Male and Female Suicide Bombers: Different Sexes, Different Reasons?

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► There is evidence that female participation in suicide terrorism is widening ideologically, logistically and regionally[1].

► An understanding of what drives female suicide terrorism will play an important role in the control and prevention of terrorism.

► This study analyses differences in the motivation and recruitment of 30 male and 30 female suicide terrorists.

► Data were biographical material on individuals histories and beliefs, collected from open sources and content analysed.

► Analyses found differences (3-way interaction) in the motivation and recruitment of successful and unsuccessful males and females.

► Women reported significantly fewer religious/nationalistic motivations and significantly more personal motivations.

► Women were less likely than men to be recruited through religious (group) pressure, but more likely to be pro-active in their recruitment.

► Analyses suggest that a consideration of gender and recruitment may allow for improved risk assessment.

Background:

On the 9 November 2005, Muriel Degauque was the first European woman to commit an act of suicide terrorism. Her actions were a vivid reminder that little is known about the role of women within extreme groups:

• Why did Degauque engage in suicide terrorism?

• Was she influenced or coerced by her husband?

• What sequence of events made her actions possible?

Past research on female suicide terrorism has lacked the kinds of statistical analyses that promote theoretical explanations[2,3,4].

This study analyses differences in the motivation and recruitment of male and female suicide terrorists.

A literature review identified 4 underlying motivations and 4 methods of recruitment. The occurrence of these in successful and unsuccessful attacks made by male and female suicide terrorists was examined.

Motivations for Terrorism:

Religious/Nationalistic: Fostered through membership of extremist groups which provide strong social identity—suicide out of respect for community values and a sense of duty.

Key Events: These cover changes in situations after which individuals are suddenly motivated or forced to carry out a suicide attack (e.g. death of a loved one[5], humiliation[6], or exploitation[7]).

Revenge: This is a common motive for joining a terrorist organisation[8] and for carrying out suicide attacks[9].

Personal: These motivations include personal or family shame and dishonour[1], low self esteem[10] or depression[7]. They represent egotistical suicide disguised as a terrorist attack.

Recruitment into Terrorism:

Peer pressures: Pre-existing friendship and kinship bonds have a significant influence in the formal affiliation to terrorist groups[11].

Religious (group) pressure: Religion is a communal and social practice and the extensive interactions involved reinforce group pressures and conformity.

Pro-active seeking: For some the decision to become a suicide terrorist may be sudden, in which case the potential terrorist may pro-actively seek recruitment.

Exploitation: Accounts of exploitation are frequent among studies of female suicide terrorists[7].

Unknown: This category is for those for whom there is inadequate data to carry out a full analysis.

METHOD

• Data on the motives, background and recruitment of 30 male and 30 female suicide terrorists were collected from open source material including books, journals, newspaper articles and information retrieved from internet sites.

• The information was broken down into sentence units and coded using a grounded theory approach.

• Inter-rater reliability was high (Cohen's Kappa = .92)

• The frequency of occurrence of the various motivation and recruitment categories was aggregated and standardized.

• The main analysis was carried out on the elements of a four-way contingency table of the form Outcome x Gender x Motivation x Recruitment (2 x 2 x 4 x 5 = 80 cells).

RESULTS

Differences in Motivation

• Differences between females and males were found in all motivational categories (see Table 1).

• Men reported more religious/nationalistic motivations than women whereas women reported more key events, revenge and personal motivations.

• Differences in recruitment were marginal, except that more men joined under religious (group) pressure and that there were more 'unknowns' for women (Table not shown).

Table 1. Frequencies of motivations for males and females

Category	Code	Men (%)	Women (%)
Religious/ Nationalistic	D (Dreamed of being a shahid)	6 (20)	4 (13)
	Q (religious reasons)	3 (10)	1 (3)
	O (Foreign policy)	4 (13)	0 (0)
	Y (Overtly Religious)	13 (43)	4 (13)
	N (Nationalistic)	9 (30)	7 (23)
	B (Member of extremist group)	16 (53)	5 (17)
Key event	W (Family/friend killed)	8 (27)	15 (50)
	Z (Key Event)	7 (23)	6 (20)
	A (Taken advantage of)	4 (13)	5 (17)
Revenge	K (Wanted to kill)	2 (7)	3 (10)
	R (Revenge)	4 (13)	8 (27)
	J (Hated Jews)	0 (0)	5 (17)
Personal	E (Wanted to end life)	0 (0)	3 (10)
	U (was unhappy)	2 (7)	8 (27)
	F (Family problems)	0 (0)	9 (30)
	X (Was a social outsider)	0 (0)	8 (27)
	P (Personal problems)	1 (3)	9 (30)
	M (Monetary pay-off)	1 (3)	1 (3)

Different Sexes, Different Reasons?

• Log-linear models were fitted to the contingency table.

• Models were fitted step-by-step from main effects to interactions, with adjacent models distinguished by allowing one additional term (e.g., a main effect) to interact.

• This allows the calculation of ΔG^2. The large the value of ΔG^2, the more significant the term to the data.

• By developing analysis in this cumulative manner, it becomes possible to examine the main effects and interaction effects among variables.

• Table 2 shows the model using Feinburg's notation.

• Main effects are shown by single variables in brackets (e.g., [Gender]) [Motivation] [Outcome].

• Interactions are shown by two or more variables in brakets (e.g., [Gender.Motivation]).

• A model examining whether males and females differ in their motivations, independent of outcome, is written as [Gender.Motivation] [Outcome].

• Model 7 captures the data with two 3-way interactions of Gender, Motivation and Recruitment; and Gender, Outcome and Recruitment; along with a 2-way interaction of Outcome and Motivation.

Table 2. Nested Models showing Interactions between Motivations (M), Recruitment (R) and Outcome (O) of different Gendered (G) Suicide Terrorists and their Significance

Model	G^2	df	p	ΔG^2	Δdf	p
1) Baseline model of gender dependent Outcome						
[G.O]	179.97	76	< .001			
[M]				14.27	3	< .001
[R]				29.03	4	< .001
2) Main effects of Motivation and Recruitment						
[G.O] [M] [R]	136.65	69	< .001	43.32	7	< .001
[G.M]				28.04	3	< .001
[G.R]				20.70	4	< .001
3) Gender dependent Motivation and Gender dependent Recruitment						
[G.O][G.M][G.R]	87.90	62	.017	48.75	7	< .001
[M.R]				19.53	12	ns
4) Gender dependent Motivation, Gender dependent Recruitment and Motivation dependent Recruitment						
[G.O][G.M][G.R][M.R]	68.37	50	.017	19.53	12	ns
[G.M.R]				5.48	12	ns
5) Gender dependent Motivation and Recruitment						
[G.O][G.M.R]	62.89	38	.007	5.48	12	ns
[O.M]				6.32	3	ns
[O.R]				5.11	4	ns
6) Gender dependent Motivation and Recruitment with Outcome dependent Motivation and Outcome dependent Recruitment						
[G.O][G.M.R][O.M][O.R]	51.06	31	.013	11.83	7	ns
[G.M.O]				0.72	3	ns
[G.O.R]				36.75	4	< .001
[M.O.R]				11.84	12	ns
7) Gender dependent Motivation and Recruitment with Gender and Outcome dependent Recruitment and Outcome dependent Motivation						
[G.M.R][G.O.R][O.M]	14.31	27	.978	36.75	4	< .001

Results of Log-linear Analysis:

1. A significant 2-way interaction between Gender and Motivation:
• Men held significantly more religious/nationalistic motivations ($z = 3.4$) than personal motivations ($z = -3.4$).
• Women reported significantly fewer religious/nationalistic motivations ($z = -3.0$) and significantly more personal ($z = 3.0$).
• Men held significantly less revenge motivations ($z = -1.2$) while women had significantly more ($z = 1.1$)

2. A significant 2-way interaction between Gender and Recruitment:
• Men were recruited through religious (group) pressure more than women ($z = 1.7$).
• Women were more pro-active in their recruitment than men ($z = 1.0$).
• Disregarding the 'unknown' category, women's recruitment was distributed evenly over the 4 methods.

3. The strongest 3-way interaction was between Gender, Outcome and Recruitment:
• Unsuccessful men were recruited through peer pressure more often than successful men ($z = 1.9$ vs. $z = -1.4$).
• Successful women had a high pro-active recruitment rate ($z = 0.95$).

4. There was also a 3-way interaction between Gender, Recruitment and Motivation:
• Men citing key event motivations were more likely to be recruited through religious pathways ($z = 1.13$)and less likely to be pro-active ($z = -1.44$)
• Females with revenge motivations were less likely to be exploited ($z = -1.23$) revenge motivated men were less likely to be pro-active ($z = -1.10$)

5. Risk Analysis:
• The above results suggest that future risk assessments should take into account gender and the various recruitment methods available in that area.