Maternal Guilt and Shame in the Postpartum Infant Feeding Context: A Concept Analysis

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Study highlights

Guilt and shame possessed unique attributes, antecedents, and consequences

Guilt and shame also shared overlapping attributes, antecedents, and consequences

Constructed definitions evidence overlapping and concept-exclusive characteristics

Definitions can be used to address risk factors, to prevent guilt and shame

Future research should aim to empirically support concept analysis relationships

1	Maternal Guilt and Shame in a Postpartum Infant Feeding Context: A Concept
2	Analysis
3	Abstract
4	Background
5	After birth, guilt and shame are differentially experienced by breastfeeding
6	and formula feeding mothers. Despite this, currently utilised guilt and shame
7	definitions lack context specificity, leaving concepts open to misinterpretation.
8	Objective
9	The current study aimed to develop infant feeding-specific definitions of
10	postpartum guilt and shame.
11	Methods
12	Study selection involved a three-stage systematic screening process, outlined
13	in Jackson et al (2021). Walker and Avant's (2005, 2019) concept analysis
14	framework was then applied to included articles to identify guilt-specific, shame-
15	specific, and overlapping attributes, antecedents, and consequences.
16	Results
17	A guilt-specific, shame-specific, and overlapping definition were generated
18	based on exclusive and overlapping antecedents, attributes, and consequences.
19	Guilt and shame belonged to the empirical referent Moral Emotions, which may
20	explain some of the overlapping antecedents, attributes, and consequences
21	identified during analysis.
22	

23 Conclusions

The overlapping definition provides a broad scope for shared characteristics, while specific definitions allow for more in-depth and focused investigations of guilt and shame experiences within an infant feeding context. Utilising context-specific definitions may serve to improve research homogeneity. Shame was found to be uniquely associated with postnatal depression. As such, suggestions are made for future research to further investigate the relationship between shame, infant feeding, and maternal wellbeing outcomes.

31 Implications

Identified antecedents may be used by healthcare professionals to provide
 additional support to mothers at risk of experiencing guilt and shame, to prevent the
 occurrence and consequences of these emotions.

35 Keywords

36 Breastfeeding

37 Infant formula

38 Postpartum

39 Guilt

40 Shame

41 Morals

42

43

45 Introduction

Breastfeeding is associated with positive maternal and infant health outcomes 46 (Horta et al, 2015a, 2015b; Victora et al, 2016). As such, the World Health 47 48 Organisation (WHO) recommend exclusive breastfeeding for the first six months postpartum and continued breastfeeding up to two years postpartum (UNICEF, 49 2017a). The disparity between breastfeeding intention and initiation and 50 breastfeeding duration to six months postpartum is present in many developed 51 52 countries (Australian Government: Department of Health (AGDH), 2019; Chalmers et al, 2009; Centers for Disease Control and Prevention (CDCP), 2019; Theurich et al, 53 54 2019). For example, according to the last UK Infant Feeding Survey, 66% of pregnant women intended to exclusively breastfeed, and an additional 10% intended 55 to breastfeed to some extent (McAndrew et al, 2012). Despite high rates of 56 breastfeeding intention and a large proportion (81%) of UK women initiating 57 exclusive breastfeeding, few (1%) exclusively breastfeed to six months postpartum 58 (McAndrew et al, 2012). Given these trends, exploration of the barriers to successful 59 breastfeeding should be of paramount importance for infant feeding research. 60

For many women, the inability to meet breastfeeding intentions is a perceived 61 62 transgression of motherhood (Harrison et al, 2018). The widespread understanding that exclusive breastfeeding is optimal for maternal and infant health among mothers 63 can consequently lead to feelings of guilt and shame for women who cannot or do 64 not want to breastfeed (Lagan et al, 2014; Lee, 2007a; Thomson et al, 2015). Guilt 65 and shame arise due to discrepancies between breastfeeding expectations in 66 pregnancy and unanticipated postpartum challenges (Fahlquist, 2016; Hanell, 2017). 67 Perceived lack of support from social networks and healthcare professionals (Fallon 68 et al, 2019), and perceived pressure to breastfeed due to promotional strategies 69

70 (Leeming et al, 2016; Marshall et al, 2011) contribute towards unrealistic breastfeeding expectations and poor emotional wellbeing outcomes (Flaherman et 71 al, 2012). The Baby Friendly Initiative (BFI) is an accreditation programme which 72 aims to create an informative and supportive breastfeeding environment (UNICEF, 73 2017b). However, a systematic review of 11 studies examining the effectiveness of 74 BFI compliant care in the UK found that current delivery of infant feeding support 75 fails to sufficiently prepare mothers for the realities of breastfeeding challenges and 76 may contribute towards feelings of guilt for those who struggle to overcome these 77 78 difficulties (Fallon et al, 2019).

79 Guilt and shame have differential outcomes for maternal wellbeing (Hvatum & Glavin, 2017). Although guilt and shame can both originate from the same perceived 80 or actual transgression, guilt is behaviour-directed, while shame is self-directed 81 (Lazare, 1987; Tangney et al, 1996). In an infant feeding context, guilt has been 82 associated with feeling defensive about one's infant feeding method (Fallon et al, 83 2016), whereas shame has been associated with dissociation from one's maternal 84 identity (Asiodu et al, 2017). Despite differential outcomes for maternal wellbeing, a 85 recent systematic review of 20 studies found that only 2 papers exploring maternal 86 guilt and/or shame in relation to infant feeding outcomes sought to define these 87 88 concepts (Jackson et al, 2021). Of studies which defined them, general definitions were utilised, which lacked context specificity. 89

Thomson et al (2015) use Niedenthal et al's (1994) general definition of guilt, "When guilty, people are consumed with the idea that they did a 'bad thing' (or failed to do a good thing)." (*pg.587, in text*) and shame, "Shame involves an evaluation of the self. Although a specific failure or transgression may trigger a shame reaction, the implications of the event are attributed to the self." (*pg.586, in text*). Although

general definitions provide some clarity concerning operationalisation of lived
experiences, lack of context-specificity leaves constructs open to potential
misinterpretation.

In Jackson et al's mixed-methods systematic review (2021), some included 98 literature grouped guilt and shame in thematic analysis, which risked leading to 99 concept misattribution (e.g., Asiodu et al, 2017). For example, dissociation from 100 one's maternal identity in response to early breastfeeding cessation, and associated 101 feelings of depression and anxiety which were reported under Fahlguist's (2016) 102 theme 'feeling like a failed mother' (pg.234), would seem to be in line with a definition 103 of shame (Niedenthal et al, 1994). Similarly, in Lee (2007b), mothers spoke of feeling 104 like a "bad mother" (pg.303), feeling "not good enough" (pg.304) and engaging in 105 avoidance behaviour in the form of hiding formula feeding bottles from healthcare 106 professionals (Lee, 2007a, 2007b, 2007c; Lee & Fuerdi, 2005). Despite such 107 accounts being detailed under the theme, 'Worry, guilt, and failure', these accounts 108 would seem to reflect the internalisation of perceived transgressions to the self, 109 specific to shame (Niedenthal et al, 1994). Therefore, constructing academic 110 definitions of concepts is necessary to improve construct validity. 111

Other infant feeding literature differentiated between shame and guilt 112 113 accounts in thematic analysis, but without explicitly outlining how concepts were distinguished (Asiodu et al, 2017; Crossley, 2009; Hvatum & Glavin, 2017; Lagan et 114 al, 2014). Additionally, examinations of guilt in guantitative infant feeding literature 115 have involved binary response options, which risks offering a reductionist view of this 116 complex psychosocial experience and limiting conceptual understanding (Chezem et 117 al, 1997; Fallon et al, 2016; Komninou et al, 2016). Walker and Avant's (2005, 2019) 118 systematic, analytical framework demonstrates utility in creating clearer boundaries 119

120 between what does, and does not constitute a concept occurring, and in clarifying

distinctions between concepts. Applying this framework involves the identification of

122 specific Attributes i.e., characteristics most commonly associated with the concept to

- 123 help the reader distinguish the concept experience from similar, related, and
- dissimilar concepts; Antecedents i.e., events which must occur prior to the concept
- 125 occurring, for the concept to be present; and Consequences i.e., events which occur
- as a result of the concept occurring (AACs; Walker & Avant, 2005, 2019) with the
- 127 ultimate aim of generating workable, academic definitions for concepts whereby a
- 128 phenomenon is otherwise ill defined.

Also integral to concept analyses is the consideration of context: AACs

130 (Walker & Avant, 2005, 2019) may differ in an infant feeding context (e.g., Hvatum &

131 Glavin, 2017) compared with other contexts evocative of guilt and shame e.g., being

tested for Sexually Transmitted Infections (e.g., Balfe et al, 2010). Recently

133 published perinatal literature has also utilised concept analyses to extend definitions

¹³⁴ of phenomena to an infant feeding context e.g., self-objectification (Toledo & Cianelli,

135 2018) and to the context of postpartum mental health e.g., pregnancy-related anxiety

136 (Bayrampour et al, 2016). However, to the author's knowledge, there have been no

137 previous attempts to create postpartum infant feeding-specific definitions of guilt and

shame. Creating such definitions would allow precise measurement of constructs

and potentially lead to better research homogeneity. The current study aims to: a)

140 construct academic definitions of postpartum guilt and shame in the context of infant

141 feeding, and b) understand the unique and overlapping AACs of postpartum guilt and

142 shame.

143 Methods

144 Stage 1: Study selection

145	Studies were selected for inclusion following a three-stage systematic
146	screening procedure (Jackson et al, 2021). A search strategy was developed in line
147	with Population Exposure Outcomes criteria (PEO; University of London, 2020) and
148	was applied to [University name]'s DISCOVER database, powered by EBSCO. Key
149	terms utilised in the search strategy were determined using a scoping literature
150	search. Boolean operators were used to blend keywords, and truncation was used to
151	identify variations of keywords e.g., 'breastfeed*'. Identified articles were then
152	screened using inclusion criteria at title, abstract, and full-text stages. See
153	supplementary document 1 for the list of databases which the search strategy
154	derived, and frequency counts for number of articles identified at the initial stage of
155	study selection, split by database. See Jackson et al (2021) for full details of study
156	selection, screening, and inclusion.
157	Stage 2: Framework application
158	Walker and Avant's (2005, 2019) theoretical framework was then applied to

eligible papers (see Table 1 for details of analysis steps). This framework was chosen because it uniquely aims to create workable academic definitions of a concept within a specific context.

162 [Table 1]

163 Notably, the distinction between antecedents and attributes is nuanced.

164 Walker and Avant (2005, 2019) define an antecedent as, "An event(s) which '*must*'

165 occur prior to the concept occurring, for the concept to be present." i.e., if the

166 phenomenon is experienced, the concept *will* be felt. Whereas an attribute is defined

as, "characteristic(s) most commonly associated with the concept." Unlike an

antecedent, the concept can be experienced in the absence of a particular attribute

169 being experienced (Walker & Avant, 2005, 2019). If the attribute is present, however,

- it is more likely that the concept is to also be present simultaneously with the
- 171 attribute (Walker & Avant, 2005, 2019).
- 172 Results

Due to the shared rationale for concept inclusion, shared study aims, and 173 purpose, guilt and shame were analysed together in step one and two (Walker & 174 175 Avant, 2005, 2019). Then due to their different AACs, guilt-specific and shamespecific analyses were conducted for steps three to seven. In some instances, AACs 176 were common to both guilt and shame in included literature. As such, in steps three 177 178 to seven, a separate analysis of overlapping AAC's and academic definition 179 generation was also conducted. Also included in this overlapping analysis were instances where concepts were grouped in thematic analysis, without it being 180 181 explicitly specified whether guilt and/or shame were being referred to. This separate overlapping analysis was conducted to ensure exclusivity of constructed guilt-182 specific and shame-specific definitions. 183 Chronology of events presented in participant and author narratives 184 determined AAC selection e.g., for the Thomson et al (2015) account, 185 "I ended up suffering from quite severe postnatal depression, I have always 186 wondered whether that was something to do with it, if I could have breastfed would it 187 *have happened.*" (in text/Jill, pg.41) 188

189 Firstly, the paper in question explored shame only, so participant narrative

¹⁹⁰ was analysed in the concept analysis under the lens of shame (Thomson et al,

- 191 2015). In this participant's account, stopping breastfeeding earlier than one would
- 192 have liked (i.e., early breastfeeding cessation) were seen as a potential cause for

193 one's negative emotional experience of postnatal depression, inferred by the

194 connecting statement, '...if I could have breastfed would it have happened', allowing

195 causality to be surmised (Thomson et al, 2015).

196

197 Step One: Identify concept(s)

Step one involved identification of concepts of interest to answer the research
question(s). Guilt and shame were chosen due to their association with infant
feeding outcomes (e.g., Fallon et al, 2016; Komninou et al, 2016; Thomson et al,
201 2015) and their frequent interchangeable use in existing infant feeding literature
(e.g., Lee, 2007c).

203 Step Two: Aims and purpose

Step two involved outlining study aims and how concept analysis findings 204 205 intended to bridge into future research. Despite guilt and shame both being elicited by the perception of having committed a moral transgression (English Oxford Living 206 Dictionaries, 2018a; English Oxford Living Dictionaries, 2018b), there are guilt-207 specific and shame-specific characteristics which evidence concept exclusivity 208 (Fallon et al, 2016; Hanell, 2017). The current study aimed to better understand the 209 210 overlapping and unique AACs of guilt and shame through the construction of academic definitions. 211

Identifying relationships between characteristics of maternal guilt and shame
would allow for the identification of specific factors (i.e., antecedents and attributes)
which healthcare professionals could use as direct conversational prompts during
infant feeding discussions with postpartum women. In turn, this may allow additional
support to be put in place for women feeling guilty and/or shameful in relation to their
infant feeding experiences, to prevent consequences from occurring. Clearly

identifying boundaries between concepts would serve to potentially improve research
homogeneity by implementing generated definitions in future infant feeding literature.

220 Step Three: Identify all uses of the concept

Step three involved identifying as many uses of the concept as possible. 221 General guilt has been defined as, "A feeling of having committed wrong or failed in 222 an obligation." (pg.1, in text, English Oxford Living Dictionaries, 2018a). In an infant 223 feeding context, perceived moral failing and resultant guilt have been associated with 224 early breastfeeding cessation and formula supplementation, especially for women 225 with antenatal breastfeeding intentions (Crossley, 2009; Hvatum & Glavin, 2017; 226 Lee, 2007b; Murphy, 2000). Thomson et al (2015) use Niedenthal et al's (1994) 227 228 general definition of guilt as a feeling of regret in response to a moral misconduct. 229 This definition has been supported by academic literature linking breastfeeding cessation to feelings of guilt and subsequent feelings of failure for not 'doing the right 230 thing' by one's infant (Mozingo et al, 2000). 231

Previous research has also defined guilt in relation to behavioural failings 232 233 which motivate reparative behaviour (Kemper, 1987; Lewis, 1995; Miceli & Castelfranchi, 2018; Rotkirch & Janhunen, 2009; Taylor & Wallace, 2012). In an 234 infant feeding context, this reparative behaviour has taken the form of maternal 235 236 defence of infant feeding method, in attempt to reframe one's decision as one of a 'good mother' (e.g., Lee, 2007a). Guilt-induced reparative behaviour has also taken 237 the form of externalised anger towards healthcare professionals, who were 238 239 sometimes perceived to exacerbate postnatal guilt through contributions towards perceived pressure to breastfeed (e.g., Fahlquist, 2016). 240

General shame has been defined as, "A painful feeling of humiliation or 241 distress caused by the consciousness of wrong or foolish behaviour." (pg.1, in text, 242 English Oxford Living Dictionaries, 2018b). Academic literature has also defined 243 shame in terms of internalised moral transgressions, especially when perceiving 244 oneself as having failed in front of other people (Kemper, 1987; Lewis, 1995; Miceli & 245 Castelfranchi, 2018; Taylor & Wallace, 2012). Breastfeeding challenges have been 246 associated with shame (e.g., Hanell, 2017), supporting Tangney et al.'s (1996) 247 definition, as utilised in Thomson et al (2015). 248

Hanell (2017) uses Ahmed's (2014) general definition of shame as an intense 249 and distressing internalisation of a failing to the self. This definition has been 250 supported by infant feeding literature demonstrating that not exclusively 251 breastfeeding was associated with dissociation from one's own maternal identity 252 (Thomson et al, 2015). Thomson and colleagues use Niedenthal et al's (1994) 253 definition of shame as an internalisation of a failing to the self, especially when the 254 individual perceives themselves as failing in front of others. This general definition 255 may account for feelings of inadequacy, self-blame, and fears of judgement 256 experienced by women facing breastfeeding challenges (Asiodu et al, 2017; Hanell, 257 2017). 258

259 Step Four: Defining attributes

260 Step four involved identifying characteristics most associated with the concept 261 (Walker & Avant, 2005; 2019). See Table 2 for guilt-specific, shame-specific, and 262 overlapping AACs.

263 [Table 2]

Uncertainty about having made the right infant feeding decision was an 264 identified attribute of guilt (Lee & Fuerdi, 2005; Lee, 2007c). Guilt was experienced 265 by women who felt that formula feeding had to be kept secret, as it was perceived as 266 less healthy than breastfeeding (Hvatum & Glavin, 2017). Lack of social support was 267 another identified attribute of guilt. For exclusively breastfeeding mothers, guilt was 268 associated most commonly with maternal support networks e.g., feeling guilty 269 because family members were unable to share infant feeding responsibilities 270 (Komninou et al, 2016). 271

Public breastfeeding fear was an identified attribute of shame (Dalzell, 2007; 272 Thomson et al, 2015). Having unmet, unrealistically high breastfeeding expectations 273 was also an identified attribute of shame which resulted in feelings of inadequacy 274 and disappointment when antenatal intentions were unmet (Asiodu et al, 2017; 275 Hvatum & Glavin, 2017; Mozingo et al, 2000). Such breastfeeding expectations 276 originated from: understanding breastfeeding health and attachment benefits to 277 infant (Asiodu et al, 2017; Hvatum & Glavin, 2017; Mozingo et al, 2000); personal 278 goals (Asiodu et al, 2017; Mozingo et al, 2000); healthcare promotion manifesting 279 pressure to breastfeed (Hvatum & Glavin, 2017; Mozingo et al, 2000) and previous 280 familial exposure to breastfeeding (Asiodu et al, 2017). Perceived insufficient 281 282 breastmilk production was an identified attribute of shame as it concerned feelings that one was failing a biological obligation (Asiodu et al, 2017; Hanell, 2017). 283

Overlapping attributes were identified in cases where characteristics were common to both guilt and to shame, and in cases where it could not be determined whether the characteristic in question was attributed to guilt or to shame i.e., if guilt and shame were grouped in thematic analysis.

288	Fears about the infant health consequences of formula feeding were identified
289	attributes of guilt and shame (Fahlquist, 2016; Mozingo et al, 2000). This was
290	supported by quantitative literature which found that 33% of mothers felt guilty for
291	exclusively formula feeding their infant, and 20% of mothers felt concerned about the
292	potential infant health consequences of exclusively formula feeding (Lee, 2007a,
293	2007b, 2007c; Lee & Fuerdi, 2005). Fear of judgement from others concerning infant
294	feeding method was an identified attribute of postpartum guilt and shame. Women
295	experiencing guilt who were transitioning from breastfeeding to formula feeding
296	perceived that healthcare professionals viewed formula feeding as inadequate
297	(Lagan et al, 2014) and perceived that friends and family were undermining of
298	breastfeeding efforts (Komninou et al, 2016; Spencer et al, 2014).
299	Women experiencing shame concealed infant feeding challenges due to fears
300	about being judged by healthcare professionals for experiencing difficulties with
301	breastfeeding and for not breastfeeding exclusively (Spencer et al, 2014). In
302	quantitative literature, 23% of women were concerned about how healthcare
303	professionals would feel about transitioning to formula feeding from breastfeeding
304	(Lee, 2007a, 2007b, 2007c; Lee & Fuerdi, 2005).
305	Step Five and Step Six: Identification of a model case and other generated cases
306	Step five and step six aimed to distinguish between the concept being present
307	and the concept being absent, through generating a model case and other cases for
308	guilt and shame (Walker & Avant, 2005; 2019). This step involved the generation of
309	short vignettes: using generated attributes to create clearer distinctions between the
310	concept being present and the concept being absent, through use of examples

312	(an example of the concept being used within the identified context, whereby all
313	defining attributes are present); borderline (most, but not all, defining attributes are
314	present); related (similar to the concept of interest but differs when examined more
315	closely); contrary (a clear example of the concept not occurring); inverted (contains
316	ideas outside of personal experience); and illegitimate (example of the case being
317	used improperly or in a context separate from the context of interest). See Table 3 for
318	generated cases for the current concept analysis findings.
319	[Table 3]
320	Step Seven: Identification of antecedents and consequences

321 Step seven involved the identification of antecedents *i.e., identification of* 322 events which must occur prior to the concept occurring, for the concept to be present, and consequences i.e., identification of events which occur due to the 323 concept occurring (Walker & Avant, 2005, 2019). Lack of and inconsistent infant 324 feeding advice and guidance was an antecedent of guilt which concerned insufficient 325 guidance regarding safe formula feeding practice (Hvatum & Glavin, 2017), and 326 327 infant feeding guidance perceived to be biased towards breastfeeding (Fahlquist, 2016; Lee, 2007b, 2007c). This led women to feel undermined and disconnected 328 from healthcare professionals (Fox et al, 2015). 329

330 Defence of infant feeding method was an identified consequence of guilt 331 which occurred in response to feeling ill-supported with breastfeeding challenges, by 332 healthcare professionals and social support networks, to maintain one's 'good 333 mother' identity (Fox et al, 2015). Perceived selfishness was also an identified 334 consequence of maternal guilt. Breastfeeding mothers felt selfish in response to 335 fears regarding insufficient infant weight gain (Fox et al, 2015). Formula feeding mothers also felt selfish in response to fears about not having done the right thing for
their infant's wellbeing (Lee, 2007c; Mozingo et al, 2000; Murphy, 2000).

338 Censored formula feeding discussions was an identified antecedent of shame, 339 as it served to increase perceived pressure to breastfeed and contributed towards 340 feelings of dejection and perceived lack of infant feeding choice (Crossley, 2009; 341 Thomson et al, 2015).

Dissociation from one's maternal identity was an identified consequence of 342 shame. For breastfeeding mothers this manifested through lowered self-confidence 343 in response to receiving negative comments about breastfeeding during pregnancy 344 and having little or no prior breastfeeding exposure (Thomson et al, 2015). For 345 346 formula feeding mothers dissociation was experienced in response to early 347 breastfeeding cessation (Asiodu et al, 2017). Combination feeding mothers experienced dissociation in response to experiencing breastfeeding challenges 348 which contradicted antenatal breastfeeding expectations (Hanell, 2017). 349

Experiencing depressive symptoms was an identified consequence of shame 350 351 for formula feeding mothers, which occurred in response to having not done 'best' by one's infant by breastfeeding (Thomson et al, 2015). Extreme distress, which fell 352 under the shame-specific consequence 'panic/fear', occurred in response to 353 perceived objectification of the breasts and focus on biological milk transfer during 354 breastfeeds by healthcare professionals, and in response to fears that one was 355 being judged negatively for experiencing breastfeeding challenges (Hanell, 2017; 356 357 Thomson et al, 2015). Avoidance behaviour was an identified consequence of shame which took the form of avoiding parenting classes, hiding formula bottles from 358 healthcare professionals, and experiencing distress related to perceived 359

360 breastfeeding inability (Crossley, 2009; Lee, 2007a, 2007b, 2007c; Lee & Fuerdi, 2005; Thomson et al, 2015). Humiliation was an identified consequence of shame, 361 which occurred in response to manipulation and objectification of breasts by 362 healthcare professionals who were attempting to facilitate breastfeeding (Thomson 363 et al, 2015). 364

365 Early breastfeeding cessation was an identified antecedent for women experiencing guilt and shame (Asiodu et al, 2017; Fahlquist, 2016; Hvatum & Glavin, 366 2017; Lamontagne, et al, 2008; Murphy, 2000; Spencer et al, 2014). Not achieving 367 personal breastfeeding goals was associated with significantly higher guilt scores 368 than women who met personal breastfeeding goals (Chezem et al, 1997). Perceiving 369 that one had failed their personal breastfeeding expectations also preceded shame, 370 which was exacerbated when mothers perceived that they were being judged by 371 other mothers based on their infant feeding method (Hvatum & Glavin, 2017; 372 373 Murphy, 2000).

Pressure to breastfeed was an identified antecedent of guilt and shame 374 (Hvatum & Glavin, 2017; Spencer et al, 2015). Pressure to breastfeed was 375 experienced in relation to healthcare professionals (Lamontagne et al, 2008; 376 Crossley, 2009) and maternal support networks (Crossley, 2009; Lamontagne et al, 377 378 2008).

Healthcare professionals: giving unbalanced infant feeding advice in favour of 379 breastfeeding (characterised by primary focus of infant feeding conversations being

placed on the infant and maternal health benefits and perceived 'ease' of 381

380

breastfeeding, while omitting information about common breastfeeding challenges, 382

and excluding guidance about safe formula feeding practice); insufficiently preparing 383

mothers for postnatal breastfeeding challenges; giving conflicting advice; making 384

discouraging statements; providing inadequate emotional support; and resisting
maternal wishes to transition to formula feeding were elements of inadequate and
inappropriate healthcare professional support which preceded guilt and shame for
postpartum women (Cloherty et al, 2004; Fahlquist, 2016; Fallon et al, 2016; Fox et
al, 2015; Spencer et al, 2014).

Feeling like a failure was a consequence of guilt and shame for women
supplementing with formula (Mozingo et al, 2000; Murphy, 2000). Perceiving that
healthcare professionals were undermining of maternal reasons for early
breastfeeding cessation led to feelings of failure, which manifested as externalised
anger being held towards healthcare professionals (Fox et al, 2015; Lee, 2007c). *Constructed definitions*

The identification of guilt-specific, shame-specific, and overlapping AACs led to the construction of the following context-specific definitions:

"In the context of infant feeding, guilt is characterised by the following
attributes: feelings of uncertainty about having made the right infant feeding decision,
and perceived insufficient social support. Lack of and inconsistent infant feeding
advice and guidance was an identified antecedent of guilt, which resulted in the
following consequences: feeling the need to defend infant feeding method and
experiencing feelings of selfishness."

404 "In the context of infant feeding, shame is characterised by the following
405 attributes: objectification and manipulation of breasts by healthcare professionals;
406 perceived lack of milk production; fears of public breastfeeding and unrealistic
407 breastfeeding expectations; and antecedent: censored attempts to discuss
408 breastmilk substitutes. Antecedents and attributes led to an array of aversive

409 emotional (postnatal depression; panic/fear; dissociation from one's maternal
410 identity, humiliation) and behavioural (avoidance behaviour) consequences for the
411 mother."

"In the context of infant feeding, women who experienced both guilt and
shame shared the following attributes: fearing infant health consequences of formula
supplementation and fearing judgement from others for infant feeding method.
Antecedents of both guilt and shame included: perceived pressure to breastfeed,
inadequate and inappropriate healthcare professional support, and having not
breastfed for as long as intended during pregnancy. The shared consequence of
both guilt and shame was feeling like a failure."

419 Step Eight: Definition of empirical referents

The aim of step eight was to identify wider concept(s) to which guilt and 420 shame belong, linking to the theoretical underpinnings of the concepts. Both 421 concepts belong to the empirical referent *Moral Emotions*. As supported by general 422 definitions identified in step three (Walker & Avant, 2005, 2011), guilt and shame 423 424 were elicited from some of the same perceived transgressions e.g., not breastfeeding for as long as initially intended during pregnancy. Women 425 experiencing guilt and shame felt they were not good mothers if unable to breastfeed 426 427 (Asiodu et al, 2017; Lamontagne et al, 2008). Experiencing "moral collapse" (pg.472, Lee, *in text*, 2007a) was an identified theme which captured the jeopardised maternal 428 identity in response to breastfeeding inability (Lee, 2007b, 2007c; Lee & Fuerdi, 429 430 2005). Lack of practical support from healthcare professionals exacerbated these feelings, leaving women feeling the need to defend infant feeding method to reframe 431 themselves as good mothers (Fox et al, 2015). 432

Focus on the maternal body as failing a biological obligation when 433 experiencing breastfeeding difficulties also exacerbated feelings of self-blame and 434 inadequacy for women experiencing shame (Dalzell, 2007; Hanell, 2017). 435 436 Interestingly, non-altruistic motivations for breastfeeding were also linked with moral conflict i.e., experiencing guilt when breastfeeding for weight loss purposes 437 (Crossley, 2009). Reframing formula supplementation as a moral sacrifice in the best 438 interest of infant health alleviated moral conflict about having done the right thing 439 (Lee, 2007c; Murphy, 2000). Given shared AACs, both overlapping and exclusive 440 441 definitions should be utilised in the examination of guilt and shame in infant feeding literature. 442

443 Discussion

444 The current concept analysis generated infant feeding-specific definitions of postpartum guilt and shame. Guilt and shame both belong to the wider empirical 445 referent, Moral Emotions, which may explain some of the overlapping characteristics 446 identified. This is also supported by evidence from general definitions of guilt and 447 shame, which concern differing internal responses to the same perceived moral 448 transgression (Ahmed, 2014; English Oxford Living Dictionaries, 2018a, 2018b; 449 Niedenthal et al, 1994; Tangney et al, 1996). Identified guilt-specific and shame-450 specific AACs also evidenced construct exclusivity. Consequently, both specific and 451 overlapping definitions should be utilised in future infant feeding research. 452 Overlapping definitions provide a broad definition of these moral emotions and detail 453 shared characteristics of concepts, while specific definitions provide a greater scope 454 for more in-depth and focused investigations of guilt and shame experiences within 455 an infant feeding context. 456

The generated guilt definition was supported by general definitions 457 (Niedenthal et al, 1994) and involved immediate emotional responses to the 458 perceived moral transgression of formula feeding e.g., feeling selfish (Murphy, 2000). 459 460 Conversely, shame involved more introspective and potentially prolonged effects e.g., dissociation from one's maternal identity (Fahlquist, 2016). Given these 461 differential maternal wellbeing outcomes, it is important for healthcare professionals 462 463 to ask mothers about potential experiences with antecedents and attributes unique to guilt and to shame. This would allow for earlier identification of mothers at risk of 464 465 experiencing these emotions, which may in turn allow early intervention to prevent their consequences from emerging. 466

Shame that was elicited in response to early breastfeeding cessation 467 concerned feelings that the self was failing a biological obligation, which was in turn 468 associated with loss of self-confidence (Hanell, 2017; Thomson et al, 2015). Low 469 breastfeeding confidence has been associated with lower frequencies of 470 breastfeeding initiation and shorter breastfeeding duration (Mossman et al, 2008). 471 Additionally, shame was uniquely associated with postnatal depression (Thomson et 472 al, 2015), which has been linked with shorter breastfeeding duration and early 473 exclusive breastfeeding cessation (Dias & Figueiredo, 2015). These findings warrant 474 475 further exploration of shame in relation to infant feeding outcomes, to optimise maternal wellbeing and infant feeding outcomes. 476

Insufficient and inconsistent infant feeding guidance was a key attribute of
maternal guilt. In previous literature, formula feeding women often spoke of having
wanted to receive more information about safe formula feeding practice (Appleton et
al, 2018; Tarrant et al, 2013). Breastfeeding mothers related the exacerbation of guilt
to having received insufficient formula feeding advice, which manifested a perceived

pressure to breastfeed (Fahlquist, 2016). Current study findings were further 482 supported by previous literature findings that perceived judgement from others 483 regarding the experience of breastfeeding difficulties prevented help-seeking 484 485 behaviour (Hunt & Thomson, 2017). Additionally, receiving unrealistic breastfeeding guidance which omitted postnatal breastfeeding challenges (e.g., pain) led to 486 dissatisfaction with healthcare professional support when there was a disconnect 487 between breastfeeding expectations and experiences (Fox et al, 2015). This is 488 problematic as 19.6% of women reported that their breastfeeding difficulties were not 489 490 solved by healthcare professionals (Gianni et al, 2019). In providing more balanced and realistic infant feeding guidance regarding safe formula feeding practice and 491 management of breastfeeding difficulties, it may be possible to create a more 492 inclusive infant feeding environment that promotes open communication to work 493 through infant feeding challenges. 494

Also securing moral conflicts around infant feeding decision-making is the 495 widespread promotion of formula milk, with financial investment steadily increasing 496 since 2015 (Hastings et al, 2020). Promotion of breastmilk substitutes is problematic 497 because advertisements are frequently interpreted as confusing for new parents 498 (Barennes et al, 2015). Furthermore, aggressive marketing of formula milks have 499 500 been shown to successfully increase prevalence of formula feeding (Piwoz & Huffman, 2015). Linking with the antecedent, 'Lack of and inconsistent infant feeding 501 advice and guidance', recommendations are made for healthcare professionals to 502 provide accurate formula feeding guidance to those who choose to supplement with 503 504 breastmilk alternatives, to falsify misleading marketing strategies. To address wider societal concerns about the impact of increased formula feeding prevalence on 505 maternal emotional wellbeing, including guilt and shame experience, calls are also 506

507 made for tighter regulations on the marketing of infant formula milks (Harris &

508 Pomeranz, 2020; Romo-Palafox, Pomeranz, & Harris, 2020).

Censored attempts to discuss formula supplementation was an identified 509 attribute of shame. In previous literature, formula feeding mothers tended to use 510 formula tin instructions to guide feeding practice and felt that formula was 511 512 stigmatised by healthcare professionals (Appleton et al, 2018). This is problematic because many parents struggle to comprehend nutritional content on formula 513 product labelling and find difficulties in choosing brands (Malek et al. 2019). 514 Healthcare professionals have also raised issues regarding misleading formula 515 product information, inconsistencies in infant feeding information, and time 516 restrictions on delivery of care from other staff (Dykes et al, 2011). Providing more 517 balanced guidance about safe formula preparation and appropriate interpretation of 518 formula packaging may therefore improve perceived satisfaction with healthcare 519 professional support by dissipating formula feeding stigma and by promoting 520 informed infant feeding choice. 521

Concept analysis findings confirm that one's sociocultural context is an 522 important determinant of infant feeding guilt and shame experience. Feeling that one 523 is being pressurised to breastfeed is affirmed by polarised discourse that portrays 524 breastfeeding as 'best', 'good', and, 'right' (Cummins, 2020). Current breastfeeding 525 promotional efforts (UNICEF, 2013) construct a morally dichotomous environment 526 that leads mothers to feelings of inadequacy and failure if breastfeeding challenges 527 or transitions to formula feeding are experienced (Braimoh & Davies, 2014; Fallon et 528 al, 2019). This may explain the guilt-specific consequence, 'Feeling the need to 529 defend one's infant feeding method' as a function of cognitive reframing theory 530 (Robson & Troutman-Jordan, 2014). This involves the alteration of negative, self-531

- 532 defeating beliefs into more positive beliefs, so to improve personal wellbeing
- 533 (Robson & Troutman-Jordan, 2014).
- In other domains of health research e.g., weight loss in those with overweight 534 or obesity, setting manageable goals is essential in determining sustained and 535 positive behavioural change (Bailey, 2017). As such, poor breastfeeding outcomes 536 537 may be a function of an inefficient sociocultural context that urges a moral imperative to exclusively breastfeed to 6 months. Instead, adopting an incremental approach to 538 setting breastfeeding goals may serve to improve longer term breastfeeding 539 outcomes (Brown, 2016; Símonardóttir & Gíslason, 2018). 540 The following identified domains associated with infant feeding guilt and 541 shame, 'Public breastfeeding fear', 'Perceived insufficient social support', and 542 543 'Uncertainty about having made the right infant feeding decision' restate societal barriers to breastfeeding. Formula feeding has become a cultural norm in the UK 544 (Thomson & Dykes, 2011). This has been shaped by a number of maladaptive 545 factors: lack of vicarious exposure to breastfeeding in popular media (O'Brien, Myles, 546 & Pritchard, 2017); other female family members having formula fed their infant(s), 547 resulting in the loss of influential breastfeeding advocates for the new mother 548 (Sriraman & Kellams, 2016); perceived or actual intolerance of the general public to 549 non-discreet breastfeeding practice (Jamie, McGeagh, Bows & O'Niell, 2020); and 550 insufficient support from one's employer in facilitating work and infant feeding goals 551 (Snyder et al, 2018). 552 553 Concept analysis findings extend the above literature base by demonstrating that such an unconstructive social environment forms the basis of adverse maternal 554
- 555 emotional e.g., fear, and behavioural e.g., avoidance behaviour, outcomes. Adopting

a multicomponent public health strategy that invests in health services, populationlevel breastfeeding promotion, supporting maternal legal rights, protecting maternal
wellbeing, and more tightly regulating the marketing of formula milks may be viable
intermediaries for improved breastfeeding and postpartum emotional wellbeing
outcomes (Brown, 2017).

561 Implications for clinical practice

Given the different consequences that guilt (e.g., defence of infant feeding 562 method, Fox et al, 2015) and shame (e.g., postnatal depression, Thomson et al, 563 2015) elicited, it is important for clinical practitioners to identify and discuss attributes 564 and antecedents of guilt and shame during postpartum infant feeding discussions to 565 566 prevent negative maternal wellbeing outcomes. Defence of infant feeding method 567 occurs in response to receiving inadequate and inappropriate healthcare professional support, which can leave mothers feeling dissatisfied and disconnected 568 (Barimani et al, 2017; Shmied et al, 2011). As such, by healthcare professionals 569 directly encouraging open and honest communication regarding women's postnatal 570 infant feeding concerns, it may also be possible to improve perceived quality of 571 healthcare professional support. There are currently no psychometric measures 572 which assess postpartum guilt and shame. Earlier identification of mothers at risk for 573 and/or vulnerable to these emotions could result in the provision of additional support 574 to work through perceived barriers, to promote positive breastfeeding and maternal 575 wellbeing outcomes. Additionally, by understanding guilt and shame antecedents, it 576 may be possible to predict and intervene early, so to prevent these emotions from 577 occurring. 578

579 Limitations

Misattribution and interchangeability of concepts in existing literature (Jackson 580 et al, 2021) limits ability to form firm conclusions. Establishing causality between 581 AACs was problematic given the inclusion of mainly cross-sectional papers 582 (Crossley, 2009; Dalzell, 2007; Fahlquist, 2016; Fallon et al, 2016; Fox et al, 2015; 583 Hvatum & Glavin, 2017; Komninou et al, 2016; Lagan et al, 2014; Lamontagne et al, 584 2008; Lee, 2007a, 2007b, 2007c; Lee & Furedi, 2005; Mozingo et al, 2000; Spencer 585 586 et al, 2014; Thomson et al, 2015). Future research should therefore aim to use longitudinal methodologies to evidence directionality between guilt and shame AACs, 587 588 and to quantitatively validate the proposed relationships identified in the current study. 589

Also, quality of included papers limited ability to form firm conclusions. Most 590 quantitative literature included in the concept analysis did not report statistical 591 analyses in full (Chezem, Montgomery, & Fortman, 1997; Lee, 2007a, 2007b, 2007c; 592 Lee & Furedi, 2005), and one study lacked scale validity testing (Fallon, Komninou, 593 et al., 2016). Qualitative literature oft recruited unrepresentative samples of mainly 594 White, highly educated, partnered, primiparous women of high socioeconomic status 595 (Asiodu et al, 2017; Fox et al, 2015; Hvatum & Glavin, 2017; Lagan et al, 2014; 596 Lamontagne et al, 2008; Mozingo et al, 2000; Murphy, 2000; Spencer et al, 2014; 597 598 Thomson et al, 2015), and some included papers omitted the routine collection of some demographic characteristics (Crossley, 2009; Fahlquist, 2016; Thomson et al, 599 2015), collectively limiting transferability and generalisability of findings. 600 601 Constructed definitions may only be applied to the context of postpartum infant feeding. However, antenatal breastfeeding intentions also influence 602

603 postpartum breastfeeding duration, with intent to use formula being associated with

significantly shorter breastfeeding duration (Kim et al, 2013). Future research should

therefore seek to create antenatal-specific definitions of maternal guilt and shame
based on context-specific AACs e.g., inhibited attempts to openly discuss formula
supplementation at antenatal parenting classes (Crossley, 2009), so that
comparisons can be made with postpartum definitions.

To meet study aims, a homogenous sample of studies from developed 609 610 countries was systematically selected for inclusion so that clear, context-specific definitions of guilt and shame could be generated. Given cultural variation in 611 breastfeeding practices and maternal wellbeing between developed (Leahy-Warren 612 et al, 2017) and developing (Wanjohi et al, 2017) countries, generated definitions 613 may serve as a key comparator in the event that future research seeks to compare 614 cross-cultural differences in guilt and shame experiences within an infant feeding 615 context. 616

617 Conclusions

Constructed definitions provide an in-depth analysis of the key characteristics 618 which distinguish infant feeding-specific guilt and shame. Using constructed 619 620 definitions may allow future research to achieve greater research homogeneity due to improved construct validity. Future research should aim to construct definitions, 621 specific to the antenatal infant feeding context, to allow earlier identification of guilt 622 623 and shame. Given the identified link between shame and postnatal depression, future research should focus efforts on investigating the relationship between shame 624 and infant feeding and maternal wellbeing outcomes. Finally, future research should 625 626 aim to empirically support identified AACs for use in infant feeding literature.

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Table 1: Description of Walker and Avant's (2005, 2019) concept analysis framework steps

Step of Walker and Avant's (2005, 2011) concept analysis framework	Description
1. Select concept	Choose a concept of interest which is most suited to answering the research question(s). Choose a concept which is manageable and specific.
2. Determine analysis aims/purpose	Outline how the concept analysis findings intend on bridging into future research. The concept analysis is not the end point.
3. Identify all uses of the concept	Identify as many uses of the concept as possible. Consider all uses of the term to gain a contextual understanding of how concepts are utilised and understood.
4. Identify attributes	Identify the characteristics most commonly associated with the concept. They act as criteria which help the reader to distinguish the concept experience from similar, related, and dissimilar concepts.
5. Identify model case	An example of the concept being used within the identified context, whereby all defining attributes are present.
 Identify borderline, related, contrary, inverted, and illegitimate cases 	To more clearly distinguish between the concept being present and the concept being absent, additional cases are generated. Examining cases which are of interest and similar to the concept of interest, but not identical, will help to clarify boundaries for what constitutes a defining attribute and what does not:
	Borderline
	Most, but not all, defining attributes are present. The generated case is inconsistent with the concept in some way.
	<i>Related</i> Similar to the concept of interest but differs when examined more closely.
	<i>Contrary</i> A clear example of the concept not occurring.

	Inverted	
	Contains ideas outside of personal experience.	
	Illegitimate	
	of interest.	
7. Identify antecedents and consequences	<i>Antecedents</i> Identification of events which must occur prior to the concept occurring, for the concept to be present.	
	Consequences	
	Identification of events which occur as a result of the concept occurring.	
8. Define empirical referents	Wider concept(s) to which the concept of interest belongs. Empirical referents are	
	linked to the theoretical underpinnings of a concept.	

Table 2: Overlapping and unique attributes, antecedents, and consequences of maternal guilt and shame, within a postpartum

infant feeding context

	Guilt only	Shame only	Guilt and shame
Attributes	Perceived insufficient social support (Fallon et al, 2016; komninou et al, 2016)	Objectification and manipulation of breasts (Dalzell, 2007; Thomson et al, 2015)	Fear of infant health consequences due to formula supplementation (Fahlquist, 2016; Lee, 2007a, 2007b, 2007c; Lee & Furedi, 2005)
	Uncertainty about having made the right infant feeding decision (Lee, 2007c; Lee & Furedi, 2005)	Perceived lack of milk production (Asiodu et al, 2017; Hanell, 2017)	Fear of judgement from others for infant feeding method (Lagan et al, 2014; Lee, 2007b; Lee & Furedi, 2005; Spencer et al, 2015)
	, ,	Public breastfeeding fear (Thomson et al, 2015)	2010)
		Unrealistic breastfeeding expectations (Asiodu et al, 2017; Hvatum & Glavin, 2017; Mozingo et al, 2000)	
Antecedents	Lack of and inconsistent infant feeding advice and guidance (Fahlquist, 2016; Fox et al, 2015; Hvatum & Glavin, 2017; Lee, 2007b, 2007c)	Censored attempts to discuss breastmilk substitutes with healthcare professionals (Crossley, 2009; Thomson et al, 2015)	Perceived pressure to breastfeed (Crossley, 2009; Fahlquist, 2016; Fox et al , 2015; Hvatum & Glavin, 2017; Lamontagne et al, 2008; Lee, 2007c; Murphy, 2000; Spencer et al, 2015)
			Inadequate and inappropriate healthcare professional support (Cloherty et al, 2004; Fahlquist, 2016; Fallon et al, 2016; Fox et al, 2015; Komninou et al, 2016; Lagan et al, 2014; Lamontagne et al, 2008; Lee & Furedi, 2005; Murphy, 2000; Spencer et al, 2015)
			Not breastfeeding for as long as intended during pregnancy (Asiodu et al, 2017; Chazem et al, 1997; Dalzell, 2007;

			Fahlquist, 2016; Hvatum & Glavin, 2017; Lamontagne et al, 2008; Lee, 2007a, 2007b, 2007c; Lee & Furedi, 2005; Mozingo et al, 2000; Murphy, 2000; Spencer et al, 2015)
Consequences	Feeling the need to defend infant feeding method (Fallon et al, 2016; Fox, et al, 2015; Komninou et al, 2016; Lee, 2007c; Lee & Furedi, 2005)	Dissociation from one's maternal identity (Asiodu et al, 2017; Fahlquist, 2016; Hanell, 2017; Thomson et al, 2015)	Feeling like a failure (Fahlquist, 2016; Fox et al, 2015; Hvatum & Glavin, 2016; Lamontagne et al, 2008; Lee, 2007a, 2007b, 2007c; Lee & Furedi, 2005; Mozingo et al, 2000; Murphy, 2000)
	Perceived selfishness (Lee,	Postnatal depression (Thomson et al, 2015)	
2007c; Murphy, 2000)	Panic/fear (Hanell, 2017; Thomson et al, 2015)		
		Humiliation (Thomson et al, 2015)	
		Avoidance behaviour (Crossley, 2009; Fahlquist, 2016; Lee, 2007a, 2007b, 2007c; Lee & Furedi, 2005; Thomson et al, 2015)	

Table 3: Generated cases for maternal guilt and shame, within a postpartum infant feeding context

Case type	Guilt only	Shame only	Guilt and shame

Magdalena is a primiparous mother to Jade. Whilst in hospital, Magdalena Model exclusively breastfed with the support of her midwife and physician. Upon discharge, Magdalena faced a number of breastfeeding difficulties. Jade was extremely hungry, and demand fed throughout the night, leaving Magdalena feeling sleep deprived and irritable. Magdalena believes that Jade's tongue tie may be causing latching difficulties, as breastfeeding became increasingly painful. prospect. Despite Magdalena's midwife

reassuring her that Jade was feeding normally, Magdalena maintained that something was wrong. Magdalena lived alone and was not very close to her immediate family. Unable to settle these issues, Magdalena decided to formula feed. Lack of guidance on purchasing the correct formula left Magdalena feeling overwhelmed with choice. Magdalena often thought to herself that she must be a truly selfish

Isobel had a terrible experience at hospital. Her midwife would often grab and manipulate Isobel's breast in response to her asking for advice on positioning, rather than offering advice and guidance, which left Isobel feeling humiliated and disempowered. Her midwife, Anne, had only discussed breastfeeding with Isobel during the postpartum period and often refused to talk about the possibility of supplementing with formula when Isobel was out and about. All of Isobel's family and friends had exclusively breastfed their babies, and so Isobel set herself a target to exclusively breastfeed for 9 months, which she found a frightening

Isobel also did not like breastfeeding in public she felt as though everyone were judging her technique. As a result, Isobel very rarely left the house, and if she did, ensured that it was close enough to be able to return promptly to feed her child if needed. Isobel feels that the stress she is under is causing her to not produce enough milk because her infant is increasingly fussy at the breast and has begun to feed more frequently and for longer periods of time, especially during

Roisin is a 32-year-old, primiparous pregnant mother to baby Darren. Roisin likes to think herself well prepared for the realities of breastfeeding. She has read all the parenting books and attended many antenatal classes discussing the challenges of breastfeeding and what to expect. Roisin is planning to return to work at 4 months postpartum, so intends to exclusively breastfeed until then. Roisin feels that her partner, Warren, is particularly pushy for her to exclusively breastfeed. She also feels that there is a lot of pressure from her group of friends who are all either currently exclusively breastfeeding or intending to do so. They have been friends since they were in high school, so she does not want to be considered the 'odd one out' in the group.

After giving birth, Roisin found breastfeeding more difficult to manage than expected. Due to Roisin's high responsibility career, her employer requested that she return to work earlier. Roisin struggled to maintain exclusive breastfeeding with heavy work commitments, and consequently decided to formula feed when at work (so that Warren could help) and breastfed in the evenings and in the morning

	person for not trying harder to breastfeed.	the night. As a result, Isobel isn't sleeping very well, and is at a loss as to what to do.	before work. Despite this, Roisin felt like a failure for having stopped exclusively breastfeeding at 2 months postpartum when she had hoped to exclusively breastfeed for 4 months postpartum.
Borderline	Rachael, aged 19, is a primiparous mother to 17-week-old Matthew. Rachael took six months away from college during her third trimester but has now returned for her final year. Upon returning to college Rachael struggled to maintain the exclusively breastfeeding which she maintained easily when not studying. Lack of sleep as a result of night feeds started to have an aversive effect on Rachael's academic performance. Rachael's mother, Sam, suggested that she take on some of Rachael's night feeds so that Rachael can rest and focus more on her studies. Sam formula fed all of her 5 children and shows Rachael how to properly clean bottles and purchases the appropriate formula for Matthew.	Denise is a new mother to a healthy 3-week-old boy, Kieran. During pregnancy Denise decided to exclusively breastfeed until Kieran was 4 months old, at which point Denise intended to return to work. All of Denise's friends had exclusively breastfed their children to 6 months postpartum and were very insistent that Denise continue exclusively breastfeeding when she returned to work. Denise felt that her midwifery team and physicians were especially 'pushy' of exclusively breastfeeding too and would often silence Denise's attempts to discuss safe formula feeding practice. Denise has recently stopped attending parenting classes after receiving derogatory comments from non-breastfeeding mothers the last time she attended. Denise also dreaded visits from her healthcare practitioner, as she would often 'ram' Kieran's head on Denise's boob to make him eat, without explaining what she was doing.	Nora is a mother to twins, Becky and Ben. During pregnancy Nora intended to exclusively breastfeed both of her babies. However, a few days after giving birth Nora found that Becky was very distracted at the breast and disinterested in feeding compared with Ben. As such, 10 days postpartum Nora decided to swap Becky to formula, whilst she continued to exclusively breastfeed Ben to 7 months postpartum.
Related	Luna has a 2-week-old infant named Delilah. Luna combination feeds her infant so that her partner, Bill, could	Kathrine is a 34-year-old stay-at-home mother to Ryan [9], Lewis [4], and Niamh [1 week]. During pregnancy, Kathrine was not sure how she	During pregnancy Sabina felt like she was under exceptional pressure to breastfeed from her GP and midwifery team. They would often

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	share parenting duties. Luna and Bill decided to combination feed during pregnancy and are happy with their choice. Nevertheless, Luna is extremely concerned about the long-term consequences of formula supplementation on Delilah's health and feels like a bad mother for not exclusively breastfeeding.	 wanted to feed Niamh. She had received contradictory advice from healthcare professionals and family. She knew that breastfeeding was the healthiest option, so decided to give it a go. Niamh took to breastfeeding well, and so Kathrine exclusively breastfed Niamh. Kathrine felt too ashamed to take Niamh to her local parenting group, as she feared that her technique would be judged by the other mothers. Since Niamh was feeding so well, Kathrine did not want to jeopardise this by risking doubts being introduced from other mothers. 	 question her if she asked questions about formula supplementation and would strongly promote the benefits of breastfeeding at her check-ups. Sabina experienced lots of pain whilst breastfeeding during the postpartum period and, despite intending to breastfeed with occasional formula feeds until 15 weeks postpartum, exclusively formula fed by 11 weeks postpartum. Given the difficulties and pressure she had experienced, Sabina was content with her feeding achievement.
Contrary	Patricia has an 8-month-old son named Cameron. Patricia is now engaging in infant-led weaning, after 7 months of exclusive breastfeeding. Patricia received exceptional support from her midwifery team and boyfriend which allowed her to meet her infant feeding goals. Without Patricia's "amazing" midwife, she does not feel that she would have been able to exclusively breastfeed for as long as she did.	Carine is a new mother to 5-week-old twins. Carine had decided during pregnancy that she was going to exclusively breastfeed her children. Carine's midwife, Florence, was a wonderful source of support. Whenever Carine needed guidance or reassurance, Florence was there to lend a helping hand and to be a shoulder to cry on.	Nadia is a very career-driven woman who intended to breastfeed exclusively until she returned to work at 20 weeks postpartum and then intended to pump whilst working for a further 4 weeks. Perceiving herself as a very determined and persevering person, Nadia achieved her infant feeding goals with little difficulty. She watched lots of YouTube tutorial and asked parenting forums to aid her in resolving any breastfeeding challenges she faced postpartum.
Illegitimate	Rob is a 29-year-old man, whose wife had passed away during childbirth.	Laira is a 38-year-old woman to identical twins, Nick and James. Nick and James are 4 years	Charlie when weaning her baby, did not necessarily expose her baby to as many

Rob is the primary caregiver to his 3week-old daughter, Madeleine. Although struggling to come to terms with the loss of his wife, Rob is enjoying his new role as a father and frequently takes Madeleine to postpartum parenting classes. Rob is exclusively formula feeding Madeleine, whom is a happy, healthy baby. old. Laira decides one Saturday morning to take her infants to a soft play group. Nick and James started to play roughly with some of the other children at the playgroup, resulting in Nick taking a tumble and bumping his head. Laira ran over to check on Nick, feeling bad for not having intercepted the situation sooner. different types of foods as she thinks that she should have, especially fruits and vegetables. Now her son is 2.5 years old and is an extremely picky eater. Concerned for her son's wellbeing, she takes Sean to the doctors for advice. Charlie feels regretful for not having given her son a better start to healthy eating.

Inverted Jessica is a 42-year-old mother of 3 sons and 2 daughters. Her youngest child has recently started high school. Jessica had neglected her education to start a family, and now she has more free time has decided to go back to university to follow her passion for English Literature.

> Jessica has not engaged in any activities purely for herself since the birth of her second child, and consequently is experiencing much conflict as to whether she is doing the right thing. Jessica worries that her children will need her more than she anticipates and is concerned that she may be making a rushed or selfish decision.

Aria has gone on holiday with her 6-year-old daughter, Demi. One day Aria takes Demi to the beach but forgets to put sun cream on her. Demi becomes badly sunburnt and has to spend the rest of the holiday covered up with the shade. Aria feels like a bad mother for failing to protect Demi from the sun appropriately. Disapproving looks from other parents at the holiday park made Aria feel humiliated. Nathan is a single dad to 18-month-old Jamie. Jamie is 6 years old and particularly difficult around bedtime, often having a tantrum at the prospect of getting ready for bed.

Nathan was having a particularly difficult week at work and decided to allow Jamie to stay awake until Jamie felt tired, which was 10:45pm. The next day Jamie's teachers pulled Nathan aside to inform him that Jamie had been falling asleep at the desk and was struggling to concentrate during class discussions. Nathan felt angry at Jamie's teachers for, what he thought, as them thinking him an inadequate father. More truthfully, though, Nathan thought himself a failure for disrupting Jamie's routine.