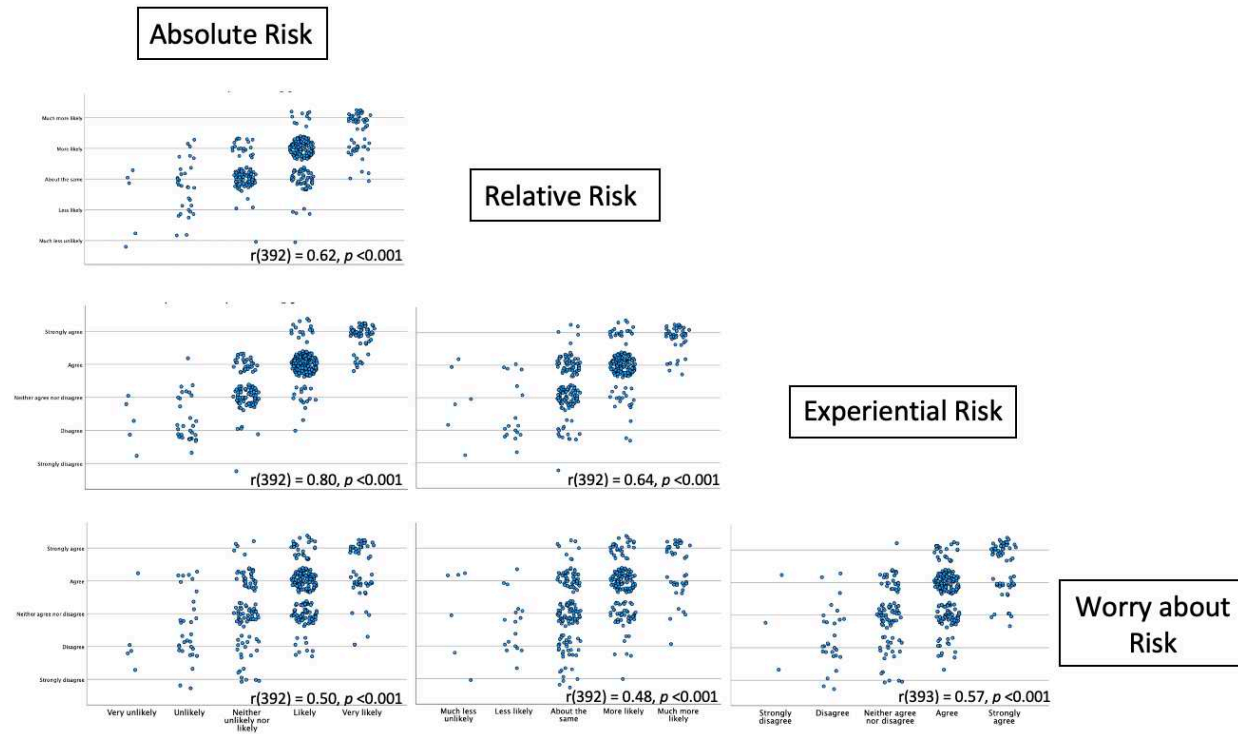


## Supplementary Materials

**Figure 1:** Scatterplots and Spearman Correlations for Risk Measures



**Table 1:** Sensitivity analysis (children only) – Univariate Analysis

Characteristic of FDR	All Children (n=295)	Sensitivity Analysis – Children Only											
		Perceived Absolute Risk			Perceived Relative Risk			Perceived Experiential Risk			Worry about Risk		
		Low (n=86)	High (n=208)	p-value	Low (n=113)	High (n=181)	p-value	Low (n=72)	High (n=223)	p-value	Low (n=115)	High (n=180)	p-value
<b>Age (years)</b> n = 16 missing Mean (SD); T	38.1 (11.8)	37.1 (11.9)	38.6 (11.8)	0.34	37.5 (12.8)	38.6 (11.3)	0.46	37.7 (12.1)	38.3 (11.3)	0.73	37.4 (12.0)	38.6 (11.7)	0.42
<b>Gender</b>													
Male	107 (36.9)	34 (31.8)	73 (68.2)	0.50	47 (43.9)	60 (56.1)	0.14	32 (29.9)	75 (70.1)	0.10	56 (52.3)	51 (47.7)	<0.001*
Female	183 (63.1)	51 (28.0)	131 (72.0)		64 (35.2)	118 (64.8)		39 (21.3)	144 (78.7)		57 (31.1)	126 (68.9)	
n = 6 missing Frequency (%); CS													
<b>Ethnic Group</b>													
White	241 (82.3)	68 (28.2)	173 (71.8)	0.25	94 (39.0)	147 (61.0)	0.77	58 (24.1)	183 (75.9)	0.93	94 (39.0)	147 (61.0)	0.47
Asian	27 (9.2)	9 (33.3)	18 (66.7)		8 (29.6)	19 (70.4)		7 (25.9)	20 (74.1)		8 (29.4)	19 (70.4)	
Black	12 (4.1)	1 (9.1)	10 (90.9)		5 (45.5)	6 (54.5)		3 (25.0)	9 (75.0)		7 (58.3)	5 (41.7)	
Mixed	12 (4.1)	6 (50.0)	6 (50.0)		5 (41.7)	7 (58.3)		4 (33.3)	8 (66.7)		5 (41.7)	7 (58.3)	
Other	1 (0.3)	0 (0.0)	1 (100.0)		0 (0.0)	1 (100.0)		0 (0.0)	1 (100.0)		0 (0.0)	1 (100.0)	
n=2 missing Frequency (%); CS													
<b>Deprivation Index</b> n=82 missing Median (IQR); U	4 (2-7)	5 (2-7)	4 (2-7)	0.33	4 (2-7)	4.5 (2-7)	0.45	6 (3-7.5)	4 (2-7)	0.15	5 (2-7)	4 (2-7)	0.35
<b>Employment Status</b>													
Employed	240 (82.9)	75 (31.3)	165 (68.8)	0.22	98 (40.8)	142 (59.2)	0.24	60 (25.0)	180 (75.0)	0.32	96 (40.0)	144 (60.0)	0.14
Unemployed	22 (7.6)	3 (13.6)	19 (86.4)		5 (22.7)	17 (77.3)		3 (13.6)	19 (86.4)		5 (22.7)	17 (77.3)	
Other	28 (9.7)	8 (29.6)	19 (70.4)		10 (37.0)	17 (63.0)		9 (32.1)	19 (67.9)		14 (50.0)	14 (50.0)	
n=6 missing Frequency (%); CS													
<b>Education Level</b>													
A-level or lower	134 (47.2)	40 (30.1)	93 (69.9)	0.99	52 (39.1)	81 (60.9)	0.88	39 (29.1)	95 (70.9)	0.17	48 (35.8)	86 (64.2)	0.20
Higher than A-level	150 (52.8)	45 (30.0)	105 (70.0)		60 (40.0)	90 (60.0)		33 (22.0)	117 (78.0)		65 (43.3)	85 (56.7)	
n=17 missing Frequency (%); CS													
<b>Smoking Status</b>													
Current smoker	34 (11.8)	9 (26.5)	25 (73.5)	0.74	10 (29.4)	24 (70.6)	0.39	9 (26.5)	25 (73.5)	0.92	13 (38.2)	21 (61.8)	0.57
Ex-smoker	80 (27.8)	22 (27.8)	57 (72.2)		34 (43.0)	45 (57.0)		21 (26.3)	59 (73.8)		28 (35.0)	52 (65.0)	
Never smoked	174 (60.4)	55 (31.6)	119 (68.4)		69 (39.7)	105 (60.3)		42 (24.1)	132 (75.9)		73 (42.0)	101 (58.0)	
n=8 missing Frequency (%); CS													
<b>Relationship to index patient</b>													
Child	295 (100.0)	86 (29.3)	208 (70.7)	-	113 (38.4)	181 (61.6)	-	72 (24.4)	223 (75.6)	-	115 (39.0)	180 (61.0)	-
Sibling	-	-	-		-	-		-	-		-	-	
n=4 missing Frequency (%); CS													
<b>Living in same household as index patient</b>													

Yes	73 (24.8)	24 (32.9)	49 (67.1)	0.40	35 (47.9)	38 (52.1)	0.05	19 (26.0)	54 (74.0)	0.67	34 (46.6)	39 (53.4)	0.12
No	221 (75.2)	61 (27.7)	159 (72.3)		77 (35.0)	143 (65.0)		52 (23.5)	169 (76.5)		80 (36.2)	141 (63.8)	
<i>n=2 missing</i>													
<i>Frequency (%): CS</i>													
<b>Frequency of communication with index patient</b>													
Never	0 (0.0)	0 (0.0)	0 (0.0)	0.39	0 (0.0)	0 (0.0)	0.72	0 (0.0)	0 (0.0)	0.82	0 (0.0)	0 (0.0)	0.06
Rarely	0 (0.0)	0 (0.0)	0 (0.0)		0 (0.0)	0 (0.0)		0 (0.0)	0 (0.0)		0 (0.0)	0 (0.0)	
Sometimes	8 (2.7)	4 (50.0)	4 (50.0)		3 (37.5)	5 (62.5)		2 (25.0)	6 (75.0)		4 (50.0)	4 (50.0)	
Often	96 (32.8)	26 (27.1)	70 (72.9)		40 (41.7)	56 (58.3)		24 (25.0)	72 (75.0)		44 (45.6)	52 (54.2)	
Daily	189 (64.5)	55 (29.3)	133 (70.7)		69 (36.7)	119 (63.3)		45 (23.8)	144 (76.2)		66 (34.9)	123 (65.1)	
<i>n=4 missing</i>													
<i>Frequency (%): U</i>													
<b>Subjective Numeracy</b>	15 (12-17)	15 (13 - 17.5)	15 (12-18)	0.30	15 (12-17)	15 (12-18)	0.66	15 (13-17)	15 (12-18)	0.41	16 (13-18)	14 (11-17.5)	<b>0.01*</b>
<i>n=4 missing</i>													
<i>Median (IQR): U</i>													
<b>Health Literacy</b>	0 (0-0)	0 (0-0)	0 (0-0)	<b>0.01*</b>	0 (0-0)	0 (0-0)	0.11	0 (0-0)	0 (0-0)	<b>0.007*</b>	0 (0-0)	0 (0-0)	0.92
<i>n=4 missing</i>													
<i>Median (IQR): U</i>													
<b>Illness Perceptions</b>													
Consequences <i>(n=4 missing)</i>	9 (7-9)	8 (7-9)	8 (7-9)	0.35	8 (7-9)	8 (7-9)	0.18	8 (7-9)	8 (7-9)	0.09	7 (6-8)	8 (7-9)	<b>&lt;0.001*</b>
Timeline <i>(n=5 missing)</i>	10 (9-10)	10 (8-10)	10 (9-10)	0.09	10 (8-10)	10 (9.25-10)	<b>0.002*</b>	10 (8-10)	10 (9-10)	0.05	10 (8-10)	10 (9-10)	<b>0.008*</b>
Personal control <i>(n=5 missing)</i>	5 (3-6)	5 (3-6)	5 (3-6)	0.90	5 (3-6)	5 (3-6)	0.71	5 (3-6)	5 (3-6)	0.64	5 (3-6)	5 (3-6)	0.45
Treatment control <i>(n=5 missing)</i>	7 (5-7)	7 (5-8)	6 (5-8)	<b>0.03*</b>	7 (5-8)	6 (5-7)	<b>0.02*</b>	7 (5-8.5)	6 (5-8)	<b>0.03*</b>	7 (5-8)	6 (5-7)	<b>0.001*</b>
Identity <i>(n= 4 missing)</i>	8 (7-8)	8 (6.5-8)	7 (7-8)	0.41	7 (6-8)	8 (7-8)	0.07	8 (6-8)	7 (7-8)	0.26	7 (6-8)	8 (7-8.5)	<b>&lt;0.001*</b>
Concern <i>(n=2 missing)</i>	8 (7-10)	8 (7-10)	8 (7-10)	0.16	8 (7-10)	8 (7-10)	0.17	8 (7-10)	8 (7-10)	0.09	8 (6-8)	9 (8-10)	<b>&lt;0.001*</b>
Understanding <i>(n=2 missing)</i>	7 (6-9)	7 (6-9)	7 (6-9)	0.36	7 (6-9)	7 (6-9)	0.45	7 (6-9)	7 (6-9)	0.42	8 (6-9)	7 (6-9)	0.27
Emotion <i>(n=2 missing)</i>	7 (6-9)	7 (6-9)	7 (6-9)	0.61	7 (6-9)	7 (6-9)	0.23	7 (5-8)	7 (6-9)	<b>0.01*</b>	7 (5-7)	8 (7-9)	<b>&lt;0.001*</b>
<i>Median (IQR): U</i>													
<b>Coping Style</b> <i>n = 8 missing</i>	29.8 (5.7)	29.4 (5.9)	29.9 (5.9)	0.58	29.7 (5.9)	29.8 (5.6)	0.89	30.0 (6.1)	29.7 (5.6)	0.73	29.8 (6.2)	29.7 (5.4)	0.93
<i>Mean (SD): T</i>													
<b>Optimism</b> <i>n = 5 missing</i>	7.1 (2.4)	7.1 (2.5)	7.2 (2.4)	0.86	7.3 (2.6)	7.1 (2.3)	0.48	7.3 (2.4)	7.1 (2.4)	0.62	7.1 (2.8)	7.2 (2.3)	0.71
<i>Mean (SD): T</i>													
<b>Health Anxiety</b> <i>n = 17 missing</i>	12 (8-18)	11 (7-15)	13 (8-19)	<b>0.046*</b>	11 (7-16)	13 (9-19)	<b>0.001*</b>	11 (6-13.5)	13 (9-19)	<b>&lt;0.001*</b>	9 (6-14)	14 (9-20)	<b>&lt;0.001*</b>
<i>Median (IQR): U</i>													

T = Independent samples T-test, CS = Chi-Square test, U = Mann-Whitney U Test

**Table 2:** Sensitivity Analysis (children only) - Index Patient Descriptive Statistics and GEEs (Relative Risk, Experiential Risk, Worry about Risk)

Characteristic of Index Patient	All Patients (n=162 patients)	GEEs – Sensitivity Analysis – Children Only															
		Perceived Absolute Risk				Perceived Relative Risk				Perceived Experiential Risk				Worry about Risk			
		Low (n=74 FDRs)	High (n=107 FDRs)	WCS	P-value	Low (n=90 FDRs)	High (n=131 FDRs)	WCS	P-value	Low (n=60 FDRs)	High (n=162 FDRs)	WCS	P-value	Low (n=96 FDRs)	High (n=126 FDRs)	WCS	P-value
<b>Age (years)</b> n = 7 missing Median (IQR)	65 (57.25-75)	64 (57.5-70.5)	66 (58.5-75.0)	2.40	0.12	64 (57.5-70.5)	66 (58.5-75.0)	1.58	0.21	64 (54.75-70)	65 (58.5-75.0)	4.41	<b>0.04*</b>	64 (57.5-75)	65 (59-74.25)	0.13	0.71
<b>Gender</b>																	
Male	40 (24.7)	13 (24.5)	40 (75.5)	2.27	0.13	13 (24.5)	40 (75.5)	0.03	0.88	11 (20.8)	42 (79.2)	1.13	0.29	25 (47.2)	28 (52.8)	0.26	0.61
Female	117 (72.2)	59 (36.2)	104 (63.8)			59 (36.2)	104 (63.8)			47 (28.7)	117 (71.3)			69 (42.1)	95 (57.9)		
n = 6 missing Frequency (%)																	
<b>Age at diagnosis</b> n = 47 missing Median (IQR)	54 (43.5-62)	50 (41.5-60.0)	54 (47-63)	3.76	0.05	50 (41.5-60.0)	54 (43-63)	0.18	0.67	50 (43-58.5)	54 (46-63)	4.26	<b>0.04*</b>	53 (44.5-62.5)	54 (43-61)	0.45	0.51
<b>RA Treatment</b>																	
Biologic	47 (29.0)	20 (31.3)	44 (68.8)	0.17	0.68	20 (31.3)	44 (68.8)	0.42	0.52	17 (26.6)	47 (73.4)	0.01	0.94	31 (48.4)	33 (51.6)	0.64	0.43
Non-Biologic	115(71.0)	54 (34.4)	103 (65.6)			54 (34.4)	103 (65.6)			43 (27.2)	115 (72.8)			65 (41.1)	93 (58.9)		
n = 0 missing Frequency (%)																	

GEE = Generalised Estimating Equation, WCS = Wald Chi-Square