekeeping Operation 'Mission des Nations Unies pour la stabilisation en Haïti'**PP-SEA** Peacekeeper-perpetrated sexual exploitation and abuse**SEA** Sexual exploitation and abuse**SWL** Satisfaction With life**SWLS** Satisfaction With Life Scale**UN** United Nations**APPENDIX A****SenseMaker Interview Locations**

The locations of the SenseMaker interviews conducted in the parent study are shown in the following figure. Port-au-Prince includes UN bases at Cité Soleil, Charlie Log Base, and Tabarre. In this study, data from St. Marc is combined with Gonaïves, and Fort Liberté is combined with Morne Cassé due to their geographic proximities.



**Fig 1A** Map of Interview Locations in Haiti

**APPENDIX B****Satisfaction With Life Scale**

**Here are some questions about your life.**

7 – Strongly agree, 6 – Agree, 5 – Slightly agree, 4 – Neither agree nor disagree, 3 – Slightly disagree, 2 – Disagree, 1 – Strongly disagree

\_\_\_ In most ways my life is close to *my* ideal.

\_\_\_ The conditions of my life are excellent.

\_\_\_ I am satisfied with my life.

\_\_\_ So far I have gotten the important things I want in life.

\_\_\_ If I could live my life over, I would change almost nothing.

*Text was translated from English to Haitian Kreyol*

**APPENDIX C****Collection of Demographic Information**

Demographic information was collected using multiple-choice questions as part of the SenseMaker survey. Responses were used to evaluate covariates of interest. All text was translated from English to Haitian Kreyol.

**What is your gender?**

Female

Male

Prefer not to say

**How old are you?**

11– 17 years old

18– 24 years old

25 – 34 years old

35 – 44 years old

45 – 54 years old

≥ 55 years old

**What is your marital status?**

Married or living together as if married

Divorced/Separated from spouse

Widowed

Single, never married

Prefer not to say

**What is your highest educational qualification?**

No formal education, some primary school, completed primary school, some secondary school, completed secondary school, some post-secondary school, completed post-secondary school

**I'll read you a list of 5 items that some people have at home. Please tell me which of these you or your household owns. Your household consists of people who sleep under the same roof and eat the same meals. Choose as many as your family has:**

- 1) radio
- 2) mobile phone
- 3) refrigerator or freezer
- 4) vehicle such as a truck, a car or a motorcycle
- 5) generator, inverter or a sun panel that provides electricity to your home
- 6) none of the above.

**In what location was the interview conducted?**

Cité Soleil	Léogâne	Morne Cassé/Fort Liberté
Charlie Log Base / Tabarre	Port Salut	Cap Haïtien
Gonaïves / St. Marc	Miragoane	
Hinche	Port-au-Prince	

**Demographic questions and possible responses****REFERENCES**

1. Müller F, Steinke A. Criminalising encounters: MINUSTAH as a laboratory for armed humanitarian pacification. *Glob Crime*. 2018; 19(3–4):228–49.
2. Baranyi S. Canada and the travail of partnership in Haiti. Heine J, Thompson AS, editors. *Fixing Haiti: MINUSTAH and beyond*. New York: United Nations University Press; 2013. 205–228 p.
3. Kolbe AR. 'It's Not a Gift When It Comes with Price': A qualitative study of transactional sex between UN peacekeepers and Haitian citizens. *Stability*. 2015; 4(1):1–26.
4. Westendorf JK, Searle L. Sexual exploitation and abuse in peace operations: trends, policy responses and future directions. *Int Aff*. 2017 Mar 1; 93(2):365–87.
5. On the abuse and sexual exploitation of Women, Girls, and young Men by United Nations agents, and the violation of the right to access remedies. *Universal Periodic Review*. 2016.
6. Conduct in UN Field Missions: Sexual Exploitation and Abuse [Internet]. United Nations. 2020 [cited 2022 Apr 13]. Available from: <https://conduct.unmissions.org/sea-data-introduction>
7. Vojdik VK. Sexual Abuse and Exploitation by UN Peacekeepers as Conflict-Related Gender Violence. In: Reilly N, editor. *International Human Rights of Women*. Singapore: Springer Singapore; 2019. p. 405–21.
8. Vahedi L, Bartels S, Lee S. "His Future will not be Bright": A qualitative analysis of mothers' lived experiences raising peacekeeper-fathered children in Haiti. *Child Youth Serv Rev*. 2020; 119:105625.
9. Snyder M. UN SEA Preliminary Investigative Results. 2017.
10. Annan KA. Special Measures for Protection from Sexual Exploitation and Sexual Abuse. Secretary-General's Bulletin. United Nations Secretariat; 2003. p. 1–3.
11. Conduct in UN Field Missions: Investigations [Internet]. United Nations. 2022 [cited 2022 Apr 13]. Available from: <https://conduct.unmissions.org/enforcement-investigations>
12. Lee S, Bartels S. 'They Put a Few Coins in Your Hand to Drop a Baby in You': A Study of Peacekeeper-fathered Children in Haiti. *Int Peacekeeping*. 2019; 27(2):177–209.
13. King C, Lee S, Bartels SA. 'They were going to the beach, acting like tourists, drinking, chasing girls': A mixed-methods study on community perceptions of sexual exploitation and abuse by UN peacekeepers in Haiti. *Stability*. 2020; 9(1):10.
14. Vahedi L, Stuart H, Etienne S, Lee S, Bartels SA. Gender-Stratified Analysis of Haitian Perceptions Related to Sexual Abuse and Exploitation Perpetrated by UN Peacekeepers during MINUSTAH. *Sexes*. 2021; 2(2):216–43.
15. Vahedi L, Stuart H, Etienne S, Lee S, Bartels SA. The Distribution and Consequences of Sexual Misconduct Perpetrated by Peacekeepers in Haiti: An Exploratory Cross-Sectional Analysis. *Soc Sci*. 2021; 10(7):270.
16. Vahedi L, Bartels SA, Lee S. 'Even peacekeepers expect something in return': A qualitative analysis of sexual

- interactions between UN peacekeepers and female Haitians. *Glob Public Health*. 2021; 16(5):692–705.
17. Vahedi L, Stuart H, Etienne S, Wisner S, Lee S, Andrea Bartels S. "It's because We are 'Loose Girls' That's why We had Children with MINUSTAH Soldiers": A Qualitative Analysis of Stigma Experienced by Peacekeeper-Fathered Children and Their Mothers in Haiti. *Orig Res J Interpers Violence*. 2019; 2022(0):1–31.
  18. Special measures for protection from sexual exploitation and abuse: Report of the Secretary- General. Vol. A/76/702. 2022.
  19. Trust Fund in Support of Victims of Sexual Exploitation and Abuse [Internet]. United Nations. [Cited 2022 Jan 12]. Available from: <https://www.un.org/preventing-sexual-exploitation-and-abuse/content/trust-fund>
  20. Third Annual Report of the Trust Fund in Support of Victims of Sexual Exploitation and Abuse. New York; 2020.
  21. Pavot W, Diener E. The Satisfaction With Life Scale and the emerging construct of life satisfaction. *J Posit Psychol*. 2008; 3(2):137–52.
  22. Huebner E, Suldo S, Gilman R. Life Satisfaction. In: Bear GG, Minke KM, editors. *Children's needs III: Development, prevention, and intervention*. National Association of School Psychologists; 2006. p. 357–68.
  23. Krause N. Lifetime trauma, emotional support, and life satisfaction among older adults. *Gerontologist*. 2004; 44(5):615–623.
  24. Seery MD, Holman EA, Silver RC. Whatever does not kill us: Cumulative lifetime adversity, vulnerability, and resilience. *J Pers Soc Psychol*. 2010 Dec; 99(6):1025.
  25. Sacchi L, Merzhvynska M, Augsburg M. Effects of cumulative trauma load on long-term trajectories of life satisfaction and health in a population-based study. *BMC Public Health*. 2020 Dec 1; 20(1):1–11
  26. Corrigan JD, Kolakowsky-Hayner S, Wright J, Bellon K, Carufel P. The satisfaction with life scale. *J Head Trauma Rehabil*. 2013 Nov; 28(6):489–91.
  27. Roysse D, Rompf BL, Dhooper SS, Roysse D. Childhood Trauma and Adult Life Satisfaction in a Random Adult Sample. *O Psychol Reports*. 1991; 69(3):1227–31.
  28. Pavot W, Diener E. Review of the Satisfaction With Life Scale. In: Diener E, editor. *Assessing Well-Being*. Springer, Dordrecht; 1993. p. 101–17.
  29. Daraei M, Mohajery A. The Impact of Socioeconomic Status on Life Satisfaction. *Soc Indic Res*. 2013; 112(1):69–81.
  30. Cheung HY, Chan AWH. The effect of education on life satisfaction across countries. *Alberta J Educ Res*. 2009 Mar 1; 55(1):124–36.
  31. Hinz A, Conrad I, Schroeter ML, Glaesmer H, Brähler E, Zenger M, et al. Psychometric properties of the Satisfaction with Life Scale (SWLS), derived from a large German community sample. *Qual Life Res*. 2018; 27(6):1661–70.
  32. Meyer DF. The Impact of Poverty on Life Satisfaction in a Low Income Community in South Africa. *Int J Econ Perspect*. 2017; 11(4):638–46.
  33. Wang F, Wang D. Geography of urban life satisfaction: An empirical study of Beijing. *Travel Behav Soc*. 2016; 5:14–22.
  34. SenseMaker [Internet]. Cognitive Edge. 2020 [cited 2022 Mar 30]. Available from: <https://oncollector.sensemaker-suite.com/smsite/index.gsp>
  35. Glaesmer H, Grande G, Braehler E, Roth M. The German version of the satisfaction with life scale (SWLS) psychometric properties, validity, and population-based norms. *Eur J Psychol Assess*. 2011; 27(2):127–32.
  36. Diener E, Emmons RA, Larsen RJ, Griffin S. The Satisfaction With Life Scale. *J Pers Assess*. 1985 Feb 1; 49(1):71–5.
  37. Lewis CA, Shevlin ME, Bunting BP, Joseph S. Confirmatory factor analysis of the Satisfaction With Life Scale: Replication and methodological refinement. *Percept Mot Skills*. 1995; 80:304–6.
  38. Joshanloo M, Jovanović V. The relationship between gender and life satisfaction: analysis across demographic groups and global regions. *Arch Womens Ment Health*. 2020 Jun 1; 23(3):331–8.
  39. Morgan JK, Desmarais SL, Mitchell RE, Simons- Rudolph JM. Posttraumatic stress, posttraumatic growth, and satisfaction with life in military veterans. *Mil Psychol*. 2017; 29(5):434–47.
  40. Emerson SD, Guhn M, Gadermann AM. Measurement invariance of the Satisfaction with Life Scale: reviewing three decades of research. *Qual Life Res*. 2017; 26(9):2251–64.
  41. Nowacki A. Chi-square and Fisher's exact tests. *Cleve Clin J Med*. 2017 Sep 1; 84(9 suppl 2):e20–5.
  42. Wang Z. Two postestimation commands for assessing confounding effects in epidemiological studies. *Stata J*. 2007; 7(2):183–96.
  43. Greenland S. Invited Commentary: Variable Selection versus Shrinkage in the Control of Multiple Confounders. *Am J Epidemiol*. 2008; 167(5):523–529.
  44. Cho MJ, Nam JJ, Suh GH. Prevalence of symptoms of depression in a nationwide sample of Korean adults. *Psychiatry Res*. 1998; 81(3):341–52.
  45. Talbot D, Diop A, Lavigne-Robichaud M, Brisson C. The change in estimate method for selecting confounders: A simulation study. *Stat Methods Med Res*. 2021 Oct 1; 30(9):2032–44.
  46. Transactional sex and HIV risk: from analysis to action. Joint United Nations Programme on HIV/AIDS and STRIVE. Geneva; 2018.
  47. Price M. Convenience Samples: What they are, and what they should (and should not) be used for [Internet]. Human Rights Data Analysis Group. 2013 [cited 2022 Apr 29]. Available from: <https://hrdag.org/2013/04/05/convenience-samples-what-they-are>
  48. Bartels SA, Michael S, Vahedi L, Collier A, Kelly J, Davison C, et al. SenseMaker® as a monitoring and evaluation tool to provide new insights on gender-based violence programs and services in Lebanon. *Eval Program Plann*. 2019; 77:101715.