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Economic analyses on the cost of Gender-Based Violence in Namibia

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Zusammenfassung (Deutsch):

Gewalt gegen Frauen wird weltweit als grundlegende Menschenrechtsverletzung anerkannt. Geschlechtsspezifische Gewalt (GBV) ist in Ländern mit hohem, mittlerem und niedrigem Einkommen verbreitet. Es verursacht hohe wirtschaftliche Kosten in Bezug auf Ausgaben für Leistungserbringung, Einkommensverluste und verminderte Produktivität, einschließlich nachteiliger Folgen für die künftige Humankapitalbildung für Frauen und ihre Familien. Dieses Papier soll einen wesentlichen Beitrag zur Diskussion leisten, indem die Verbindungen zwischen GBV und seinen wirtschaftlichen Auswirkungen konzeptionell abgebildet werden. Es überprüft die Kalkulationsmethoden und identifiziert Arten von Kosten, die aufgrund der unterschiedlichen Datenverfügbarkeit möglicherweise geschätzt werden können. Diese Studie, die auf Daten aus dem Jahr 2018 basiert, spricht sich nachdrücklich für eine Bewertung der finanziellen Folgen von GBV aus, da sie ein entscheidendes Element des Wirtschaftswachstums darstellt. Die empirische Schätzung legt nahe, dass diese Auswirkungen erheblich sind, und im Fall von Namibia entsprechen diese Kosten, im Jahr 2018, 6,01 Prozent des BIP.

Schlüsselwörter: Geschlechtsspezifische Gewalt, GBV, QALY, WTP

JEL Klassifikation: H53, I15, I31, I38, J12, J16, J17, J24, O57

Summary (English):

Violence against women is acknowledged globally as a fundamental human rights violation. Gender-Based Violence [GBV] is prevalent across high, middle, and low-income countries. It produces high economic costs in terms of expenditures on service provisions, lost income, and decreased productivity, including adverse consequences on future human capital formation for women and their families. This paper aims to make a significant contribution to the discussion through the conceptual mapping of the links between GBV and its economic impact. It reviews costing methods and identifies types of costs that potentially can be estimated given the different degrees of data availability. This study which is based on 2018 data, argues strongly for a focus on assessing the financial consequences of GBV, as it comprises a crucial element of economic growth. The empirical estimation suggests that this impact is significant, and in the case of Namibia, this cost is equivalent to 6.01 per cent of GDP in 2018.

Keywords: gender-based violence, GBV, QALY, WTP

JEL Klassifikation: H53, I15, I31, I38, J12, J16, J17, J24, O57

1 Introduction

Namibia's economic wealth has grown steadily in recent years. According to the World Bank, the national GDP increased sixfold from US\$ 2.4 billion in 1980 to US\$ 11.6 billion in 2015. The gross national income per capita has more than doubled in the last 30 years and rose from US\$ 2,080 in 1982 to US\$ 5,210 in 2015. The average life expectancy rose from 47 years in 1960 to 65 years in 2014 through access to primary medical care. (World Bank 2018).

In contrast to the economic growth, Namibia has one of the highest GBV ratios worldwide (MoHSS and ICF International 2014). Statistics on violence show little differentiation and insights in society and changes within a nation. Hence, it might be tempting to regard high ratios of violence against women and gender inequalities as statistical artefacts. Patterns that will vanish eventually, if only the increased female human capital investment process continues for long enough. One might suspect that older birth cohorts mainly drive high GBV prevalence proportions, specifically, generations, where the share of women with lower education and a different set of cultural values manifested through the Apartheid system in Namibia is relatively high (Dianne and Rimmer 2007).

Nevertheless, as noted above, although revenue growth occurred over the past 25 years, Namibian women did not benefit equally but even negatively. Despite increasing prosperity, violence against women rose simultaneously (MoHSS and ICF International 2014). The study aims to uncover the costs associated with GBV in Namibia to provide quantified incentives to address the high GBV prevalences.

2 Theoretical foundations

2.1 Introduction

The survivor term

The term survivor underlines that those affected have overcome or will overcome their trauma and eventually have evolved to become a survivor of the abuse (Forde 2018). However, certain references indicate that the term may provide a misleading conclusion. This means that not everyone affected will overcome their trauma and the adverse effects of GBV (Danielle, C. 2018). Nevertheless, the term is chosen because it reflects the strengths of the abused. It does not force the abused into a victim role, which is a negative term in most cultures. Therefore, the term "survivor" is mainly used in this work instead of the terminology "victim."

2.2 This paper's GBV definition

This paper uses the following GBV term:¹

"Gender-based violence is a phenomenon that results from inequalities in societies. It includes all violence against individuals based on their gender. Both women and men of all ages can be affected. Still, most of the survivors are women and girls. GBV encompasses physical, sexual, mental, emotional, and economic abuse. The violence extends to all areas of society and covers the private/domestic sphere and the public area. It includes violence used in [public] institutions like schools, through the police and soldiers, or in the workplace, too."

¹Further information can be found in Chapter 2 from page 19 onwards in Breuer 2021.

3 Literature review

3.1 Overview of included studies

Table 1 provides a summary overview of the included studies. It should be noted that most studies did not provide total cost estimates, nor did they state their costs in relation to GDP or gave uniform prevalence proportions. These calculations are all made for this overview.

Overview

Table 1: Overview of selected GBV cost studies.

Country	Year	Author	Cost category	Prevalence [%]	GDP share [%]
			Others Second-generation Intangibles Special Services Personal Social Welfare Legal Health Service Economic output		
		Developed co	ountries		
U.S.	2003	Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Injury Prevention and Control (NCIPC) 2003	✓ ✓	4.79	0.05
U.S.	1996	Miller, Cohen, and Wiersema 1996		1.95	0.98
Canada		Zhang et al. 2012	$\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark$	1.00	0.47
Australia	2016	KPMG Australia 2016	$\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark$	[11.13]	1.35
Australia	2009	National Council to Reduce Violence against Women and their Children (NCRVAW&C) 2009	$\checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark$	7.10	0.76
Australia	2004	Access Economics 2004	< < < < < < < < < < < < < < < < < < <	5.00	1.07
U.K.	2009	Walby 2009	\checkmark \checkmark \checkmark \checkmark $ \checkmark$ \checkmark $ -$	0.60	1.00
Denmark	2010	Helweg-Larsen et al. 2010	\checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark $-$ -	2.01	0.004
Sweden	2006	Envall and Eriksson 2006	\checkmark \checkmark \checkmark \checkmark $ \checkmark$ $ -$	2.60	0.10
Finland	2001	Heiskanen and Piispa 2001	\checkmark \checkmark \checkmark \checkmark \checkmark $ \checkmark$ \checkmark $ -$	5.00	0.08
Germany	2017	Sacco 2017	$\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark\checkmark$	3.00	0.12
Switzerland	2013	Stern et al. 2013	\checkmark \checkmark \checkmark \checkmark $ \checkmark$ \checkmark $ -$	1.26	0.03
France	2012	Nectoux et al. 2010	\checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \sim	5.00	0.17
Spain	2010	Villagómez 2010	\checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \sim	2.00	0.22
		Developing and eme	rging countries		
Vietnam	2012	Duvvury and Carney 2012	\checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark $ \checkmark$ $-$	25.40	3.19
Bangladesh		Siddique 2011	< < < < < < < < < < < < < < < < < < <	24.00	2.10
Colombia		Ribero and Sánchez Torres 2004	$\checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark - \checkmark -$	18.00	3.93
Morocco		Duvvury et al. 2009	\checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark $ -$	27.70	_
Uganda		Duvvury et al. 2009	$\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{}}}}}}$	30.00	_
0		KPMG South Africa 2014	$\checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark = \checkmark$		0.90 - 1.30
Ukraine		UNFPA Ukraine 2017		10.00	0.23

Note: Figures may contain rounding errors. The numbers are rounded to two digits after the comma. Source: Own representation.

3.1.1 Specific studies

Section 3.1.1 integrates publications, which do not calculate all-important cost categories but only focus on specific parts and bring high methodological and theoretical added value. The studies, depicted in Table 2, present a particular added value for the respective cost category displayed and were integrated into the literature review.

Category	Country	Year	Author
Lost economic output	U.K.	2005	Dolan <i>et al.</i> 2005; Dubourg, Hamed, and Thorns 2005
Lost economic output	Global	2013	Duvvury et al. 2013
Health Services	U.K.	2005	Dolan <i>et al.</i> 2005; Dubourg, Hamed, and Thorns 2005
Legal	U.K.	2009 [2004]	Walby 2009
Social Welfare – and Special Services	Australia	2004	Access Economics 2004
Social Welfare – and Special Services	Colombia	2004	Ribero and Sánchez Torres 2004
Personal	Numerous stu	ıdies	
Intangibles	U.K.	2009 [2004]	Dolan <i>et al.</i> 2005; Dubourg, Hamed, and Thorns 2005; Walby 2004; Walby 2009
Second-generation	South Africa	2017	Fang et al. 2017

Table 2: Overview of appropriate studies: summary.

4 Hypothesis

Based on this literature review² the following hypothesis shall be tested:

The cost of Gender-Based Violence [GBV], including Second-generation losses, is projected to be about six per cent, and excluding Second-generation costs; it is likely to be approximately four per cent of Namibia's 2018 national GDP.

5 Methods

Table 3 presents the different methods this paper will apply in the various cost classes.

6 Data

As the major primary sources, this study applies findings from the Namibian Demographic and Health Survey (MoHSS and ICF International 2014) and the British 2004 Crime Survey (Walby and Allen 2004). The brief analysis of MoHSS and ICF International 2014; Walby and Allen 2004 concludes that the data is transferable to Namibia, as the 2004 British study found no differences in the ethnic background in terms of GBV. Concerning the Namibian prevalence, a proportion of 17.50 per cent is chosen. This is the closest to the theoretical views on which this study is based. Because this factor encompasses all groups of survivors and also involves third party perpetrators such as family, friends, or teachers. Further, the used HIV factor is based on South African research data (Jewkes *et al.* 2010) that, according to the team of authors, can be transferred to Namibia, too. Regarding the GDP factor, a GDP in current LCU of N\$ 178.052 billion for 2018 was used as the basis for the following calculations (World Bank 2018).

Section 7 will present the estimates of the first cost category, the Lost economic output.

²Further information can be found in Chapter 4 from page 79 onwards in Breuer 2021.

Category	Approaches and literature	Methods
Lost economic output	Health state outcomes, as in Dolan <i>et al.</i> 2005; Dubourg, Hamed, and Thorns 2005; Walby and Allen 2004.	Health state outcome approach
Health Service costs	Health state outcomes, as in Dolan <i>et al.</i> 2005; Dubourg,	Health state outcome
Legal costs	Hamed, and Thorns 2005; Walby and Allen 2004. Proportional expenditure/budget-share approach, as in Walby 2004.	approach Proportional expenditure/budget- share approach
Social Welfare and Special Services	Proportional expenditure/budget-share approach for Social Welfare spending, as in Access Economics 2004; and for Special	Proportional expenditure/budget-
	Services, as in Envall and Eriksson 2006; Heiskanen and Piispa 2001; Helweg-Larsen <i>et al.</i> 2010.	share approach
Personal costs	Unit-cost approach as presented in Walby and Olive 2014.	Unit cost
Intangibles – Physical and Emotional impact	QALY-approach, as in Dolan <i>et al.</i> 2005; Dubourg, Hamed, and Thorns 2005; Walby and Allen 2004.	QALY
Second-generation costs	DALYs approach based on the data of Fang <i>et al.</i> 2017 for South Africa.	DALY
	Source: Own representation.	

Table 3: Overview of the chosen method.

7 Lost economic output

7.1 Results

Table 4: Results of the Lost economic output: women.

Forms of Health state violence	Probability [%]	Women [numbers]	Time off work [d]	Economic output [N\$]
Physical violence		70,478		
Mental or emotional problems	—	[21, 848]		
Acute stress disorder	0.9499	20,754	21	86,730,966
Mild/ moderate post-traumatic stress disorder	0.0351	766	257	39,175,538
Severe post-traumatic stress disorder	0.0150	328	257	16,774,904
Physical health problems				
Minor injury	[0.46]	[32, 420]	—	-
Minor bruising or black eye	0.40	28,191	3	$16,\!830,\!027$
Scratches	0.13	9,162	1	1,823,238
Other physical injuries	0.04	2,819	3	1,682,943
Moderate injuries	[0.20]	[14,096]	_	_
Severe bruising	0.15	10,572	10	21,038,280
Bleeding from cuts	0.08	$5,\!638$	2	2,243,924
Severe injuries	[0.06]	[4,229]	_	_
Internal injuries	0.02	1,410	6	1,683,540
Broken bones/teeth	[0.06]	[4,229]		
Broken bones	0.4754	2,010	31	12,399,690
Broken nose	0.2125	898	11	1,965,722
Broken or lost teeth	0.1484	627	2	249,546
Chipped teeth	0.1638	693	2	$275,\!814$
Sexual violence		[18, 896]		
Mental or emotional problems		[18, 896]		
Acute stress disorder	1.000	18,896	21	$78,\!966,\!384$
Mild/moderate post-traumatic stress disorder	0.343	6,481	257	331,457,783
Severe post-traumatic stress disorder	0.147	2,778	257	$142,\!075,\!254$
Drug abuse	0.023	435	835	72,281,775
Alcohol abuse	0.018	340	417	28,214,220
Depression [moderate, short-term]	0.200	3,779	89	66,929,869
Suicide	0.001	19	6,421	24,277,801

Forms of violence	Health state	Probability [%]	Women [numbers]	Time off work [d]	Economic output [N\$]
	Obesity/eating disorder	0.050	945	835	157,025,925
	Anxiety	0.050	945	259	48,706,245
	Sexual dysfunction	0.780	14,739	30	87,991,830
	Unwanted pregnancy	0.025	472	_	—
Physical he	alth problems		[18, 896]		
	Broken bones	0.037	699	31	4,312,131
	Minor bruise/black eye	0.192	3,628	3	2,165,916
	Severe bruising	0.111	2,098	10	4,175,020
	Other injury	0.033	624	3	372,528
	HIV diagnoses	0.2580	4,875	$1,\!690$	1,639,511,250
	Gonorrhoea	0.040	756	3	451,332
	Chlamydial infection	0.020	378	3	225,666
	Trichomoniasis	0.120	2,268	3	1,353,996
	Bacterial vaginosis	0.190	3,590	3	2,143,230
	Abortion	0.025	472	7	657,496
	Miscarriage	0.006	113	7	157,409
			Overall loss	[N\$]	2,896,327,192

Note: Figures may contain rounding errors.

Source: Own representation.

Table 5 presents the overall losses estimated for men.

Table 5: Results of	f the Lost	economic	output:	men.
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$0.9499 \\ 0.0351$	22,499 [22,499]		
0.0351	1,924	21	8,040,396
0.0001	71	257	$3,\!631,\!153$
0.0150	30	257	1,534,290
[0.41]	[9,225]		
0.21	4,725	3	2,820,825
0.25	$5,\!625$	1	1,119,375
0.03	675	3	402,975
[0.14]	[3, 150]		
0.05	1,125	10	2,238,750
0.11	2,475	2	985,050
0.01	225	6	$268,\!650$
[0.009]	[202]	1	
0.4754	96	31	592,224
0.2125	43	11	94,127
0.1484	30	2	11,940
0.1638	33	2	13,134
	-		
Ove	rall loss men	[N\$]	21,752,889
Overall	l loss women	[N\$]	2,896,327,192
Σ	overall loss	[N\$]	2,918,080,081
SI	hare of GDP	[%]	1.64

Note: Figures may contain rounding errors.

Source: Own representation.

7.2 Summary of findings

The overall estimated Lost economic output, [N\$] for both women and men, is N\$ 2,918,080,081, which is 1.64 per cent of the 2018 GDP. Women bear a share of above 1.63 per cent, while men encounter only 0.01 per cent of the overall losses. Sexual violence depicts the most significant cost-proportion, although their case numbers are notably lower when compared to incidents of physical violence. Only for women, losses through HIV accumulate to over N\$ 1.6 billion and hence state a significant issue of concern.³ The adverse health state mild and moderate PTSD deriving from sexual violence is N\$ 331,457,783 and represents the second-highest proportion of the cost for women, as the economic implications amount to a GDP share of 0.19 per cent alone. Adverse health conditions as a result of physical violence that leverage the highest losses is acute stress disorder with around N\$ 87 million for women and around N\$ eight million for men, respectively. For men, such mental impact poses a significant burden, too, and acute stress disorder losses [N\$ 8,042,994] amount to nearly 40 [36.96] per cent of all costs for men.

8 Health Service costs

8.1 Results

Categories	Public health facilities, treatment cost [N\$] in 2018	Public health facilities, adjusted cases p.a. [numbers]	Private health facilities, treatment cost [N\$] in 2018	Private health facilities, adjusted cases p.a. [numbers]	Overall costs [N\$]
Homicide	1,462	145	5,033	25	337,815
Wounding	2,443	19,528	$10,\!650$	3,310	82,958,404
Sexual offences	13,778	15,046	$51,\!666$	2,550	$339,\!052,\!088$
Common Assault	1,462	$15,\!544$	5,032	$2,\!635$	$35,\!984,\!648$
				Total Share of GDP [%]	458,332,955 0.26

Table 6: Adjusted results of the total Health Service costs.

Note: Figures may contain rounding errors. Source: Own representation.

8.2 Summary of findings

The total Health Service costs are N\$458,332,955 and present 0.26 per cent of the national GDP. Sexual offences have the highest treatment cost per case and present with N\$339,052,088, the largest cost-share. The loss through sexual offences alone amounts already to a share of 0.19 per cent of GDP. In contrast, homicides depict the lowest proportion, with a total cost of N\$337,815 and 0.0002 per cent of GDP, respectively. It has to be further kept in mind that the outcome does not include male survivors due to the unavailability of incident data, or other long-term impacts, as the consequences of HIV/AIDS.

³The calculations utilise a prevalence proportion from the South African Jewkes *et al.* 2010, p. 6 research of 0.258. The Dolan *et al.* 2005; Dubourg, Hamed, and Thorns 2005 proportion of 0.000001 is not utilised.

9 Legal costs

9.1 Results

Category	Main Operations	2018–2019 budget [N\$]	Multiplier [%]	Costs related to GBV cases [N\$]
	Ν	Ministry of Justice		
Office of the		19,408,000	22.25	4,318,280
Ombudsman		(Ministry of Finance 2018, p. 262)		
Division –		$25,\!679,\!000$		5,713,578
Legal Aid		(Ministry of Finance 2018, p. 263)		
Division –		14,130,000		$3,\!143,\!925$
Legal Services		(Ministry of Finance 2018, p. 265)		
Division –	Handling of all matters	73,284,000		$16,\!305,\!690$
Magistracy	within the jurisdiction of the Lower Court,	(Ministry of Finance 2018, p. 343)		
Division –	High Court,	41,495,000	70.00	29,046,500
High Court		(Ministry of Finance 2018, p. 347)		
Division –	and Lower Court.	108,371,000	22.25	$24,\!112,\!548$
Lower Court		(Ministry of Finance 2018, p. 348)		
Division –	Provision of administrative	4,063,000		904,018
Judicial	support to the Judicial	(Ministry of Finance 2018, p. 349)		
Commission	Service Commission and the			
Secretariat	Magistrates' Commission.			
	Minist	ry of Safety and Security		
Division –	All activities to combat	3,113,300,000		692,709,250
Combating of	crime.	(Ministry of Finance 2018, p. 94)		
crime				
Division –	Skill development for the	88,629,000		19,719,953
Training and Development	members of the Force.	(Ministry of Finance 2018, p. 95)		
Division –	Provision of scientific	21,178,000		4,712,105
Forensic Science Services	evidence to crime-related cases.	(Ministry of Finance 2018, p. 100)		
Division –	Operation and maintenance	727,677,000	10.00	72,767,700
Correctional	of accommodation facilities	(Ministry of Finance 2018, p. 103)		
Operations	in the Correctional Facilities.			
Division –	Compliance and control of	55,569,000		$5,\!556,\!900$
Corporate	Correctional facilities.	(Ministry of Finance 2018, p. 105)		
Management				
Division –	Controlled release of	37,093,000		3,709,300
Rehabilitation	entitled offender.	(Ministry of Finance 2018, p. 106)		
and				
Reintegration				
		Share	Total e of GDP [%]	882,719,745 0.50

Table 7: Results of the total Legal costs.

Note: Figures may contain rounding errors. Source: Own representation.

9.2 Summary of findings

The total Legal costs related to GBV constitute N\$882,719,745 [of the 2018 to 2019 budget cycle] and 0.50 per cent of the 2018 GDP. The expenses of the Combating of Crime Division alone present both the highest overall cost with N\$3,113,300,000 and the highest share of GBV related

expenses with N\$692,709,250. The Division produces nearly 80 per cent of all GBV expenses,⁴ and holds alone a share of 0.39 per cent of the 2018 GDP.

10 Social Welfare costs and Special Service costs

10.1 Results

	Table 8: Resu	lts of the Social Welfare costs	5.	
Category	Main operations	2018–2019 Budget [N\$]	Multiplier [%]	Costs [N\$]
	I	Ministry of Gender		
Office of the Minister	To guide all government policies and operations regarding Women's Affairs and Child Welfare.	4,673,000 (Ministry of Finance 2018, p. 190)	17.50	817,775
Administration and planning	To offer and to ensure training of staff, including HIV/AIDS mainstreaming.	117,678,0000 (Ministry of Finance 2018, p. 192)	14.90	17,534,022
Gender equality and research	Implementing gender policies and programmes, including gender-responsive budgeting.	30,437,000 (Ministry of Finance 2018, p. 193 f.)	17.50	5,326,475
Community empowerment	Support of income-generating activities, including training of vulnerable groups.	39,835,000 (Ministry of Finance 2018, p. 195 f.)	29.17	11,619,870
Childcare facilities and protection	To provide shelter, care, protection, and educational support to vulnerable [women], including the expansion of social protection services for children.	14,699,000 (Ministry of Finance 2018, p. 197)	73.50	10,803,765
Childcare services	To safeguard the provision of services, as the provision of care for children and vulnerable groups [women].	1,005,051,000 (Ministry of Finance 2018, p. 198–199)	43.75	439,709,813
	Min	nistry of Social Welfare		
Provision of emergency relief	To provide emergency relief to the aged, disabled, and other vulnerable groups [women], including the support of Welfare organisations, nursing, and Children's homes.	25,215,000 (Ministry of Finance 2018, p. 211)	14.00	3,530,100

 $^{^4692,709,250/882,719,745.}$

		Continue Table 8		
Category	Main operations	2018–2019 Budget [N\$]	Multiplier [%]	Costs [N\$]
Special Disease programmes	To implement policies and programmes, including the reduction of socio-economic losses due to HIV.	33,715,000 (Ministry of Finance 2018, p. 219)	14.26	4,807,759
		Important NGOs		
GBV emergency accommodation	Friendly Haven, for instance, which offers shelter to GBV survivors, including their young children (Solidaritätsdienst International e. V. (SODI) 2018).	2,351,499 (Andima 2014; Solidaritätsdienst International e. V. (SODI) 2018)	100	2,351,499
GBV counselling and educational activities	LifeLine/ChildLine Namibia, for instance, as one of the leading Child Welfare CSOs in Namibia (LifeLine/ChildLine 2019), as well as the REGAIN Trust, which has geared all its activities to the prevention of GBV (Solidaritätsdienst International e. V. (SODI) 2018).	2,929,005	100	2,929,005
	Intern	ational donor community		
U.N (United Natio	ons Population Fund (UNFPA)	2017).		
Pillar 1	Institutional environment	1,786,199 (United Nations Population Fund (UNFPA) 2017, p. 37–39)	11.79	210,593
Pillar 2	Education and skills	3,573,323 (United Nations Population Fund (UNFPA) 2017, p. 39–40)	12.70	453,812
Pillar 3	Health	22,364,026 (United Nations Population Fund (UNFPA) 2017, p. 41–65)	9.00	2,012,762
Pillar 4	Poverty reduction	95,747,662 (United Nations Population Fund (UNFPA) 2017, p. 65–71)	47.67	45,642,911
UNCHR				
Overall activities		298,696 (Executive Committee of the High Commissioner 2016, p. 14)	17.50	52,272
E.U (European Un	nion (EU), Delegation to the Re	public of Namibia, The Head of Dele	egation 2015).	
Education and skills	E.U. development aid pays particular attention to the empowerment of women, which is integrated into all its pillars of activities (European Union (EU), Delegation to the Republic of Namibia, The Head of Delegation 2015, p. 10).	93,558,000 (European Union (EU), Delegation to the Republic of Namibia, The Head of Delegation 2015, p. 3)	8.75	8,186,325

Category	Main operations	2018–2019 Budget [N\$]	Multiplier [%]	Costs [N\$]
Agriculture		51,976,667 (European Union (EU), Delegation to the Republic of Namibia, The Head of Delegation 2015, p. 3)	8.75	4,547,958
Other mea- sures/support to civil society		15,593,000 (European Union (EU), Delegation to the Republic of Namibia, The Head of Delegation 2015, p. 3)	11.67	1,819,703
Support measures		15,593,000 (European Union (EU), Delegation to the Republic of Namibia, The Head of Delegation 2015, p. 3)	8.75	1,364,388
BMZ (Bundesmin	isterium für wirtschaftliche Zus	ammenarbeit und Entwicklung (BMZ) 2019)	
Promotion of vocational education (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) 2018)	The prevention of GBV is a central concern to the German development cooperation.	61,124,560	4.38	2,677,256
Student and specialist funds		7,640,570	5.83	445,445
Program to promote the competitiveness of the Namibian economy		31,186,000	2.92	910,631
Groundwater management in Northern Namibia		9,636,474	5.00	481,824
Partnerships of local banks		7,287,129	2.92	212,784
Municipal resource management		19,491,250	5.83	1,136,340
Transport, mobility, and logistics		39,734,928	3.50	1,390,722
Biodiversity and climate change		31,186,000	4.38	1,365,947
Support of the land reform		25,988,333	17.50	4,547,958
Sustainable use of the mineral raw material potential of Namibia		11,954,633	5.83	696,955

Category	Main operations	2018–2019 Budget [N\$]	Multiplier [%]	Costs [N\$]
Promotion of the vocational training, including the Namibia Training Authority [NTA] and the Namibian Chamber of Commerce [NCCI]		4,142,540	2.92	120,962
Sustainable Development Goals – initiative		15,593,000	17.50	2,728,775
Agricultural advice to beneficiaries of the land reform		140,962,887		16,450,369
Use of the bush biomass		51,976,667	3.50	1,819,183
	Social Security Commis	sion (Social Security Commission 20	013, p. 47)	
Sick leave benefits		4,394,971	12.97	570,028
Death benefits		2,192,435	0.04	877
		lucation (Ministry of Finance 2018)		
-	Implementation of programmes, including the counselling of children with special needs.	22,200,000 (Ministry of Finance 2018, p. 162)	5.83	1,294,260
Adult education	lucation The provision of learning 309,259,000 opportunities for adults to (Ministry of Finance 2018, p. 173) participate in economic life, and to enhance their level of livelihood.		8.75	27,060,163
HIV and Aids monitoring unit	Programmes geared to reduce the transmission of HIV, including the mitigation of its social and economic impacts.	2,158,000 (Ministry of Finance 2018, p. 174)	3.39	73,156
	Health and Socia	al Services (Ministry of Finance 201	8)	
Referral hospital services	The development of health workers' skills throughout all significant clinical disciplines.	1,959,880,000 (Ministry of Finance 2018, p. 206)	7.00	137,191,600
Regional Health and Social Welfare services	The improvement of the quality of services, including Family Health.	2,715,282,000 (Ministry of Finance 2018, p. 208)	7.00	190,069,740
			Q	no on nort no

Category	Main operations	2018–2019 Budget [N\$]	Multiplier [%]	Costs [N\$]
Development of Social Welfare services	The provision of emergency relief to vulnerable groups, including support to Welfare organisations and children's homes.	25,215,000 (Ministry of Finance 2018, p. 2	14.00 212)	3,530,100
Special Disease The evaluation of programmes programmes to prevent and mitigate possibilities of death, illness, and socio-economic losses that derive from HIV.		33,715,000 (Ministry of Finance 2018, p. 2	4.52 219)	1,523,918
Povert	y Eradication and Social Wel	fare [additional programmes]	(Ministry of Finance	e 2018)
Poverty Eradication and Social Welfare programmes	All Namibian poverty eradication and Social Welfare programmes include the economic empowerment of	3,439,013,000 (Ministry of Finance 2018, p. 4	17.50 484)	601,827,275
Social Assistance	Namibian women as a core principle (Ministry of Finance 2018).	3,329,227,000 (Ministry of Finance 2018, p. 4	11.29 490)	375,869,728
Food provision programmes		67,560,000 (Ministry of Finance 2018, p. 4	11.67 491)	7,884,252
Food Banks	Recipients of budget transfers	0 (Ministry of Finance 2018, p. 4	17.50 491)	0
		S	Total Share of GDP [%]	1,945,601,054 1.09

Note: Figures may contain rounding errors. Source: Own representation.

10.2 Summary of findings

The overall cost of Social Welfare expenses amount to \$1,945,601,054 and constitutes 1.09 per cent of the 2018 GDP. The following two categories have the highest proportion of cost: 1] The costs for Core services with overall \$1,167,766,743. Its expenses include Regional Health and Social Welfare services of \$190,069,740; Poverty Eradication and Social Welfare programmes of \$8,601,827,275, and costs for Social Assistance of \$3375,869,728. 2] The cost of Childcare services that amount to \$439,709,813. Only the costs of these two classes already constitute above 80 per cent of all Social Welfare spending. Whereas all other cost categories combined, including expenditures on community empowerment, childcare facilities, child protection, all [international] donor contributions combined, public sick leave, death benefits, poverty eradication, and all food provision together, amount *only* to around 17 per cent of all overall Social Welfare spending.

Category	Unit cost [N\$]	Survivors [numbers]	Costs [N\$]
Legal costs for divorce, average non-opposed case	11,100	3,903	43,323,300
Legal costs for divorce, average opposed case	44,400	$1,\!673$	73,612,000
Protection order	0	-	0
Relocation expenses	4,500	$5,\!575$	25,089,480
Property damage	13,866	$23,\!942$	331,978,094
Phone security	0	_	0
Repossession	$14,\!965$	2,327	$34,\!823,\!555$
		Total Share of GDP [%]	499,092,354 0.28

Table 9: Results of the total Personal costs.

Note: Figures may contain rounding errors.

Source: Own representation.

11 Personal costs

11.1 Results

11.2 Summary of findings

This is the category with one of the lowest GDP per cost-share [0.28 per cent]. As a result of the high case numbers with 23,942 incidents, the costliest personal expenses are property damages, that amount to around 70 per cent of all Personal costs.

12 Intangibles – Physical and Emotional impact

12.1 Results

Table 10: Results Intangibles – Physical and Emotional impact.

Category	Unit cost of a QALY, in 2018 [N\$]	Cases [numbers]	Expected QALY loss [in years of full health]	Overall costs of QALY losses, in 2018 [N\$]
	58,862			
Homicide		245	-	_
Wounding		33,099	0.033	64,293,020
Sexual offences		25,501	0.686	1,029,713,345
Common assault		$26,\!346$	0.007	$10,\!855,\!448$
			Total Share of GDP [%]	1,104,861,813 0.62

Note: Figures may contain rounding errors.

Source: Own representation.

12.2 Summary of findings

The overall GDP share is 0.62 per cent. The highest cost-share represents the category of sexual offences. Since it has the highest QALY index, it constitutes with N\$1,029,713,345 out of N\$1,104,861,813, to above 90 per cent of all losses. The two cost sections that follow are wounding and common assault losses.

13 Second-generation costs

13.1 Results

Table 11 summarises all the costs estimated for the second generation.

13.2 Summary of findings

The overall GDP cost-share is 1.62 per cent. The highest loss of N\$1,168,823,182 derives from HIV infections. They assert around 41 per cent of all costs for the Second-generation. The lowest amount displays the consequences of anxiety disorders.

In order to continue, Section 14 will summarise the study's total findings.

Health state outcomes	DALY loss [in years of full health]	PAF [fraction]	Affected population [numbers]	Unit cost of a DALY, in 2018 [N\$]	Overall DALY loss, in 2018 [N\$]
			708,225	72,726	
Depressive disorders	4.7	0.06	425		145,270,185
Anxiety disorders	3.2	0.06	425		98,907,360
Alcohol abuse disorders	2.3	0.1	708		118,427,018
Drug abuse disorders	3.4	0.14	992		$245,\!290,\!253$
STDs [excluding HIV]	1.1	0.03	2,125		169,997,025
HIV	45.4	0.05	354		1,168,823,182
Interpersonal violence	15.9	0.074	524		605, 923, 942
Self-harm	5.4	0.12	850		333,812,340
				Total Share of GDP [%]	2,886,451,304 1.62

Table 11: Results of the DALY losses for sexual violence.

Note: Figures may contain rounding errors. Source: Own representation.

14 Conclusion

14.1 Overview of findings

Table 12 provides a summary of all results.

Table	12:	Total	costs	of	all	categories.
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Cost category	GDP share [%]	Total costs [N\$]	Includes
Lost economic output	1.64	2,918,080,081	All gender
Health Service costs	0.26	458, 332, 955	Women
Legal costs	0.50	882,719,745	All gender
Social Welfare costs	1.09	$1,\!945,\!601,\!054$	All gender
Personal costs	0.28	499,092,354	All gender
Intangibles – Physical and Emotional impact	0.62	1,104,861,813	Women
Second-generation costs	1.62	2,886,451,304	[mostly] All gender
Total [without Second-generation costs]	4.39	$7,\!808,\!688,\!002$	
Total	6.01	$10,\!695,\!139,\!306$	

Source: Own representation.

Hypothesis

The hypothesis can be confirmed. The calculated share is 6.01 per cent of the 2018 national Namibian GDP or 4.39 per cent excluding Second-generation costs. It resembles the current spending of survivors, but also of the state and other institutions as earmarked international donor money, and includes Intangible losses, as well as the costs of the Second-generation comprehensively. The major losses are carried by the Lost economic output of survivors that cannot participate equally in economic life. Thus, the national economy as a whole becomes restrained. Children burden another significant part. Further, due to the introduced physical and mental harm during their youth, minors will suffer from various economic and health conditions throughout their childhood and later adulthood. Thus GBV diminishes excellent potential from a nation as a whole.

14.2 Further discussion

Section 14.2 reflects on the main limitations associated with estimating the economic costs of violence. The following outline presents the most crucial aspects in greater detail.

Data restrictions

Robust and complete cost estimations, including an examination of the connections between GBV, economic growth, and advancement, are restricted by significant data gaps. Often, cost reviews are limited by incomplete and fragmentary data in most emerging markets. Strong constraints in low- and middle-income countries are that there exists no annual analysis of crime victimisation ratios, as conducted in the United States or other OECD countries. Hence, a comprehensive examination of the impacts on economic growth is constrained by a lack of data on prevalence proportions.

Problems with GDP data in developing and emerging countries

There are several barriers regarding the accurate estimation of GDP data in Africa and Southern Africa, respectively (The Economist 2014). For instance, IMF findings imply that the informal economy in Sub-Saharan Africa continues to be among the most comprehensive in the world (Medina, Jonelis, and Cangul 2017). The GDP breakdown, for instance, usually does not recognise the income produced through black markets or parallel economies (Doepke 2020). Further, the GDP statistics suffer setbacks in their documentation. For instance, data is surveyed only on an irregular basis, among others (The Economist 2014).⁵ Consequently, the reporting and estimation of the cost to GDP might undergo specific inadequacies.

Methodological challenges

Many factors influence the precision of analytical cost assessments. Notwithstanding, it is not easy to compare published research if the relevant primary, underlying data and method is not explicitly stated and explained. Several studies solely publish the outcome and only provide little or no information on the applied approach or baseline data used. The exactness of costing assessments depends on different determinants, including the size and quality of cohort data, the proper use of proxy determinants, or the precise adjustment of the prevalence proportion. As not all of such information was available or could not always be found within the primary literature used within the various papers listed, the presented comparison of studies may be

⁵This fact becomes, for instance, evident in The Economist 2014 article on "How Nigeria's economy grew by 89 per cent overnight."

subjected to a certain degree of distortion. The different applied approaches individually used in each publication to estimate the prevalence ratios may have led to an inevitable distortion as well. Certain studies have used a lifetime prevalence ratio, while others have applied the most recent per annum data. The prevalence ratios have been adjusted to an equal baseline during all calculations to allow for comparisons among papers. However, during this process, again, a certain degree of distortion may have occurred. Furthermore, unfortunately, most research uses prevalence ratios without adjusting for the possibility of underestimating. The common perception of GBV is that it is private, and especially in Namibia, it is often a culturally accepted matter. Hence, there is significant underreporting, and only one out of around 27 cases [3.71 per cent] is registered.⁶ In addition, when applying the average daily GDP per capita data, it is assumed that survivors are drawn randomly from the entire population. However, there is a risk that other determinants will be left out. The data can hide extreme poverty and imbalances in income and living standards, for instance. With a poverty rate of 18.30 per cent in 2018 (World Bank 2020), an unemployment rate of 33.40 per cent in 2018 (Economics 2018), and an HIV prevalence of 12.10 per cent among adults aged 15 to 49 years in 2017 (UNAIDS 2019), large parts of the Namibian population remain vulnerable (National Planning Commission 2015). Furthermore, the unemployment rate for women is higher than for men. The results suggest that Namibian men are more often in employment and earn higher wages than women. This result indicates that the average GDP per capita may not serve as a suitable indicator for GBV costing. However, the other option would be to tailor the estimates based on a specific set of characteristics, such as the survivor's age, gender, ethnicity, or location. While this can be supported theoretically, the outcome may arguably stimulate more extraordinary political efforts targeting higher-income cohorts. This approach could decrease prevention activities against those who are already the most disadvantaged and vulnerable groups in society. Hence, the GDP per capita data are used, and potential flaws are acknowledged.

Challenges in calculating the costs for children

The availability of valid data remains crucial for calculating the costs of GBV for minors. Furthermore, a simple summation of the incurred and additional costs that occur, for example, after traumatisation, is hardly possible since often there is no precise information about the difference between trauma-related and non-trauma-related costs. Instead, the question arises as to what proportion of the total expenditure, for example, on education, can be attributed to GBV traumatisation and how accurate and up-to-date this corresponding data is. The data used requires considerable completeness and a high level of detail. Furthermore, all calculations must take into account that after the initial traumatisation, various forms of trauma or retraumatisation are possible, which is displayed even more often in children (Habetha *et al.* 2012, p. 62–65). Moreover, trauma disorders can occur with a delay, and re-traumatisation can happen in adulthood, and its impact is difficult to measure [also economically] (Caspi *et al.* 2002; Wetzels 1997). This makes it even more challenging to calculate a realistic picture of the costs that have arisen and are occurring for children.

Problems in assessing services in Namibia

When evaluating the outcomes, it has to be considered that many obstacles prevent survivors from receiving adequate assistance, and barriers span throughout all areas. In summary, the research indicates:

1. Low help-seeking behaviour: For example, only 21 per cent of women who have encountered any form of physical abuse during their lifetime have sought help in Namibia. Usually,

⁶Further information can be found in Chapter 6 from page 110 onwards in Breuer 2021.

help-seeking behaviour decreases with the survivor's age and the number of children (MoHSS and ICF International 2014, p. 315).

- 2. Positive socialisation and education towards GBV: Social approval of GBV is extensive. Frequently, citizens assume that a spouse is justified to punish his wife under particular conditions (Ministry of Health and Social Services (MoHSS) 2008, p. 245). Such cultural values prevent women and children from seeking assistance and make it challenging to calculate realistic losses.
- 3. Problematical gender roles: In order with the discussed viewpoints, the traditional mindset is another vital barrier in stopping GBV. For Namibian men, masculinity often equals possession and control over women. Namibian women are usually socialised to believe in being inferior and accept that men are authorised to discipline them (Ministry of Gender Equality and Child Welfare 2012, p. 19). Consequently; also, citizens in government and Social Welfare organisations, who are actually supposed to support survivors, may have acquired such internal values.
- 4. Inadequate service provisions: Such inherited values nourish the insufficient delivery of services (Ministry of Gender Equality and Child Welfare 2012, p. 20). Consequently, the cycle repeats itself. The public staff is not fully ready to render real support. There is a shortage of quality and quantity of services. Hence, survivors are deterred from reporting and receiving support that is budgeted.

Consequently, the obstacles discussed earlier may lead to:

- 1. Higher short-term expenses: The overall cost is assumed to be higher, as a significant part of the population is hindered from receiving services. For instance, certain obstacles have prevented survivors in Namibia from seeking medical care.
- 2. Higher long-term expenses: For example, if the evidence is lost due to improper administration, as a result, no judgment can be conducted. As a consequence, survivors, especially children, are not protected adequately. Their distress and trauma are prolonged; consequently, impairment and losses increase for a nation as a whole in the long-term.
- 3. Artificial inflation of Personal costs: For instance, due to setbacks in the judiciary system, individuals often travel and appear in court, only to receive notification that the judges have suspended their ruling. As a consequence, private expenses for survivors and their families get artificially increased. On the other hand, there is an:
- 4. Artificial decrease of government costs: Due to insufficient police and judicial operations, survivors do not hold decent access to the CJS. For example, if concerned citizens want to complain about mismanagement within the police and judiciary branches, they may encounter unnatural restrictions [e.g., police staff loses their case files]. As a result, survivors frequently remove their claims, resign or do not receive the fair judgment they are entitled to experience. Especially the last point of the government cost, that are kept unnaturally low, has to be considered when reading the results. If all individuals had proper access to the legal system, the yearly cost would have been higher in consequence. The current status quo is that a large group of survivors capitulates because they do not have the physical, mental or financial strength to *fight* the institutional system.

In summary, the actual cost – if all survivors in demand were serviced [adequately] – would have been even higher. In addition, trauma and suffering are unnecessarily prolonged, and hence, expenses are exorbitantly inflated.

Other costs

Due to a lack of relevant data or technical maturity, the cost classes displayed in Table 13 could not be included.

Table 13	: Ov	erview	of	omitted	costs.
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Cost	Reason
Increased juvenile and adult crime, as a reason to GBV exposure during childhood.	Data was not available at point of research.
Children's school performance, including missed days, failing, or poor marks.	Data was not available at point of research.
Economic violence, like withholding income or household funds, among others.	Both, data and technical maturity of the approach was not available at point of research.
Business and employment costs: Including consequences to co-workers covering for the survivor, the rise in overtime payments to other employees, or cost of contracting and training replacement staff.	Data was not available at point of research.
Cost in terms of loss of freedom for incarcerated perpetrators.	Data was not available at point of research.
Lost tax revenues to the state.	Data was not available at point of research.

Source: Own representation.

The omitting of specific costs due to a lack of data has contributed to a certain degree of underestimating the expenses in this study. For instance, the scope of this analysis omits the losses from emotional violence or does not include multiplier effects, such as the holistic, long-term consequences of HIV/AIDS as a result of GBV.

Future outlook

In general, there are two domains where there is a demand for more analysis and data compilation:

- 1. Increase in the capability of public statistic's departments regarding GBV data collection: It is necessary to produce more sound assessments on the impacts upon economic development. The expertise of general statistics agencies to develop and maintain a centralised data policy has to be enhanced. Such requirements include improved knowledge regarding methods or specific ethical concerns. Another option is the introduction of regular national data collection, as conducted in the U.S. or the U.K., among others, which are anonymous, self-filled surveys on the economic impact of GBV. Of course, there may be a specific challenge in adopting a method of self-filled questionnaires, especially in Namibia, a country with lower literacy rates and a hard-to-reach population. However, novel methods have been utilised to collect Namibian HIV information, which could be used for this purpose, too.
- 2. Increase the availability of robust methods: Better approaches are required to estimate the economic impacts of GBV in a sufficiently correct manner. Due to a shortage of suitable techniques, distinct cost categories had to be omitted. Further, for instance, the literature on the economic implications of abortions and unwanted pregnancies is limited; thus, it is further challenging to calculate the financial burden of the psychological consequences of mothers and their [unwanted] children, among others.

In a nutshell, as described, a specific part of the expenses could not be estimated [yet]. In summary, more research and reliable data are needed to enhance the accuracy of estimates in the near future.

14.3 Summary

Section 14.3 described the detailed findings of this study. When comparing the costs with the results from other studies, and when pulling the prevalence rates of the other studies up to the Namibian of 17.50 per cent, the conclusion depicted in Table 14 is reached.⁷

In conclusion, the more comprehensive a study includes a particular cost section, the higher the GDP proportion converts in research for Australia, the E.U. (including Switzerland and the U.K), Canada or the U.S. Nonetheless, this does not apply to the context of the developing and emerging countries. This phenomenon has already been observed within the scope of emerging markets in general. There, a higher prevalence ratio usually translates into smaller country spendings' in terms of GDP share. The reason for such lower estimates is often that a more conservative or outdated approach is applied due to higher data gaps or a more restricted government budget and spending than developed countries. Further, what becomes evident is that minor differences in methods on how to determine the three cost categories of Lost economic output, Intangibles, and Second-generation, lead to significant deviations in the overall outcome. These variations even outweigh the difference in leaving out particular cost classes, such as Personal – or Legal costs, for instance.

In summary, the costs in the Lost economic output category are in the upper range compared to other studies. For the Health Service costs, the applied method in developing countries is mostly not as comprehensive, making a comparison for this category difficult. The applied approach in this study is comparable to that used in industrialised countries. The calculated Legal costs are high. It should be noted that the studies conducted in developing and emerging countries are often methodologically incomplete, which makes comparison again problematic. The applied method in the category of Social Welfare and Special Service costs goes beyond the standard analysis, usually used to compute Social Welfare benefits, as performed in most of the research listed. As a result, the costs calculated in this category are disproportionately high, too. However, the Personal cost results of other international literature exceed the calculated data, as the estimated cost-share of this study is in the lower range. This is mainly because the legal and cultural hurdles pose difficulties in divorce petitions, which triggers lower out-of-pocket costs in this segment, for instance. In the cost class of the Intangibles – Physical and Emotional impact, international literature computes a higher cost-share than shown in this study. The assumptions made in this section tend to be more conservative, which reflects in the overall result. The Second-generation costs category, in turn, has a very high share of costs compared to other research. This is mainly because the used method is extensive in its level of detail and scope.

Based on the findings, the established hypothesis could be confirmed. The costs that occurred are around six per cent of the gross domestic product. It must be noted once again that the cost-share calculated covers different areas of life and also includes the costs incurred to the Second-generation too. In the further discussion, it was pointed out that some technical hurdles define studies that calculate the cost of violence as a proportion of the gross domestic product. These also include data restrictions and a lack of robust databases. Furthermore, in Namibia, officials have sometimes internalised the culture of GBV; therefore, it is in many cases challenging for survivors of violence to access essential services so that earmarked budgets may not be adequately spent.

⁷Further information can be found in Chapter 14 from page 228 onwards in Breuer 2021.

Country	Year	Author	New Prevalence [%] [last 12 months]	New Lost economic output [%]	New Health Service costs [%]	New Legal costs [%]	New Social Welfare costs [%]	New Personal costs [%]	New Intangibles [%]	New Second-generation costs [%]	Total costs [%]
		D	evelop	bed co	untries	5					
U.S.	2003	Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Injury Prevention and Control	17.50		0.15		_	_	_	_	0.22
U.S.	1996	(NCIPC) 2003 Miller, Cohen, and		_	2.06	_	_	_	7.63	6.28	15.97
Canada Australia Australia	2016	Wiersema 1996 Zhang <i>et al.</i> 2012 KPMG Australia 2016 National Council to Reduce Violence against Women and their Children (NCRVAW&C) 2009		0.19	$0.07 \\ 0.14 \\ 0.05$	$0.53 \\ 0.16 \\ 0.05$	$0.53 \\ 0.16 \\ 0.05$	$0.35 \\ 1.10 \\ 0.42$	$1.58 \\ 1.01 \\ 0.47$	0.03	2.79
Australia U.K. Sweden Germany	2009 2006	Access Economics 2004 Walby 2009 Envall and Eriksson 2006 Sacco 2017		$\begin{array}{c} 3.50 \\ 0.13 \end{array}$	$0.18 \\ 3.21 \\ 0.01 \\ 0.06$	$0.14 \\ 0.58 \\ 0.27 \\ 0.06$	$0.28 \\ 0.88 \\ 0.20 \\ 0.06$	1.19 _ _ _	$3.54 \\ 18.38 \\ - \\ 3.33$	_	$\begin{array}{c} 26.55 \\ 0.61 \end{array}$
Switzerland France Spain	2012	Stern <i>et al.</i> 2013 Nectoux <i>et al.</i> 2010 Villagómez 2010		0.11	$0.14 \\ 0.03 \\ 0.26$	$0.14 \\ 0.03 \\ 0.09$	$\begin{array}{c} 0.14 \\ 0.03 \\ 0.53 \end{array}$	$\stackrel{-}{0.79}$	4.44 _ _	$0.01 \\ 0.44$	
		Developir	ig and	l eme	ging c	ountr	ies				
		1	-		5 0 -						
Vietnam Bangladesh Colombia	2011 2004	Duvvury and Carney 2012 Siddique 2011 Ribero and Sánchez Torres 2004	17.50	$^{-}_{0.63}$	$\begin{array}{c} 0.00 \\ 0.03 \\ 0.01 \end{array}$	$\stackrel{-}{0.01}$ 0.32	$\begin{array}{c} -\\ 0.01\\ 0.06\end{array}$	0.00 0.26			$0.00 \\ 0.68 \\ 2.72$
Morocco Uganda South Africa Ukraine Namibia	2009 2014 2017	Duvvury et al. 2009 Duvvury et al. 2009 KPMG South Africa 2014 UNFPA Ukraine 2017 Breuer 2021			- 0.01 0.005 0.26		- 0.02–0.03 (0.002 1.09	- 0.45–0.67 0.02 0.28	- - - 0.62	_	0.49-0.72 0.05 6.01

Table 14: Comparison of all adjusted subcategory calculations.

Note: Figures may contain rounding errors.

Source: Own representation.

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