

A School Based RCT to Reduce Gender Violence amongst High School Students in KwaZulu-Natal, South Africa



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Background

- Gender-based violence - public health problem in South Africa associated with increased risk of HIV infection¹
- KwaZulu-Natal - epicentre of the HIV epidemic in South Africa.
- Young people of 15-24 years are at high risk of HIV infection. No decrease in HIV prevalence amongst 15-24y in KZN from 2002 to 2008²

• 1. Dunkle et al., Shisana et al., 2008

Background

- 2nd South African National Youth Risk Behaviour Survey (YRBS)
- Grades 8-11 in the six months prior to the survey
- Partner violence: 16.5% males vs 13.8% females
- Forced to have sex: 11.9% males vs 8.2% females³

³) Reddy et al, 2010

Aim

A school-based RCT aimed to develop, implement and evaluate an intervention to reduce gender-based violence.

Namely:

Verbal (Belittling), Physical (Hitting) and, Sexual (Forced sex), Abuse.

Definitions

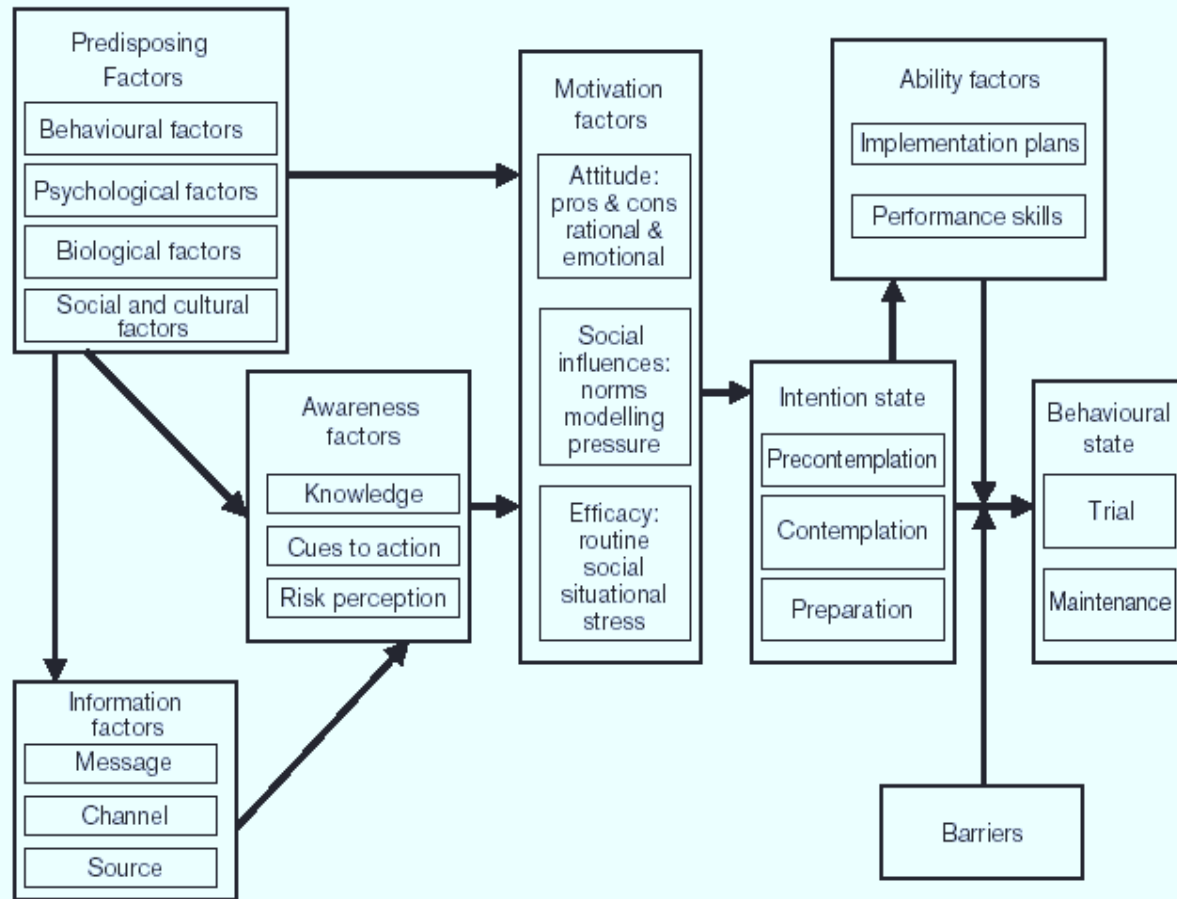
- Belittling - verbal abuse such as making demeaning and disparaging comments about a person, his/her personal or physical attributes, and including sexual innuendo.
- Hitting - aggressive physical abuse that results from striking a blow at a person that causes pain.
- Forced sex was defined as sexual abuse through non consensual sexual intercourse

Development of Intervention

- Two years of preliminary investigations
- Problem of gender-based violence - Motivated the development of an intervention programme targeting male and female students
- The Integrated Model of Behaviour Change (I-Change Model) was chosen as the theoretical framework ⁴
- Predisposing factors such as knowledge, awareness and cues to action influence motivating factors such as attitudes, social influences and self-efficacy which impact on behavioural intention.

⁴
4De Vries et al, 2003

I-Change Model



The I-CHANGE Model (Buller *et al.* 2002).

Methods

Trained facilitators implemented 16 module classroom based intervention

- Students completed a self-reporting questionnaire at T1 and 8 months later at T2
- Questionnaire: Use of Likert scale to measure frequency of verbal and physical abuse perpetrated / experienced (1=never to 5=always);
For sexual abuse – Proportion ever forced to have sex

Ethical clearance –BREC, UKZN

Permission – Department of Education, Schools,
Written Informed Consent - Parents, Students

Data analysis

- Data entered: Epidata: Analysis: SPSS 17.0.
- Multi-level analyses : Mlwin 2.15 (Rashbash *et al.*, 2009).
- Frequency analysis: sample description
- Independent t test & chi square: baseline comparison.

RCT Outcomes:

- Paired sample t-tests: (T1-T2) for belittling and hitting.
- Standard linear regression - intervention group - predictor variable.
- Dependent variables (belittling and hitting) differences between T2 and T1.
- Moderation analyses: multiplicative term of gender and experimental condition in a linear regression, main effects and covariates, age, pocket money, no. of children in the household and sexual experience.
- Logistic regression: effect of the intervention on forced sex.
- For statistical significance, $p < 0.05$) and 95% confidence intervals are presented.
- For the moderation analysis, $p = 0.10$ (Rosnow & Rosenthal, 1989).

Content of Intervention Programme



- Introduction, Values,
- Decision-making, Communication,
- Relationships, Belittling,
- Hitting, Sexual harassment,
- Conflict resolution, Sexual respect,
- Rape, Human Rights,
- Sexual consensus

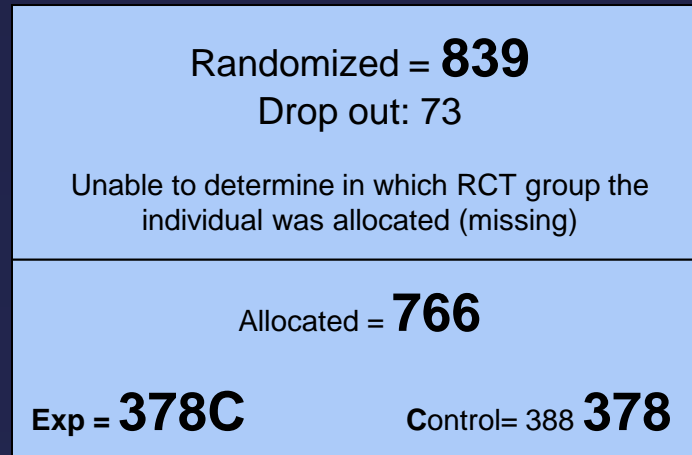


Figure 1. RCT analysis of participating high school students

Analysis = 764

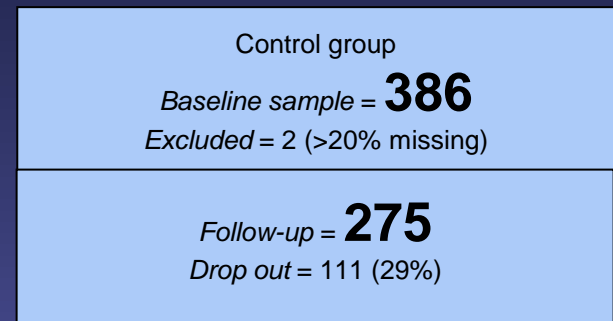
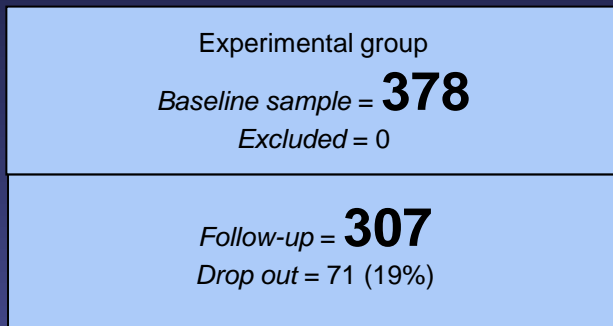


Table 2. Demographic profile of the students in the Experimental and Control group

	Total	Control	Experimental	Effect size	P-value
Gender (male %)	46.7% (n=756)	44.6% (n=381)	48.8% (n=375)	$\chi^2 = 1.33$	0.27
Age	15.49 (1.72)	15.28 (1.73)	15.70 (1.68)	t = 3.29	0.01
Religion:				$\chi^2 = 5.37$	0.25
Christian	44.5%	41.0%	48.1%		
Traditional African	48.3%	54.9%	45.0%		
Hindu	3.5%	4.0%	2.8%		
Muslim	1.7%	1.9%	1.4%		
Other	2.1%	1.6%	2.6%		
Living with:				$\chi^2 = 3.30$	0.35
Mother & father	35.7%	36.6%	34.7%		
Mother	37.1%	36.9%	37.4%		
Father	3.7%	4.7%	2.7%		
Other	23.5%	21.7%	25.3%		
Number of persons in household:					
Children	4.45 (2.96)	4.75 (3.32)	4.16 (2.52)	t = 2.65	0.008
Adults	3.82 (2.62)	3.88 (3.14)	3.78 (2.11)	t = 0.42	0.69
Pocket money:				$\chi^2 = 65.56$	<0.001
0 Rand	34.4%	21.0%	48.8%		
R1-R10	14.4%	18.2%	10.2%		
R11-R20	5.4%	6.4%	4.2%		
R21-R39	16.7%	16.8%	16.6%		
R40 and over	29.2%	37.5%	20.2%		
Nr of individuals employed in household	1.36 (1.50)	1.29 (1.45)	1.44 (1.54)	t = 1.35	0.18
Does the household have:					
A television				$\chi^2 = 0.06$	0.82
A cell phone	62.7%	51.1%	48.9%	$\chi^2 = 0.17$	0.71
A fridge	81.1%	81.7%	80.5%	$\chi^2 = 0.03$	0.88
Nr of times went to bed hungry last week:	59.3%	59.0%	59.6%		

Results from RCT= Belittling

At Baseline mean frequency scores in lowest quartile,
For both belittling / being belittled,

T1: Range 1.59 (1.20) – 1.70 (1.28)

No significant differences between groups

At Follow-up significant decreases in both groups in belittling
and being belittled.

T2: Range 1.25 (0.83), 1.39 (0.85), $p < 0.01$

No programme effects

Programme effects: Hitting

- Low baseline scores

- T1 /T2 Experimental and Control

Hit T1: 1.66 (1.24) > 1.44 (1.04) $p < 0.05$

T2: 1.29 (0.77), 1.13 (0.43) ns

Been hit T1 1.58 (1.13) > 1.35 (0.93) $p < 0.05$

T2 1.26 (0.73), 1.13 (0.49) ns

No programme effects

Forced Sex

T1

Experimental 3.8% (14)

Control 4.4% (16)

■ T2

Experimental 7.4% (22)

Control 8.4% (22) ($p=0.75$)

Table 3: Programme effect sizes on belittling, hitting and forced sex (total sample)

Item	B	Beta / OR	95% CI
Reported Belittling: I belittle my boy/girlfriend^a	-0.06	-0.02	-0.33 – 0.22
My boy/girlfriend belittles me^a	-0.09	-0.03	-0.36 – 0.18
Reported Hitting I hit my boy/girlfriend^a	0.13	0.05	-0.12 – 0.38
My boy/girlfriend hits me^a	0.16	0.07	-0.08 – 0.41
I was forced to have sex	0.01	1.00	0.35 – 2.86

a) Beta coefficient (CI)

b) Percentages (n) and odds ratio (CI)

* p<0.05

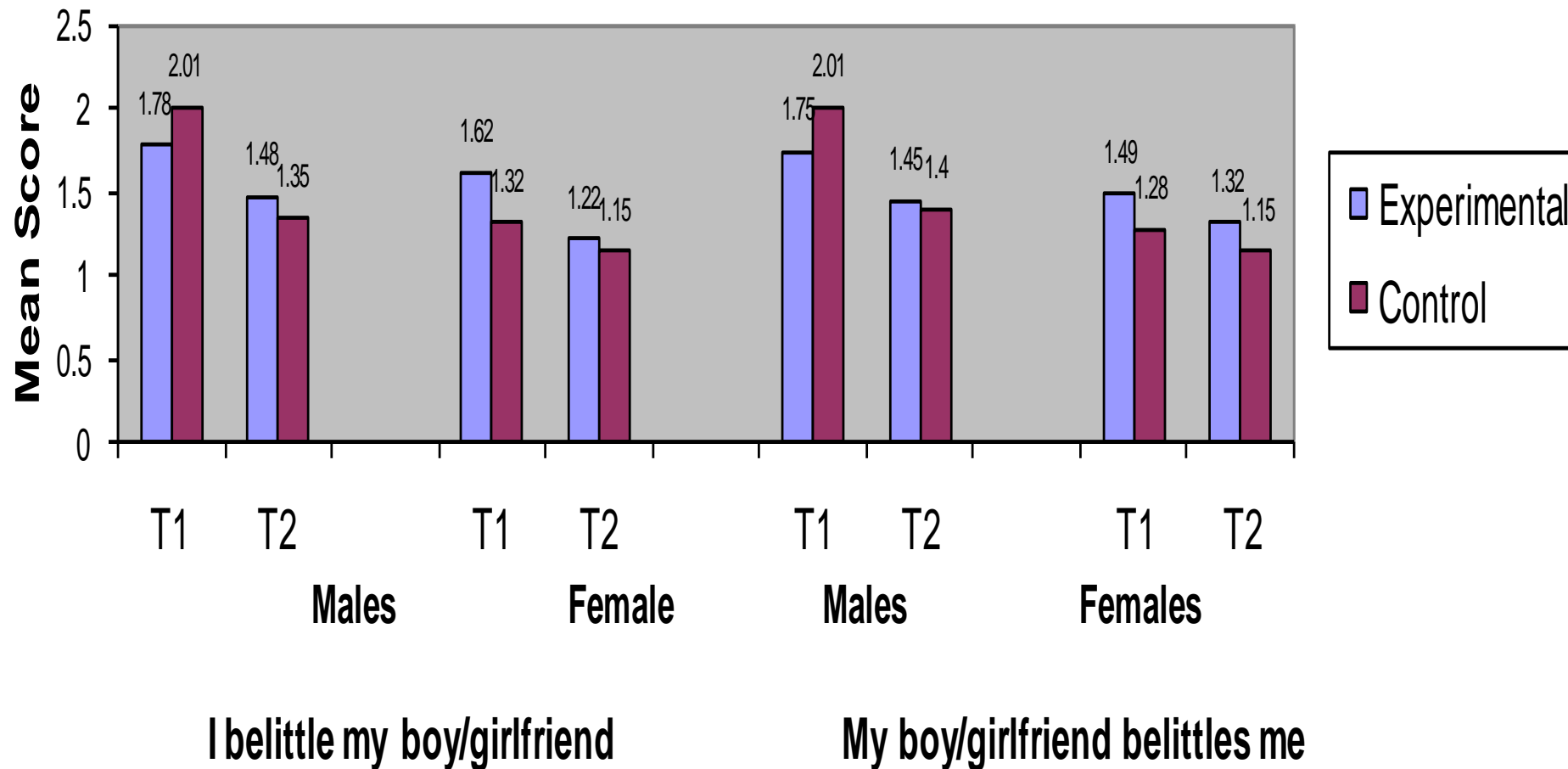


Figure 2: Gender differences in belittling

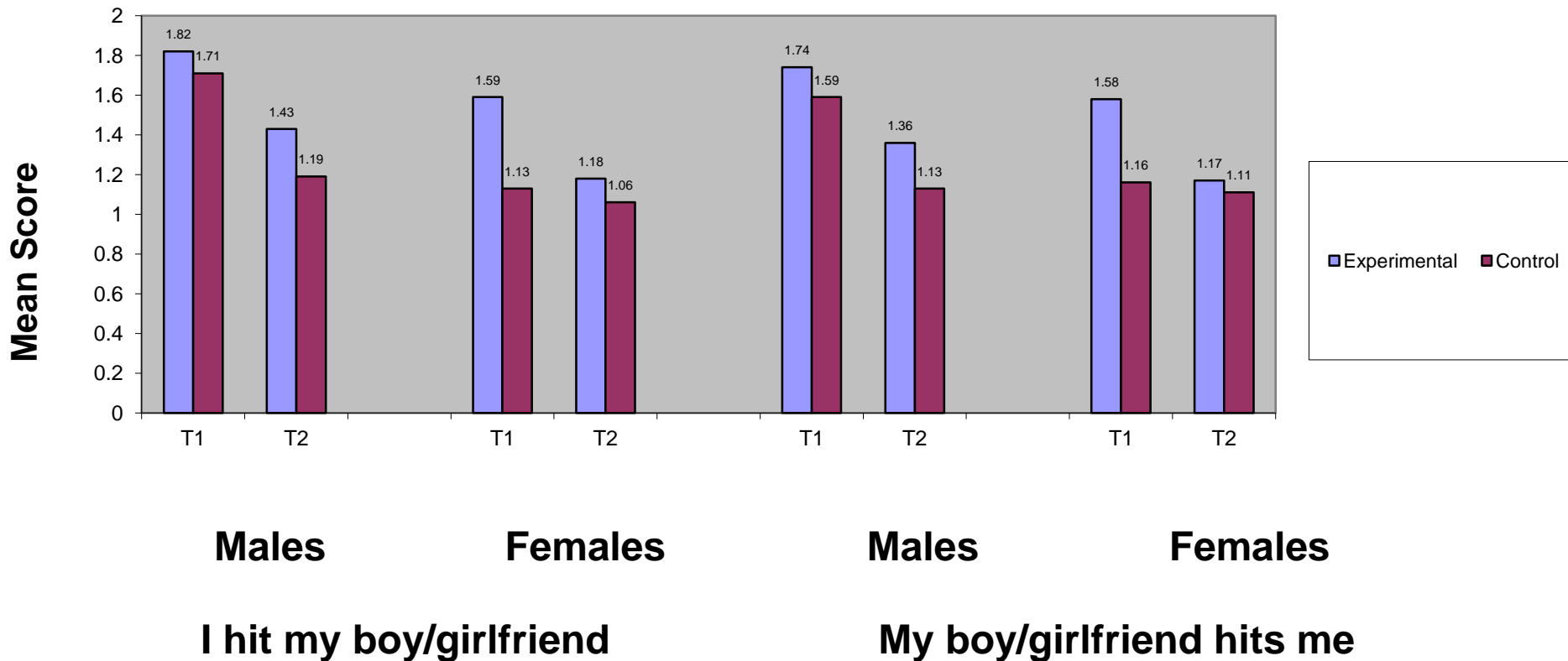


Figure 3: Gender differences in hitting pre (T1) and post (T2) Intervention

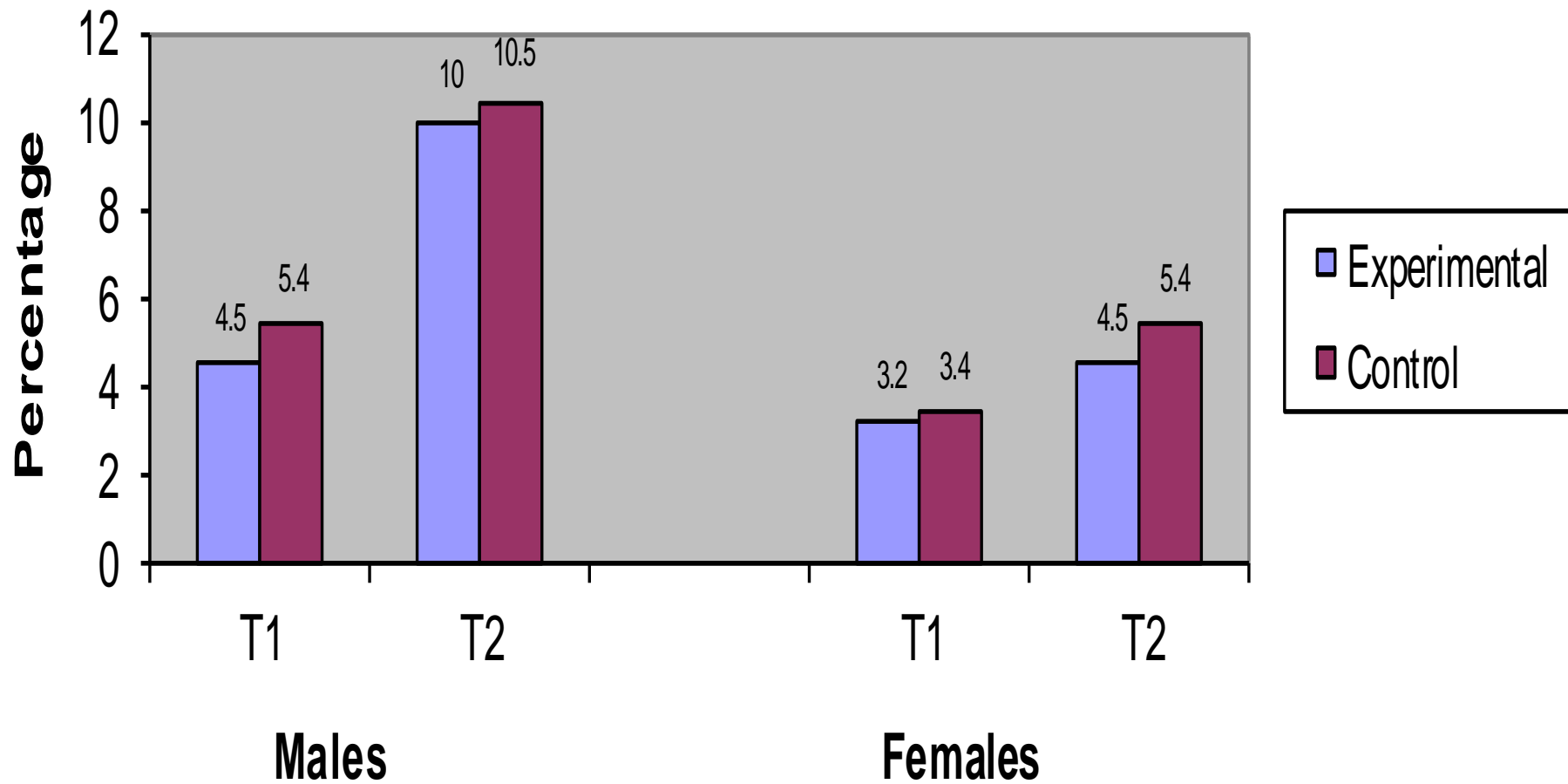


Figure 4: Gender differences in forced sex pre(T1) and post (T2) Intervention

Table 4: Gender differences in belittling, hitting and forced sex, pre (T1) and post (T2) intervention

		Male					Female				
		Exp		Control		B (CI)	Exp		Control		B (CI)
Item											
I belittle my boy/girlfriend^a	T1	1.78	(1.57-	2.01	(1.72-	-0.35	1.62	(1.38-	1.32	(1.12-	0.19
	T2	1.99)		2.30)		(-0.79-	1.85)		1.52)		(-0.16-
My boy/girlfriend belittles me^a	T1	1.48	(1.33-	1.36	(1.17-	0.09)	1.22	(1.11-	1.15	(1.05-	0.53)
	T2	1.64)		1.54)			1.34)		1.25)		
My boy/girlfriend belittles me^a	T1	1.76	(1.55-	2.01	(1.72-	-0.28	1.49	(1.29-	1.28	(1.12-	0.05
	T2	1.97)		2.29)		(-0.73-	1.70)		1.44)		(-0.28-
I hit my boy/girlfriend^a	T1	1.46	(1.31-	1.41	(1.22-	0.16)	1.32	(1.17-	1.16	(1.07-	0.37)
	T2	1.61)		1.61)			1.46)		1.26)		
I hit my boy/girlfriend^a	T1	1.82	(1.61-	1.71	(1.47-	-0.11	1.59	(1.37-	1.13	(1.01-	0.35*
	T2	2.04)		1.95)		(-0.50-	1.81)		1.25)		(0.03-
My boy/girlfriend hits me^a	T1	1.43	(1.28-	1.19	(1.09-	0.28)	1.18	(1.06-	1.06	(1.01-	0.67)
	T2	1.57)		1.30)			1.29)		1.13)		
My boy/girlfriend hits me^a	T1	1.74	(1.53-	1.59	(1.37-	-0.08	1.58	(1.37-	1.16	(1.04-	0.38*
	T2	1.94)		1.82)		(-0.46-	1.79)		1.27)		(0.06-
I was forced to have sex^b	T1	1.36	(1.22-	1.13	(1.04-	0.30)	1.17	(1.05-	1.11	(1.03-	0.70)
	T2	1.50)		1.23)			1.28)		1.19)		
I was forced to have sex^b	T1	4.5% (8)		5.4% (9)		1.63	3.2% (6)		3.4% (7)		0.25
	T2	10.0% (15)		10.5% (12)		(0.45-5.87)	4.6% (7)		6.4% (10)		(0.02-3.30)

a) Means (CI) and beta coefficient (CI)

b) Percentages (N) and odds ratio (CI)

* p<.05; ** p<.01; *** p<.001

Conclusion

- Reduction in physical abuse amongst female students exposed to the intervention
- Programme can contribute to prevention efforts
- More focused attention on male students.
- In addition to school-based programmes there need for support at community level to reinforce school-based initiatives.

Recommendations

- High levels of violence and gender-based violence in South Africa emphasize the need for more studies to improve school-based interventions towards changing norms.
- Targeting school-goers is an important strategy to reach large numbers of youth and offer alternative methods of resolving conflict.

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