"Already tired – do I need to be more tired?!" Eliciting the modal salient exercise beliefs of pregnant women in East Kent (United Kingdom).

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Introduction

Whilst current recommendations suggest that in most cases it is safe for expectant mothers to initiate or continue with exercise, pregnant women seldom participate in physical activity of the frequency, intensity and duration associated with health benefits. In fact, pregnancy has been identified as a contributing factor in the decline of exercise behaviour among women (Gaston & Cramp, 2011). From a psychological perspective, the reasons for this are often not well understood and remains poorly investigated. Ajzen's (1991) theory of planned behaviour (TPB) posits that the cognitive foundation for behaviour is rooted in three subjective probabilities: (1) behavioural, (2) normative, and (3) control beliefs. Once formed and accessible in memory attitudes, subjective norms, perceptions of control, and ultimately intentions and behaviour follow in a reasonable and consistent manner. Identifying these beliefs is a significant step in determining the factors that may influence people's ultimate behaviour. The purpose of this study was therefore to conduct an elicitation study to determine the modal salient exercise



beliefs held by pregnant women in East Kent.

Method

Pregnant women (n = 39) were recruited when attending an appointment at one of ten randomly selected National Health Service (NHS) antenatal clinics in East Kent. Consistent with the procedure recommended by Fishbein and Ajzen (2010), participants (n = 18) completed a questionnaire using open-ended questions to describe their beliefs about exercise during pregnancy. A modal set of beliefs were compiled following content analyses. Specifically, beliefs were selected based on their frequency of emission until 75% of all responses listed were accounted for.

Results

The main advantages of exercise during pregnancy were keeping fit and being healthy whilst fatigue was the main disadvantage. Expectant mothers believed

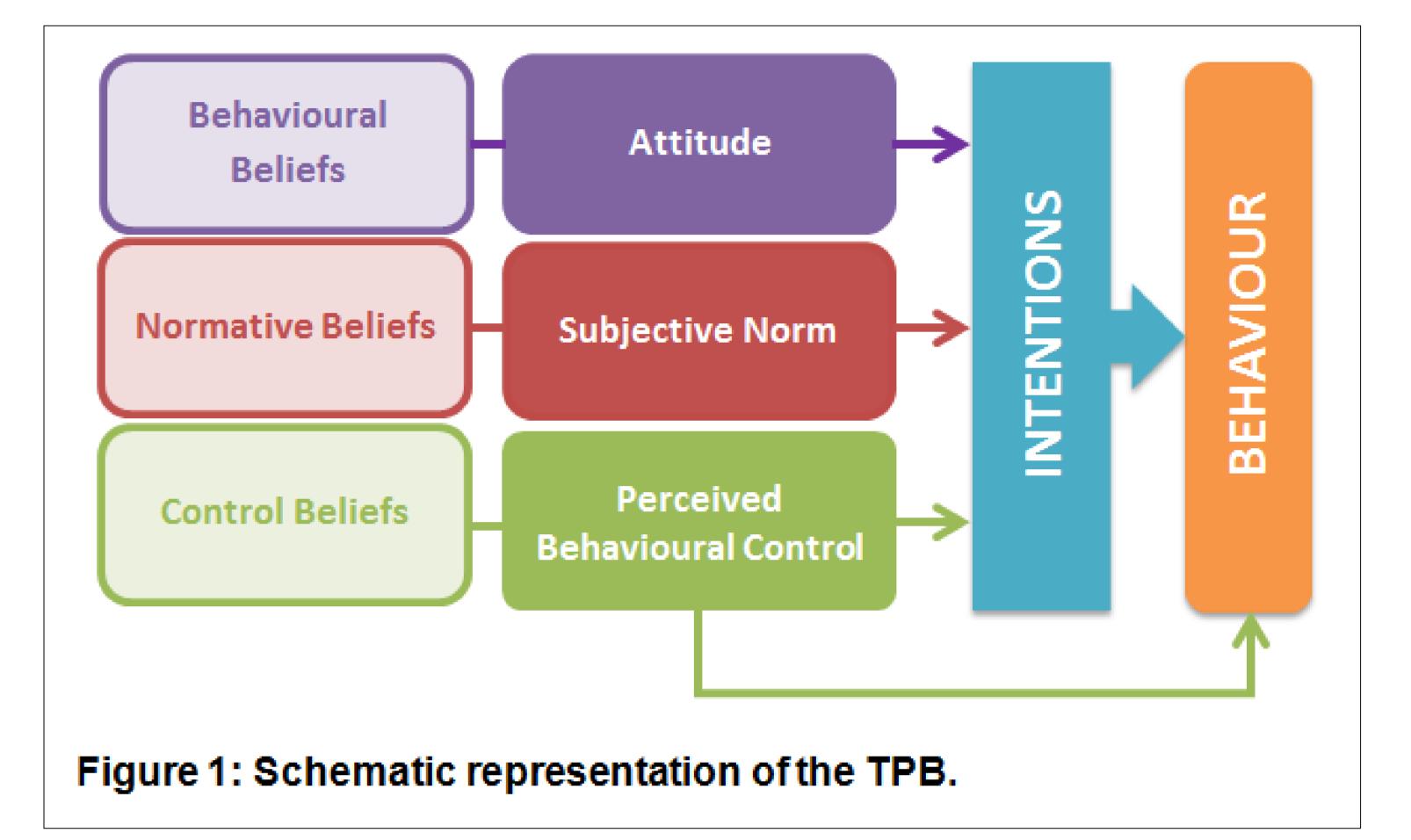


Table 1: Modal salie	ent exercise beliefs of preg	nant women in Eas	st Kent
	Behavioural Be	eliefs	
Advantages	N = 53	Percentage	Cumulative Percentage

that health professionals in particular would approve of them exercising during their pregnancy. The primary normative referents identified were those who already enjoy an active lifestyle whilst those with health issues were least likely to be physically active. Accessibility of suitable exercise opportunities and having time available were two of the main factors that would make it easy or enable women to exercise during their pregnancy. Conversely, health issues, not having enough time and fatigue were identified as factors that would hinder participation.

Conclusion

Elicitation studies provide valuable information regarding people's beliefs about a particular behaviour (Symons Downs & Hausenblas, 2005). Such insight has important implications for behavioural interventions as it allows researchers and practitioners to tailor programs to meet the specific needs of the population under investigation. To put this in context, a better understanding of pregnant women's beliefs about exercise can aid the development of strategies to increase physical activity participation and decrease sedentary behaviour, promote healthy lifestyle changes, prevent chronic diseases and improve the long term health of both women and their offspring.

Advantages	N = 00	reroentage	
Physical Fitness	13	24.53	24.53
Health	12	22.64	47.17
Weight control	6	11.32	58.49
Prepare for labour	5	9.43	67.92
Psychological wellbeing	5	9.43	77.35
Disadvantages	N = 28	Percentage	Cumulative Percentage
Fatigue	9	32.14	32.14
Overdoing it	5	17.86	50.00
Fear of harming baby	5	17.86	67.86
Injury	3	10.71	78.57
	Injunctive Normati	ve Beliefs	
Approve	N = 40	Percentage	Cumulative Percentage
Health professionals	15	37.50	37.50
Family	8	20.00	57.50
Friends	6	15.00	72.50
Husband/Partner	4	10.00	82.50
Exercise professionals	4	10.00	92.50
Disapprove	N = 18	Percentage	Cumulative Percentage
Family	4	22.22	22.22
Health professionals	3	16.67	38.89
Friends	2	11.11	50.00
Public	2	11.11	61.11
Older people	2	11.11	72.22
Complicated pregnancies	2	11.11	83.33
	Normative Refe	erents	
Most likely	Normative Refe		Cumulative Percentage
Most likely Active people	N = 28	Percentage	
Active people	N = 28 14	Percentage50.00	50.00
Active people Health/Exercise professionals	N = 28 14 4	Percentage 50.00 14.29	50.00 64.29
Active people Health/Exercise professionals Experienced mums	N = 28 14 4 2	Percentage 50.00 14.29 7.14	50.00
Active people Health/Exercise professionals Experienced mums Health issues	N = 28 14 4 2 2	Percentage 50.00 14.29 7.14 7.14	50.00 64.29 71.43
Active people Health/Exercise professionals Experienced mums Health issues Without dependents	N = 28 14 4 2 2 2 2	Percentage 50.00 14.29 7.14 7.14 7.14 7.14	50.00 64.29 71.43 78.57
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely	N = 28 14 4 2 2 2 N = 32	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 Percentage	50.00 64.29 71.43 78.57 85.71 Cumulative Percentage
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues	N = 28 14 4 2 2 2 2 10	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 31.25	50.00 64.29 71.43 78.57 85.71
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active	N = 28 14 4 2 2 2 2 N = 32 10 6	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 131.25 18.75	50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active Suffered loss	N = 28 14 4 2 2 2 2 10	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 31.25	50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active	N = 28 14 4 2 2 2 2 10 6 4	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 11.25 11.25 11.75 12.50	50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00 68.75
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active Suffered loss First pregnancy	N = 28 14 4 2 2 2 2 N = 32 10 6 4 Control Beli	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 131.25 18.75 18.75 12.50	50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00 68.75
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active Suffered loss First pregnancy Easy/enable	N = 28 14 4 2 2 2 N = 32 10 6 4 Control Beli N = 35	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 131.25 18.75 18.75 12.50	50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00 68.75 81.25
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active Suffered loss First pregnancy Easy/enable Access and availability	N = 28 14 4 2 2 2 N = 32 10 6 4 Control Beli N = 35 9	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 131.25 18.75 18.75 12.50	50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00 68.75 81.25
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active Suffered loss First pregnancy Easy/enable Access and availability Time	N = 28 14 4 2 2 2 N = 32 10 6 6 4 Control Beli N = 35 9 7	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 131.25 18.75 18.75 12.50 efs 25.71 20.00	 50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00 68.75 81.25 Cumulative Percentage 25.71 45.71
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active Suffered loss First pregnancy Easy/enable Access and availability Time Knowledge	N = 28 14 4 2 2 2 N = 32 10 6 6 4 Control Beli N = 35 9 7 5	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 131.25 18.75 18.75 12.50 efs Percentage 25.71 20.00 14.29	50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00 68.75 81.25
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active Suffered loss First pregnancy Easy/enable Access and availability Time Knowledge Cost	N = 28 14 4 2 2 2 2 10 6 6 4 Control Beli N = 35 9 7 5 5	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 131.25 18.75 18.75 12.50 Percentage 25.71 20.00 14.29 14.29 14.29	 50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00 68.75 81.25 25.71 Cumulative Percentage 68.75 60.00
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active Suffered loss First pregnancy Easy/enable Access and availability Time Knowledge Cost Activity structure	N = 28 14 4 2 2 2 2 10 6 6 4 Control Beli N = 35 9 7 5 5 5 5 5	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 18.75 18.75 18.75 12.50 efs Percentage 25.71 20.00 14.29 14.29 14.29 14.29	50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00 68.75 81.25 Cumulative Percentage 25.71 60.00 74.29
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active Suffered loss First pregnancy Easy/enable Access and availability Time Knowledge Cost Activity structure Difficult/prevent	N = 28 14 4 2 2 2 N = 32 10 6 6 4 Control Beli N = 35 9 7 5 5 5 5 5 5 5 5 5 9	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 7.14 131.25 18.75 18.75 12.50 Percentage 25.71 12.50 Percentage 14.29	 50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00 68.75 81.25 25.71 25.71 45.71 60.00 74.29 88.58 Cumulative Percentage 88.58 Cumulative Percentage
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active Suffered loss First pregnancy Easy/enable Access and availability Time Knowledge Cost Activity structure Difficult/prevent Health issues	N = 28 14 4 2 2 2 2 N = 32 10 6 6 4 Control Beli N = 35 9 7 5 5 5 5 5 5 5 5 11	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 7.14 7.14 7.14 7.14 7.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 18.75 18.75 18.75 12.50 efs Percentage 25.71 20.00 14.29 14.29 14.29 14.29 14.29 26.83	 50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00 68.75 81.25 25.71 45.71 60.00 74.29 88.58 Cumulative Percentage 26.83
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active Suffered loss First pregnancy Easy/enable Access and availability Time Knowledge Cost Activity structure Difficult/prevent Health issues Time	N = 28 14 4 2 2 2 2 10 6 6 6 7 9 7 5 5 5 5 5 11 10	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 7.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 18.75 18.75 18.75 12.50 efs Percentage 14.29	50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00 68.75 81.25 Cumulative Percentage 68.75 81.25 Cumulative Percentage 74.29 88.58 Cumulative Percentage 25.71
Active people Health/Exercise professionals Experienced mums Health issues Without dependents Least likely Health issues Not active Suffered loss First pregnancy Easy/enable Access and availability Time Knowledge Cost Activity structure Difficult/prevent Health issues	N = 28 14 4 2 2 2 2 N = 32 10 6 6 4 Control Beli N = 35 9 7 5 5 5 5 5 5 5 5 11	Percentage 50.00 14.29 7.14 7.14 7.14 7.14 7.14 7.14 7.14 7.14 7.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 17.14 18.75 18.75 18.75 12.50 efs Percentage 25.71 20.00 14.29 14.29 14.29 14.29 14.29 26.83	 50.00 64.29 71.43 78.57 85.71 Cumulative Percentage 31.25 50.00 68.75 81.25 25.71 25.71 45.71 60.00 74.29 88.58 Cumulative Percentage 26.83

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