

Table of Contents

Abbreviations	vii
PART 1. INTRODUCTION AND RESEARCH AIMS	1
1. Constituents and ingredients of tobacco and tobacco smoke	3
1.1. Nicotine	4
1.2. Carbon monoxide	5
1.3. Other chemicals.....	6
2. Health consequences of smoking during pregnancy for mother and child	6
2.1. Impact on fertility	7
2.2. Foetal loss.....	8
2.2.1. Spontaneous abortion.....	8
2.2.2. Stillbirth	9
2.3. Ectopic pregnancy.....	9
2.4. Placenta pathology	9
2.5. Preterm premature rupture of the membranes (PPROM) ...	10
2.6. Preterm birth	11
2.7. Foetal growth.....	11
2.8. Sudden infant death syndrome (SIDS)	13
2.9. Long-term health risks.....	13
3. Prevalence of smoking during pregnancy	13
3.1. General prevalence of smoking	13
3.2. Prevalence of smoking during pregnancy	14
4. Determinants of smoking cessation during pregnancy according to the socio-ecological model	15
4.1. Intrapersonal level	17
4.1.1. Socio-demographic factors.....	17
4.1.2. Motivation to quit smoking.....	17
4.1.3. Smoking-related factors	18
4.1.4. Cognitive skills	19
4.1.5. Prenatal factors	19
4.1.6. Psychological factors.....	20
4.2. Interpersonal level	20
4.3. Organizational level	21
4.4. Community level	22

4.5.	Public policy level	25
4.6.	Supranational level	27
5.	Research questions	28
	References	32
PART 2.	METHODOLOGY	45
6.	Qualitative study: Role of midwives and gynaecologists in smoking cessation in pregnant women (study 1)	47
6.1.	Study design	47
6.2.	Participants.	47
6.3.	Data collection	48
6.4.	Interview guide	48
6.5.	Data analysis	50
7.	Quantitative study: smoking behaviour of pregnant and postpartum women (study 2-4)	50
7.1.	Study design	50
7.2.	Participants.	51
7.3.	Data collection	51
7.4.	Questionnaire and measurements	52
7.4.1.	Socio-demographic variables	52
7.4.2.	Smoking.	52
7.4.2.1.	<i>Smoking status</i>	<i>52</i>
7.4.2.2.	<i>Modified Reasons for Smoking Scale</i>	<i>54</i>
7.4.2.3.	<i>Fagerström Test for Nicotine Dependence</i>	<i>54</i>
7.4.2.4.	<i>Partner's smoking status</i>	<i>55</i>
7.4.3.	Feelings of depression.	55
7.4.4.	Constructs and beliefs of the Theory of Planned Behaviour (TPB)	55
7.4.5.	Data analysis.	56
	References	59
PART 3.	ORIGINAL RESEARCH ARTICLES	63
8.	Study 1: Knowledge, attitude and practice of midwives and gynaecologists in smoking cessation during pregnancy in Flanders	65
8.1.	Abstract.	67
8.2.	Introduction	68

8.3.	Methods	70
8.3.1.	Design	70
8.3.2.	Participants	70
8.3.3.	Data collection	71
8.3.4.	Ethical considerations	72
8.3.5.	Data analysis	73
8.4.	Results.	77
8.4.1.	Participant characteristics	77
8.4.2.	Themes	78
8.4.2.1.	<i>Theme 1: Basic knowledge regarding foetal and maternal risks associated with smoking during pregnancy</i>	78
8.4.2.2.	<i>Theme 2: Specific knowledge regarding national smoking cessation guidelines and the use of nicotine replacement therapy (NRT)</i>	79
8.4.2.3.	<i>Theme 3: The image of ‘the smoking pregnant woman’</i>	79
8.4.2.4.	<i>Theme 4: The 5A’s framework in smoking cessation counselling and perceived barriers</i>	80
8.4.2.5.	<i>Theme 5: Perceived need for smoking cessation training</i>	82
8.5.	Discussion	83
8.6.	Limitations	86
8.7.	Conclusions	87
	References	88
9.	Study 2: Reasons for smoking in pregnant women	91
9.1.	Abstract	93
9.2.	Introduction	94
9.3.	Methods	96
9.3.1.	Design	96
9.3.2.	Sampling	96
9.3.3.	Self-reported measurements	97
9.3.3.1.	<i>Smoking behaviour</i>	97
9.3.3.2.	<i>Depressive symptoms</i>	97
9.3.3.3.	<i>Socio-demographic variables</i>	98
9.3.4.	Statistical analysis	98
9.4.	Results.	99
9.4.1.	Sample characteristics	99
9.4.2.	Construct validity, internal consistency and test-retest reliability	100

9.4.3. Descriptive results for the subscales	101
9.4.4. Concurrent validity	101
9.5. Discussion	103
9.6. Conclusion	107
References	109
10. Study 3: Depression and educational level related to smoking in pregnant women	113
10.1. Abstract.	115
10.2. Introduction	116
10.3. Methods	118
10.3.1. Design	118
10.3.2. Sampling	119
10.3.3. Measurements	120
10.3.3.1. <i>Smoking</i>	120
10.3.3.2. <i>Feelings of depression</i>	121
10.3.3.3. <i>Socio-demographic variables</i>	121
10.4. Data analysis	122
10.5. Results.	122
10.5.1. Characteristics of respondents.	122
10.5.2. Patterns of smoking during and after pregnancy	123
10.5.3. Patterns of depression during and after pregnancy	126
10.5.4. Relationships between BDI score, smoking pattern, and sociodemographic variables.	126
10.6. Discussion	131
10.7. Conclusion	134
References	135
11. Study 4: Smoking cessation beliefs in relation to smoking status and intention to quit	139
11.1. Abstract.	141
11.2. Introduction	142
11.3. Methods	144
11.3.1. Design	144
11.3.2. Sampling	144
11.3.3. Self-reported measurements	145
11.3.3.1. <i>Smoking behaviour</i>	145
11.3.3.2. <i>Constructs and beliefs of the TPB</i>	145
11.3.4. Socio-demographic variables	148
11.3.5. Data analysis.	148

11.4. Results.	148
11.4.1. Characteristics of the sample.	148
11.4.2. Association between smoking cessation beliefs and smoking behaviour	149
11.4.3. Association between smoking cessation beliefs and intention to quit smoking	151
11.5. Discussion	153
References	158
PART 4. GENERAL DISCUSSION.	161
12. Summary of the main findings.	163
13. Overall discussion.	166
13.1. Study 1: Knowledge, attitude and practice of midwives and gynaecologists in smoking cessation during pregnancy in Flanders	166
13.2. Study 2: Reasons for smoking in pregnant women.	172
13.3. Study 3: Depression and educational level related to smoking in pregnant women.	176
13.4. Study 4: Smoking cessation beliefs in relation to smoking status and intention to quit	179
14. Strengths and limitations	182
14.1. Study design and study population.	182
14.2. Measurements	184
15. Recommendations and directions for future research.	186
References	191
Summary	201
Samenvatting	205
Curriculum vitae.	209
Dankwoord	214