

Niamh at 9 months



Niamh at 3 years



Niamh at 5 years



A lark in the park: Child injury and neighbourhood characteristics in Ireland

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Overview

- **Background to study**
- **Method used**
- **Results**
- **Policy implications**
- **Play**
- **Questions**



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Child Injury

- **Leading cause of death**
 - Ireland 2009 -125 children
(MacKay & Vincenten, 2012)
- **85% of deaths preventable**
- **Morbidity**



Irish context

- **14% of the burden of disease (WHO, 2009).**
- **EUR/RC55/R9**
- **Research needed to identify specific risks**
- **Multi-sector approach**



Current study

- **To what extent do household and environmental level factors impact on childhood rates of injury in Ireland?**



Method

- **Sample: Wave 1 of 9 yr old cohort**
- **Data were weighted**
- **Measures**
 - Outcome measures relating to hospitalisation due to injury from GUI questionnaire



GUI Questionnaire

- **B17. Most children have accidents at some time. Has the Study Child ever had an accident or injury that required hospital treatment or admission? Yes..... No**
- **B18. How many separate accidents has the Study Child ever had that required hospital treatment or admission? _____ accidents**
- **B19. How many of these accidents involved bone fractures or breaks? _____**



Statistical procedures

- Pearson's Chi square test
- Multivariate analyses -logistic regression and linear regression
- Missing data

Results

		<i>How many involve fractures</i>				Total	% Total N
		0	1	2	3		
<i>How many separate accidents</i>	1	1266	749	0	0	2015	23.5
	2	342	204	132	0	678	7.9
	3	59	33	24	14	130	1.5
	4	35	9	13	12	69	.8
	5	25	21	6	16	68	.8
Total		1727	1016	175	42	2960	
% Total N		20.2	11.8	2.0	.5		34.5



Household factors

χ^2 (Ever)

O.R (Frequency)

FACTORS	Univariate analysis	Multivariate analysis	
	χ^2	Odds ratio	C.I. (95%)
Poverty	7.2**	1.6	1.3 – 1.8
Single parenthood	10.6**	.8	0.7 – 1.0
Occupancy type	8.1*	.9	1.0 – 1.4
Class (3 category)	6.6*		
Education level	4.7		
No. of children	9.3		
Medical card status	4.1		

Significance levels: * $p < .05$; ** $p < .01$; *** $p < .001$



Neighbourhood

FACTORS	Univariate analysis	Multivariate analysis	
	χ^2	Odds ratio	C.I. (95%)
Dirty Streets	14.2***	1.1	1.0 – 1.3
Safety of parks, playgrounds & play spaces			
<i>Strongly agree</i>		-	-
<i>Agree</i>	14.4*	1.1	0.9 – 1.3
<i>Disagree</i>		1.3**	1.1 – 1.5
<i>Strongly disagree</i>		1.2	1.0 – 1.4
School playground			
Poor		-	-
Fair	9.5*	1.1	0.9 – 1.3
Good		0.9	0.8 – 1.1
Excellent		0.9	0.8 – 1.1 18
Region	38.1***	1.2	1.1 – 1.4



Neighbourhood

Univariate analysis

Multivariate analysis

FACTORS	χ^2	Odds ratio	C.I. (95%)
Rubbish /litter	24.2***		
Homes/gardens in bad condition	34.3***		
Vandalism			
<i>Very common</i>		-	-
<i>Fairly common</i>	43.9***	1.5**	1.0 – 2.2
<i>Not very common</i>		1.6**	1.1 – 2.3
<i>Not at all common</i>		1.6*	1.1 – 2.4
Drinking/drug-taking			
<i>Very common</i>		-	-
<i>Fairly common</i>	41.9***	1.0	0.7 – 1.5
<i>Not very common</i>		0.9	0.6 – 1.3
<i>Not at all common</i>		0.7	0.5 – 1.0

Significance levels: * $p < .05$; ** $p < .01$; *** $p < .001$



Individual

FACTORS	Univariate analysis	Multivariate analysis	
	χ^2	Odds ratio	C.I. (95%)
Played outside during past week	4.2*	1.0	0.9 – 1.1
Gender	17.0***	1.2	1.1 – 1.3
SDQ: Total scores	7.6**	1.2	1.0 – 1.5
SDQ: Hyperactivity subscale - Carer	52.7***	0.7	0.6 – 0.8
SDQ: Conduct subscale - Teacher	23.8***	0.8	0.7 – 0.9
EAS Temperament Scale	8.6 **	0.9	0.8 – 1.0
Significance levels: * $p < .05$; ** $p < .01$; *** $p < .001$			



Pause for thought

Neighbourhood characteristics predict injury – characteristics that are not surprising – dirty, poor quality environments with unsafe play spaces and inadequate school playgrounds significantly increase children’s risk of injury. And this risk is further increased if a child lives in a town or city.



Policy Implications

- **Urbanisation increasing**
- **Children's especial need – play space**
- **Children's especial risk – road traffic**



Play spaces

- **82% of children agree have green play area near home**
- **Half played outside in past week**
- **21% visited a park**
- **Focus on safety and risk avoidance in design of play spaces**



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Injury and playing in natural world

- **Developmental milestones –**
 - **P.I.L.E.S.**
- **Ready, Steady, Play and the RAPID Programme**



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- **Thank you**

- **Any questions?**

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